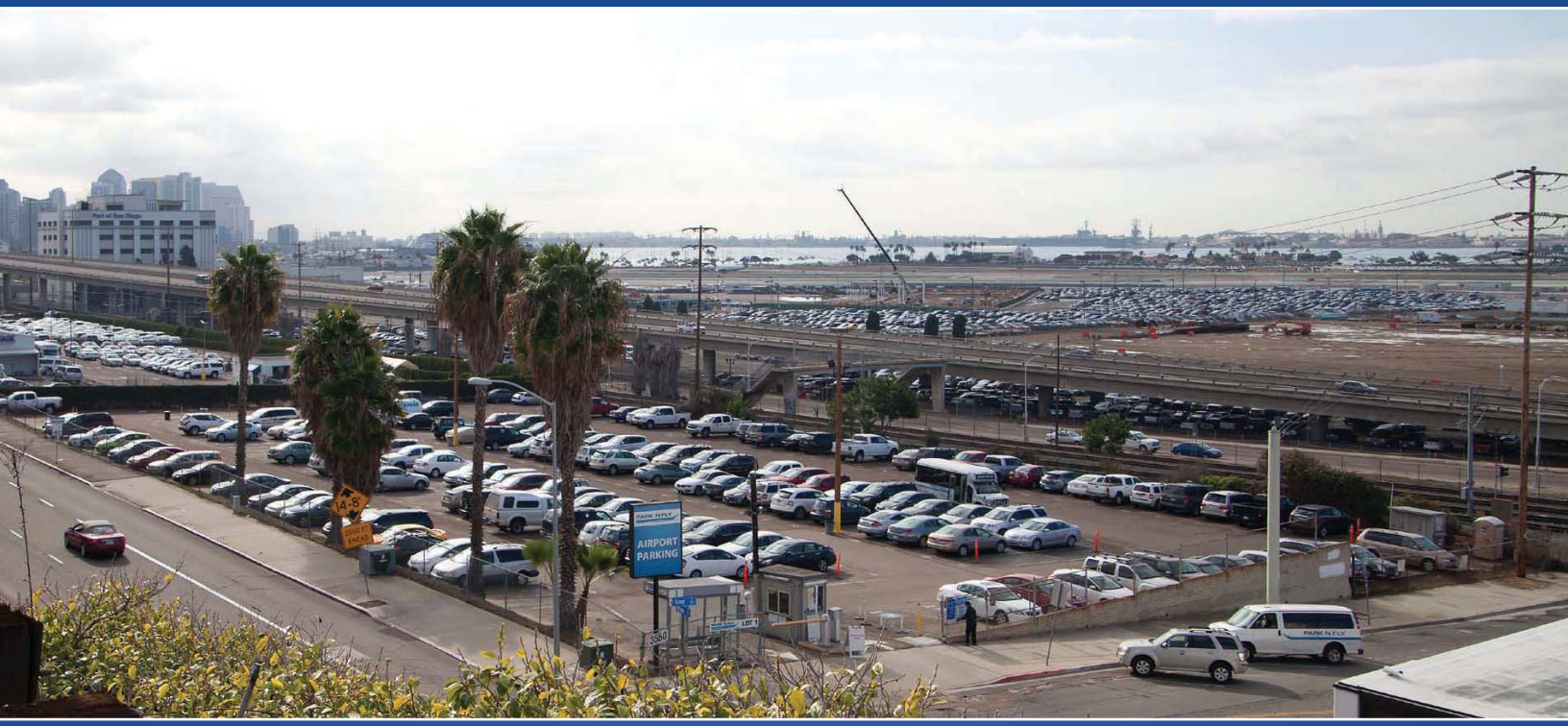
PROPONENT'S ENVIRONMENTAL ASSESSMENT

for the

Vine 69/12 kV Substation Project

Volume II
Application 14-05-___



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SDGE
A Sempra Energy utility

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CHAPTER 1 – PEA SUMMARY

Consistent with California Public Utilities Commission (CPUC) General Order 131-D, this Proponent's Environmental Assessment (PEA) has been prepared by San Diego Gas & Electric Company (SDG&E) to support SDG&E's application for a Permit to Construct the Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project).

1.0 PROJECT COMPONENTS

The Proposed Project involves the construction of a new 69/12 kV substation—Vine Substation. The Proposed Project will also involve the relocation of eight 12 kV distribution circuits, the looping in of an existing 69 kV power line to the Vine Substation, and the extension of an existing telecommunication system.

1.1 PROJECT LOCATION

The Proposed Project site is located within the City of San Diego, California. The proposed Vine Substation, which is the primary component of the Proposed Project, is situated approximately two miles northwest of downtown San Diego, directly adjacent to and east of the San Diego International Airport (also known as Lindbergh Field). The location of the Proposed Project is depicted in Figure 3-1: Project Location Map. The four Proposed Project components are depicted in Figure 3-2: Project Overview Map and described in more detail in Chapter 3 – Project Description.

1.2 PROJECT NEED AND ALTERNATIVES

As described further in Chapter 2 – Project Purpose and Need, the Proposed Project is being proposed to meet the following four objectives:

- Objective 1: Maintain existing substation and distribution system reliability standards.
- Objective 2: Provide substation and circuit tie capacity that will provide additional reliability for existing and future system needs.
- Objective 3: Meet the area's long-term electric distribution capacity needs by constructing a substation near planned load growth.
- Objective 4: Utilize existing SDG&E-owned land previously purchased for substation use to meet the scheduled in-service date.

Various substation site alternatives and existing system alternatives were considered during the development of the Proposed Project. The Proposed Project was ultimately selected because it best meets all of the Proposed Project objectives and is the most cost effective when compared to all alternatives.

1.3 AGENCY COORDINATION

1.3.0 City of San Diego

SDG&E provided an overview of the Proposed Project to the City of San Diego Development Services Office, San Diego Planning Groups, San Diego City Public Utilities Department, and the San Diego City Council. Continuing outreach, including meet and confer meetings will continue to occur upon the request of City personnel.

1.3.1 San Diego Metropolitan Transit System

SDG&E provided an overview of the Proposed Project to the San Diego Metropolitan Transit System (MTS) and will continue to work with MTS to obtain all necessary permits required.

1.3.2 Native American Heritage Commission

The Native American Heritage Commission (NAHC) was contacted by ASM Affiliates on December 13, 2013 for a Sacred Lands Record Search and for a list of the appropriate Native American representatives to contact for input on the Proposed Project. The response from the NAHC on December 19, 2013 indicated that no Native American traditional cultural places had been submitted for the Proposed Project area. However, the NAHC provided a list of local Native American contacts that may be knowledgeable about cultural resources within or near the Proposed Project area. Letters were sent on December 20, 2013 to these representatives, and copies of the letters are included in Attachment 4.5-A: NAHC Correspondence. No replies have been received to date.

1.4 PROPONENT'S ENVIRONMENTAL ASSESSMENT CONTENTS

This PEA was prepared in accordance with the PEA Checklist issued by the CPUC on November 24, 2008, and is divided into the following five sections:

- Chapter 1 – PEA Summary discusses the contents and conclusions of the PEA and describes SDG&E's ongoing and past coordination efforts.

- Chapter 2 – Project Purpose and Need outlines the Proposed Project's four objectives, which have been discussed previously.

- Chapter 3 – Project Description provides a detailed description of the Proposed Project. This discussion includes specifics regarding the following:

    - Proposed Project location
    - The existing system
    - Proposed Project components
    - Permanent and temporary land/right-of-way (ROW) requirements
    - Construction methods
    - Construction schedule
    - Anticipated operation and maintenance activities
    - Federal and local permits that will be obtained for the Proposed Project

  - Summary of all of the applicant-proposed measures (APMs) to be implemented as part of the Proposed Project, as well as justification for each

- Chapter 4 – Environmental Impact Assessment includes an environmental impact assessment summary and a discussion of the existing conditions and potential and anticipated impacts of the Proposed Project for each of the following resource areas:

  - Aesthetics
  - Agriculture and Forestry Resources
  - Air Quality
  - Biological Resources
  - Cultural Resources
  - Geology and Soils
  - Greenhouse Gas (GHG) Emissions
  - Hazards and Hazardous Materials
  - Hydrology and Water Quality
  - Land Use and Planning
  - Mineral Resources
  - Noise
  - Population and Housing
  - Public Services
  - Recreation
  - Transportation and Traffic
  - Utilities and Service Systems

  The CPUC's PEA Checklist indicates that the environmental setting section can be provided separately or combined with the impacts and APMs. SDG&E has elected to combine the existing conditions, impacts, and APMs for each resource area in Chapter 4 – Environmental Impact Assessment. This chapter also includes a Cumulative Analysis, which discusses past, present, and reasonably foreseeable future projects within the Proposed Project area, as well as the Proposed Project's potential to contribute to a significant cumulative effect.

- Chapter 5 – Detailed Discussion of Significant Impacts identifies that there are no potentialy significant impacts that will result from the Proposed Project, evaluates alternatives to the Proposed Project, describes the justification for the preferred alternative, and discusses the Proposed Project's potential to induce growth in the area.

Throughout the PEA, SDG&E addresses all items requested in the CPUC's PEA Checklist. To facilitate confirmation of this and review of the PEA, Table 1-1: PEA Checklist Key has been included at the end of this chapter and identifies the sections in which each checklist item is addressed.

1.5 PEA CONCLUSIONS

The PEA analyzes the potential environmental impacts associated with construction, operation, and maintenance of the Proposed Project. The following 15 resource areas will not be impacted by the Proposed Project or will experience less-than-significant impacts:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Hydrology and Water Quality
- Geology and Soils
- GHG Emissions
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Although the Proposed Project will result in potentially significant impacts to the two remaining resource areas, these impacts will be reduced to a less-than-significant level with the implementation of APMs. These impacts are summarized as follows:

- Cultural Resources – Potential for discovery and damage to unknown cultural resources resulting from grading and excavation activities

- Hazards and Hazardous Materials – Temporary and permanent impacts associated with the transport and use of hazardous materials, as well as the potential release of hazardous materials resulting from the operation of the proposed Vine Substation

APMs will be implemented to reduce impacts to a less-than-significant level and are discussed in detail in their relevant sections. The APMs have been identified by applicability to each Proposed Project component and described in Table 3-8: Applicant-Proposed Measures in Chapter 3 – Project Description. A summary and the justification for each APM are also provided in Table 3-8: Applicant-Proposed Measures in Chapter 3 – Project Description.

1.6 ISSUES TO BE RESOLVED

There are no existing issues that require resolution.

1.7 PUBLIC OUTREACH EFFORTS

A proactive approach to community engagement and collaboration has helped SDG&E identify issues early in the process, which will result in fewer, if any, disruptions to local communities and property owners than if no outreach had occurred. Throughout the approval process, SDG&E will continue to inform area residents and property owners, government officials, Native American tribes, and interested parties about the scope of the Proposed Project through its website, printed materials, one-on-one meetings, and presentations to local organizations. A toll-free phone number and dedicated e-mail address will also be established to allow residents and property owners to make direct contact with the Proposed Project team.

During construction, SDG&E will work to minimize disruptions from construction traffic, and limit dust and noise. SDG&E will establish a community outreach program to continuously communicate with government agencies—including the CPUC, City of San Diego, local Native American tribes, and other government officials—regarding construction impacts. Additional activities will be implemented to keep property owners and the public informed of construction activities to minimize disruptions and address any concerns that arise.

Personalized contacts and the latest technology will be utilized to allow communication with the public and affected stakeholders when necessary. SDG&E will strive to ensure that the local community and property owners receive information to minimize disruptions to their daily lives. Furthermore, efforts to keep all affected agencies and interested parties informed will be pursued.

Table 1-1: PEA Checklist Key

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
Chapter 1 – PEA Summary		
	Include major conclusions of the PEA.	Section 1.5 PEA Conclusions
	List any areas of controversy.	Section 1.6 Issues to be Resolved
	Include a description of inter-agency coordination, if any.	Section 1.3 Agency Coordination
	Include a description of public outreach efforts, if any.	Section 1.7 Public Outreach Efforts
	Identify any major issues that must be resolved, including the choice among reasonably feasible alternatives and mitigation measures, if any.	Section 1.5 PEA Conclusions
Chapter 2 – Project Purpose and Need		
2.1 Overview	Include an analysis of Proposed Project objectives and purpose and need that is sufficiently detailed so that the Commission can independently evaluate the Proposed Project need and benefits in order to accurately consider them in light of the potential environmental impacts.	Section 2.0 Overview Section 2.1 Project Objectives
	Explain the objective(s) and/or purpose and need for implementing the Proposed Project.	Section 2.0 Overview Section 2.1 Project Objectives
2.2 Project Objectives	Include an analysis of the reason why attainment of these objectives is necessary or desirable. Such analysis must be sufficiently detailed to inform the Commission in its independent formulation of Proposed Project objectives which will aid any appropriate California Environmental Quality Act alternatives screening process.	Section 2.1 Project Objectives

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
Chapter 3 – Project Description		
3.1 Project Location	Identify geographical location: County, City (provide Proposed Project location map[s]).	Section 3.0 Project Location Figure 3-1: Project Location Map Attachment 3-A: Detailed Project Components Map
	Provide a general description of land uses within the Proposed Project site (e.g., residential, commercial, agricultural, recreation, vineyards, farms, open space, number of stream crossings, etc.).	Section 3.0 Project Location Table 4.10-1: Existing and Designated Land Uses
	Describe if the Proposed Project is located within an existing property owned by the Applicant, traverses existing rights-of-way (ROW), or requires new ROW. Provide the approximate area of the property or the length of the Proposed Project that is in an existing ROW or which requires new ROWs.	Section 3.0 Project Location Section 3.4 Project Components Section 3.5 Right-of-Way Requirements
3.2 Existing System	Describe the local system to which the Proposed Project relates. Include all relevant information about substations, transmission lines, and distribution circuits.	Section 3.1 Existing System
	Provide a schematic diagram and map of the existing system.	Figure 3-3: Existing System Configuration
	Provide a schematic diagram that illustrates the system as it would be configured with the implementation of the Proposed Project.	Figure 3-4: Proposed System Configuration
3.4 Proposed Project	Describe the whole of the Proposed Project. Is it an upgrade, a new line, new substations, etc.?	Section 3.0 Project Location Section 3.4 Project Components
	Describe how the Proposed Project fits into the regional system. Does it create a loop for reliability, etc.?	Section 3.1 Existing System Section 3.2 Project Objectives
	Describe all reasonably foreseeable future phases or other reasonably foreseeable consequences of the Proposed Project.	Section 3.4 Project Components

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.4 Proposed Project (cont.)	Provide the capacity increase in megawatts (MW). If the Proposed Project does not increase capacity, state that.	Chapter 2 – Project Purpose and Need Section 3.3 Project Capacity
	Provide geographic information system (GIS) (or equivalent) data layers for the Proposed Project preliminary engineering, including estimated locations of all physical components of the Proposed Project, as well as those related to construction.	A CD containing the relevant GIS data for the Proposed Project has been submitted under separate cover as part of this PEA package.
3.5 Project Components **3.5.1 Transmission Line**	Describe what type of line exists and what type of line is proposed (e.g., single-circuit, double-circuit, upgrade 69 kV to 115 kV).	Section 3.4 Project Components
	Identify the length of the upgraded alignment, the new alignment, etc.	Section 3.4 Project Components
	Describe whether construction would require one-for-one pole replacement, new poles, steel poles, etc.?	Section 3.4 Project Components
	Describe what would occur to other lines and utilities that may be collocated on the poles to be replaced (e.g., distribution, communication, etc.).	Section 3.4 Project Components
3.5.2 Poles/Towers	Provide information for each pole/tower that would be installed and for each pole/tower that would be removed.	Section 3.0.2 69 kV Loop-In Section 3.4 Project Components Attachment 3-A: Detailed Project Components Map
	Provide a unique identification number to match GIS database information.	A CD containing the relevant GIS data, which includes unique identification numbers for poles, has been submitted under separate cover as part of this PEA package.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.5.2 Poles/Towers (cont.)	Provide a structural diagram and, if available, photos of existing structure. Preliminary diagram or "typical" drawings and, if possible, photos of proposed structure. Also provide a written description of the most common types of structures and their use (e.g., tangent poles would be used when the run of poles continues in a straight line, etc.). Describe if the pole/tower design meets raptor safety requirements.	Section 3.4 Project Components Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole Section 4.4.3 Impacts
	Provide the type of pole (e.g., wood, steel, etc.) or tower (e.g., self-supporting, lattice, etc.).	Section 3.4 Project Components Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole
	Identify typical total pole lengths, the approximate length to be embedded, and the approximate length that would be above ground surface; for towers, identify the approximate height above ground surface and approximate base footprint area.	Section 3.4 Project Components Section 3.6.3 Methods Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole
	Describe any specialty poles or towers; note where they would be used (e.g., angle structures, heavy angle lattice towers, stub guys, etc.); make sure to note if any guying would likely be required across a road.	Section 3.4 Project Components Section 3.6.3 Methods Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.5.2 Poles/Towers (cont.)	If the Proposed Project includes pole-for-pole replacement, describe the approximate location of where the new poles would be installed relative to the existing alignment.	Section 3.4 Project Components
	Describe any special pole types (e.g., poles that require foundations, transition towers, switch towers, microwave towers, etc.) and any special features.	Section 3.4 Project Components Section 3.6.3 Methods Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole
3.5.3 Conductor/Cable **3.5.3.1 Above-Ground Installation**	Describe the type of line to be installed on the poles/tower (e.g. single-circuit with distribution, double circuit, etc.).	Section 3.4 Project Components
	Describe the number of conductors required to be installed on the poles or tower and the number on each side including applicable engineering design standards.	Section 3.4 Project Components
	Provide the size and type of conductor (e.g., aluminum conductor, steel reinforced, non-specular, etc.) and insulator configuration.	Section 3.4 Project Components Section 3.6.3 Methods
	Provide the approximate distance from the ground to the lowest conductor and the approximate distance between the conductors (i.e., both horizontally and vertically). Provide specific information at highways, rivers, or special crossings.	Section 3.4 Project Components
	Provide the approximate span lengths between poles or towers, note where different if distribution is present or not if relevant.	Section 3.4 Project Components
	Determine whether other infrastructure would likely be collocated with the conductor (e.g., fiber optics, etc.); if so, provide conduit diameter of other infrastructure.	Section 3.4 Project Components

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.5.3.2 Below Ground Installation	Describe the type of line to be installed (e.g., single circuit cross-linked polyethylene-insulated solid-dielectric, copper-conductor cables).	Section 3.4 Project Components
	Describe the type of casing the cable would be installed in (e.g., concrete-encased duct bank system); provide the dimensions of the casing.	Section 3.4 Project Components Section 3.6.3 Methods Figure 3-8: Typical 12 kV Underground Duct Bank Figure 3-9: Typical 12 kV Underground Vault
	Provide an engineering 'typical' drawing of the duct bank and describe what types of infrastructure would likely be installed within the duct bank (e.g., transmission, fiber optics, etc.).	Figure 3-8: Typical 12 kV Underground Duct Bank Figure 3-9: Typical 12 kV Underground Vault
3.5.4 Substations	Provide "typical" plan and profile views of the proposed substation and the existing substation if applicable.	Figure 3-5: Vine Substation Initial Arrangement Figure 3-6: Vine Substation Ultimate Arrangement Figure 3-7: Vine Substation Profile View
	Describe the types of equipment that would be temporarily or permanently installed and provide details as to what the function/use of said equipment would be. Include information such as, but not limited to: mobile substations, transformers, capacitors, and new lighting.	Section 3.4 Project Components Figure 3-5: Vine Substation Initial Arrangement Figure 3-6: Vine Substation Ultimate Arrangement
	Provide the approximate or "typical" dimensions (width and height) of new structures including engineering and design standards that apply.	Section 3.4 Project Components Section 3.6.3 Methods Figure 3-5: Vine Substation Initial Arrangement Figure 3-6: Vine Substation Ultimate Arrangement Figure 3-7: Vine Substation Profile View

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.5.4 Substations (cont.)	Describe the extent of the Proposed Project. Would it occur within the existing fence line, existing property line or would either need to be expanded?	Section 3.0 Project Location Section 3.4 Project Components Section 3.5 Right-of-Way Requirements
	Describe the electrical need area served by the distribution substation.	Chapter 2 – Project Purpose and Need Section 3.2 Project Objectives
3.6 Right-of-Way Requirements	Describe the ROW location, ownership, and width. Would the existing ROW be used or would new ROW be required?	Section 3.5 Right-of-Way Requirements
	If a new ROW is required, describe how it would be acquired and approximately how much land would be required (length and width).	Section 3.5 Right-of-Way Requirements
	List the properties likely to require acquisition.	Section 3.5 Right-of-Way Requirements
3.7 Construction **3.7.1 For All Projects** **3.7.1.1 Staging Areas**	Where would the main staging area(s) likely be located?	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas Attachment 3-A: Detailed Project Components Map
	Approximately how large would the main staging area(s) be?	Section 3.6.0 Staging Areas
	Describe any site preparation required, if known, or generally describe what might be required (i.e., vegetation removal, new access road, installation of rock base, etc.).	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas
	Describe what the staging area would be used for (i.e., material and equipment storage, field office, reporting location for workers, parking area for vehicles and equipment, etc.).	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas
	Describe how the staging area would be secured; would a fence be installed? If so, describe the type and extent of the fencing.	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7 Construction **3.7.1 For All Projects** **3.7.1.1 Staging Areas (cont.)**	Describe how power to the site would be provided if required (i.e., tap into existing distribution, use of diesel generators, etc.).	Section 3.6.0 Staging Areas
	Describe any grading activities and/or slope stabilization issues.	Section 3.6.3 Methods
3.7.1.2 Work Areas	Describe known work areas that may be required for specific construction activities (i.e., pole assembly, hill side construction, etc.).	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas
	For each known work area, provide the area required (include length and width) and describe the types of activities that would be performed.	Section 3.6.0 Staging Areas Section 3.6.1 Work Areas Table 3-2: Temporary Workspace Requirements
	Identify the approximate location of known work areas in the GIS database.	Attachment 3-A: Detailed Project Components Map A CD containing the relevant GIS data for the work areas has been submitted under separate cover as part of this PEA package.
	Describe how the work areas would likely be accessed (e.g., construction vehicles, walk-in, helicopter, etc.).	Section 3.6.1 Work Areas Section 3.6.2 Access
	If any site preparation is likely required, generally describe what and how it would be accomplished.	Section 3.6.3 Methods
	Describe any grading activities and/or slope stabilization issues.	Section 3.6.3 Methods
	Based on the information provided, describe how the site would be restored.	Section 3.6.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.1.3 Access Roads and/or Spur Roads	Describe the types of roads that would be used and/or would need to be created to implement the Proposed Project. Road types may include, but are not limited to: new permanent road; new temporary road; existing road that would have permanent improvements; existing road that would have temporary improvements; existing paved road; existing dirt/gravel road; and overland access.	Section 3.6.2 Access
	For road types that require preparation, describe the methods and equipment that would be used.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements
	Identify approximate location of all access roads (by type) in the GIS database.	A CD containing the relevant GIS data for the Proposed Project has been submitted under separate cover as part of this PEA package.
	Describe any grading activities and/or slope stabilization issues.	Section 3.6.3 Methods
3.7.1.4 Helicopter Access	Identify which proposed poles/towers would be removed and/or installed using a helicopter.	Helicopter use is not proposed.
	If different types of helicopters are to be used, describe each type (e.g., light, heavy, or sky crane) and what activities they would be used for.	Helicopter use is not proposed.
	Provide information as to where the helicopters would be staged, where they would refuel, and where they would land within the Proposed Project site.	Helicopter use is not proposed.
	Describe any Best Management Practices (BMPs) that would be employed to avoid impacts caused by use of helicopters, for example: air quality and noise considerations.	Helicopter use is not proposed.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.1.4 Helicopter Access (cont.)	Describe flight paths, payloads, hours of operations for known locations, and work types.	Helicopter use is not proposed.
3.7.1.5 Vegetation Clearance	Describe the types of vegetation clearing that may be required (e.g., tree removal, brush removal, flammable fuels removal) and why (e.g., to provide access, etc.).	Section 3.6.1 Work Areas Section 3.6.3 Methods
	Identify the preliminary location and provide an approximate area of disturbance in the GIS database for each type of vegetation removal.	Section 3.6.1 Work Areas Section 3.6.3 Methods Section 4.4.3 Impacts A CD containing the relevant GIS data for the Proposed Project has been submitted under separate cover as part of this PEA package.
	Describe how each type of vegetation removal would be accomplished.	Section 3.6.1 Work Areas Section 3.6.3 Methods
	For removal of trees, distinguish between tree trimming as required under GO-95 and tree removal.	3.6.1 Work Areas
	Describe the types and approximate number and size of trees that may need to be removed.	3.6.1 Work Areas.
	Describe the type of equipment typically used.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.1.6 Erosion and Sediment Control and Pollution Prevention during Construction	Describe the areas of soil disturbance including estimated total areas and associated terrain type and slope. List all known permits required. For project sites of less than one acre, outline the BMPs that would be implemented to manage surface runoff. Things to consider include, but are not limited to: Erosion and sedimentation BMPs, vegetation removal and restoration, and/or hazardous waste, and spill prevention plans.	Section 3.9.1 Erosion and Sediment Control and Pollution Prevention During Construction Section 3.6.3 Methods Section 3.8: Anticipated Permits and Approvals Table 3-7: Permit, Approval, and Consultation Requirements Table 3-8: Applicant-Proposed Measures
	Describe any grading activities and/or slope stabilization issues.	Section 3.6.3 Methods
	Describe how construction waste (i.e., refuse, spoils, trash, oil, fuels, poles, pole structures, etc.) would be disposed.	Section 3.9.1 Erosion and Sediment Control and Pollution Prevention During Construction Section 4.17.3 Impacts
3.7.1.7 Cleanup and Post-Construction Restoration	Describe how cleanup and post-construction restoration would be performed (i.e., personnel, equipment, and methods). Things to consider, but are not limited to, restoration of natural drainage patterns, wetlands, vegetation, and other disturbed areas (i.e., staging areas, access roads, etc.).	Section 3.6.3 Methods
3.7.2 Transmission Line Construction (Above Ground) **3.7.2.1 Pull and Tension Sites**	Provide the general or average distance between pull and tension sites.	Section 3.6.1 Work Areas Section 3.6.3 Methods Attachment 3-A: Detailed Project Components Map
	Provide the area of pull and tension sites including the estimated length and width.	Section 3.6.1 Work Areas Section 3.6.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.2 Transmission Line Construction (Above Ground) **3.7.2.1 Pull and Tension Sites (cont.)**	According to the preliminary plan, identify the number of pull and tension sites that would be required, and their locations. Provide the location information in GIS.	Section 3.6.1 Work Areas Section 3.6.3 Methods Attachment 3-A: Detailed Project Components Map A CD containing the relevant GIS data for the Proposed Project has been submitted under separate cover as part of this PEA package.
	Describe the type of equipment that would be required at these sites.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements
	If conductor is being replaced, describe how it would be removed from the site.	Section 3.6.3 Methods
3.7.2.2 Pole Installation and Removal	Describe how the construction crews and their equipment would be transported to and from the pole site locations. Provide vehicle type, number of vehicles, estimated number of trips, and hours of operation.	Section 3.6.2 Access Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements
	Describe the process of removing the poles and foundations.	Section 3.6.3 Methods
	Describe what happens to the holes that the poles were in (i.e., reused or backfilled)?	Section 3.6.3 Methods
	If the holes are to be backfilled, what type of fill would be used and where would it come from?	Section 3.6.3 Methods
	Describe any surface restoration that would occur at the pole sites.	Section 3.6.3 Methods
	Describe how the poles would be removed from the sites.	Section 3.6.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.2.2 Pole Installation and Removal (cont.)	If topping is required to remove a portion of an existing transmission pole that would now only carry distribution lines, describe the methodology to access and remove the tops of these poles. Describe any special methods that would be required to top poles that may be difficult to access, etc.	Pole topping is not proposed.
	Describe the process of how the new poles/towers would be installed; specifically identify any special construction methods (e.g., helicopter installation) for specific locations or for different types of poles/towers.	Section 3.6.3 Methods
	Describe the types of equipment and their use as related to pole/tower installation.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements
	Describe the actions taken to maintain a safe work environment during construction (e.g., covering of holes/excavation pits, etc.).	Section 3.4 Project Components Section 3.6.2 Access Section 3.6.3 Methods
	Describe what would be done with soil that is removed from a hole/foundation site.	Section 3.6.3 Methods
	For any foundations required, provide a description of the construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc.	Section 3.6.3 Methods
	Describe briefly how poles/towers and associated hardware are assembled.	Section 3.6.3 Methods
	Describe how the poles/towers and associated hardware would be delivered to the site; would they be assembled off-site and brought in or assembled on site?	Section 3.6.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.2.2 Pole Installation and Removal (cont.)	Provide the following information about pole/tower installation and associated disturbance area estimates; pole diameter for each pole type (e.g., wood, self-supporting steel, lattice, etc.), base dimensions for each pole type, auger hole depth for each pole type, permanent footprint per pole/tower, number of poles/towers by pole type, average work area around poles/towers by pole type (e.g., for old pole removal and new pole installation), and total permanent footprint for poles/towers.	Section 3.6.1 Work Areas Section 3.6.3 Methods Figure 3-13: Typical Existing 69 kV Wood Pole Figure 3-14: Typical Existing Stub Guy Pole Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole Table 3-2: Temporary Workspace Requirements
3.7.2.3 Conductor/Cable Installation	Provide a process-based description of how new conductor/cable would be installed and how old conductor/cable would be removed, if applicable.	Section 3.6.3 Methods
	Generally describe the conductor/cable splicing process.	Section 3.6.3 Methods
	If vaults are required, provide their dimensions and approximate location/spacing along the alignment.	Section 3.6.3 Methods
	Describe in what areas conductor/cable stringing/installation activities would occur.	Section 3.6.1 Work Areas Section 3.6.3 Methods Attachment 3-A: Detailed Project Components Map
	Describe any safety precautions or areas where special methodology would be required (e.g., crossing roadways, stream crossing, etc.).	Section 3.6.3 Methods
3.7.3 Transmission Line Construction (Below Ground) **3.7.3.1 Trenching**	Describe the approximate dimensions of the trench (e.g., depth, width).	Section 3.6.3 Methods

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.3 Transmission Line Construction (Below Ground) **3.7.3.1 Trenching (cont.)**	Describe the methodology of making the trench (e.g., saw cutter to cut the pavement, backhoe to remove, etc.).	Section 3.6.3 Methods Figure 3-18: Typical Underground Construction Process within Roadways
	Provide the total approximate cubic yardage of material to be removed from the trench, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Section 3.6.3 Methods
	Provide off-site disposal location, if known, or describe possible option(s).	Section 3.6.3 Methods
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., top two feet would be filled with thermal-select backfill).	Section 3.6.3 Methods
	Describe if dewatering would be anticipated, if so, how the trench would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Section 3.6.3 Methods
	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants that could be exposed as a result of trenching operations.	Section 3.6.3 Methods
	If pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Section 3.6.3 Methods Section 4.8.3 Impacts
	Describe any standard BMPs that would be implemented.	Section 3.6.3 Methods Section 3.9.2 Erosion and Sediment Control and Pollution Prevention During Construction Table 3-8: Applicant-Proposed Measures

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.3.2 Trenchless Techniques: Microtunnel, Bore and Jack, Horizontal Directional Drilling	Provide the approximate location of the sending and receiving pits.	Trenchless techniques are not proposed.
	Provide the length, width and depth of the sending and receiving pits.	Trenchless techniques are not proposed.
	Describe the methodology of excavating and shoring the pits.	Trenchless techniques are not proposed.
	Describe the methodology of the trenchless technique.	Trenchless techniques are not proposed.
	Provide the total cubic yardage of material to be removed from the pits, the amount to be used as backfill and the amount to subsequently be removed/disposed of off-site.	Trenchless techniques are not proposed.
	Describe the process for safe handling of drilling mud and bore lubricants.	Trenchless techniques are not proposed.
	Describe the process for detecting and avoiding "fracturing-out" during horizontal directional drilling operations.	Trenchless techniques are not proposed.
	Describe the process for avoiding contact between drilling mud/lubricants and stream beds.	Trenchless techniques are not proposed.
	If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., top two feet would be filled with thermal-select backfill).	Trenchless techniques are not proposed.
	If dewatering is anticipated, describe how the pit would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed.	Trenchless techniques are not proposed.
	Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants.	Trenchless techniques are not proposed.
	If a pre-existing hazardous waste was encountered, describe the process of removal and disposal.	Trenchless techniques are not proposed.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.3.2 Trenchless Techniques: Microtunnel, Bore and Jack, Horizontal Directional Drilling	Describe any grading activities and/or slope stabilization issues.	Trenchless techniques are not proposed.
	Describe any standard BMPs that would be implemented.	Trenchless techniques are not proposed.
3.7.4 Substation Construction	Describe any earth-moving activities that would be required; what type of activity and, if applicable, estimate cubic yards of materials to be reused and/or removed from the site for both site grading and foundation excavation.	Section 3.6.3 Methods
	Provide a conceptual landscape plan in consultation with the municipality in which the substation is located.	Section 3.6.3 Methods Figure 4.1-4: Conceptual Landscape Plan
	Describe any grading activities and/or slope stabilization issues.	Section 3.6.3 Methods
	Describe possible relocation of commercial or residential property, if any.	No commercial or residential properties will be relocated as part of the Proposed Project.
3.7.5 Construction Workforce and Equipment	Provide the estimated number of construction crew members.	Section 3.6.4 Construction Equipment and Personnel Table 3-5: Construction Personnel Requirements
	Describe the crew deployment, whether crews would work concurrently (i.e., multiple crews at different sites), if they would be phased, etc.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-5: Construction Personnel Requirements Table 3-6: Proposed Construction Schedule

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.7.5 Construction Workforce and Equipment (cont.)	Describe the different types of activities to be undertaken during construction, the number of crew members for each activity (i.e., trenching, grading, etc.), and the number and types of equipment expected to be used for said activity. Include a written description of the activity.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements Table 3-6: Proposed Construction Schedule
	Provide a list of the types of equipment expected to be used during construction of the Proposed Project as well as a brief description of the use of the equipment.	Section 3.6.3 Methods Section 3.6.4 Construction Equipment and Personnel Table 3-4: Construction Equipment Requirements
3.7.6 Construction Schedule	Provide a preliminary project construction schedule; include contingencies for weather, wildlife closure periods, etc.	Table 3-6: Proposed Construction Schedule
3.8 Operation and Maintenance	Describe the general system monitoring and control (i.e., use of standard monitoring and protection equipment, use of circuit breakers and other line relay protection equipment, etc.).	Section 3.7 Operation and Maintenance
	Describe the general maintenance program of the Proposed Project including timing of inspections (i.e., monthly, every July, as needed), type of inspection (i.e., aerial inspection, ground inspection), and a description of how the inspection would be implemented. Things to consider: who/how many crew members, how would they access the site (i.e., walk to site, vehicle, all terrain vehicle), would new access be required, would restoration be required, etc.).	Section 3.7 Operation and Maintenance
	If additional full time staff would be required for operation and/or maintenance, provide the number of workers and for what purpose they are required.	Section 3.7 Operation and Maintenance No new full time staff would be required for operation and/or maintenance of the Proposed Project.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
3.9 Applicant-Proposed Measures	If there are measures that the Applicant would propose to be part of the Proposed Project, include those measures and reference plans or implementation descriptions.	Section 3.10 Applicant-Proposed Measures Table 3-8: Applicant-Proposed Measures
Chapter 4 – Environmental Setting		
	For each resource area discussion within the PEA, include a description of the physical environment in the vicinity of the Proposed Project (e.g., topography, land use patterns, biological environment, etc.), including the local environment (site-specific) and regional environment.	Section X.X.2 under each resource area provides a discussion of both the physical environment in the vicinity of the Proposed Project and the regulatory environment.
	For each resource area discussion within the PEA, include a description of the regulatory environment/context (federal, state, and local).	Section X.X.2 under each resource area provides a discussion of both the physical environment in the vicinity of the Proposed Project and the regulatory environment.
Chapter 5 – Environmental Impact Assessment Summary		
5.1 Aesthetics	Provide visual simulations of prominent public view locations, including scenic highways, to demonstrate the views before and after project implementation. Additional simulations are highly recommended.	Figure 4.1-5: Existing View and Visual Simulation – California Street Figure 4.1-6 Existing View and Visual Simulation – Southbound I-5
5.2 Agriculture and Forestry Resources	Identify the types of agricultural resources affected.	Section 4.2.3 Impacts No agricultural resources will be affected by the Proposed Project.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.3 Air Quality	Provide supporting calculations/spreadsheets/technical reports that support emission estimates in the PEA.	Table 4.3-6: Peak Daily Unmitigated Construction Emissions Table 4.3-7: Peak Daily Mitigated Construction Emissions Table 4.3-8: Peak Daily Operational Emissions Table 4.3-9: Maximum Daily Fugitive Dust Emissions from Construction Attachment 4.3-A: CalEEMod Input and Output Files
	Provide documentation of the location and types of sensitive receptors that could be impacted by the Project (e.g., schools, hospitals, houses, etc.). Critical distances to receptors is dependent on type of construction activity.	Section 4.3.2 Existing Conditions Section 4.3.3 Impacts Figure 4.10-1: Land Use Map
	Identify Proposed Project GHG emissions.	Section 4.7.3 Impacts Table 4.7-3: Greenhouse Gas Construction Emissions
	Quantify GHG emissions from a business as usual snapshot. That is, what the GHG emissions will be from the Proposed Project if no mitigations were used.	Section 4.7.3 Impacts
	Quantify GHG emission reductions from every APM that is implemented. The quantifications will be itemized and placed in tabular format.	Proposed Project emissions will be below the annual significance threshold set by the South Coast Air Quality Management District (SCAQMD) and the County of San Diego for industrial projects; therefore, mitigation will not be required. SDG&E's standard operating procedures will be implemented.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.3 Air Quality (cont.)	Identify the net emissions of the Proposed Project after mitigation have been applied.	Section 4.7.3 Impacts Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.
	Calculate and quantify GHG emissions (CO_2 equivalent) for the Proposed Project, including construction and operation.	Section 4.7.3 Impacts Table 4.7-3: Greenhouse Gas Construction Emissions
	Calculate and quantify the GHG reduction based on reduction measures proposed for the Proposed Project.	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.
	Propose APMs to implement and follow to maximize GHG reductions. If sufficient, CPUC will accept them without adding further mitigation measures.	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.
	Discuss programs already in place to reduce GHG emissions on a system-wide level. This includes the Applicant's voluntary compliance with the United States (U.S.) Environmental Protection Agency (EPA) SF_6 reduction program, reductions from energy efficiency, demand response, long-term procurement plan, et.al.	Section 4.7.2 Existing Conditions Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.3 Air Quality (cont.)	Ensure that the assessment of air quality impacts is consistent with PEA Sections 3.7.5 and 3.7.6, as well as with the PEA's analysis of impacts during construction, including traffic and all other emissions.	Section 4.3.2 Impacts Section 4.7.2 Impacts Table 4.3-6: Peak Daily Unmitigated Construction Emissions Table 4.3-7: Peak Daily Mitigated Construction Emissions Table 4.3-8: Peak Daily Operational Emissions Table 4.3-9: Maximum Daily Fugitive Dust Emissions from Construction Table 4.7-3: Greenhouse Gas Construction Emissions Attachment 4.3-A: CalEEMod Input and Output Files
5.4 Biological Resources	Provide a copy of the Wetland Delineation and supporting documentation (i.e., data sheets). If verified, provide supporting documentation. Additionally, GIS data of the wetland features should be provided as well.	A wetland delineation was not prepared for the Proposed Project as no jurisdictional features will be impacted.
	Provide a copy of special-status surveys for wildlife, botanical and aquatic species, as applicable. Any GIS data documenting locations of special-status species should be provided.	Section 4.4.1 Methodology Section 4.4.2 Existing Conditions Attachment 4.4-1: USFWS Species List
5.5 Cultural Resources	Cultural Resources Report documenting a cultural resources investigation of the Proposed Project. This report should include a literature search, pedestrian survey, and Native American consultation.	Attachment 4-A: Cultural Resources Summary

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.5 Cultural Resources (cont.)	Provide a copy of the records found in the literature search.	Table 4.5-1: Previously Recorded Cultural Resources within a 0.25-Mile Radius of the Proposed Area of Potential Effect Table 4.5-2: Previously Recorded Sites Built Resources within a 0.25-mile Radius of the Proposed Area of Potential Effect Attachment 4.5-A: Cultural Resources Summary
	Provide a copy of all letters and documentation of Native American consultation.	Attachment 4.5-B: NAHC Correspondence
5.6 Geology and Soils	Provide a copy of the geotechnical investigation if completed, including known and potential geologic hazards such as ground shaking, subsidence, liquefaction, etc.	Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation
5.7 Hazards and Hazardous Materials	Include an Environmental Data Resources report.	Attachment 4.8-A: Phase I Environmental Site Assessments
	Include a Hazardous Substance Control and Emergency Response Plan, if required.	Section 4.8.3 Impacts
	Include a Health and Safety Plan, if required.	Section 4.8.3 Impacts
	Describe the Worker Environmental Awareness Program.	Section 4.8.3 Impacts
	Describe which chemicals would be used during construction and operation of the Proposed Project. For example, fuels for construction, naphthalene to treat wood poles before installation, etc.	Section 4.8.3 Impacts Table 4.8-1: Hazardous Materials Typically Used for Construction
5.8 Hydrology and Water Quality	Describe impacts to groundwater quality including increased runoff due to construction of impermeable surfaces, etc.	Section 4.9.3 Impacts
	Describe impacts to surface water quality including the potential for accelerated soil erosion, downstream sedimentation, and reduced surface water quality.	Section 4.9.3 Impacts

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.9 Land Use and Planning	Provide GIS data of all parcels within 300 feet of the Proposed Project with the following data: APN number, mailing address, and parcel's physical address.	The property owner information has been submitted under separate cover due to its confidential nature.
5.10 Mineral Resources	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable
5.11 Noise	Provide long-term noise estimates for operational noise (e.g., corona discharge noise, and station sources such as substations, etc.).	Section 4.12.3 Impacts Attachement 4.12-A: Noise Technical Report
5.12 Population and Housing	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable
5.13 Public Services	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable
5.14 Recreation	Data needs already specified under Chapter 3 would generally meet the data needs for this resource area.	Not Applicable
5.15 Transportation and Traffic	Discuss traffic impacts resulting from construction of the Proposed Project including ongoing maintenance operations.	Section 4.16.3 Impacts
	Provide a preliminary description of the traffic management plan that would be implemented during construction of the Proposed Project.	Encroachment permits from local and state jurisdictional agencies will provide guidance on required traffic management measures. It is expected that a Project-specific Traffic Management Plan will be required as part of the encroachment permit submittals.
5.16 Utilities and Services Systems	Describe how treated wood poles would be disposed of after removal, if applicable.	3.6.3 Methods
5.17 Cumulative Analysis	Provide a list of projects (i.e., past, present, and reasonably foreseeable future projects) within the Proposed Project area that the applicant is involved in.	Table 4.18-1: Planned and Proposed Projects within One Mile

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
5.17 Cumulative Analysis (cont.)	Provide a list of projects that have the potential to be proximate in space and time to the Proposed Project. Agencies to be contacted include, but are not limited to, the local planning agency, Caltrans, etc.	Table 4.18-1: Planned and Proposed Projects within One Mile
5.18 Growth-Inducing Impacts, If Significant	Provide information on the Proposed Project's growth-inducing impacts, if any.	Section 5.3 Growth Inducing Impacts Section 4.13.3 Impacts
	Provide information on any economic or population growth in the surrounding environment that will, directly or indirectly, result from the Proposed Project.	
	Provide information on any increase in population that could further tax existing community service facilities (e.g., schools, hospitals, fire, police, etc.), that will directly or indirectly result from the Proposed Project.	
	Provide information on any obstacles to population growth that the Proposed Project would remove.	
	Describe any other activities, directly or indirectly encouraged or facilitated by the Proposed Project, that would cause population growth that could significantly affect the environment, either individually or cumulatively.	
Chapter 6 – Detailed Discussion of Significant Impacts		
6.1 Mitigation Measures Proposed to Minimize Significant Effects	Discuss each mitigation measure and the basis for selecting a particular mitigation measure should be stated.	Section 3.10 Applicant-Proposed Measures Table 3-8: Applicant-Proposed Measures Section 4.X.3 Impacts Section 4.X.4 Applicant-Proposed Measures

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
6.2 Description of Project Alternatives and Impact Analysis	Provide a summary of the alternatives considered that would meet most of the objectives of the Proposed Project and an explanation as to why they were not chosen as the Proposed Project.	Section 5.2 Description of Project Alternatives and Impact Analysis Section 5.2.4 System Alternatives Section 5.2.5 Construct a New Substation Alternative Table 5-1: Alternatives Considered Table 5-2: Alternative Site Comparison Summary
	Alternatives considered and described by the Applicant should include, as appropriate, system or facility alternatives, route alternatives, route variations, and alternative locations.	Section 5.2 Description of Project Alternatives and Impact Analysis Section 5.2.4 System Alternatives Section 5.2.5 Construct a New Substation Alternative Table 5-1: Alternatives Considered
	Include a description of a "No Project Alternative" should be included.	Section 5.2.3 No Project Alternative
	If significant environmental effects are assessed, the discussion of alternatives shall include alternatives capable of substantially reducing or eliminating any said significant environmental effects, even if the alternative(s) substantially impede the attainment of the Proposed Project objectives and are more costly.	No significant environmental effects are anticipated after implementation of the APMs.
6.3 Growth-Inducing Impacts	Discuss if the Proposed Project would foster economic or population growth, either directly or indirectly, in the surrounding environment.	Section 5.3 Growth-Inducing Impacts
	Discuss if the Proposed Project would cause an increase in population that could further tax existing community services (e.g., schools, hospitals, fire, police, etc.).	Section 5.3 Growth-Inducing Impacts

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
6.3 Growth-Inducing Impacts (cont.)	Discuss if the Proposed Project would remove obstacles to population growth.	Section 5.3 Growth-Inducing Impacts
	Discuss if the Proposed Project would encourage and facilitate other activities that would cause population growth that could significantly affect the environment, either individually or cumulatively.	Section 5.3 Growth-Inducing Impacts
6.4 Suggested Applicant-Proposed Measures to address GHG Emissions	Include a menu of suggested APMs that applicants can consider to address GHG emissions. Suggested APMs include, but are not limited to: 1. If suitable park-and-ride facilities are available in the Project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the Proposed Project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the Project's construction schedule. 2. To the extent feasible, unnecessary construction vehicle and idling time will be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel powered vehicles, have extended warm-up. To the extent feasible, unnecessary construction vehicle and idling time will be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel powered vehicles, have extended warm-up times following start-up that limit their availability for use following startup. Where such diesel powered	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
6.4 Suggested Applicant-Proposed Measures to address GHG Emissions (cont.)	have extended warm-up times following start-up that limit their availability for use following startup. Where such diesel powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The Proposed Project will apply a "common sense" approach to vehicle use; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use. 3. Use low-emission construction equipment. Maintain construction equipment per manufacturing specifications and use low-emission equipment described here. All offroad construction diesel engines not registered under the California Air Resources Board (CARB) Statewide Portable Equipment Registration Program shall meet at a minimum the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1). 4. Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. 5. Alternative Fuels: CARB would develop regulations to require the use of one to four percent biodiesel displacement of California diesel fuel. 6. Alternative Fuels: Ethanol, increased use of ethanol fuel 7. Green Buildings Initiative. 8. Facility wide energy efficiency audit.	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
6.4 Suggested Applicant-Proposed Measures to address GHG Emissions (cont.)	9. Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling. 10. Alternative Fuels: CARB would develop regulations to require the use of one to four percent biodiesel displacement of California diesel fuel. 11. Alternative Fuels: Ethanol, increased use of ethanol fuel 12. Green Buildings Initiative. 13. Facility wide energy efficiency audit. 14. Complete GHG emissions audit. The audit will include a review of the GHG emitted from those facilities (substations), including carbon dioxide, methane, CFC, and HFC compounds (SF_6). 15. There is an EPA approved SF_6 emissions protocol (http://www.epa.gov/electricpowersf6/resources/index.html#three). 16. SF_6 program wide inventory. For substations, keep inventory of leakage rates. 17. Increase replacement of breakers once leakage rates exceed one percent within 30 days of detection. 18. Increased investment in current programs that can be verified as being in addition to what the utility is already doing. 19. The SF6 Emission Reduction Partnership for the Electric Power Systems was launched in 1999 and currently includes 57 electric utilities and local governments across the U.S. of applications, including that of dielectric insulating material in electrical transmission and distribution equipment, such as circuit breakers. Electric power systems that join the Partnership must, within 18	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.

Location in CPUC Checklist	Checklist Item	Location in PEA and Any Associated Notes
6.4 Suggested Applicant-Proposed Measures to address GHG Emissions (cont.)	months, establish an emission reduction goal reflecting technically and economically feasible opportunities within their company. They also agree to, within the constraints of economic and technical feasibility, estimate their emissions of SF6, establish a strategy for replacing older, leakier pieces of equipment, implement SF6 recycling, establish and apply proper handling techniques, and report annual emissions to the EPA. The EPA works as a clearinghouse for technical information, works to obtain commitments from all electric power system operators and will be sponsoring an international conference in 2000 on SF6 emission reductions. 20. Quantify what comes into the system and track programmatically SF6. 21. Applicant can propose other GHG reducing mitigations.	Proposed Project emissions will be below the annual significance threshold set by the SCAQMD and the County of San Diego for industrial projects, and therefore mitigation will not be required.
Chapter 7: Other Process-Related Data Needs		
Noticing	Include an excel spreadsheet that identifies all parcels within 300 feet of any Proposed Project component with the following data: APN number, owner mailing address, and parcels physical address.	The property owner information has been submitted under separate cover due to its confidential nature.

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CHAPTER 2 – PROJECT PURPOSE AND NEED

This section of the Proponent's Environmental Assessment (PEA) identifies the objectives, purpose, and need for San Diego Gas & Electric Company's (SDG&E's) proposed Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project), as required by the California Public Utilities Commission's (CPUC's) PEA Guidelines (CPUC Information and Criteria List, Appendix B, Section V) and the California Environmental Quality Act (CEQA) Guidelines (Section 15126.6[a]).

2.0 OVERVIEW

SDG&E is a regulated public utility that provides electric service to approximately 1.4 million customers within an approximately 4,100-square-mile service area, covering 25 cities and unincorporated areas within San Diego County and a portion of Orange County. The Proposed Project involves the construction of a new substation to meet existing and anticipated customer-driven electrical load growth and to improve distribution equipment reliability that will prevent potential long outages or disruption of service to existing customers in SDG&E's service territory in downtown and the surrounding area.

In providing electrical service to downtown and the surrounding area, SDG&E currently operates four substations: Kettner Substation, Urban Substation, Station B Substation, and Sampson Substation. SDG&E also operates the Grant Hill Substation—an existing facility in the surrounding area that was also evaluated as a potential source to serve load in downtown and the surrounding areas. In particular, Kettner Substation is an aging facility with a variety of reliability concerns that provides service to the San Diego International Airport and the Point Loma Wastewater Treatment Plant. Commercial and residential growth in the downtown area is loading the existing substations to their ultimate capacities. Recent load additions in downtown and the surrounding area include an expansion of San Diego International Airport and construction of Ballpark Village, a new mixed-use development consisting of apartments, condominiums, and commercial and retail space, which is expected to commence construction at the end of 2015. These developments will add additional load to the existing substations serving downtown and the surrounding area. As a result, the proposed Vine Substation is needed to allow offloading of the existing substations and thereby allow SDG&E to maintain its current reliability of service to existing and new customers in downtown and the surrounding areas.

Because the projected load indicates that the Station B and Urban substations will exceed 100 percent of their capacity and the Kettner and Sampson substations will exceed 85 percent of their capacity in 2018, SDG&E has determined that an additional 30 megavolt-amperes (MVA) are needed by mid-2017 to address reliability concerns and serve the projected electric distribution load growth. The optimum maximum substation load is 85 percent, as it allows for transformer bank loads to be transferred in the event of a transformer bank outage. Optimum operating conditions maintain substation reliability and reduce outage times. All of the substations—with the exception of the Grant Hill and Sampson substations—are near capacity and will begin to exceed their 85-percent ratings in 2015 or sooner. The Grant Hill Substation has approximately 33 MVA of remaining capacity; however, expansion of this substation would likely require substantial power line and distribution upgrades. In addition, the Grant Hill Substation is located

outside of the desired coverage area and would result in system inefficiencies. Therefore, the proposed Vine Substation is needed by mid-2017 to eliminate existing reliability concerns at the Kettner Substation and to provide additional capacity to help offload the existing congested substations in downtown and the surrounding area.

The prime driving factors in determining the need to construct a new substation in the area are:

- the need to maintain reliable service to SDG&E commercial and residential customers in the San Diego downtown and surrounding area,
- the expected electrical load growth of 30 MVA by mid-2017, and
- the need to prevent extended outages and disruption of services to new and existing customers in the area.

SDG&E considers additional substation transformer capacity when the loss of a single transformer may cause an interruption to major commercial/industrial load that cannot be restored through use of 12 kV circuit ties to other substations. The downtown and surrounding area is approaching this threshold. Therefore, SDG&E is considering planning and design of the proposed Vine Substation to provide tie capacity in the event of a loss of a single transformer.

2.1 PROJECT OBJECTIVES

The objectives of the Proposed Project include the following:

- Objective 1: Maintain existing substation and distribution system reliability standards.
- Objective 2: Provide substation and circuit tie capacity that will provide additional reliability for existing and future system needs.
- Objective 3: Meet the area's long-term electric distribution capacity needs by constructing a substation near planned load growth.
- Objective 4: Utilize existing SDG&E-owned land previously purchased for substation use to meet the scheduled in-service date.

The Proposed Project components, their locations, preliminary configuration, and the existing and proposed system configuration are presented in Chapter 3 – Project Description. Each of the Proposed Project objectives is more thoroughly described in the subsections that follow.

2.1.0 Objective 1: Maintain Existing Reliability Standards for the Distribution and Substation Systems

The addition of the proposed Vine Substation will help to maintain reliability for existing distribution and substation systems within downtown and the surrounding area—including reliability concerns at the Kettner Substation. The Kettner Substation is an aging substation that provides service to major customers that serve critical regional needs, such as the San Diego International Airport and the Point Loma Wastewater Treatment Plant. The Kettner Substation has a variety of reliability issues including its physical configuration and its aging infrastructure. These issues could become an operations/security/safety issue if not addressed. Construction of the proposed Vine Substation will allow the reliability concerns at the Kettner Substation be addressed by adding operational flexibility and ultimately provide 90 MVA of additional

capacity. The proposed Vine Substation will offload approximately 30 MVA from the Station B Substation and 40 MVA from the Kettner Substation, bringing them within the optimum loading standards.

2.1.1 Objective 2: Provide Improved Substation and Circuit Reliability with Added Tie Capacity

Installation of a new substation provides an increased number of substation transformer banks and circuits that will provide for an increased number of circuit ties. Reliability improves with balanced circuit loading and increased number of circuits to transfer load in the event of a circuit or branch outage.

2.1.2 Objective 3: Meet the Area Electric Capacity Needs

The downtown San Diego area is fed primarily from the Kettner Substation, Urban Substation, Station B Substation, and Sampson Substation. These four substations will exceed their maximum capacity by 2018. Grant Hill Substation, which is outside of the downtown coverage area, has approximately 33 MVA of capacity remaining; however, expansion of this substation would likely require substantial power line and distribution upgrades. In addition, the Grant Hill Substation is located outside of the desired coverage area and therefore, would result in system inefficiencies. The proposed Vine Substation will initially add a 60 MVA increase in capacity to serve downtown San Diego and the surrounding area, including the San Diego International Airport expansion project and development projects, such as Ballpark Village.

2.1.3 Objective 4: Utilize Existing SDG&E-owned Land Previously Purchased for Substation Use to Meet the Scheduled In-service Date

The Vine Substation is proposed to be located on an approximately 1.5-acre parcel currently owned by SDG&E within the Midway/Pacific Highway Corridor Community Plan area. The property was purchased in 1976 in anticipation of constructing the Laurel Street Substation. The Laurel Street Substation was never constructed and in 1988, it was leased as a parking lot. Because the site is already owned by SDG&E, no time to acquire the property will be necessary. As a result, the in-service date will not be compromised.

2.2 CONCLUSION

The Proposed Project will result in the construction of a new 69/12 kV substation to provide additional capacity to serve existing and future area load and to prevent potentially long outages or disruption of service to existing and new customers in downtown and the surrounding area. In doing so, the Proposed Project will meet the four project objectives, which include meeting reliability standards, improving reliability, adding capacity, and meeting the Proposed Project schedule.

2.3 REFERENCES

California Resources Agency. 2014. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

City of San Diego. *Midway/Pacific Highway Corridor Community Plan*. Online. http://www.sandiego.gov/planning/community/profiles/midwaypacifichwycorridor/pdf/midwayfullversion.pdf. Site visited December 6, 2013.

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Attachment 3-A: Detailed Project Components Map

CHAPTER 3 – PROJECT DESCRIPTION

3.0 PROJECT LOCATION

The proposed Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) is located in the southwestern portion of the City of San Diego (City), California approximately 2 miles northwest of downtown San Diego and directly adjacent to and east of San Diego International Airport (also known as Lindberg Field). The main activity associated with the Proposed Project involves the construction of the proposed Vine Substation, which will be located at the corner of Vine Street and Kettner Boulevard. The Proposed Project will also involve the relocation of distribution circuits and loop in of an existing 69 kV power line.

For the purposes of this document, the Proposed Project is divided into the following four major components:

1. Construction of the proposed Vine Substation
2. Installation/relocation of distribution circuits
3. Construction of a 69 kV loop-in
4. Upgrade of an existing telecommunication system

The location of the Proposed Project is depicted in Figure 3-1: Project Location Map and the four Proposed Project components are depicted in Figure 3-2: Project Overview Map. The estimated total cost associated with constructing the Proposed Project will be between $42 million and $45 million with allowance for funds used during construction. A more detailed description of the area within and around the Proposed Project follows.

3.0.0 Proposed Vine 69/12 kV Substation

The proposed Vine Substation site is located at the southwestern corner of the intersection of Vine Street and Kettner Boulevard, just west of Interstate (I-) 5 and east of Pacific Highway. The site is situated on a 1.5-acre parcel that is owned by SDG&E and is currently being leased for long-term airport parking. The parcel is bordered to the north by Vine Street and a commercial printing business across Vine Street, to the south by an Advantage Rental Car facility, to the east by Kettner Boulevard, and to the west by the North County Transit District Coaster and San Diego Metropolitan Transit System (MTS) Trolley rail tracks. The area is characterized by light- and medium-industrial and office uses, parking lots, and rental car facilities. The completed substation will measure approximately 305 feet by 180 feet, requiring approximately 1.3 acres. The proposed substation site is depicted on Figure 3-2: Project Overview Map and in Attachment 3-A: Detailed Project Components Map.

3.0.1 12 kV Distribution Relocation

As indicated in Table 3-1: Distribution Relocation Summary, approximately eight existing distribution circuits will be intercepted and relocated to the proposed Vine Substation. As part of the relocation process, the circuits will be renumbered. The relocated distribution circuits will generally travel along Kettner Boulevard between West Hawthorn Street and Vine Street within public rights-of-way (ROWs). Existing customer uses along the relocated circuits include I-5 to the east and rental car facilities, offices, and airport parking lots to the west. The relocation

process will utilize a combination of existing and new underground distribution conduit, as depicted in Figure 3-2: Project Overview Map and in Attachment 3-A: Detailed Project Components Map.

Table 3-1: Distribution Relocation Summary

Existing Distribution Circuit Number	Approximate Interception Point[1]	Proposed Distribution Circuit Number
135	Adjacent to the Kettner Substation	1476
137	Adjacent to the Kettner Substation	1477
138	Adjacent to the Kettner Substation	1478
139	Adjacent to the Kettner Substation	1479
458	Adjacent to the proposed Vine Substation	1480
108	Kettner Boulevard and West Hawthorn Street	1481
	Pacific Highway and West Hawthorn Street	
113	Kettner Boulevard and West Laurel Street	1482
102	Kettner Boulevard and West Hawthorn Street	1483
139	Adjacent to the Kettner Substation	1484

The distribution circuits will be relocated and/or newly installed entirely within the franchise position of City of San Diego public streets, and no additional ROW will be acquired. Approximately 1,300 feet of new duct bank will be installed within Kettner Boulevard between West Laurel Street and the Kettner Substation. An additional 2,600 feet of two new duct banks will be installed between the Kettner Substation and the proposed Vine Substation. Approximately 20 additional feet of additional duct banks will be installed facilitate the stub out of two new duct packages from the proposed Vine Substation. Up to an additional 400 feet of duct bank will be used to facilitate the connection of these new duct banks with existing underground conduit and aboveground facilities.

In addition to the new underground duct banks, approximately 3,600 feet of existing, empty duct bank will be utilized during the relocation. These existing facilities are located within Pacific Highway, between West Hawthorn Street and West Laurel Street; West Laurel Street, between Pacific Highway and Kettner Boulevard; and Kettner Boulevard, between West Hawthorn Street and West Laurel Street.

[1] The final interception points and duct bank design will be determined upon final engineering of the Proposed Project and are subject to change.

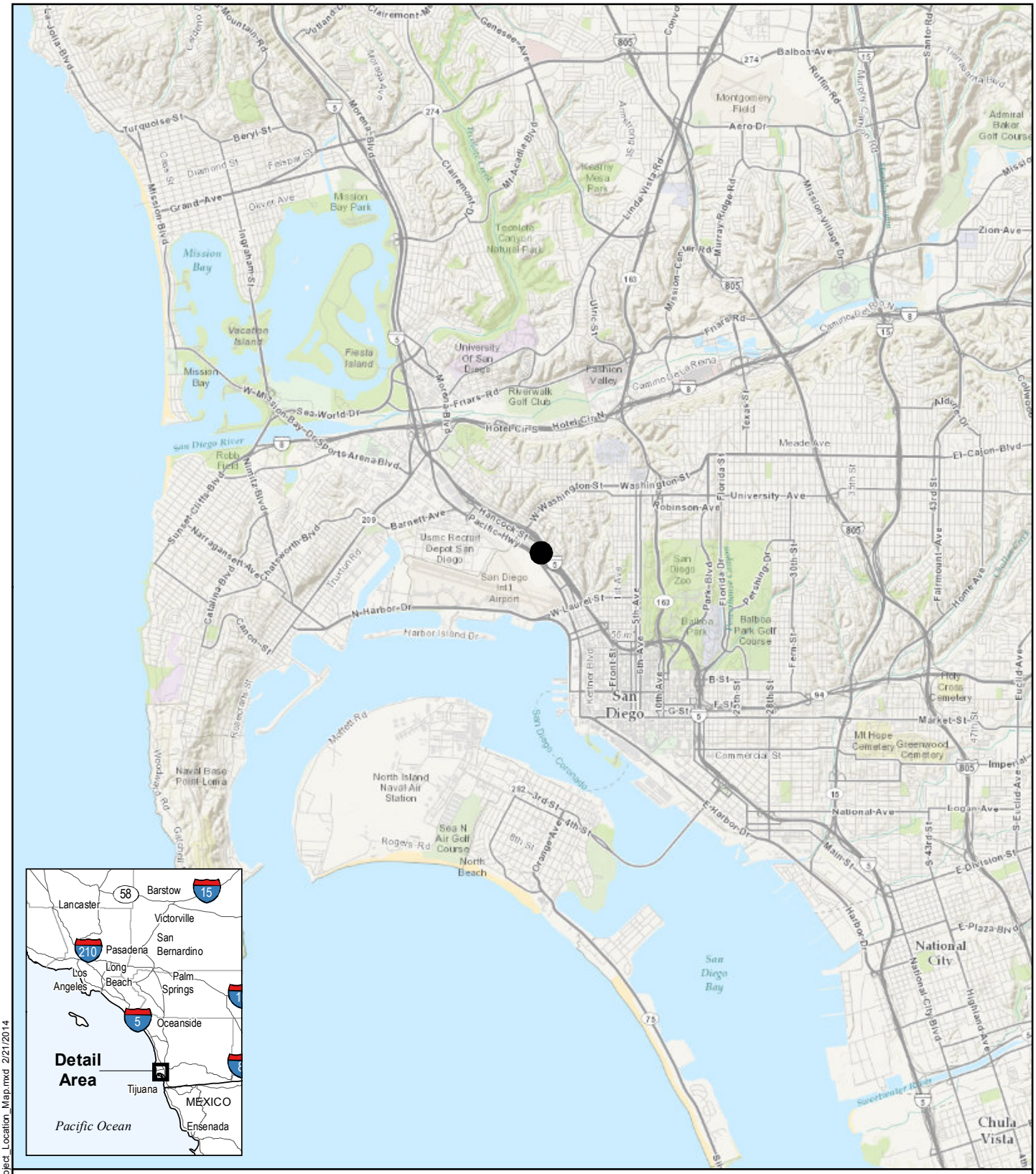

Figure 3-1: Project Location Map **Vine 69/12 kV Substation Project**

● Project Location

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Figure 3-2 Project Overview Map **Vine 69/12 kV Substation Project**

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank

1:8,000

0 500 1,000 Feet

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Z:\Projects\SDGE_Vine\MXDs\PEA\Project_Overview.mxd 5/20/2014

3.0.2 69 kV Loop-In

The power line component of the Proposed Project will consist of looping in an existing 69 kV tie-line—Tie-Line (TL) 604—to the proposed Vine Substation. The existing overhead power line is located adjacent to and to the west of the proposed substation site. TL604 travels generally south from the Old Town Substation by spanning existing railroad tracks and Witherby Street, then traveling southeast along Kurtz Street. The line then spans Noell Street and continues parallel to and adjacent to the south side of the existing railroad tracks. Near the intersection of California Street and Vine Street, the line spans the railroad tracks, reaching the existing wood pole at the intersection of California Street and Vine Street. The line then spans the railroad tracks again and travels southeast parallel to the railroad tracks. After spanning West Palm Street, the line turns northeast, travels along West Palm Street, and terminates at the Kettner Substation.

The 69 kV loop-in will involve removing two existing wood poles near the corner of California Street and Vine Street (along with an existing span guy pole) and installing three new self-supported tubular steel poles (TSPs) directly adjacent to the eastern lane of Pacific Highway, as depicted in Figure 3-2: Project Overview Map. The TSPs will be a maximum of 100 feet tall and will taper from approximately two to three feet in diameter at the top to approximately five to seven feet at the base. New overhead conductor will be used to connect these new poles to the existing power line and the proposed substation, creating the loop-in. The new power line poles will be installed within the franchise position along Pacific Highway. SDG&E will obtain a License Agreement from MTS for the approximately 80 feet of new, approximately 320-foot-wide ROW for the overhead conductors. The remainder of the 69 kV loop-in will be installed within the francise position of City of San Diego public streets.

3.0.3 Telecommunication System Extension

SDG&E's substations typically utilize a telecommunication system composed of SDG&E fiber optic cable and an AT&T telephone line to facilitate off-site monitoring and operation. In order to connect the proposed Vine Substation and Kettner Substation to this system, additional fiber optic cable will be installed as part of the Proposed Project.

In order to bring fiber communication from the proposed Vine Substation to Kettner Substation, approximately 2,850 feet of new underground fiber optic cable will be installed within the previously described underground 12 kV distribution duct banks.[2] The proposed Vine Substation will be connected to the existing telecommunication network by adding approximately 100 feet of fiber optic cable from an existing underground handhole located within Pacific Highway to one of the new 69 kV TSPs that will be installed as part of the loop-in. The fiber optic cable will then travel overhead, across the existing railroad tracks, to the proposed Vine Substation within the power line's ROW.

[2] Telecommunications cable will not enter the underground distribution vaults. As a result, short sections of underground duct bank specific to telecommunication cable will be installed to route around the underground distribution vaults. While located separate from the distribution facilities, the telecommuncations cable will enter underground handholes specific to telecommunication cable. The locations where the telecommunication and distribution duct banks are not conincident are presented in Attachment 3-A: Detailed Project Components Map.

The AT&T phone line will be upgraded and relocated from a current system feeding the existing customer at the site. As depicted in Attachment 3-A: Detailed Project Components Map, one of three potential interconnection points located adjacent to the proposed Vine Substation will be used to facilitate the connection.

3.1 EXISTING SYSTEM

SDG&E is a regulated public utility that provides electric service to approximately 1.4 million customers within an approximately 4,100-square-mile service area, covering 25 cities and unincorporated areas within San Diego County and a portion of Orange County.

Figure 3-3: Existing System Configuration and Figure 3-4: Proposed System Configuration provide schematic diagrams of the existing system and the system as it would be configured following construction of the Proposed Project, respectively. As shown in Figure 3-3: Existing System Configuration, one existing tie-line—TL604—connects the Kettner Substation to the Old Town Substation. Five existing distribution lines—Circuits (C) 135, C137, C138, C139, and C458—currently connect to the Kettner Substation. The remaining three distribution lines that will be relocated—C108, C113, and C102—originate at the Station B Substation. As shown in Figure 3-4: Proposed System Configuration, TL604 will be looped into the proposed Vine Substation from the Old Town Substation, and a new tie-line—TL6976—will be created, connecting the proposed Vine Substation to the Kettner Substation. In addition, all eight of the distribution circuits will be relocated from either the Kettner Substation or the Station B Substation to the proposed Vine Substation, creating Circuits 1476 through 1484.

3.2 PROJECT OBJECTIVES

This project is being proposed to meet several objectives identified by SDG&E. The primary objective of the Proposed Project is to construct a new substation with associated 69 kV loop-in, and to relocate/re-arrange various distribution circuits. The project is designed to eliminate existing reliability concerns at Kettner and to provide additional capacity to serve existing and future area load and to prevent potential long outages or disruption of service to existing and new customers in the San Diego downtown and surrounding area.

Basic objectives of the Proposed Project include the following:

- Objective 1: Maintain existing substation and distribution system reliability standards.
- Objective 2: Provide substation and circuit tie capacity that will provide additional reliability for existing and future system needs.
- Objective 3: Meet the area's long-term electric distribution capacity needs by constructing a substation near planned load growth.
- Objective 4: Utilize existing SDG&E-owned land previously purchased for substation use to meet the scheduled in-service date.

Chapter 2 – Project Purpose and Need provides additional details regarding the Proposed Project's objectives.

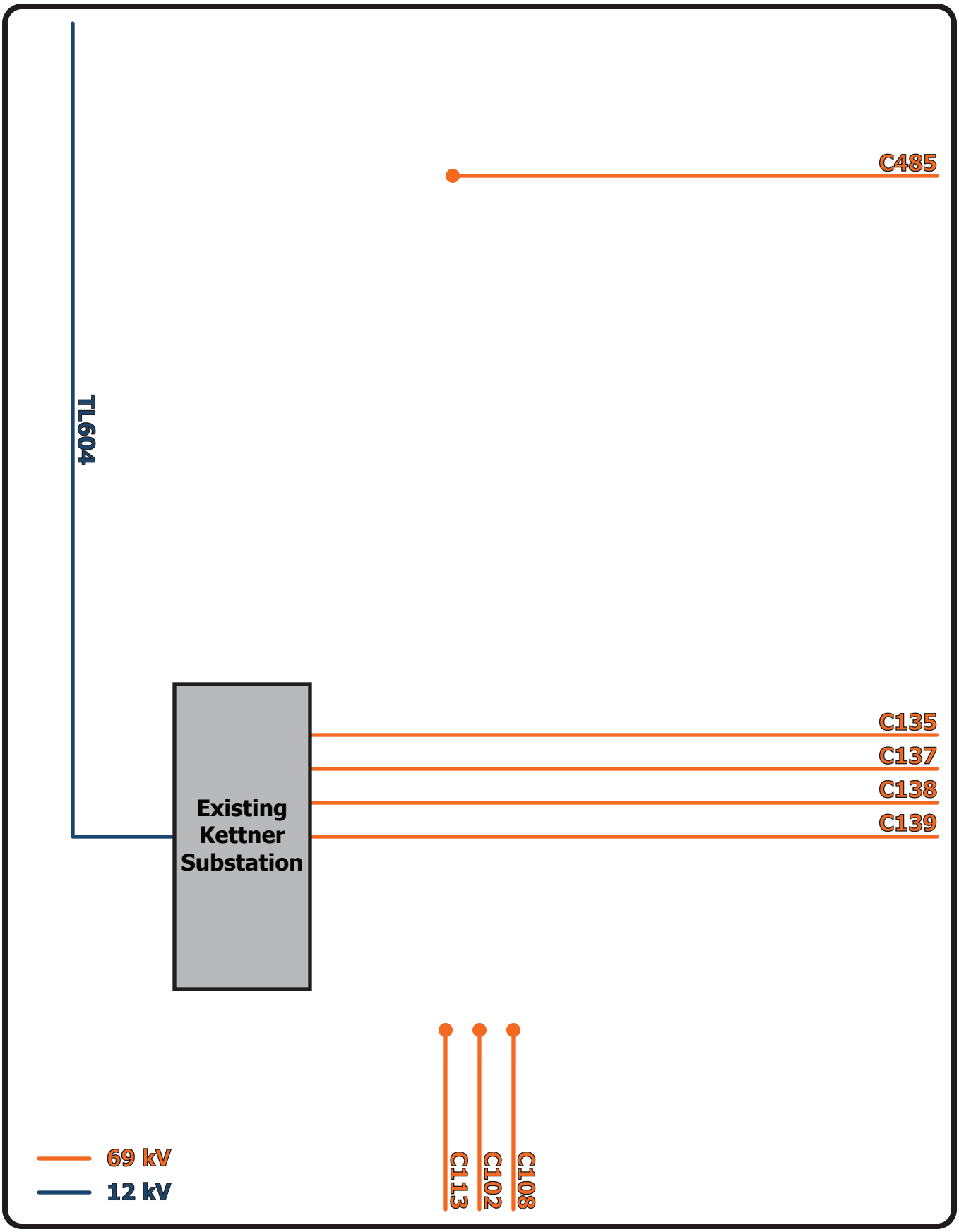

Figure 3-3: Existing System Configuration

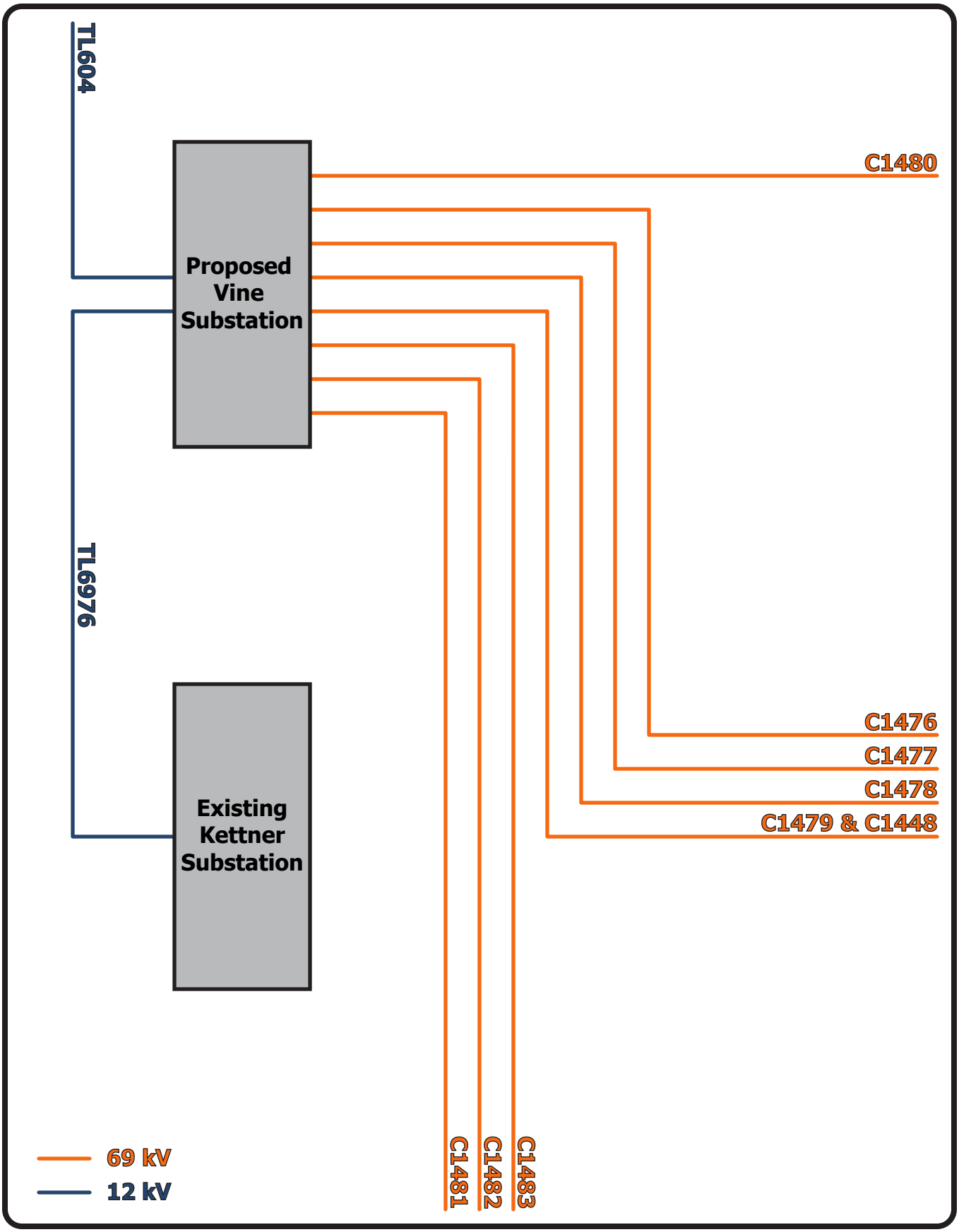

Figure 3-4: Proposed System Configuration

3.3 PROJECT CAPACITY

The power line component of the Proposed Project involves looping in existing TL604 to the proposed Vine Substation, which will serve as the 69 kV source for the new substation. All throughout the 69 kV loop-in portion of the Proposed Project, there will be no added capacity required to facilitate this source feeding the proposed Vine Substation.

The distribution component of the Proposed Project involves relocating existing 12 kV circuits currently served by Kettner and Station B substations (approximately 30 MVA of load) to the proposed Vine Substation. Initially, this will net 60 MVA of capacity to serve downtown San Diego and the surrounding areas. Once the substation is built to its ultimate capacity, an additional 30 MVA will be added. The result will be a net 90 MVA increase in capacity available to serve downtown San Diego and the surrounding area. The increased capacity will serve existing and future load growth that is expected within the vicinity of the substation.

3.4 PROPOSED PROJECT

3.4.0 Proposed Vine 69/12 kV Substation

The proposed Vine Substation is planned to occupy approximately 1.3 acres (approximately 305 feet by 180 feet) within a 1.5-acre parcel. The site will be enclosed by an approximately 10-foot-tall, brown "Lapaz" brown colored, masonry perimeter wall.

With regard to the Proposed Project's phasing, two arrangements—the initial and ultimate—are discussed in this section. The steel structures within the substation will be comprised of galvanized steel, while the transformers, breakers, switchgear, and capacitors will be painted ANSI 70 Grey. The control shelter and screen wall will be constructed from "Lapaz" brown masonry blocks and will include a welded metal roof.

As depicted in Figure 3-5: Vine Substation Initial Arrangement, the proposed substation will include the following pieces of major equipment as part of the initial 90 MVA configuration:

- Two 69 kV tie-line terminations
- Six 69 kV gas circuit breakers
- Three 69 kV potential transformers
- Three 69/12 kV standard profile, low-sound 30 MVA transformers
- Three ¼ sections of switch gear to accommodate twelve 12 kV circuits
- Three 12 kV metal-enclosed capacitor banks
- One 12 kV metal-enclosed reactor bank
- One approximately 30-foot-tall standard steel rack consisting of a 69 kV bus
- One approximately 20-foot-wide by 40-foot-long by 11-foot-tall masonry block control shelter

At its ultimate configuration, the substation is planned to be a 120 MVA, 69/12 kV distribution substation. As depicted in Figure 3-6: Vine Substation Ultimate Arrangement, the substation will include a total of the following components:

- Four 69 kV tie-line terminations
- Nine 69 kV gas circuit breakers
- Three 69 kV potential transformers
- Four 69/12 kV standard profile, low-sound 30 MVA transformers
- Four ¼ sections of switch gear to accommodate sixteen 12 kV circuits
- Four 12 kV metal-enclosed capacitor banks
- Two 12 kV metal-enclosed reactor banks
- One approximately 30-foot-tall standard steel rack consisting of a 69 kV bus
- One approximately 20-foot-wide by 40-foot-long by 11-foot-tall masonry block control shelter

Oil spill containment basins will be installed around the transformers to capture any oil accidentally leaked from these components. The basins will be designed to have a capacity that exceeds the transformer capacity by 10 percent. Under the ultimate arrangement, the four transformers will contain approximately 24,100 gallons of oil (varies slightly by manufacturer).

Substation lighting will be provided by a mixture of high-pressure sodium and metal halide lights that will be installed to adhere to the following SDG&E standards:

- provide enough light for a safe entry and exit from the substation;
- allow for safe driving around busses/racks, corners, and roadways; and
- allow for a preliminary visual inspection of the substation.

With the exception of the gate entry lights, which will remain on at night for safety purposes, the remaining substation lighting will not be turned on unless it is required for nighttime work and/or an emergency. One light will be installed at the main gate, one light will be installed on each side of the control shelter, and a minimum of two lights will be installed on each substation wall. Lights may also be installed on the end of the steel rack if required. All on-site lighting will be oriented downward to minimize glare onto the surrounding property.

As described previously, an approximately 10-foot-tall masonry wall will enclose the entire substation. Two approximately 10-foot-tall and 30-foot-wide sliding gates will be installed within the perimeter wall to provide primary and secondary access to the substation. The gates will be constructed from chain-link material and will be designed to accommodate standard brown slats. Barbed wire will be installed horizontally along the interior of the wall and gates so as to not be visible from the exterior of the substation. The primary access will be from Vine Street and will require relocation of the existing driveway approximately 50 feet southwest. An existing driveway from Kettner Boulevard will be relocated approximately 125 feet southeast and will provide secondary access to the site. The two gates will be locked and monitored remotely to limit access to only authorized personnel. Warning signs will be posted on the substation wall and gates in accordance with federal, state, and local safety regulations.

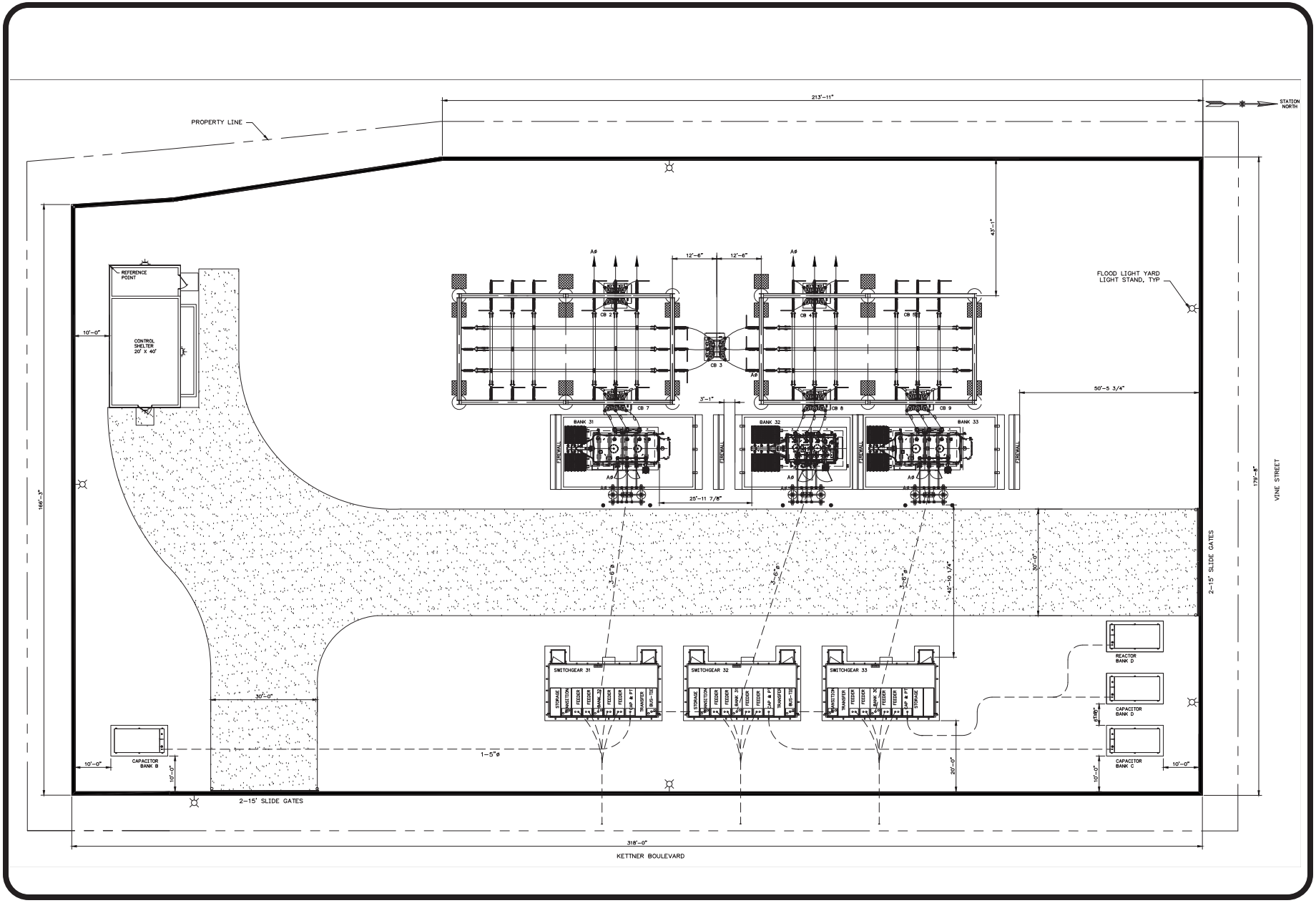

Figure 3-5: Vine Substation Initial Arrangement

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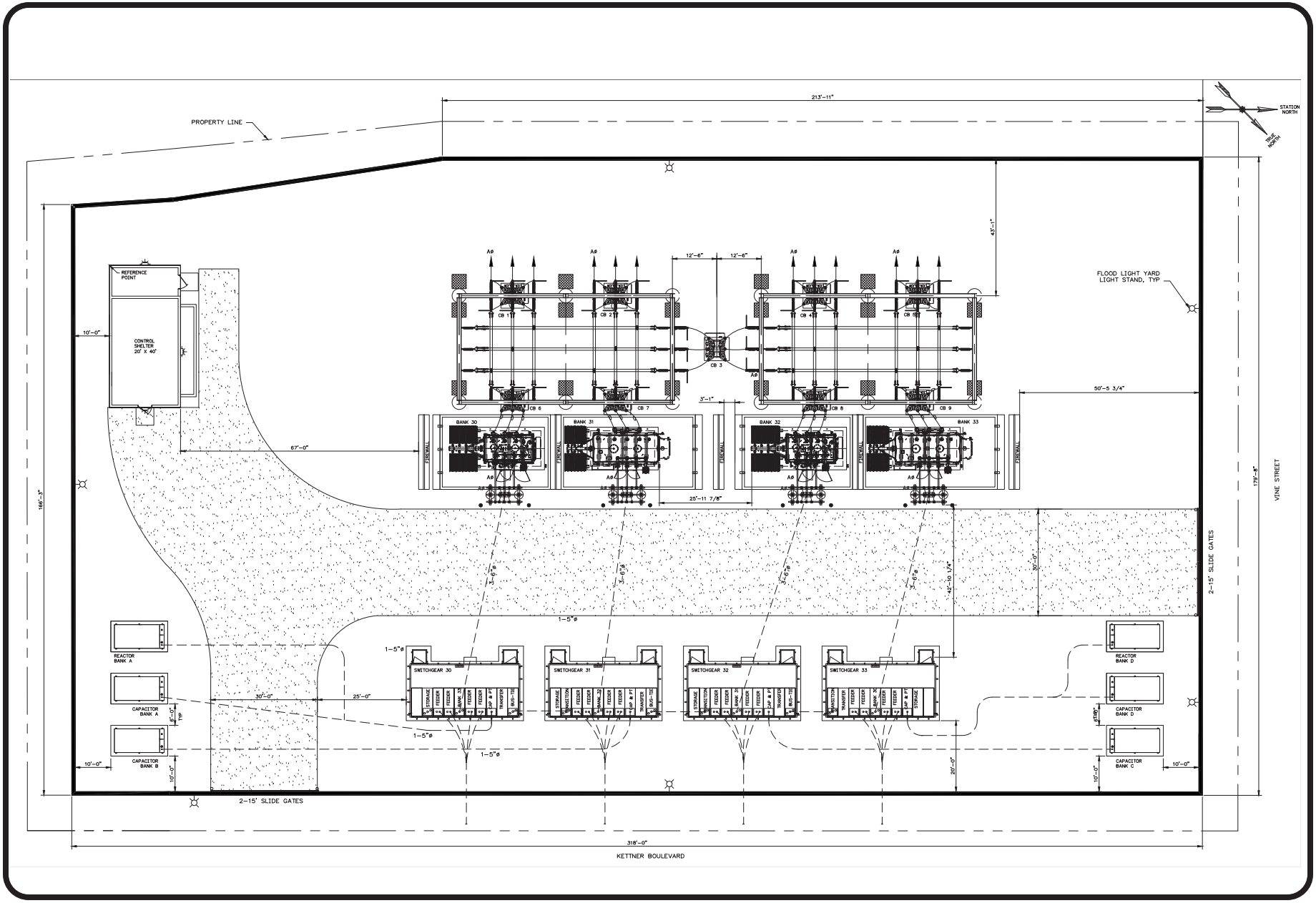

Figure 3-6: Vine Substation Ultimate Arrangement

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The access road within the proposed Vine Substation will be asphalt-paved with an approximate width of 30 feet. The road will connect the primary and secondary access to the control shelter, located in the southern corner of the proposed Vine Substation. This interior road will be approximately 425 feet long, occupying approximately 0.3 acre. A detailed drawing—which depicts the proposed Vine Substation layout, planned access routes, driveways, and interior access road—is included as Figure 3-5: Vine Substation Initial Arrangement and Figure 3-6: Vine Substation Ultimate Arrangement. Figure 3-7: Vine Substation Profile View provides two profile views of the proposed substation.

3.4.1 12 kV Distribution Relocation

Underground Duct Bank

As described previously, approximately 3,900 feet of new underground duct banks will be installed to facilitate the relocation of eight distribution circuits from existing substations to the proposed Vine Substation. Each underground duct bank will be comprised of eight approximately five-inch-diameter polyvinyl chloride (PVC) conduits encased in concrete. The finished duct bank will be approximately 32 inches tall and 18 inches wide. A typical drawing of the proposed underground duct bank has been included as Figure 3-8: Typical 12 kV Underground Duct Bank. In addition to the underground duct banks, approximately five underground vaults will be installed to facilitate pulling and splicing during installation and inspection, maintenance, and repair during operation. The precast concrete vaults measure approximately 26 feet long, eight feet wide, and six feet deep. A typical drawing of the proposed 12 kV underground vaults has been included as Figure 3-9: Typical 12 kV Underground Vault. The proposed locations of these facilities are depicted in Attachment 3-A: Detailed Project Components Map.

Distribution Switches and Capacitors

Approximately nine aboveground distribution switches and one aboveground capacitor will be installed along the underground duct bank routes to facilitate the relocation of the distribution circuits. Each distribution switch will be installed on a concrete pad measuring approximately 70 inches long by 44 inches wide by 32 inches tall. The switches will be contained within a steel enclosure mounted atop the pad that will measure approximately 67 inches long by 41 inches wide by 50 inches tall. The single capacitor will be installed on a concrete pad, similar in size to those for the switches, and will measure approximately 60 inches long by 44 inches wide by 60 inches tall. Typical drawings of the concrete pad, switch, and capacitor have been included as Figure 3-10: Typical Switch and Capacitor Pad, Figure 3-11: Typical 12 kV Switch, and Figure 3-12: Typical 12 kV Capacitor. The proposed locations of these facilities are depicted in Attachment 3-A: Detailed Project Components Map.

Underground Cable

All underground distribution circuits will utilize 1,000 kcmil aluminum cross-linked polyethylene insulation (XLPE) cables.[3] The distribution getaways—located between the proposed Vine Substation and the two adjacent underground vaults located in Kettner Boulevard—will contain 1,000 kcmil copper XLPE cables.

3.4.2 69 kV Loop-In

Poles

As described previously, SDG&E is proposing to loop the existing double-circuit TL604 into the proposed Vine Substation. This will require the removal of two approximately 70-foot-tall, directly buried, dead-end wood pole; the removal of one approximately 28-foot-tall, self-supported stub guy pole; and the installation two new, approximately 100-foot-tall, self-supported, dead-end TSPs.[4] These new poles range in diameter from five to seven feet at the base and two to three feet at the top. The new TSPs will be equipped with six dead-end insulators to carry the three bundled conductors from the existing steel poles to the proposed Vine Substation. One existing wood distribution pole will also be replaced by a new approximately 100-foot-tall self-supported TSP. The replacement TSP will be equipped with six insulators to support the 69 kV conductors. Typical drawings of the existing wood pole, stub guy pole, and new TSPs have been included as Figure 3-13: Typical Existing 69 kV Wood Pole, Figure 3-14: Typical Existing Stub Guy Pole, and Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole.

Overhead Conductor

TL604 is currently configured as a bifurcated-circuit (two conductors per phase) power line, where six individual conductors are supported by the associated poles. To facilitate the loop-in of this power line, these six conductors will travel from the existing and replacement steel poles to the new TSPs. From each new TSP, three individual conductors will traverse the railroad tracks and terminate within the substation. TL604 currently utilizes 1,033 kcmil aluminum-clad steel reinforced (ACSR) conductor, and the new loop-in will also use 1,033 kcmil ACSR. The overhead span lengths between poles will vary, but will generally be between 100 and 300 feet. The distance from the ground to the lowest conductor will be at least 35 feet, and the conductors' vertical spacing will be approximately nine feet. As described in Section 3.4.3 Telecommunication System, fiber optic telecommunication cables will also be collocated on the 69 kV loop-in poles.

[3] kcmil (1,000 circular mils [cmils]) is a quantity of measure for the size of a conductor; kcmil wire size is the equivalent cross-sectional area in thousands of circular mils. A cmil is the area of a circle with a 0.001-inch-diameter.

[4] Dead-end structures are typically used in locations where the conductor alignment changes direction. This pole configuration can also be used at the end of a conductor pull section and/or in locations where additional ground clearance is required.

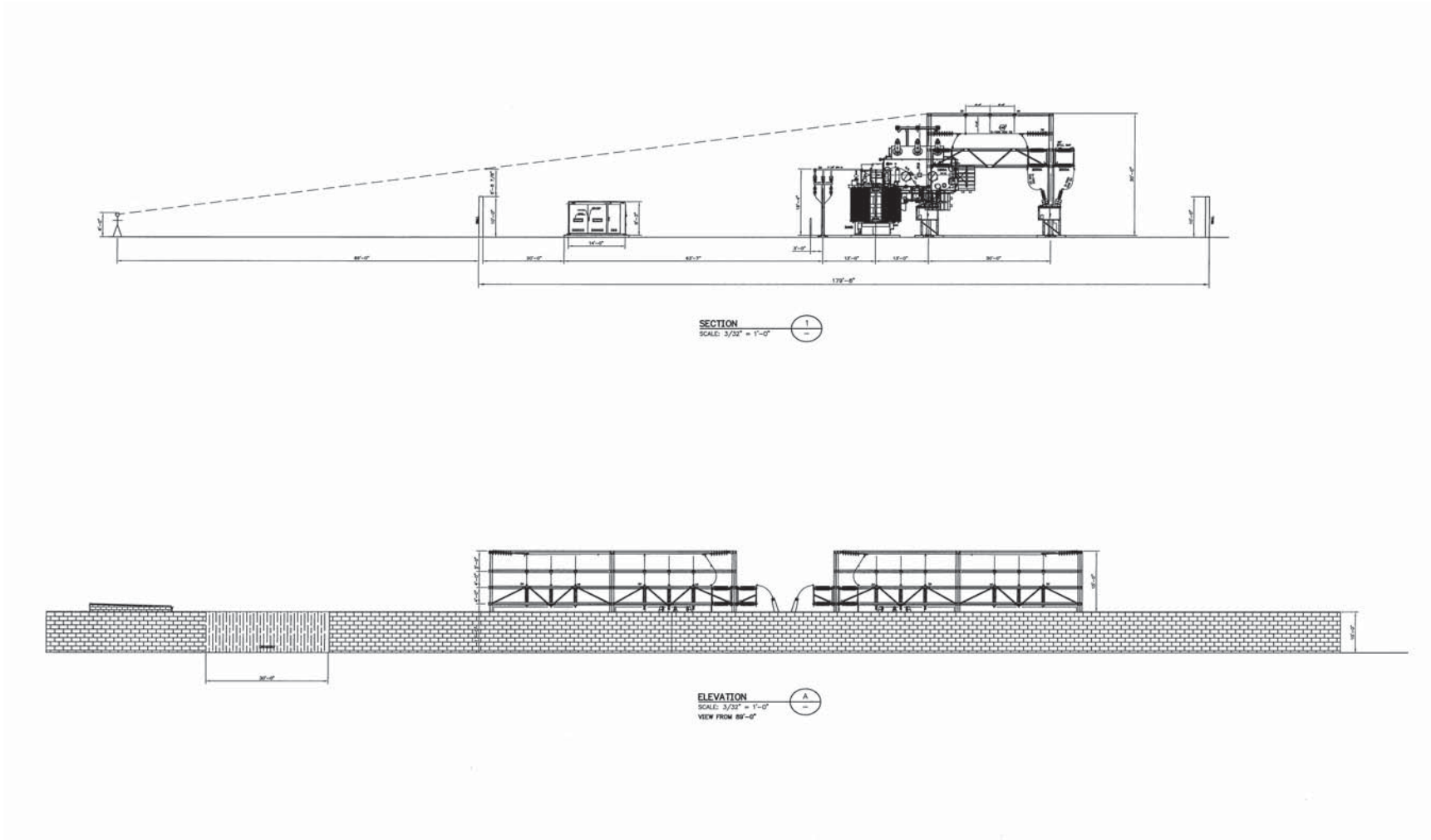
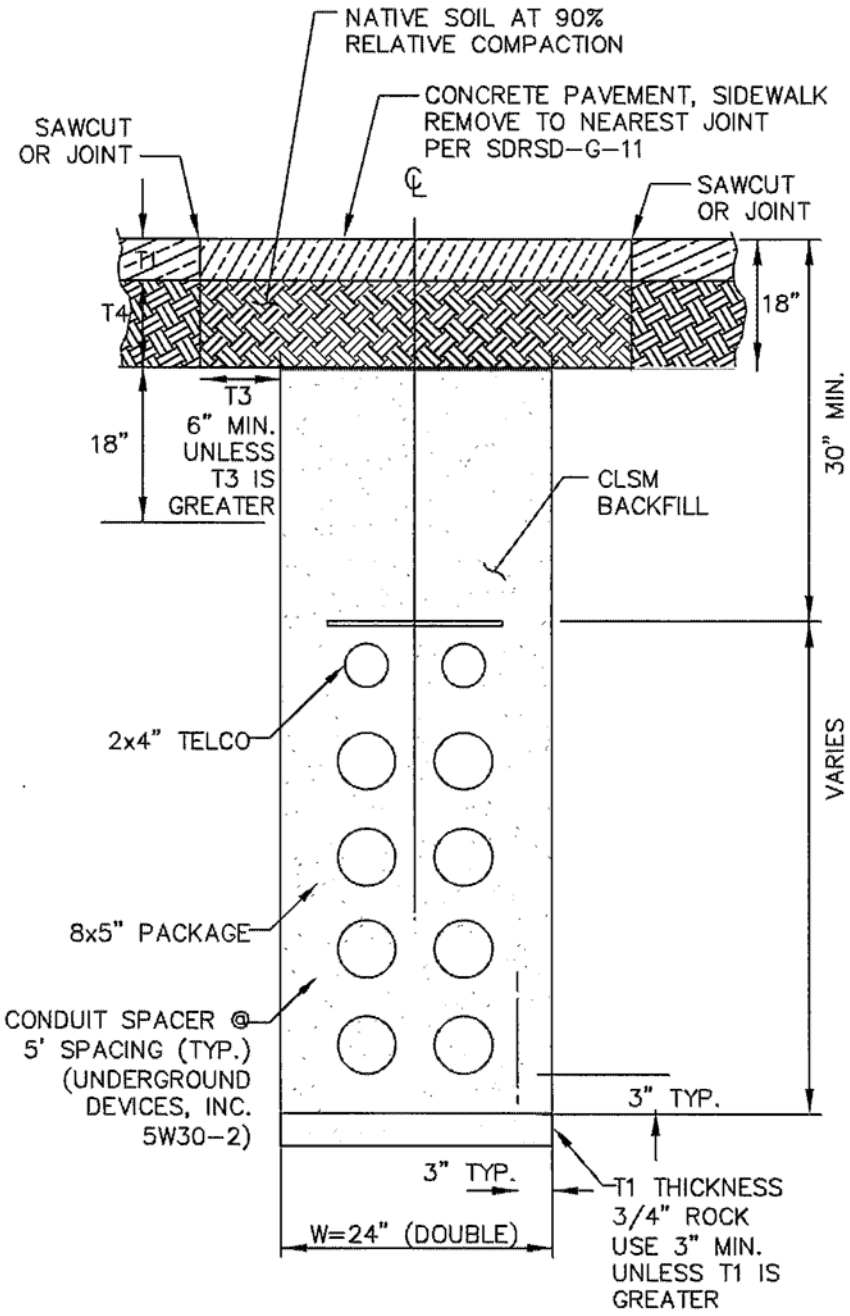


Figure 3-7: Vine Substation Profile View



DETAIL O

ASPHALT THICKNESS ENCOUNTERED IN THE
POTHOLING VARIED BETWEEN x & x" THICK,
UNDERLYING CONCRETE FOUND APPROXIMATELY x & x" THICK.

Figure 3-8: Typical 12 kV Underground Duct Bank

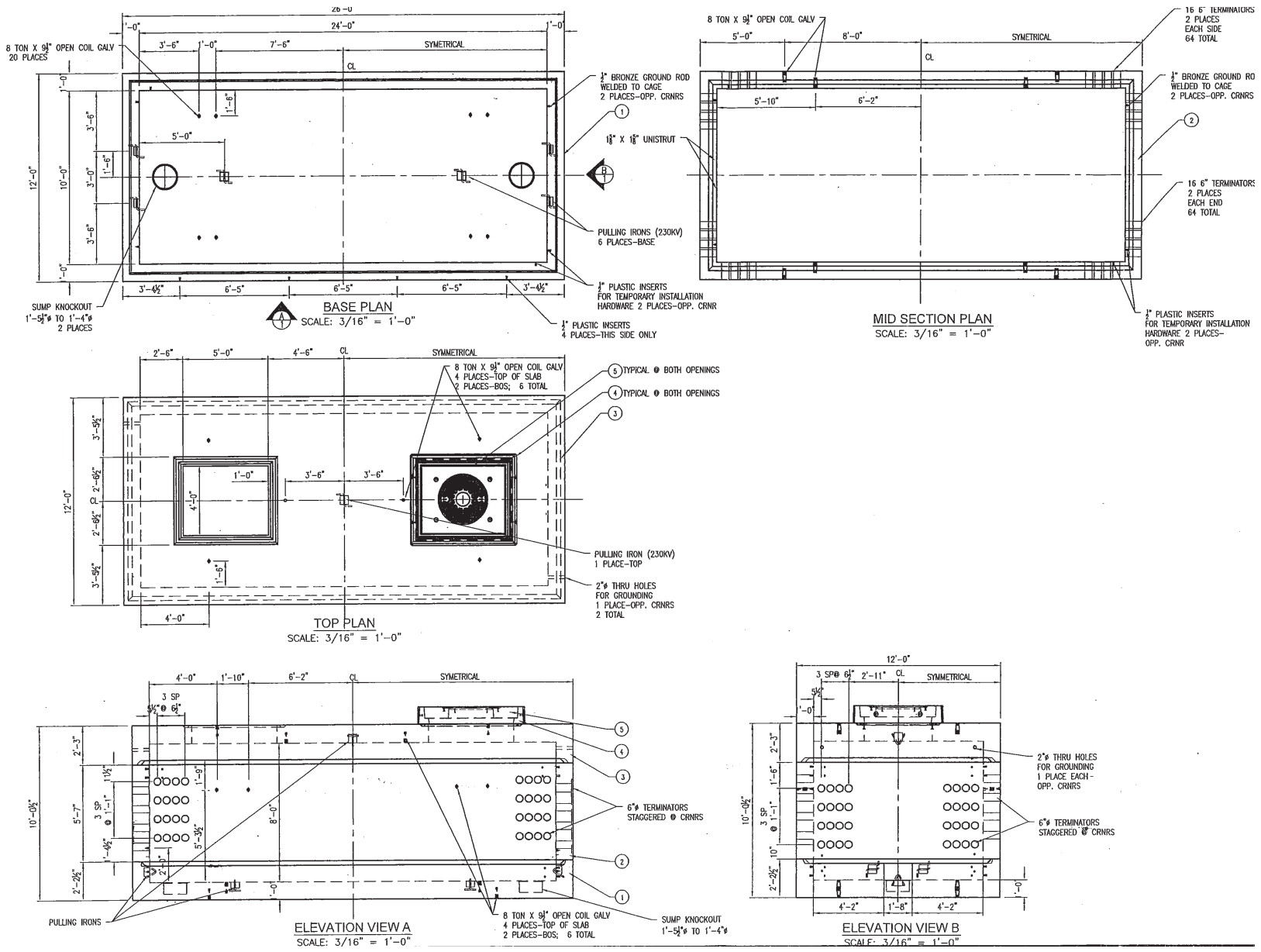


Figure 3-9: Typical 12 kV Underground Vault

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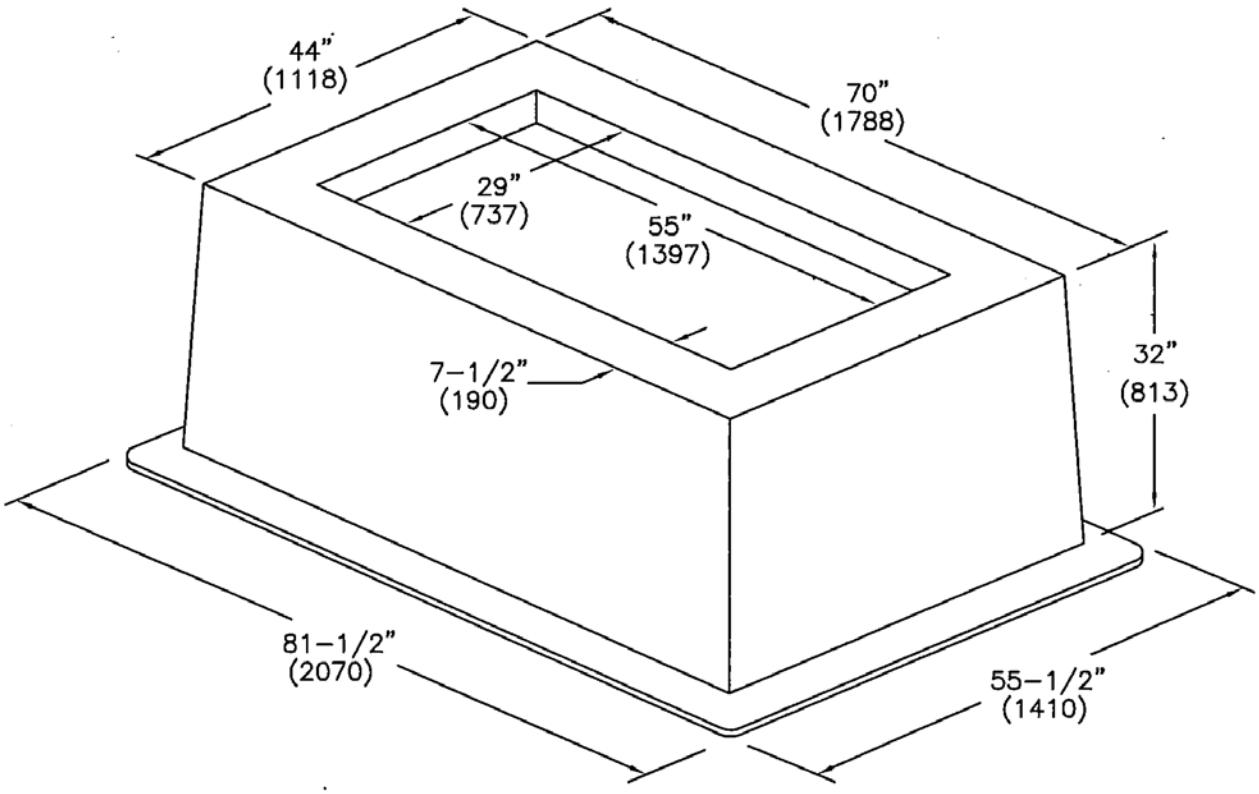
WEIGHT: 195 LB (88 KG)
DIMENSIONS 70" X 44" X 32" (1778 X 1118 X 813)



APPEARANCE AND DIMENSIONS MAY VARY SLIGHTLY BETWEEN MANUFACTURERS

Figure 3-10: Typical Switch and Capacitor Pad

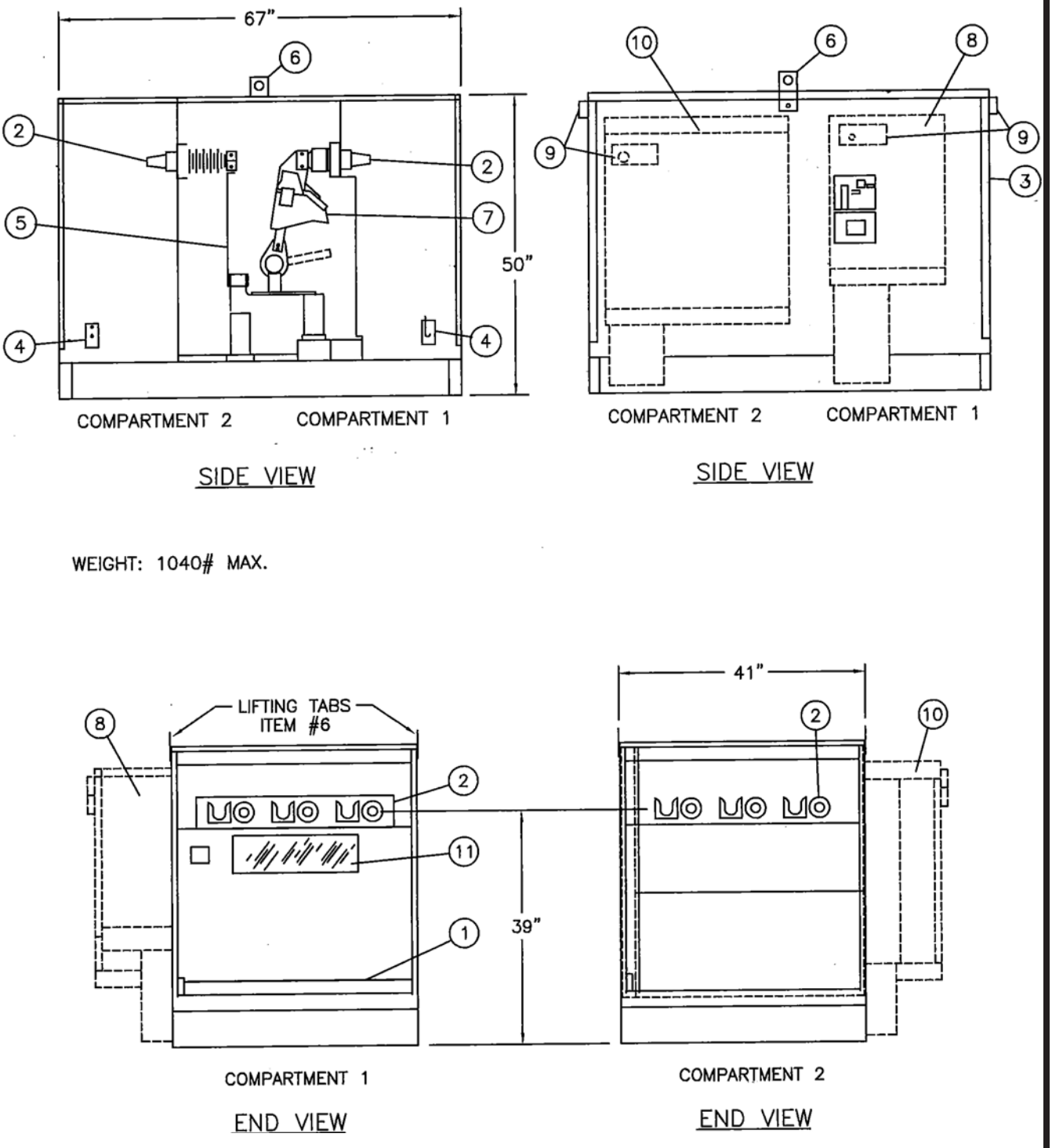


Figure 3-11: Typical 12 kV Switch

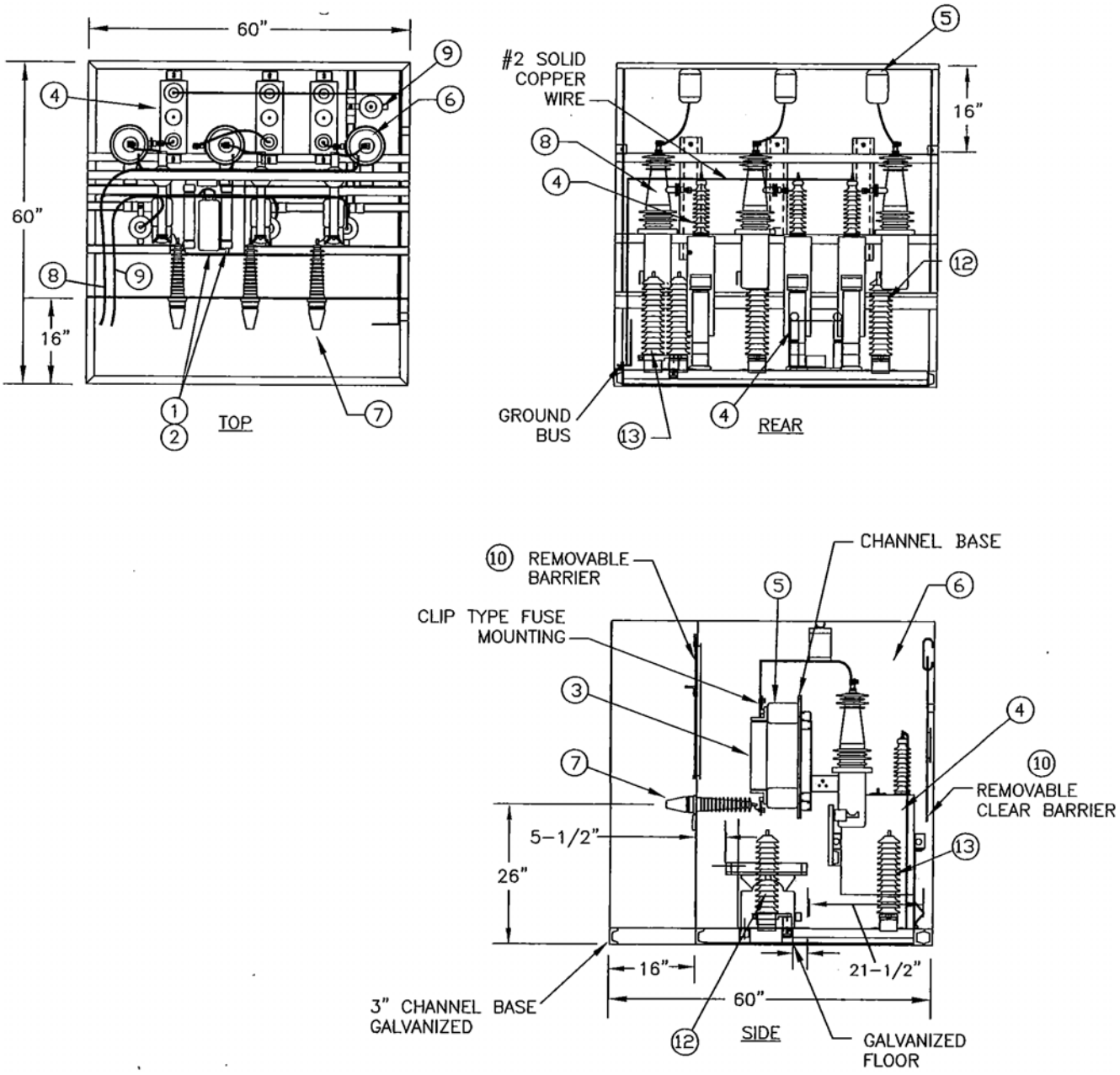


Figure 3-12: Typical 12 kV Capacitor

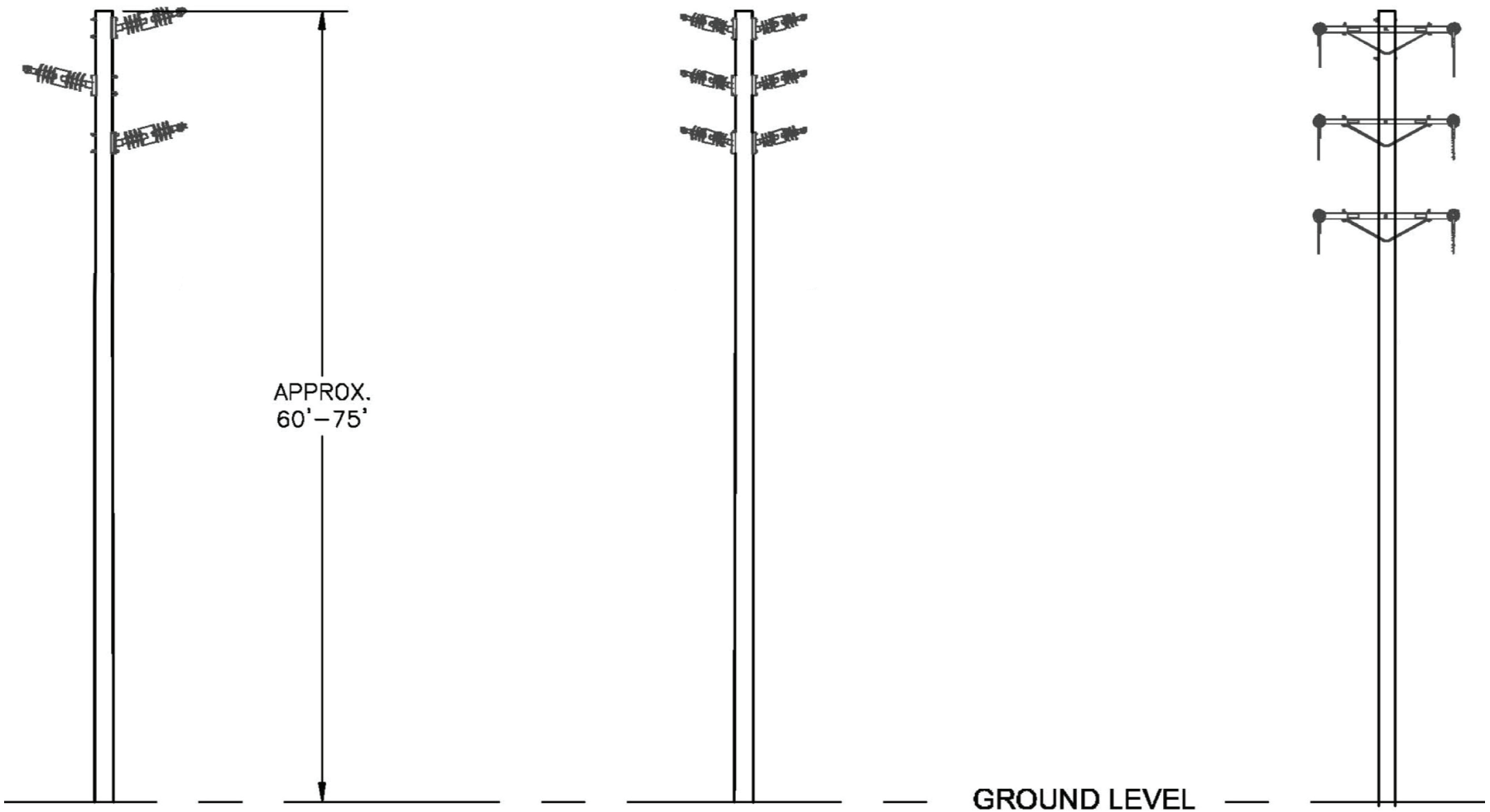
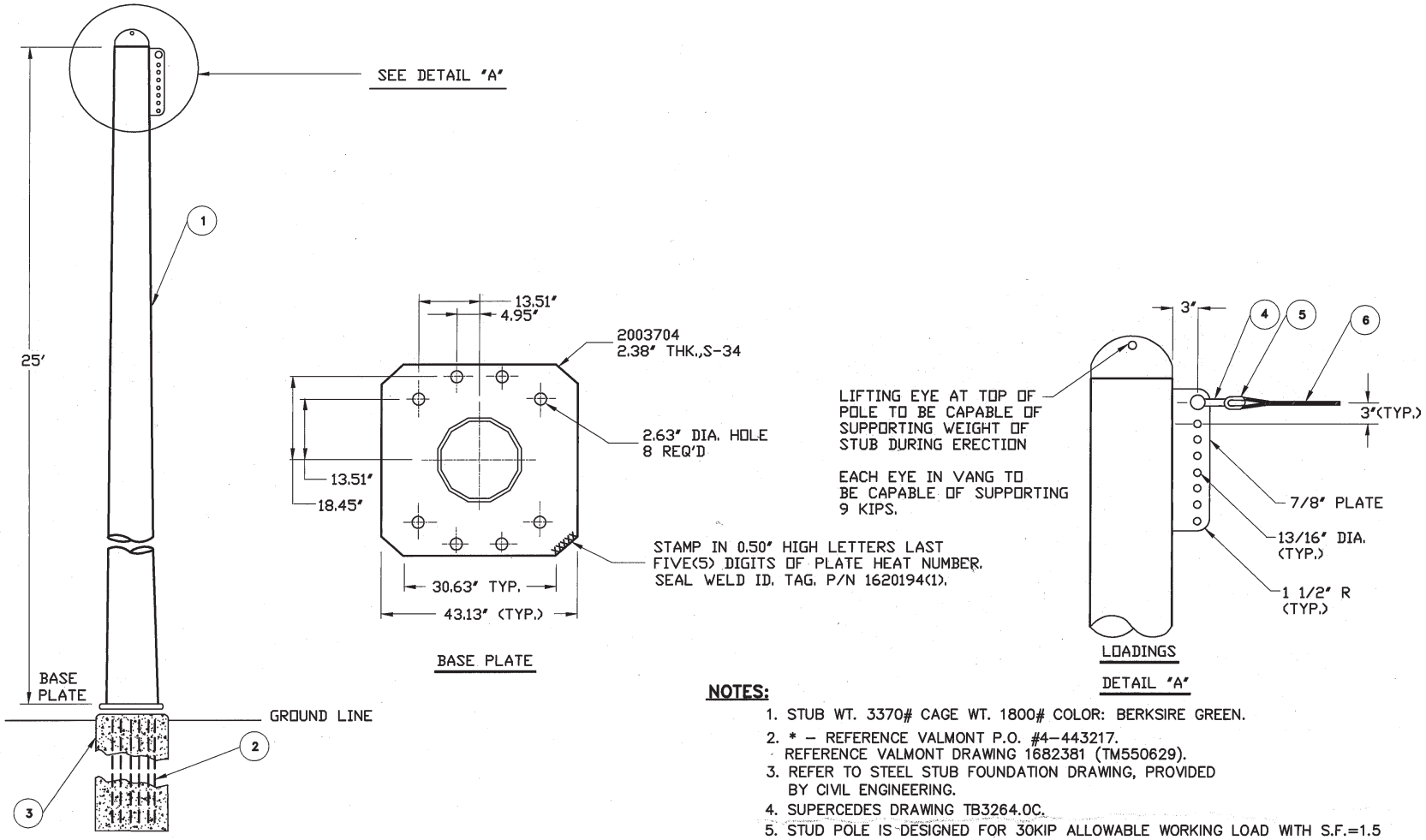


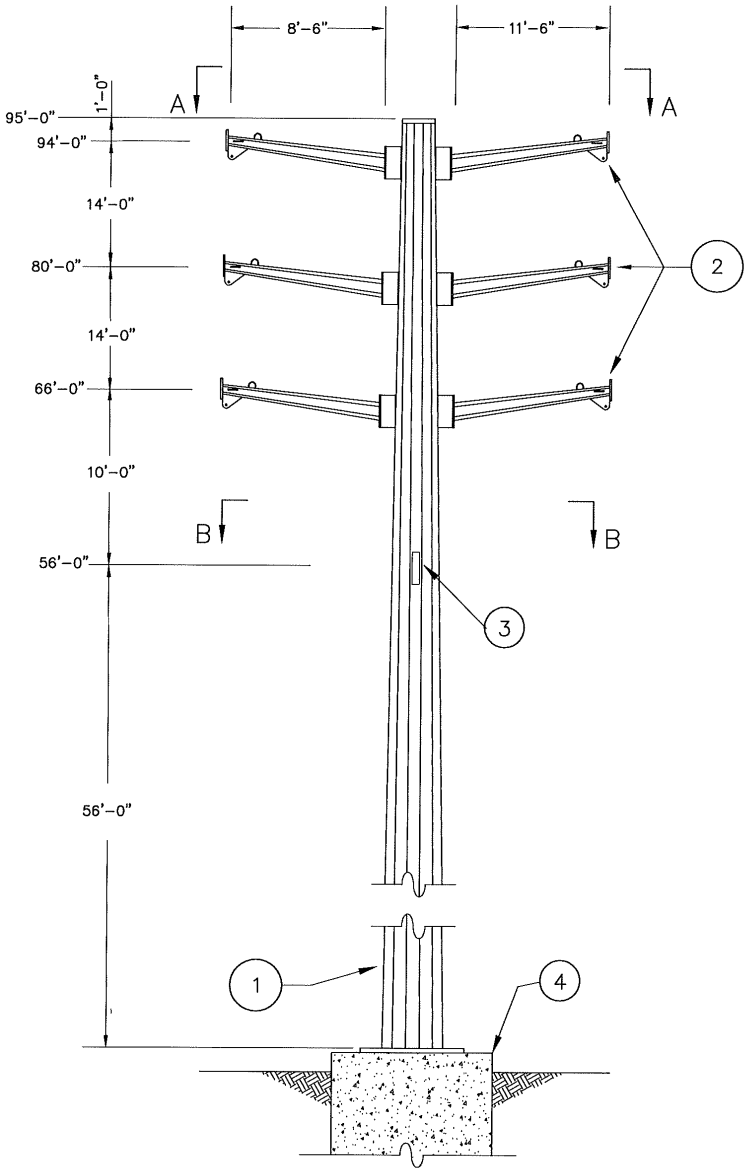
Figure 3-13: Typical Existing 69 kV Wood Pole



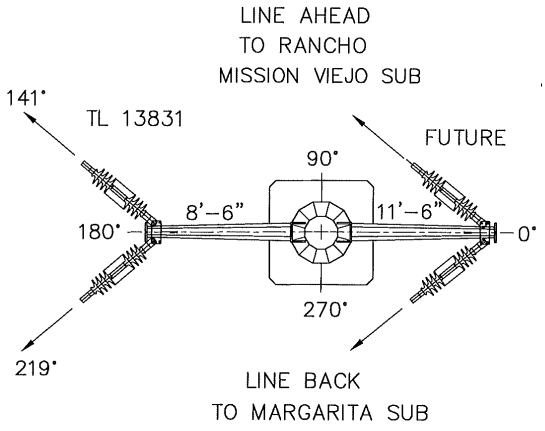
NOTES:

1. STUB WT. 3370# CAGE WT. 1800# COLOR: BERKSIRE GREEN.
2. * – REFERENCE VALMONT P.O. #4–443217.
   REFERENCE VALMONT DRAWING 1682381 (TM550629).
3. REFER TO STEEL STUB FOUNDATION DRAWING, PROVIDED BY CIVIL ENGINEERING.
4. SUPERCEDES DRAWING TB3264.0C.
5. STUD POLE IS DESIGNED FOR 30KIP ALLOWABLE WORKING LOAD WITH S.F.=1.5

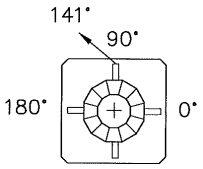
Figure 3-14: Typical Existing Stub Guy Pole



DEADEND STEEL POLE



VIEW B–B (138 kV)
102 degree line angle



VIEW B–B (FIBER OPTIC VANGS)
51 degree line angle

Figure 3-15: Typical Proposed 69 kV Tubular Steel Pole

3.4.3 Telecommunication System Extension

As described in Section 3.0.3 Telecommunication System Extension, new fiber optic cable will be installed from an existing underground vault located on Pacific Highway to the proposed Vine Substation, and from the proposed Vine Substation to the Kettner Substation. The connection from Pacific Highway to the proposed Vine Substation will occur in an overhead configuration along the new power line ROW, while the connection between the proposed Vine Substation and Kettner Substation will occur via a new underground duct bank. This component is described further in the subsections that follow.

An existing AT&T telephone line will be upgraded and relocated from the existing service to the new substation. The connection will originate from one of three locations located along the perimeter of the proposed Vine Substation site as depicted in Attachment 3-A: Detailed Project Components Map. The final location of the telephone line connection will be determined during final engineering and through additional coordination with AT&T.

Underground Duct Bank

As part of the 12 kV distribution relocation, approximately 2,850 feet of new underground duct banks will be installed along Kettner Boulevard between the proposed Vine Substation and Kettner Substation. Approximately 100 additional feet of new underground duct bank will be installed between an existing handhole located within Pacific Highway and one of the new TSPs that will be installed as part of the 69 kV loop-in. These underground duct banks will include two additional four-inch diameter PVC conduits as depicted in Figure 3-8: Typical 12 kV Underground Duct Bank. In locations where this duct bank will enter 12 kV underground vaults, a separate underground duct bank, comprised of two four-inch-diameter PVC conduits encased in a slurry mixture, will be used to route the telecommunication cable separate from the distribution vaults. This separate underground telecommunication duct bank will be approximately three feet tall and 1.5 feet wide. A typical drawing of the proposed underground duct bank has been included as Figure 3-16: Typical Telecommunication Underground Duct Bank. In addition to the underground duct banks, approximately four underground handholes will be installed to facilitate pulling and splicing during construction and inspection, maintenance, and repair during operation. These precast concrete handholes measure approximately 44 inches long, 32 inches wide, and 24 inches deep. A typical drawing of the proposed telecommunication handhole has been included as Figure 3-17: Typical Telecommunication Underground Handhole. The proposed locations of these facilities are depicted in Attachment 3-A: Detailed Project Components Map.

Underground and Overhead Cable

The telecommunication system extension will utilize all dielectric self-supporting-48 fiber optic cable that measures approximately 0.685 inch in diameter.

3.5 RIGHT-OF-WAY REQUIREMENTS

As described previously, SDG&E currently owns the approximately 1.5-acre parcel on which the proposed Vine Substation will be constructed; therefore, no new ROW will be required to install this Proposed Project component. Because the new and relocated 12 kV distribution circuits and

underground portions of the telecommunication system extension will be placed entirely within City of San Diego public streets, they will occupy the francise position and no new ROW will be obtained. SDG&E will obtain a License Agreement from MTS for the approximately 80 feet of new, approximately 320-foot-wide ROW for the overhead 69 kV loop-in conductors. The remainder of the 69 kV loop-in will be installed within the francise position of City of San Diego public streets.

3.6 CONSTRUCTION

This section describes the required access, anticipated temporary workspace requirements, and methods that will be employed to construct the facilities of the Proposed Project.

3.6.0 Staging Areas

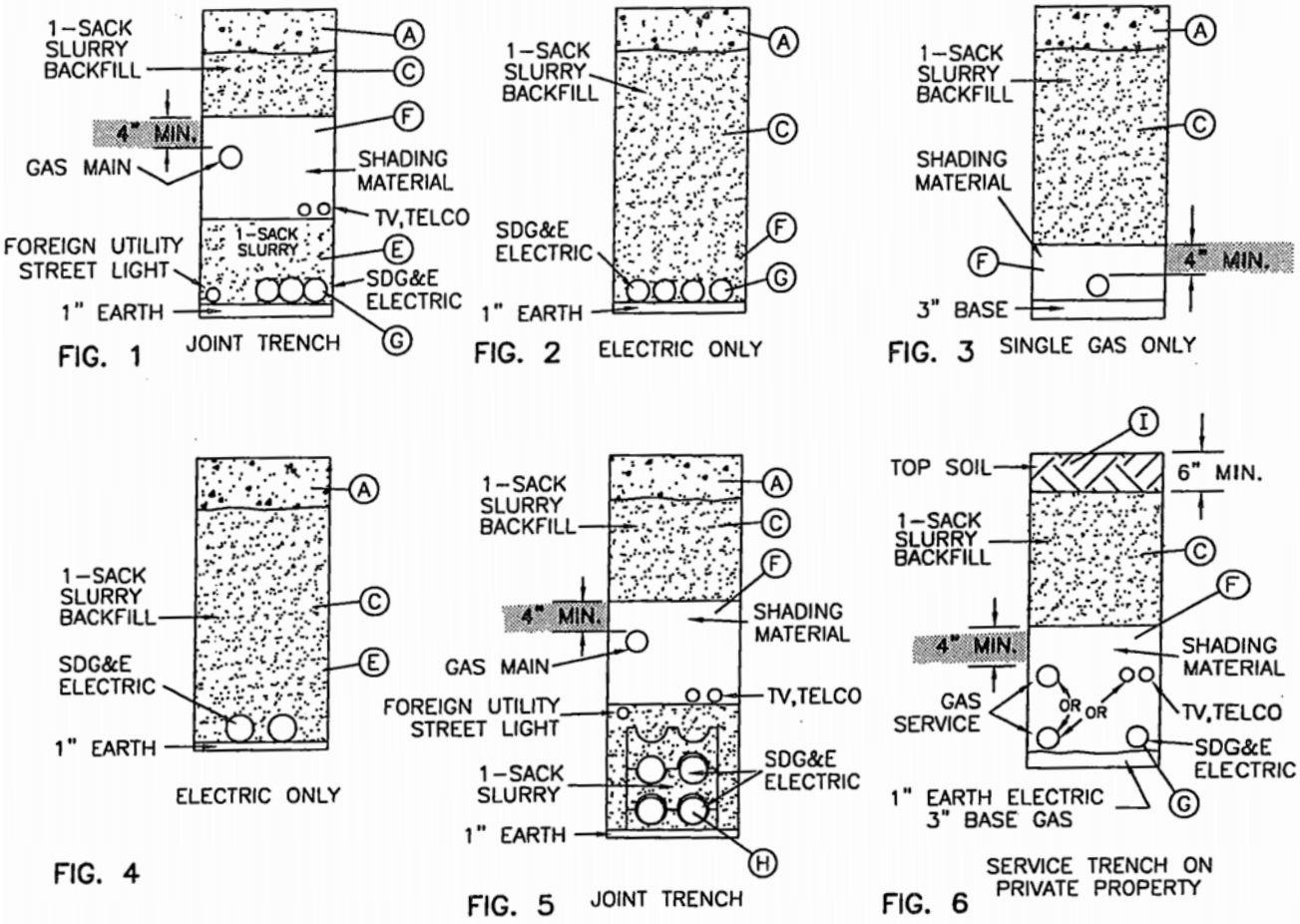
The majority of construction equipment, vehicles, personnel, and material staging areas will be accommodated within the property lines of the proposed substation property and within the work areas described in Section 3.6.1 Work Areas. Equipment staging will also be conducted at existing SDG&E facilities. Because each of these staging areas is currently used by SDG&E for other projects, no additional improvements at these sites will be required prior to construction. Additional existing SDG&E facilities or disturbed areas may be identified for use following the completion of final engineering. Temporary parking of some vehicles along Vine Street may be required depending on actual construction activities occurring at the proposed Vine Substation.

3.6.1 Work Areas

In addition to the staging areas discussed in the previous section, temporary workspace will be required for each Proposed Project component in order to facilitate construction. These anticipated workspace requirements are described in detail in the following subsections, summarized in Table 3-2: Temporary Workspace Requirements, and depicted in Attachment 3-A: Detailed Project Components Map. Temporary work areas will all be accessed by construction equipment using existing access roads, except for a small area to be cleared and graded for the 69 kV loop-in, which may require access by overland travel. All work areas will be restored to pre-construction conditions to the extent practical following the completion of construction. Further discussion of the restoration process is provided in Section 4.4 Biological Resources. Because the new telecommunication system facilities will be installed adjacent to the proposed distribution circuits or will be collocated with the overhead 69 kV loop-in, minimal additional workspace will be required.

Proposed Vine 69/12 kV Substation

As described previously, the majority of construction equipment, vehicles, personnel, and material staging will be accommodated within the property lines of the proposed Vine Substation site. The substation pad will be utilized for staging materials and equipment used in the construction of the substation facilities. Because the site is currently paved, no clearing of vegetation will be required for construction. Six palm trees located along Kettner Boulevard will be removed during the site preparation activities. The proposed Vine Substation will include adequate space for equipment, materials, temporary office trailers, and most—if not all—vehicle parking.



INSTALLATION:

(A) ALL TRENCH RESURFACING SHALL BE DONE ACCORDING TO GOVERNMENTAL AGENCIES REQUIREMENTS.

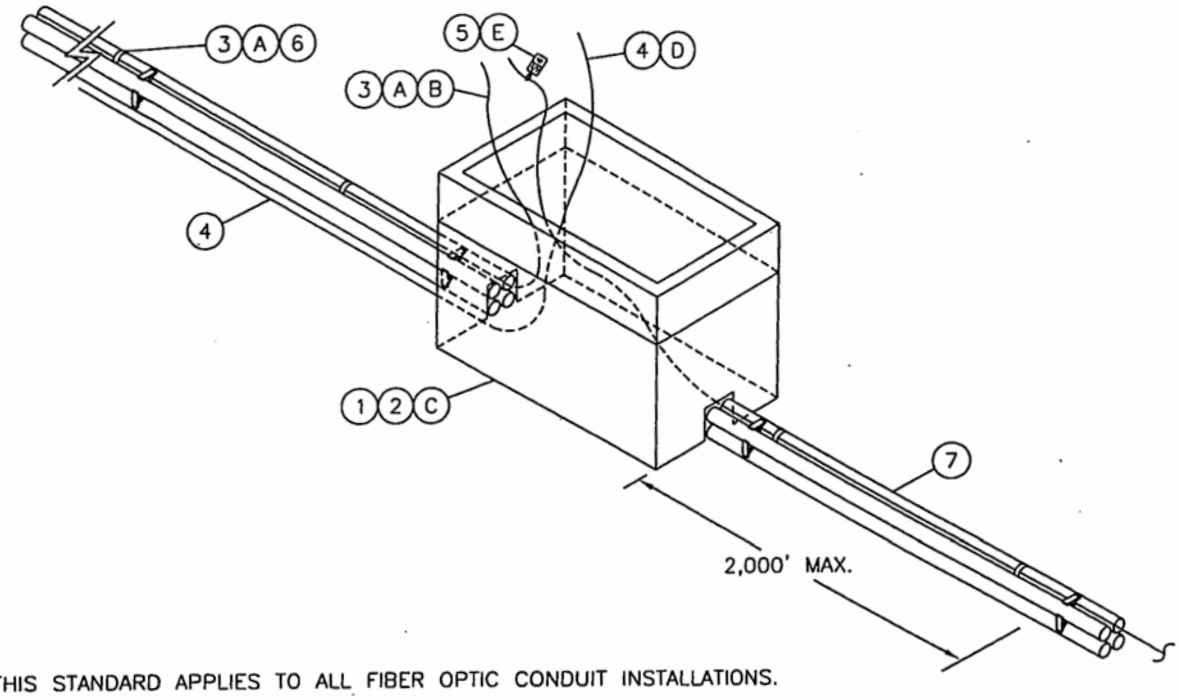
B. SHADING MATERIAL SHALL MEET GAS STANDARD 7405 OR UNDERGROUND 3370/3371 SPECIFICATIONS AND MUST BE APPROVED BY AN SDG&E AUTHORIZED INSPECTOR.

(C) BACKFILL MATERIAL SHALL MEET THE GOVERNMENTAL (PERMITTING) AGENCIES REQUIREMENTS AND SDG&E STANDARDS. THE SAND USED FOR THE ONE SACK SLURRY OR TWO SACK, IF REQUIRED BY GOVERNMENTAL AGENCIES, MUST MEET THE CONCRETE SAND SPECIFICATION LISTED IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK) AND CONTAIN NO GRAVEL. SLURRY MUST BE FIRM BEFORE A PAVEMENT CONCRETE CAP IS INSTALLED. SLURRY IS TYPICALLY USED FOR BACKFILLING AROUND SUBSTRUCTURES, UNDER EQUIPMENT PADS, FOR TRENCHES IN EXISTING PAVED AREAS, AND UNDER CONCRETE OR PAVED DRIVEWAYS.

IT MAY NOT BE APPROPRIATE TO USE ONE SACK SLURRY UNDER THE THE FOLLOWING CIRCUMSTANCES:

- GOVERNMENTAL AGENCIES DO NOT ALLOW ONE SACK OR MAY REQUIRE TWO SACK SLURRY BACKFILL.
- INACCESSABILITY OF CONCRETE TRUCKS DELIVERING SLURRY.
- WHEN SLURRY IS NOT COST EFFECTIVE.
- NEW RESIDENTIAL SUBDIVISIONS, SINGLE FAMILY RESIDENCE SERVICE TRENCH
- SHALLOW WELD HOLES, POT HOLES, ETC.

Figure 3-16: Typical Telecommunication Underground Duct Bank



NOTE:

– THIS STANDARD APPLIES TO ALL FIBER OPTIC CONDUIT INSTALLATIONS.

– REFER TO THE SPECIFIC TRANSMISSION PROJECT FOR INSTRUCTIONS ON THE USE OF TRACER WIRE IN THE TRANSMISSION TRENCH.

II. ALLATION:

(A) YELLOW TRACER WIRE SHALL BE INSTALLED IN THE TRENCH ALONGSIDE CONDUIT WHICH IS DESIGNATED FOR FIBER OPTIC CABLE. THE WIRE SHALL BE TAPED TO THE CONDUIT 8 TO 10 FOOT INTERVALS.

(B) THE TRACER WIRE SHALL BE LOOPED INSIDE THE HANDHOLE WITH ENOUGH SLACK TO EXTEND 12" BEYOND THE TOP OF THE BOX. CUT THE TRACER WIRE, SEAL AND TAPE THE ENDS.

(C) LOCATE ACCESS POINTS (HANDHOLES) TO THE TRACER WIRE AT 2000' INTERVALS.

(D) EXTEND GROUND WIRE 12 INCHES BEYOND THE TOP OF BOX.

(E) ATTACH AN "S4" TAG TO ALL TRACER WIRE AT ACCESS POINTS.

Figure 3-17: Typical Telecommunication Underground Handhole

Table 3-2: Temporary Workspace Requirements

Proposed Project Component	Workspace Type	Required Improvements	Quantity	Approximate Dimensions (feet)	Total Approximate Area (acres)
Proposed Vine 69/12 kV Substation	Substation Pad Installation Area	Grading, excavation, boundary wall and gate installation, substation component installation, and driveway installation	1	340 by 190	1.48
12 kV Distribution Relocation	Underground Work Area	Excavation, duct bank installation, and cable installation	1	3,900 by 30	2.69
	Vault Installation Work Area	Excavation, vault installation, and cable installation	5	60 by 40 each	0.25
	Pull Site	None	2	50 by 30	0.07
	Switch and Capacitor Installation Work Area	Excavation and pad installation	10	50 by 30	0.34
69 kV Loop-In	Work Area	Excavation, and pole and foundation installation	1	225 by 55	0.28
		Pole and foundation removal	1	140 by 50	0.16
		Pole removal	1	100 by 50	0.11
		Pole removal and installation	1	130 by 50	0.15
		Conductor installation and removal	1	80 by 40	0.07
			1	70 by 40	0.07

Proposed Project Component	Workspace Type	Required Improvements	Quantity	Approximate Dimensions (feet)	Total Approximate Area (acres)
Telecommunication System Extension	Underground Work Area	Excavation, duct bank installation, and cable installation	1	625 by 30	0.43
	Handhole Installation Work Area	Excavation, handhole installation, and cable installation	4	50 by 30	0.14
Total	**--**	**--**	**--**	**--**	**6.24**

Note: This information is preliminary and subject to adjustment based on final engineering, ground conditions at the time of construction, and other factors. The total workspace area required will be less than the total indicated due to overlapping workspaces.

12 kV Distribution Relocation

The installation of new duct banks and vaults will require temporary workspace within Kettner Boulevard. The underground trench work area will be approximately 20 to 30 feet wide and will be generally centered on the distribution circuit alignments. The underground trench work area will be adjusted to comply with traffic control permits to maintain traffic flow through construction areas as necessary. In locations where vaults will need to be installed, additional workspace will be established and will measure approximately 150 feet by 25 feet centered on the vault location. All trenching and vault work areas will be located within City of San Diego streets and public areas. These work areas will also support all cable installation activities, as well as the associated construction equipment to perform the work. A total of approximately 6,460 linear feet of workspace, which requires approximately 4.45 acres, will be established prior to construction. Site preparation for an underground trench work area and vault installation work areas will involve a survey mark out with offsets of the proposed trench alignment, as well as setting up traffic controls prior to construction. Additional temporary work spaces measuring approximately 50 feet by 30 feet will be established to facilitate the installation of switches and capacitors.

The cable installation process will require a network of pull sites located adjacent to the proposed and existing underground vaults. These pull sites will be approximately 50 feet long by 20 to 30 feet wide. With the exception of the two pull sites that will be established near the intersections of Kettner and West Hawthorn Street and Pacific Highway and West Hawthorn Street, all pull sites will be located within the underground trench work area. All pull sites will be located within the paved portion of existing City streets; therefore, no improvement will be required prior to use.

69 kV Loop-In

To accommodate construction equipment and activities during the removal of the existing wood power line pole and associated guy pole, an approximately 150-foot-long by 40-foot-wide temporary workspace will be established along Vine Street. A second work area, approximately 100 feet long by 40 feet wide, will be established along California Street to remove a second wood pole. Because the poles are located within the existing sidewalk, no grading or vegetation removal is anticipated.

In order to install the three new poles that will facilitate the loop-in of TL604, two additional work areas will be established. The first will measure approximately 250 feet long by 55 feet wide and will be placed along Pacific Highway. The work area will be located directly adjacent to the existing fence that separates Pacific Highway from the existing railroad ROW. As a result, up to two lanes of traffic along the northbound direction of Pacific Highway will be closed during installation of the new poles and during conductor installation and removal activities. The existing vegetation within this pole work area may be cleared to establish safe operating conditions for construction equipment. The second work area will be located adjacent to the existing distribution pole. This work area will be used to facilitate the installation of a new power line pole for the 69 kV loop-in. This work area will measure approximately 130 feet long by 50 feet wide and will be placed within an existing parking lot along Pacific Highway.

Conductor installation and removal will require two additional work areas. The first work area will be located along Frontage Road and will measure approximately 80 feet long by 40 feet wide. The second work area will measure approximately 75 feet long by 40 feet wide. The work area will be located along Pacific Highway.

3.6.2 Access

Access to the proposed Vine Substation will be accomplished from Vine Street during construction via the relocated driveway. Access to the 69 kV loop-in will primarily occur from Vine Street, California Street, and Pacific Highway. The 12 kV distribution relocation activities will be accessed from Kettner Boulevard. As described previously, secondary access to the proposed Vine Substation will be from Kettner Boulevard for use during operation and maintenance activities. No new permanent access roads will be constructed.

3.6.3 Methods

Construction methods for the proposed Vine Substation, 12 kV distribution relocation, and 69 kV loop-in are described in this section. The methods used to extend the telecommunication system are similar to those that will be used to relocate the 12 kV distribution circuits. As a result, they are not discussed further. Refer to Section 4.6 Hazards and Hazardous Materials for information regarding handling and disposal of contaminated materials. A summary of the number of truck trips required to construct each of the Proposed Project's components has been provided as Table 3-3: Construction Truck Trip Summary.

Table 3-3: Construction Truck Trip Summary

Proposed Project Component	Approximate Truck Trips Required
Proposed Vine 69/12 kV Substation	2,650
12 kV Distribution Relocation and Telecommunication System Extension	1,350
69 kV Loop-In	400

Proposed Vine 69/12 kV Substation

Site Development

Site development activities will commence with the removal of the existing paved parking lot surface, which will require the use of excavators, front-end loaders, concrete saws, and/or bulldozers. Once cleared, remedial grading will take place based on the recommendations of the geotechnical investigation, which will determine the appropriate on-site pad elevation and foundation support that also maintains adequate site drainage. On-site material will be reused to the extent possible, as recommended by a Geotechnical Engineer. These activities are anticipated to generate approximately 4,200 cubic yards (CY) of material for off-site disposal. Approximately 4,600 CY of select fill will be imported to help achieve the conceptual design elevation. Site grading will be accomplished primarily with bulldozers and backhoes, which will condition, cut and fill, and blend the native soil and imported material to the desired pad elevations.

Construction of the boundary walls will begin once grading is complete. At this time, an approximately 12-inch layer of Class II aggregate base (approximately 2,100 CY) will also be installed over the building pad area for the finished surface.

Construction of the proposed Vine Substation will require approximately 6,700 CY—or an estimated 1,470 haul truckloads—of imported fill to develop the proposed substation site. Haul trucks will operate periodically, as needed, during the grading phase of construction. In general, an average of no more than 20 truck trips per day for an estimated five months will be required to complete the proposed substation grading and boundary wall installation. In addition, approximately five additional trips per day are anticipated for the delivery of materials and equipment for the duration of construction.

Below-Grade Construction

Following site development, below-grade work will begin, which will inclue the construction of structure and equipment foundations, underground ducts, the ground grid, and erection of the control shelter. The construction of the distribution circuits and tie lines surrounding proposed Vine Substation will start while the substation is under construction. Concrete trucks, backhoes, ditch-witches, and skid steer loaders will be used for the below-grade work.

Above-Grade Construction

Once the grading activities and below-grade construction are complete, major equipment and structures will be installed and anchored on their respective foundations. The following steps will be taken to install the above-grade equipment:

- The 69 kV rack will be erected.
- The 69 kV circuit breakers will be installed on their foundations.
- The control shelter will be constructed, and relay panels, controls, battery, and station lighting and power will be installed.
- The ground grid, control, communication, and power ducts will be installed and wiring of the equipment controls and protection devices will follow.
- The 69/12 kV transformers will be installed on their foundations, assembled, and filled with oil.
- The 12 kV switchgear, capacitors, and reactor will be installed on their foundations.

Power lines and distribution circuits will be completed and connected inside the substation following final installation of the substation structures and equipment. Communication equipment, will be connected inside the control shelter. Testing will be performed on all equipment after the equipment is installed and wired, and before placing it in service. Equipment will be placed in service once the 12 kV circuits and 69 kV loop-in are ready to be energized and are tested outside the substation.

Portable cranes and heavy hauling trucks will be employed to bring in the 69/12 kV transformers. Substation crews, assist vehicles, forklifts, man lifts, and boom trucks will be used to construct the substation. Oil-processing equipment and vacuum pumps will be used to fill transformers with oil. Pickup trucks and vans will be used for the wiring and control testing of

the substation equipment. Line trucks, assist vehicles, and cable dolly trailers will be used for construction of the power line and distribution circuits.

A temporary tap to an existing distribution line may be installed to provide electrical service to the substation staging area during construction. This temporary tap may be used to power construction trailers, lighting, or small hand-held machinery or tools until the substation is energized. The temporary tap may require up to three directly buried wood poles (approximately 20 feet in height) to connect a distribution line from an existing underground distribution transformer located adjacent to the substation site.

Cleanup and Post-Construction Activities

All areas that are temporarily disturbed during construction activities will be restored to pre-construction conditions, to the extent practicable, once construction of the substation is complete. Cleanup efforts will include removal of all construction debris for recycling and/or disposal off site. In addition, landscaping will be installed consistent with SDG&E's Landscape Plan, which is described further in Section 4.1 Aesthetics.

12 kV Distribution Relocation

Trenching

Prior to trenching, other utility companies will be notified to locate and mark existing underground utilities along the proposed underground alignment. Exploratory excavations (i.e., potholing) will also be conducted to verify the locations of existing facilities in the ROW. Coordination with the City will also occur in order to secure encroachment permits for trenching in the City's ROW, as required. It is anticipated that between one and two lanes of Kettner Boulevard will occasionally be closed during trenching activities. During these closures, traffic controls will be implemented as required by the Encroachment Permit.

Trenching operations will be staged in intervals so that only a maximum of 500 feet of trench will be left open at any one time, or as allowed by permit requirements. The fill generated by excavation activities will be transported to an SDG&E approved disposal site. At any one time, open trench lengths will not exceed that required to facilitate the installation of the duct bank. Steel plating will be placed over the trenches to maintain vehicular and pedestrian traffic across areas that are not under active construction. A typical drawing of the proposed underground construction activities has been included as Figure 3-18: Typical Underground Construction Process within Roadways.

The duct bank will be installed using open-cut trenching techniques. Most of the duct bank will have a single-circuit vertical configuration, as shown in Figure 3-8: Typical 12 kV Underground Duct Bank. Transitions to a flat configuration may be required in certain areas to clear substructures in highly congested areas, or to fan out to termination structures at the transition area.

The typical trench dimensions for installation of each duct bank will be three to six feet deep and two to seven feet wide, depending on the duct bank configuration. Depths may vary depending on soil stability and the presence of existing substructures. The trench will be widened and shored where necessary to meet California Occupational Safety and Health Administration

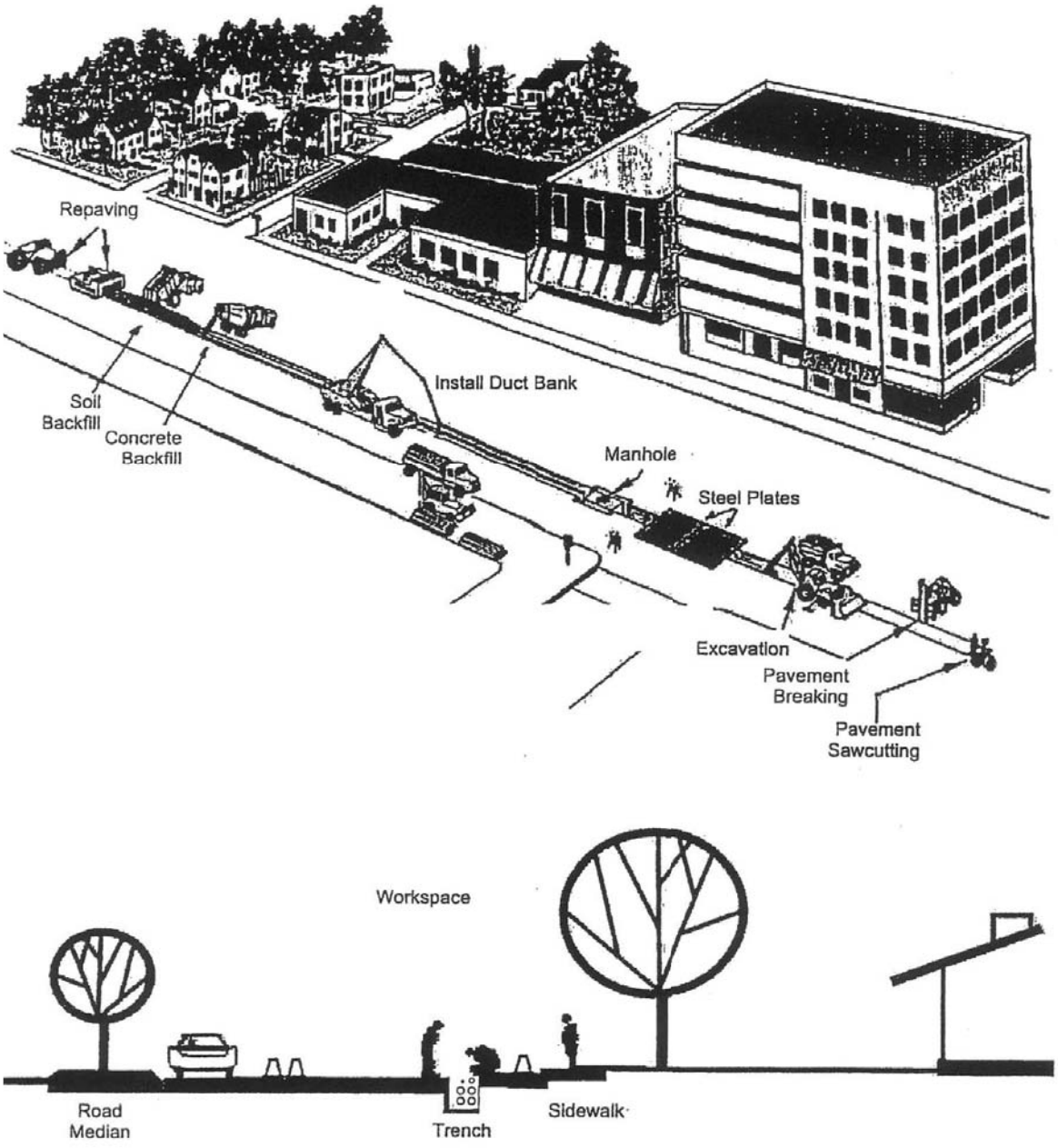


Figure 3-18: Typical Underground Construction Process within Roadways

requirements. If trench water is encountered, trenches will be dewatered using a portable pump and the water will be disposed of in accordance with acquired permits.

As described previously, traffic controls will also be implemented to direct local traffic safely around work areas. SDG&E will coordinate provisions for emergency vehicle and local access with local jurisdictions as necessary.

Duct Bank Installation

As the trenches for the underground 12 kV duct banks are completed, SDG&E will install the cable conduits (separated by spacers) and pour concrete around the conduits to form the duct banks. The duct banks will typically consist of eight five-inch-diameter PVC conduits, which house the electrical cables. The dimensions of the duct banks will be approximately 1.5 feet wide by 2.7 feet tall for a vertical configuration. The duct package will consist of a single 12 kV distribution circuit. As described previously, two four-inch conduits will be installed within the distribution duct bank between the proposed Vine substation and Kettner Substation for telecommunication purposes.

Once the PVC conduits are installed, engineered slurry backfill will be imported, placed, and compacted. A road base backfill or slurry concrete cap will be installed and the disturbed road surface will be restored in compliance with local permits. While the completed trench sections are being restored, additional trench will be opened farther down the street. This process will continue until the distribution circuits are completed. Each duct bank will have a minimum of 30 inches of cover. Larger trenches will be excavated where vaults are installed, as described in the subsection that follows.

Where the distribution duct bank will cross other substructures that operate at normal soil temperature (e.g., gas lines, telephone lines, water mains, storm drains, and sewer lines), a minimal radial clearance of 12 inches will be required. In instances where the duct bank will be installed parallel to other substructures, a minimum radial clearance of 24 inches will be required. Ideal clearances of two to five feet are preferred. Where the duct banks cross or run parallel to substructures that operate at temperatures significantly exceeding normal soil temperature (e.g., other underground power line circuits, primary distribution cables, steam lines, and heated oil lines), additional radial clearance may be required. All work will be done in conformance with SDG&E's current construction and operating practices.

Vault Installation

SDG&E will excavate and install pre-formed concrete splice vaults during trenching for the 12 kV circuit duct banks. The proposed trench alignment and vault locations are shown on Figure 3-2: Project Overview Map. The installation of each vault will require an excavation measuring approximately 11 feet by 7.5 feet by 29 feet. Initially, the vaults will be used to pull cable through the conduits and splice the cables together during construction. During operation, the vaults will provide access to the underground cables for maintenance, inspections, and repairs.

Vaults will be constructed of prefabricated, steel-reinforced concrete and designed to withstand the maximum credible earthquake in the area and traffic loading. The installation process for each vault will occur over a one-week period, beginning with the excavation and shoring of the

vault pit, followed by delivery and installation of the vault, filling and compacting the backfill, and repaving the excavated area where necessary.

Cable Pulling, Splicing, and Termination

After installation of the conduit, SDG&E will install three cables per distribution circuit in the duct banks. Each cable segment will be pulled into the duct bank, spliced at each of the vaults along the route, and terminated at the proposed Vine Substation. To pull the cable through the ducts, a cable reel will be placed at one end of the section and a pulling rig will be placed at the other end. A larger rope will then be pulled into the duct using a pull line and will be attached to the cable-pulling eyes to pull the cable into the duct. A lubricant will be applied to the cable as it enters the duct to decrease friction during pulling. The electric cables and the communication cable will be pulled through the individual ducts at the rate of two or three segments between vaults per day.

The vaults must be kept dry at all times to keep the unfinished splices dry and prevent other impurities from affecting the cables. Splicing typically takes 12 to 16 hours per day to complete. At each end of the underground segment, the cables will rise out of the ground and terminate within the substation.

Cleanup and Post-Construction Restoration

All areas that are temporarily disturbed by the 12 kV distribution relocation activities will be restored to pre-construction conditions, to the extent practicable, following completion of construction. Restoration will involve the removal of all construction debris for recycling or disposal off site and repaving, as appropriate.

69 kV Loop-In

Clearing and Grading

Because the power line poles will be located adjacent to Pacific Highway, minimal grading and vegetation removal are anticipated. If vegetation removal is required, mowers will be used to clear the area required for pole installation. Material removed during the process or the subsequent excavation will be spread over the existing area as appropriate, or will be disposed of off site in accordance with all applicable laws. The vegetation and habitat communities that exist at the potential clearing sites are discussed in Section 4.4 Biological Resources. Access to the temporary work area will be provided by overland travel from California Street and Vine Street within the newly acquired ROW.

Steel Pole Installation

Foundations

The three steel poles that will be installed as part of the Proposed Project will be placed on new concrete foundations, consisting of drilled concrete piers. Following the preparation of the pole work areas, the foundation process will begin with the excavation of a hole using a truck-mounted excavator with augers of various diameters to match the diameter and depth requirements of the foundation.

Each foundation hole will measure approximatey nine feet in diameter and approximately 40 feet deep, requiring the excavation of 95 CY of soil, depending on the conditions. Following the excavation of the foundation hole, a reinforcing steel cage and anchor bolts will be assembled at one of the Proposed Project's staging areas, transported to the foundation site, and installed. Following the cage installation, a form will be built and concrete will be poured to a height of approximately two feet above grade. Each foundation will require approximately 80 CY of concrete to be delivered to the foundation location. Concrete will be delivered directly to the pole's location in concrete trucks with a capacity of up to 12 CY. Steel plating will be placed over excavated areas, where appropriate, to maintain vehicular and pedestrian traffic.

Pole Installation

Steel poles will be delivered in one or more sections to the pole site via flatbed truck and assembled on site using a small, truck-mounted crane. The poles will typically have three crossarms, supporting one circuit on one side of the pole. The crossarms will be bolted to the pole, and the insulators will be bolted to the crossarms. After assembly, a large crane will be used to lift and set the poles into place on the anchor bolts embedded in the concrete foundation. The nuts on the foundation will then be tightened and secured.

Overhead Conductor Installation

Conductor-stringing operations will be facilitated with the installation of sheaves or "rollers" on the structure crossarms during structure installation, using aerial manlifts (e.g., bucket trucks). The sheaves will allow the conductor to be pulled through each structure until the entire line is ready to be pulled up to the final tension position. Following installation of the sheaves, a sock line (i.e., a small cable used to pull the conductor) will be pulled onto the sheaves using a helicopter. Once the rope is in place, it will be attached to a steel cable and pulled back through the sheaves. The conductor will then be attached to the cable and pulled back through the sheaves using conventional tractor-trailer pulling equipment located at the pull site. This process will be repeated for each conductor.

The work areas located along Pacific Highway will be used to facilitate the pulling activities. These work areas will be used to load the tractors and trailers with reels of conductors, and the trucks with tensioning equipment. These sites will also be used to collect conductor after it is removed from the existing lines and placed onto reels for transport off site. Attachment 3-A: Detailed Project Components Map details the locations of the work areas.

After the conductor is pulled into place, the sags between the structures will be adjusted to a pre-calculated level. The line will be installed with a minimum ground clearance of 35 feet from the ground to the lowest conductor. The conductor will then be clipped into the end of each insulator, the sheaves will be removed, and vibration dampers and other accessories will be installed. This process will be repeated for each conductor. A typical drawing of the conductor installation procedure is provided as Figure 3-19: Typical Overhead Conductor Installation.

Wood Pole Removal

The existing wood pole removal will begin with crews dismantling the hardware on the existing poles using cranes and aerial manlifts. The old poles will then be cut off at ground level and

transported off site by flatbed truck for disposal at an approved facility. The base of the poles will be abandoned in place if they cannot be removed. If the base of the poles are removed, then the voids will be backfilled and compacted with native soil, and the surrounding area will be restored.

Steel Pole Removal

The existing steel guy pole and associated guy wires will be dismantled and removed by cranes and aerial manlifts. The pole and guy cables will be transferred to a flatbed truck using a small, truck-mounted crane. The material will then be transported off site for recycling or disposal at an approved facility. Once the pole has been removed, the associated reinforced concrete foundation will be jack-hammered to approximately 12 to 18 inches below grade. All debris located near the vicinity of the foundation will be removed from the site and will be recycled or disposed of at an approved facility. The remaining hole will then be backfilled with material similar to the surrounding area and the site will be restored.

Dewatering

No dewatering is anticipated during construction. However, in the event that groundwater is encountered, it will occur during construction of the duct bank, handhole installation for the relocated distribution circuits and telecommunication system extension, or foundation excavation for the 69 kV loop-in. Should dewatering be necessary, the following construction dewatering procedures will be implemented during construction:

- A submersible pump will be installed.
- The groundwater will then be pumped to a desiltation tank (i.e., baker tank) at one end for sediment and filtering. Baffles will be installed in the tank to increase sedimentation, and the water in the tank will be allowed to flow out from the opposite end for testing.
- The water will then be tested to ensure compliance with the Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System requirements. If the water quality does not meet permit requirements, additional baker tanks will be used and/or additional treatment or filtering will be performed until the applicable requirements are met.
- The water will be disposed of at an approved SDG&E disposal site.

Cleanup and Post-Construction Restoration

With the exception of areas around all poles that will be kept clear of shrubs and other obstructions for inspection and maintenance purposes, all other areas that are temporarily disturbed will be restored to pre-construction conditions, to the extent practicable, following the completion of the 69 kV loop-in. Restoration will include grading to original contours, reseeding, and repairing the current pavement, as appropriate.

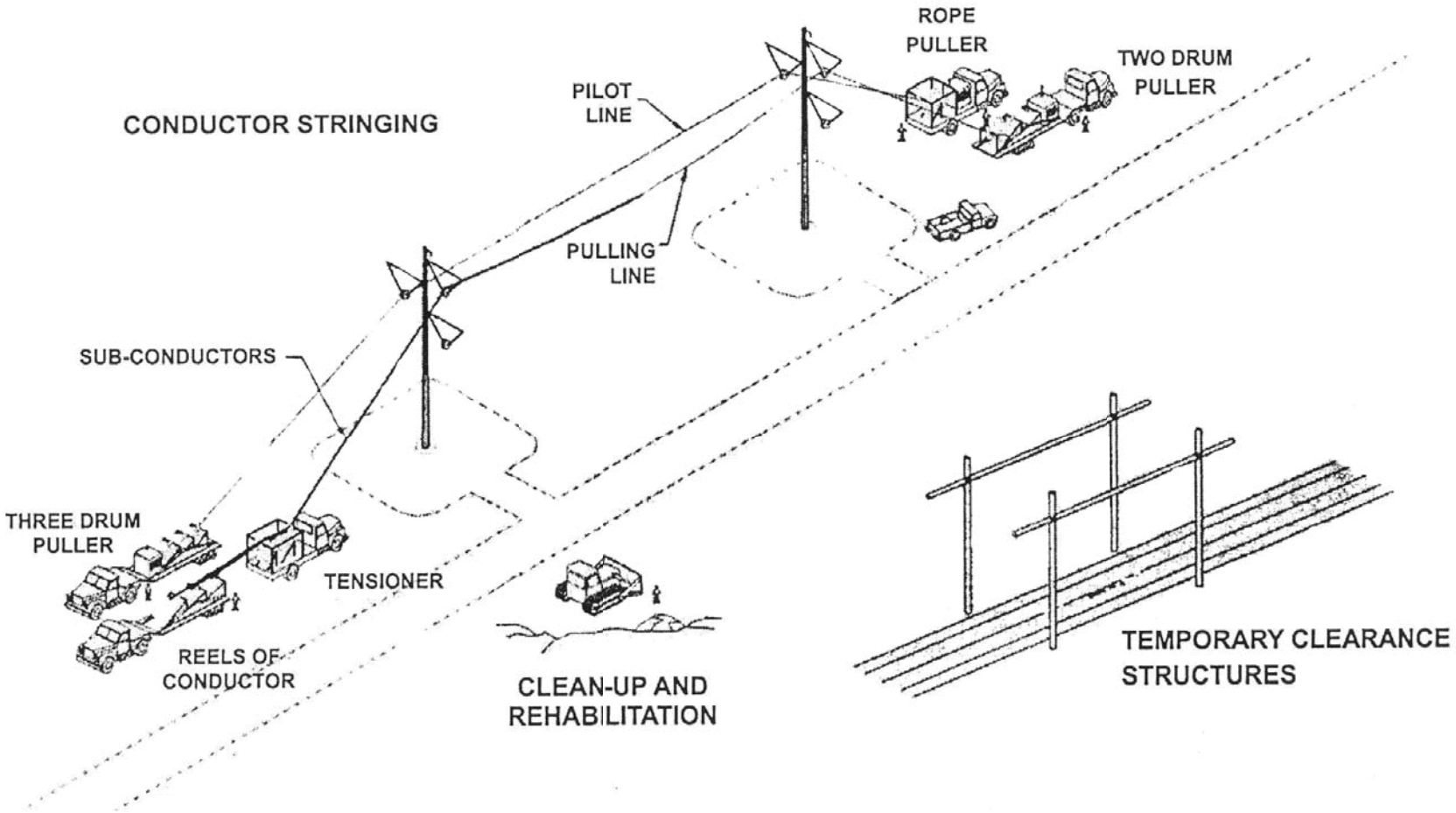


Figure 3-19: Typical Overhead Conductor Installation

3.6.4 Construction Equipment and Personnel

Construction equipment will include bulldozers, excavators, loaders, graders, and trucks for excavating, compacting, and hauling. All exported soil and new fill will be transported using street-legal dump/loader trucks. Concrete trucks, backhoes, ditch-witches, and skid steers will be used for the foundation and below-grade work. Portable cranes and heavy hauling trucks will be employed to bring in the 69/12 kV transformers. Substation crews, assist vehicles, forklifts, man lifts, and boom trucks will be used to construct the substation, along with pickup trucks and vans for the wiring and control testing of the substation equipment. Overhead and underground line trucks, assist vehicles, and cable dolly trailers will be used for the construction of the power line and distribution circuits. Table 3-4: Construction Equipment Requirements provides the anticipated construction equipment that will be used for each construction activity.

It is anticipated that up to 33 workers will be employed for the site development phase of the Proposed Project. Between 12 and 24 workers are expected during the foundation and below-grade work, as well as the construction of the proposed substation. The relocation of the 12 kV distribution circuits will require between 12 and 20 workers. Final testing and checkout will require nine electricians and/or engineers. A summary of the anticipated construction personnel by Proposed Project component has been included as Table 3-5: Construction Personnel Requirements.

3.6.5 Construction Schedule

Total construction time—including grading, construction, energizing and testing—is expected to take approximately 19 months, starting in January 2016. Substation construction will generally take place during normal work hours from Monday through Saturday. Due to the potential traffic impacts related to relocation of the distribution circuits, construction within Kettner Boulevard will occur during the evenings. In addition, some concrete pours may take place during an extended day, depending on the size of the pour. Transformer oil filling may also require vacuum pulls and oil installation, which in turn may require continuous work through the night. Actual cutovers of the power line and distribution circuits to the substation will be dependent on loading requirements and will be done in a manner that maintains uninterrupted service to customers. This may require part or all of this work to be done after normal business hours or on the weekend and/or nights. A detailed construction schedule has been included as Table 3-6: Proposed Construction Schedule.

3.7 OPERATION AND MAINTENANCE

3.7.0 Proposed Vine 69/12 kV Substation

Once the proposed Vine Substation is constructed and placed in service, it will be unmanned. The proposed Vine Substation will be monitored and controlled by SDG&E's Remote Control Center.

Ongoing maintenance will involve testing, monitoring, and repair of the equipment, as well as emergency and routine procedures to enable efficient provision of SDG&E services. As described previously, a boundary wall will be provided around the proposed Vine Substation and

Table 3-4: Construction Equipment Requirements

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Proposed Vine 69/12 kV Substation			
Site Development and Grading			
Scraper	Grade pads and access roads	7	4
Front-end loader	Load dump trucks and stockpile	6	2
Dump truck (12 CY)	Transport import/export material	7	25
Dozer (D6 or D8 or D9)	Grade pads and access roads	6	2
Excavator	Excavate and load materials	6	1
Water truck	Suppress dust	7	1
Compactor (824 or 834)	Compact soil	7	2
Skid steer loader	Move materials	3	2
Backhoe	Excavate and load materials	6	2
Ditch-witch	Excavate trenches	6	1
Maintenance truck	Maintain and refuel equipment	1	2
Paver	Pave access roads	6	1
Asphalt trucks	Deliver asphalt	1	8
Drum roller compactor	Compact access roads	6	2
Car/Pickup truck	Transport construction personnel	0	15
Retaining/Boundary Wall Construction			
Front-end loader (IT28)	Load dump trucks and stockpile	9	3
Excavator	Excavate and load materials	9	1
Water truck	Suppress dust	9	1

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Compactor (563 Ride-On)	Compact soil	9	1
Motor grader (blade)	Grade pads and access roads	9	1
Walk-behind compactor	Compact soil	9	3
Car/Pickup truck	Transport construction personnel	1	5
Delivery truck	Deliver materials	1	3
Maintenance truck	Maintain and refuel equipment	3	1
Below-Grade Construction			
Backhoe	Excavate and load materials	6	1
Loader	Move bulk material	6	2
Dump Truck (20 CY)	Transport impact/export material	3	2
Skid steer loader	Move rebar, equipment, masonry, and other materials	4	1
Water truck	Supress dust	3	1
Concrete truck	Deliver and pour concrete	0.5 (2 days per week for 4 months)	15
Ditch-witch	Excavate trenches	6	1
Car/Pickup truck	Transport construction personnel	0	15
Substation Equipment Installation			
Crew truck	Transport construction personnel	0	5
Boom truck	Place material and set steel	6	2
Manlift	Set steel and install equipment	6	1
Bucket truck	Set steel and install equipment	5	4
Car/Pickup truck	Transport construction personnel	0	8

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Cable dolly (trailer)	Transport reels of conductor	No Engine	1
Stringing rig (trailer)	Assist with conductor installation	No Engine	2
Oil rig (trailer w/generator)	Process transformer oil	24 (10 days for manufacturer setup)	1
Water truck	Supress dust	2	1
12 kV Distribution Relocation			
Duct Bank Construction and Vault Installation			
Crane 60 Ton	Lift and place materials	6	1
Crane Support	Support crane use	1	1
Bobcat	Excavate, move, and load materials	6	4
Backhoe	Excavate and load materials	8	3
Trackhoe	Excavate and load materials	8	1
Dump/Haul Truck	Transport impact/export material	1	9
Construction Truck	Transport construction personnel	2	3
Pickup Truck	Transport construction personnel	1	5
Pickup w/saw cutter trailer	Cut pavement	1	2
Concrete trucks	Deliver and pour concrete	1	7
Surface Machine	Repair pavement	6	1
Asphalt dump truck	Deliver and place asphalt	1	5
Dump Truck w/compressor & emulsion sprayer	Repair pavement	7	2
Roller	Compact pavement	4	2

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Cable Installation and Cutover			
Line Truck	Pull cable into position	1	1
Puller	Pull cable into position	2	1
Reel Trailer	Feed new cable to the puller or collect old cable	1	1
Splice Truck	Store splicing supplies	1	1
Pickup Truck	Transport construction personnel	1	1
69 kV Loop-In			
Foundation Installation			
Drill rig	Excavate soil	8	1
Forklift	Place materials	4	1
Pickup truck	Transport construction personnel	0	2
Concrete truck	Deliver and pour concrete	4	5
Boom truck	Place rebar cage	3	1
Dump truck	Haul excavated materials	4	1
Backhoe	Excavate soil	4	1
Generator	Provide power to the work area	4	1
Pole Installation and Removal			
Boom truck	Erect poles	8	1
Bucket truck	Erect poles and install conductor	8	1
Flatbed truck	Deliver poles and hardware	6	1
Jack hammer	Break up existing foundation	8	1

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Compressor	Power air tools	8	1
Conductor Installation and Cutover			
Pulling rig	Pull conductor into position	7	1
Wire truck/split reel	Deliver conductor reels	7	1
Boom truck	Move materials and install conductor	7	1
Bucket truck	Move materials and install conductor	7	2
Telecommunication System Extension			
Duct Bank Construction and Vault Installation			
Backhoe or Rockwheel	Excavate trenches	3	1
Dump truck (20 CY)	Haul excavated materials	3	2
Skid steer loader	Excavate, move, and load materials	3	1
Concrete/asphalt truck	Deliver concrete and asphalt	3	4
Cable Installation			
Line Truck	Pull cable into position	1	1
Puller	Pull cable into position	2	1
Reel Trailer	Feed new cable to the puller or collect old cable	1	1
Splice Truck	Store splicing supplies	1	1
Pickup Truck	Transport construction personnel	1	1

Vehicle/Equipment Type	Use	Hours Operating at Site/Day (per vehicle)	Quantity Required
Energization			
Testing and Commissioning			
Relay/telecommunication van	Test relay and telecommunications devices	3	3

Notes: Telecommunication cable installation will use the same equipment as the distribution cable installation; vehicles with an operating time of zero will be driven to the site and parked

Table 3-5: Construction Personnel Requirements

Activity	Position	Approximate Number
Proposed Vine 69/12 kV Substation		
Site Development and Grading Construction	Construction Manager	1
	Superintendent	1
	Foreman	2
	Operator	15
	Laborer	10
	Inspector	2
	Grade Checker/Surveyor	2
Retaining/Boundary Wall Construction	Construction Manager	1
	Superintendent	1
	Operator	4
	Laborer	8
	Inspector	1
Below-Grade Construction	Foreman	1
	Laborer	4
	Concrete Finisher	2
	Equipment Operator	1
	Haul Truck Driver	1
	Concrete Truck Driver	1
	Water Truck Driver	1
	Standby Electrician	1
Substation Equipment Installation	Crew Foreman	2
	Journeyman	8
	Apprentice	2
	Assistant	1
	Operator	2
	Wiring Foreman	1
	Wiremen	2
	Relay Inspector	2
	Relay Technician	4

Activity	Position	Approximate Number
12 kV Distribution Relocation		
Duct Bank Construction and Vault Installation	Foremen	1
	Inspector	1
	Journeyman	1
	Operator	4
	Laborer	13
Cable Installation and Cutover	Foreman	3
	Journeyman	6
	Apprentice	3
69 kV Loop-in		
Foundation Installation	Foreman	1
	Laborer	4
Pole Installation and Removal	Foreman	1
	Lineman	4
Conductor Installation and Cutover	Foreman	1
	Lineman	4
Telecommunication System Extension[5]		
Cable Installation	Foreman	1
	Inspector	1
	Journeyman	1
	Laborer	4
	Splicer	2
Energization		
Testing and Commissioning	Foreman	2
	Journeyman	6
	Engineer	1

[5] Construction personnel responsible for the installation of the 12 kV distribution relocation underground duct banks will also construct the underground duct banks required for the telecommunications system extension.

Table 3-6: Proposed Construction Schedule

Proposed Project Component	Activity	Approximate Duration (months)	Anticipated Start Date
Proposed Vine 69/12 kV Substation	Site Development and Grading	3	January 2016
	Retaining/Boundary Wall Construction	2	March 2016
	Below-Grade Construction	6	April 2016
	Substation Equipment Installation	10	September 2016
12 kV Distribution Relocation	Duct Bank Construction and Vault Installation	6	October 2016
	Cable Installation and Cutover	3	April 2017
69 kV Loop-In	Foundation Installation	0.5	November 2016
	Pole Installation and Removal	3.5	Mid-November 2016
	Conductor Installation and Cutover	2	January 2017
Telecommunication System Extension	Duct Bank Construction and Vault Installation	1	April 2017
	Cable Installation	1	May 2017
Energization	Testing and Commissioning	5	February 2017
	Energization	0.5	July 2017

all access gates will be locked to prevent the entry of unauthorized individuals. In addition, signage will be posted on the substation's exterior and at the entryway to restrict entry to authorized SDG&E personnel.

Routine maintenance is expected to require approximately six trips per year by a two- to four-person crew. Routine operations will require one or two workers in a light utility truck to visit the substation on a daily or weekly basis. It is anticipated that one annual major maintenance inspection will occur, requiring an estimated 10 personnel. It is anticipated that this inspection will take approximately one week to complete. Nighttime maintenance activities are not expected to occur more than once a year.

Landscape maintenance will occur on an as-needed basis for purposes of enhancing the streetscape along the perimeter of the substation and for safety and/or access. Such activities will generally require the presence of one to two maintenance vehicles and one or more employees to clear and/or trim vegetation to ensure that an adequate working space is maintained around the substation facilities.

3.7.1 12 kV Distribution Relocation

Maintenance may include replacement of damaged cables or connectors. Maintenance crews may consist of four to six personnel and require a tool truck, cable truck, assist truck, and/or trouble shooter truck. Routine inspections will occur annually to identify connection problems or inspection for equipment degradation.

3.7.2 69 kV Loop-In

It is anticipated that the power line circuit that loops into the substation will be inspected once per year. Non-emergency major maintenance may include the replacement of damaged insulators or other equipment. Maintenance crews may consist of as many as four people and may require a tool truck, an assist vehicle, and a large bucket lift truck. Insulators may require washing up to three times a year to prevent flashovers, equipment damage, and outages.

Operations and maintenance activities for the 69 kV loop-in will include routine inspection, maintenance, and repair activities. Both routine preventive maintenance and emergency procedures will occur in order to ensure that integrity of the system is maintained over the long term. Inspections may occur through ground patrols visiting the facilities. At a minimum, such routine inspections will occur annually to identify potential corrosion, equipment misalignment, loose fittings, and/or other mechanical problems.

3.7.3 Telecommunication System Extension

Typically, on-going or routine maintenance activities for fiber optic telecommunications cable is not required. As a result, the only activities associated with the operation and maintinence of this Proposed Project component will stem from emergency repairs or future changes to the fiber optic network design.

3.8 ANTICIPATED PERMITS AND APPROVALS

The CPUC is the lead California agency for the Proposed Project. SDG&E must comply with the CPUC's GO No. 131-D Section III-B, which contains the permitting requirements for the construction of the Proposed Project. This Proponent's Environmental Assessment is being prepared as part of an application to obtain a Permit to Construct (PTC) for the Proposed Project.

In addition to the PTC, SDG&E is required to obtain a number of other permits from federal, state, and local agencies. Table 3-7: Permit, Approval, and Consultation Requirements lists the permits, approvals, and licenses that SDG&E anticipates obtaining from jurisdictional agencies.

3.9 PROJECT DESIGN FEATURES AND ORDINARY CONSTRUCTION/OPERATING RESTRICTIONS

The Proposed Project includes design features and ordinary construction and operating restrictions that avoid and minimize environmental impacts. The design features and ordinary construction and operating restrictions incorporated into the Proposed Project include measures that are routinely implemented by SDG&E on other projects that involve ground disturbance. Many of these features and restrictions have been developed over time to avoid and minimize environmental impacts, to comply with SDG&E's Subregional NCCP, and to comply with applicable environmental laws and regulations. Consistent with its existing practices, SDG&E will implement these operating restrictions as appropriate during construction, operation, and maintenance to avoid and minimize potential environmental impacts.

A description of many of the design features and ordinary construction and operating restrictions incorporated into all phases of the Proposed Project follows.

- **Safety and Environmental Awareness Program.** SDG&E will prepare a Safety and Environmental Awareness Program (SEAP) for project-personnel. The SEAP may include training for relevant topics such as:

    - General safety procedures,
    - General environmental procedures,
    - Fire safety,
    - Biological resources,
    - Cultural resources,
    - Paleontological resources,
    - Hazardous materials protocols and BMPs, and
    - Storm Water Pollution Prevention Plan (SWPPP).

    The program will include a multi-level approach that is commensurate to each worker's role on the Proposed Project. Supervisors, including construction foremen, will be required to actively participate in a training session to identify the specific requirements of the Proposed Project. SDG&E crews and other staff will also be given training and a review of the Proposed Project requirements prior to the commencement of any grading or construction work.

Table 3-7: Permit, Approval, and Consultation Requirements

Permit, Approval, or Consultation	Agency	Jurisdiction/Purpose
Federal Agencies		
Implementation of SDG&E's NCCP	USFWS	Activities within NCCP coverage areas that impact biological resources (required only for review of the Proposed Project, and no approval or permit is involved)
State Agencies		
Permit to Construct	CPUC	Overall project approval and California Environmental Quality Act (CEQA) review
National Pollutant Discharge Elmination System General Construction Permit	State Water Resources Control Board (SWRCB)	Storm water discharges associated with construction activities disturbing more than one acre of land
Implementation of SDG&E's NCCP	CDFW	Activities within NCCP coverage areas (required only for review of Proposed Project, no approval or permit is involved)
Local Agencies		
Right-of-Entry Permit	North County Transit District (NCTD)	Access to NCTD property during construction
Right-of-Entry Permit	MTS	Access to MTS property during construction
License Agreement	MTS	Operation and maintenance within, under, or over a railroad ROW
Temporary Occupancy Agreement	BNSF Railway	Access to BNSF property during construction
Utility Agreeement License	BNSF Railway	Operation and maintenance within, under, or over a railroad ROW
Encroachment Permit	City of San Diego	Construction, operation, and maintenance within, under, or over city or county road ROW
Grading Permit	City of San Diego	On-site grading activities

- **Galvanized Steel Structures.** New structures will utilize galvanized steel to avoid potential adverse effects due to high moisture content in coastal areas. The dulled aspect of the galvanized steel poles will also minimize the potential for visual impacts relating to glare.

- **Aerial Marking.** SDG&E will consult with the FAA concerning aerial marking and lighting requirements for all new overhead facilities. As required, lighting and aerial marking will be added to applicable overhead facilities, including new structures.

- **Construction Scheduling.** To the greatest extent practical, SDG&E will plan construction of the Proposed Project such that any potential overlap with other SDG&E projects will be coordinated such that net impacts will be minimized.

- **Hazardous Materials.** SDG&E will address potential impacts relating to the handling and use of hazardous materials through compliance with numerous state and federal regulations, including, but not limited to:

    - Federal Occupational Safety and Health Administration (OSHA) regulations for worker safety in hazardous material remediation and hazardous waste operations (29 CFR Section 1910.120),

    - Federal OSHA regulations hazard communication for workers (29 CFR Section 1910.1200),

    - Federal OSHA regulations for toxic air contaminants for workers (29 CFR Section 1910.1000),

    - CalOSHA regulations for worker safety in hazardous material remediation and hazardous waste operations (8 California Code of Regulations [CCR] 5192),

    - CalOSHA regulations for hazard communication for workers (8 CCR 5194), and

    - Department of Toxic Substances Control (DTSC) regulations implementing Resource Conservation and Recovery Act of 1976 (RCRA) and the California Hazardous Waste Control Law (HWCL) (22 CCR Division 4.5).

- **SDG&E Subregional NCCP.** The Proposed Project will avoid and minimize impacts to biological resources through implementation of the SDG&E Subregional NCCP. The SDG&E Subregional NCCP establishes a mechanism for addressing biological resource impacts incidental to the development, maintenance, and repair of SDG&E facilities within the SDG&E Subregional NCCP coverage area.

- **SDG&E Water Quality Construction BMP Manual.** SDG&E's Water Quality Construction BMPs Manual (BMP Manual) organizes and presents SDG&E's standard water quality protection procedures for various specific actions that routinely occur as part of SDG&E's ongoing construction, operation, and maintenance activities. The primary focus of most BMPs is the reduction and/or elimination of potential water quality

impacts during construction. The BMPs described within the BMP Manual were derived from several sources including the State of California guidelines as well as the California Departement of Transportation (Caltrans) Water Quality BMPs. The BMP Manual will be utilized during construction (by way of preparation and implementation of the SWPPP), operation, and maintenance of the Proposed Project to ensure compliance with all relevant SDG&E and government-mandated regulatory water quality standards.

- **Erosion and Sediment Control and Pollution Prevention During Construction**. Projects that disturb one acre or more of soil are required to obtain coverage under the California SWRCB's General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ (Construction General Permit). To obtain coverage under the Construction General Permit, Permit Registration Documents—including a Notice of Intent, SWPPP, risk assessment, site map, certification, and annual fee—must be submitted electronically to the SWRCB, and a Waste Discharger Identification number must be assigned prior to initiating construction activities. The SWPPP will include the following:

    - Identification of pollutant sources and non-storm water discharges associated with construction activity

    - Specifications for BMPs that will be implemented, inspected, and maintained during Proposed Project construction to minimize erosion, the potential for accidental releases, and pollutants in the runoff from the construction areas (including pollutants from storage and maintenance areas, as well as laydown areas for building materials)

    - Specifications for spill response and implementation

    - A record of training provided to persons responsible for implementing the SWPPP

    - Reporting and record-keeping requirements

- During construction, the San Diego RWQCB would oversee and inspect for compliance with the Construction General Permit for the SWRCB, which is described further in Section 4.7 Hydrology and Water Quality. In addition, a Hazardous Waste and Spill Prevention Plan will be prepared prior to construction of the Proposed Project, and will be implemented during construction to ensure that any potential release or spill of hazardous materials is properly handled to reduce potential impacts to the less-than-significant level. All non-hazardous soil and grub material that will be transported off site may be disposed of at the Miramar Landfill, located approximately 7.2 miles northeast of the proposed Vine Substation.[6] All other construction waste (i.e., refuse,

[6] The Miramar Landfill is located at 5180 Convoy Street in the City of San Diego. The one-way truck trip distance required to access this facility is approximately 12.4 miles.

spoils, trash, oil, fuels, poles, pole structures, etc.) will be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste disposal.

- **Temporary Lighting.** Temporary lighting at staging and storage areas will be directed on site and away from any sensitive receptors.

- **Visual Screening of Staging Yard.** Where the proposed Vine Substation site is visible to the public, opaque mesh or slats (or equivalent material) will be installed along a temporary construction fence that will soften the view of the site from roads, residences, and other public vantage points.

- **Materials.** Non-specular conductor and galvanized steel poles will be used in order to reduce potential glare.

- **Restoring Appearance of Temporarily Disturbed Areas.** When Proposed Project construction has been completed, all temporarily disturbed terrain will be restored, as needed and as appropriate, to approximate pre-construction conditions.

- **Soil Stabilization.** Disturbed areas must be stabilized per the SWPPP.

- **Fugitive Dust Control.** All unpaved construction areas will be watered up to two times daily during construction to reduce dust emissions and to meet SDAPCD Rule 55 requirements. SDG&E or its contractor will keep the construction area sufficiently dampened to control dust caused by construction and hauling, and will provide at all times reasonable dust control of areas subject to windblown erosion.

- **Bulk Material Transport.** All loads will be secured by covering or be sufficiently watered and use of at least two feet of freeboard to avoid carry-over.

- **Equipment Emissions.** SDG&E or its contractor will maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues will have their engines turned off after five minutes when not in use. Construction activities will be phased and scheduled to avoid emission peaks, and equipment use will be curtailed during second-stage smog alerts.

- **Volatile Organic Compound (VOC) Reduction.** Low- and non-VOC-containing coatings, sealants, adhesives, solvents, asphalt, and architectural coatings will be used to reduce VOC emissions.

- **Mufflers.** Functioning mufflers will be maintained on all equipment.

- **Resident Notification.** Residents within 300 feet of the Proposed Project will receive notification of the start of construction at least one week prior to the start of construction activities within that area.

- **Construction Noise.** For the few locations where the Proposed Project could exceed the noise ordinances, as discussed previously, SDG&E would meet and confer with the City of San Diego to discuss temporarily deviating from the requirements of the Noise Ordinance (see Section 4.12.3 Impacts).

- **Standard Traffic Control Procedures.** SDG&E will implement traffic control plans to address potential disruption of traffic circulation during construction activities and address any safety issues. These traffic control plans will be prepared by the project engineer or contractor and subject to approval by the appropriate jurisdictional agency, such as the City of San Diego.

- **Encroachment Permits.** SDG&E will obtain the required encroachment permits from the City of San Diego for work within city streets and will ensure that proper safety measures are in place while construction work is occurring within and near public roadways. These safety measures include the use of flagging, proper signage, and orange cones to alert the public to construction activities near and within the roadway.

3.10 APPLICANT-PROPOSED MEASURES

In addition to the above project design features and ordinary construction/operating restrictions included as part of the Proposed Project, SDG&E will also incorporate the APMs that have been identified and developed specifically for the Proposed Project during the preparation of the PEA. Table 3-8: Applicant-Proposed Measures identifies the APMs and indicates which Proposed Project component they apply to. The applicable resource sections within Chapter 4 – Environmental Impact Assessment outline how and when the APMs will be applied to avoid or minimize impacts to a less-than-significant level.

Until final design is complete, and in some cases until installation occurs, utility projects must remain more flexible in the definition of their ultimate configuration and placement than most non-utility projects. The Proposed Project may encounter unique man-made and natural features or site-specific engineering challenges that could not be reasonably foreseen and specifically planned for in advance. The APMs take into consideration the potential for the Proposed Project to encounter such features or challenges and enhance SDG&E's ability to avoid or minimize future potential impacts to sensitive environmental resources.

The APMs allow for limited project design flexibility while avoiding or minimizing environmental impacts, to the extent feasible. As defined in CEQA, "feasible" is defined as being "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" while attaining the project's basic objectives and its purpose and need.

3.10.0 Implementation of Applicant-Proposed Measures

SDG&E will be responsible for overseeing the assembly of construction and environmental teams that will implement and evaluate the Proposed Project APMs. SDG&E maintains an environmental compliance management program to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase, as appropriate. All

those contracted by SDG&E to perform this work will be contractually bound to properly implement the APMs to ensure their effectiveness in reducing potential environmental effects.

Implementation of the proposed APMs will be the responsibility of the environmental compliance team. The team will include an environmental project manager, resource specialists, and environmental monitors. All APMs will be implemented consistent with applicable federal, state, and local regulations. The environmental compliance team will be responsible for the inspection, documentation, and reporting of SDG&E compliance with all APMs as proposed. As needed, environmental specialists will be retained to verify that all APMs are properly implemented during the construction phase.

If conditions occur where construction may potentially adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities significantly deviate from Proposed Project requirements, SDG&E monitors and/or contract administrators will have the authority to halt construction activities, if needed, until an alternative method or approach can be identified. Any concerns that arise during implementation of the APMs will be communicated to the appropriate authority to determine if corrective action is required, or the concerns will be addressed on site, as applicable.

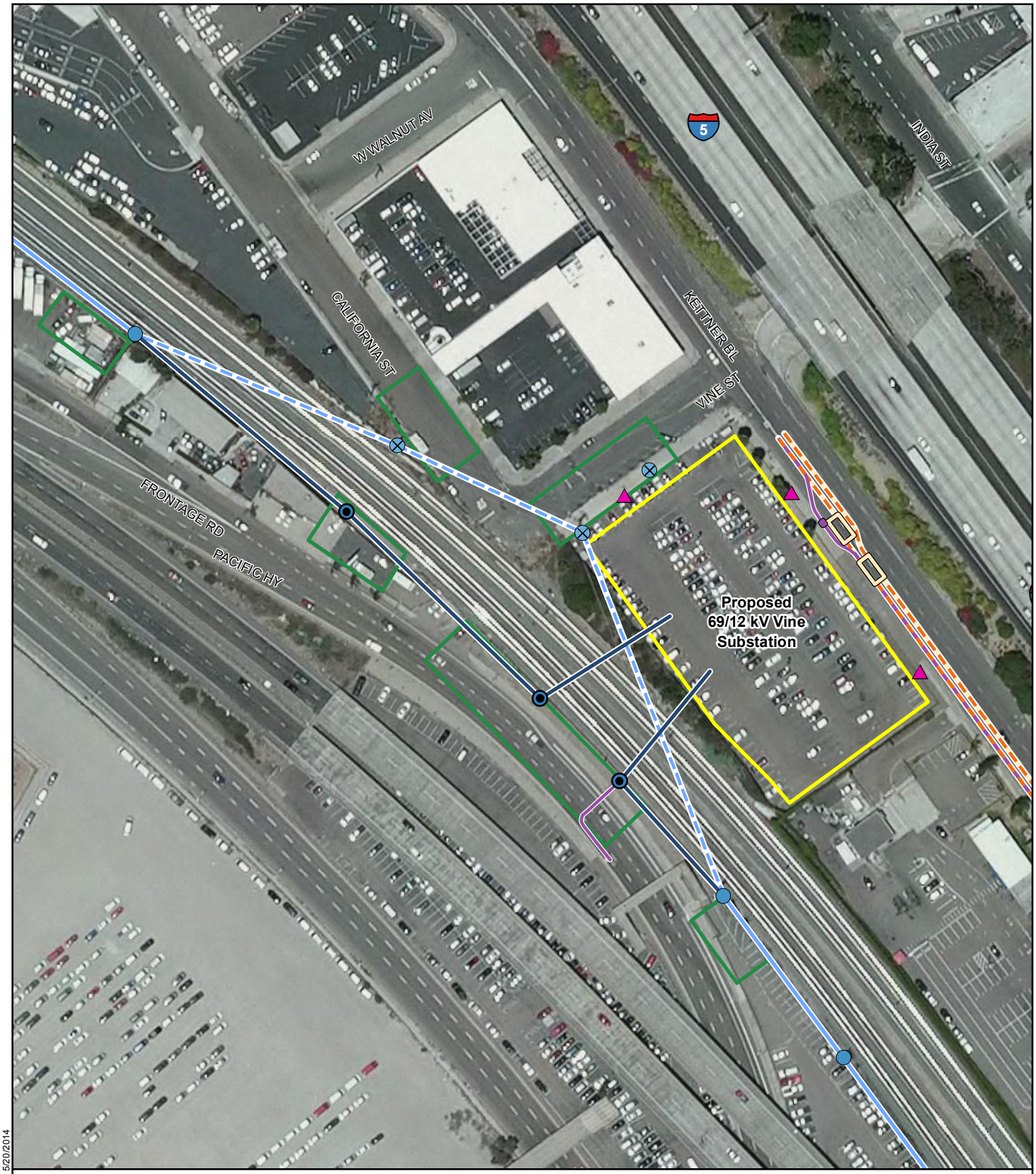
As the proposed APMs are implemented, environmental monitors from SDG&E will be responsible for the review and documentation of such activities. Field notes and digital photographs will be used to document and describe the status of APMs as necessary.

Table 3-8: Applicant-Proposed Measures

APM Number	Description	Justification	Proposed Project Component			
			Proposed Vine 69/12 kV Substation	12 kV Distribution Relocation	69 kV Loop-In	Telecommunication System Extension
CUL-01	An archaeological monitor will be present during ground-disturbing activities. In the event that cultural resources are discovered, the archaeological monitor will have the authority to divert or temporarily halt ground disturbance to allow evaluation of the potentially significant cultural resources. The archaeological monitor will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeological monitor, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities in the vicinity of the discovery are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts. All collected cultural remains will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified to the species level. A monitoring results report—which includes appropriate graphics and describes the results, analyses, and conclusions of the monitoring program—will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following completion of the program. Any cultural sites or features encountered will be recorded on appropriate Department of Parks and Recreation forms. All forms and reports will be submitted to the SCIC at San Diego State University.	This measure will ensure that ground-disturbing activities are monitored so that impacts can be mitigated through proper investigation and recovery of cultural resources.	✓	✓	✓	✓
CUL-02	A paleontological monitor will be on site to observe excavation operations that involve the original cutting of deposits with high paleontological resource sensitivity (i.e., Bay Point Formation) to depths greater than 3.5 feet. In the event that fossils are encountered, the paleontological monitor will have the authority to divert or temporarily halt construction activities in the area of discovery to allow the recovery of fossil remains. The paleontological monitor will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. When fossils are discovered, a paleontologist (or the paleontological monitor) will recover them, along with pertinent stratigraphic data. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final	This measure will ensure that excavation in areas containing Pleistocene-age deposits of the Bay Point Formation and Lindavista Formation are monitored so that impacts can be mitigated through proper investigation and recovery of cultural resources.	✓	✓	✓	✓

APM Number	Description	Justification	Proposed Project Component			
			Proposed Vine 69/12 kV Substation	12 kV Distribution Relocation	69 kV Loop-In	Telecommunication System Extension
	summary report will be completed that outlines the results of the mitigation program. The report will discuss the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.					
HAZ-01	Prior to approval of the final construction plans for the Proposed Project, a project-specific Hazardous Materials and Waste Management Plan will be prepared for the construction phase of the Proposed Project to ensure compliance with all applicable federal, state, and local regulations. The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from groundwater contamination, and proper disposal of hazardous materials. The plan will include the following information related to hazardous materials and waste, as applicable: • A list of the hazardous materials that will be present on site during construction, including information regarding their storage, use, and transportation; • Any secondary containment and countermeasures that will be required for onsite hazardous materials, as well as the required responses for different quantities of potential spills; • A list of spill response materials and the locations of such materials at the Proposed Project site during construction; • A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials; • A description of the waste-specific management and disposal procedures that will be conducted for any hazardous materials that will be used or are discovered during construction of the Proposed Project; and • A description of the waste minimization procedures to be implemented during construction of the Proposed Project.	The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from groundwater contamination, and proper disposal of hazardous materials.	✓			

ATTACHMENT 3-A: DETAILED PROJECT COMPONENTS MAP



Attachment 3-A: Detailed Project Components Map 1 of 6

Vine 69/12 kV Substation Project

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Transmission Work Area
- Proposed 12 kV Distribution Vault
- Proposed Telecommunication Handhole
- Existing 69 kV Pole
- Existing 69 kV Pole to be Removed
- Proposed 69 kV Pole
- Potential AT&T Interconnection Point
- Proposed 12 kV Underground
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank

Note: Underground alignments area preliminary and will not be finalized until final engineering is complete.

1:1,600

0 100 200 Feet

SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

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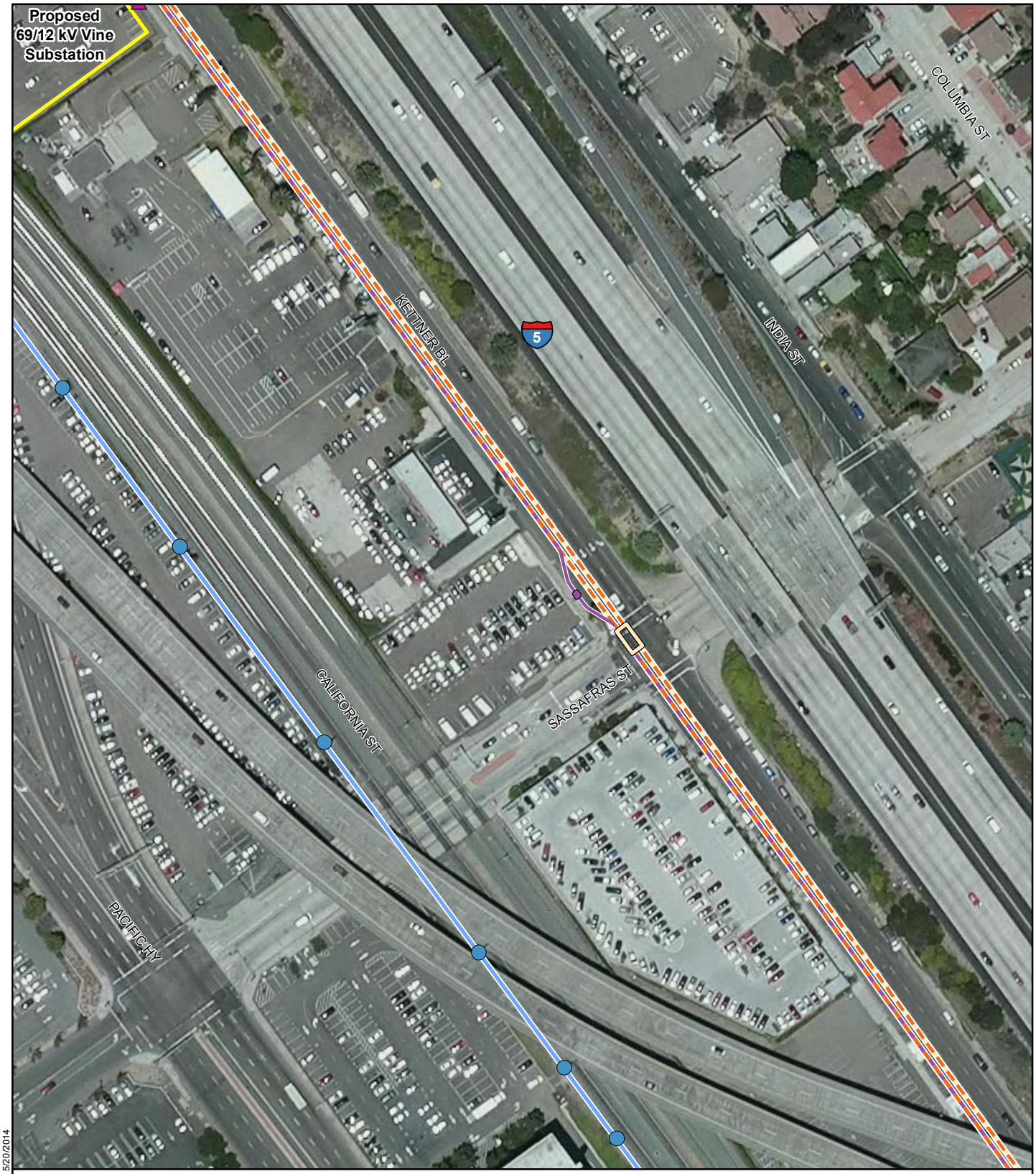

Attachment 3-A: Detailed Project Components Map 2 of 6

Vine 69/12 kV Substation Project

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Transmission Work Area
- Proposed 12 kV Distribution Vault
- Proposed Telecommunication Handhole
- Existing 69 kV Pole
- Existing 69 kV Pole to be Removed
- Proposed 69 kV Pole
- Potential AT&T Interconnection Point
- Proposed 12 kV Underground
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank

Note: Underground alignments area preliminary and will not be finalized until final engineering is complete.

1:1,600

0 100 200 Feet

SDGE A Sempra Energy utility

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Attachment 3-A: Detailed Project Components Map 3 of 6

Vine 69/12 kV Substation Project

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Transmission Work Area
- Proposed 12 kV Distribution Vault
- Proposed Telecommunication Handhole
- Existing 69 kV Pole
- Existing 69 kV Pole to be Removed
- Proposed 69 kV Pole
- Potential AT&T Interconnection Point
- Proposed 12 kV Underground
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank

Note: Underground alignments area preliminary and will not be finalized until final engineering is complete.

1:1,600

0 100 200 Feet

SDGE A Sempra Energy utility

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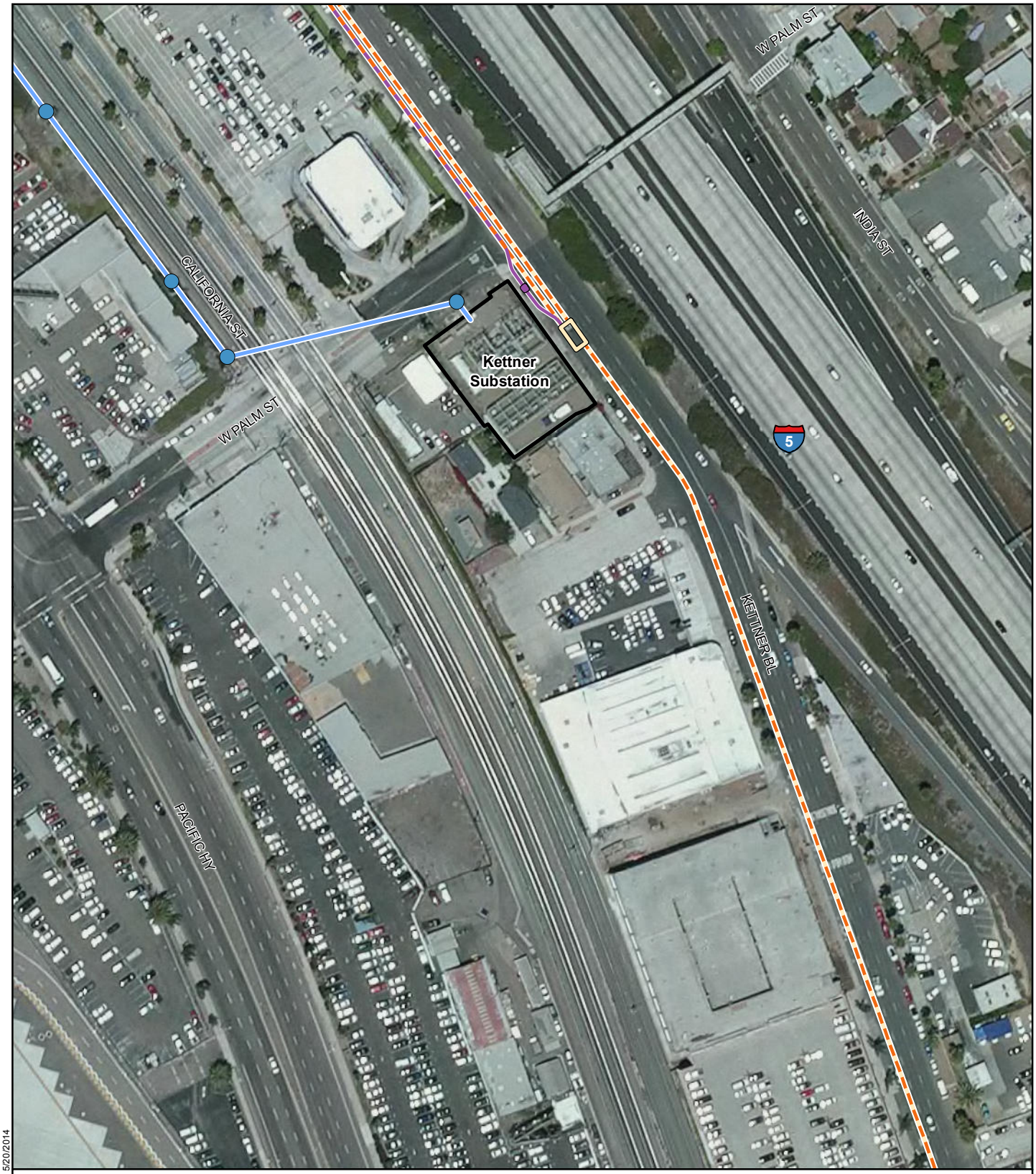

Attachment 3-A: Detailed Project Components Map 4 of 6

Vine 69/12 kV Substation Project

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Transmission Work Area
- Proposed 12 kV Distribution Vault
- Proposed Telecommunication Handhole
- Existing 69 kV Pole
- Existing 69 kV Pole to be Removed
- Proposed 69 kV Pole
- Potential AT&T Interconnection Point
- Proposed 12 kV Underground
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank

Note: Underground alignments area preliminary and will not be finalized until final engineering is complete.

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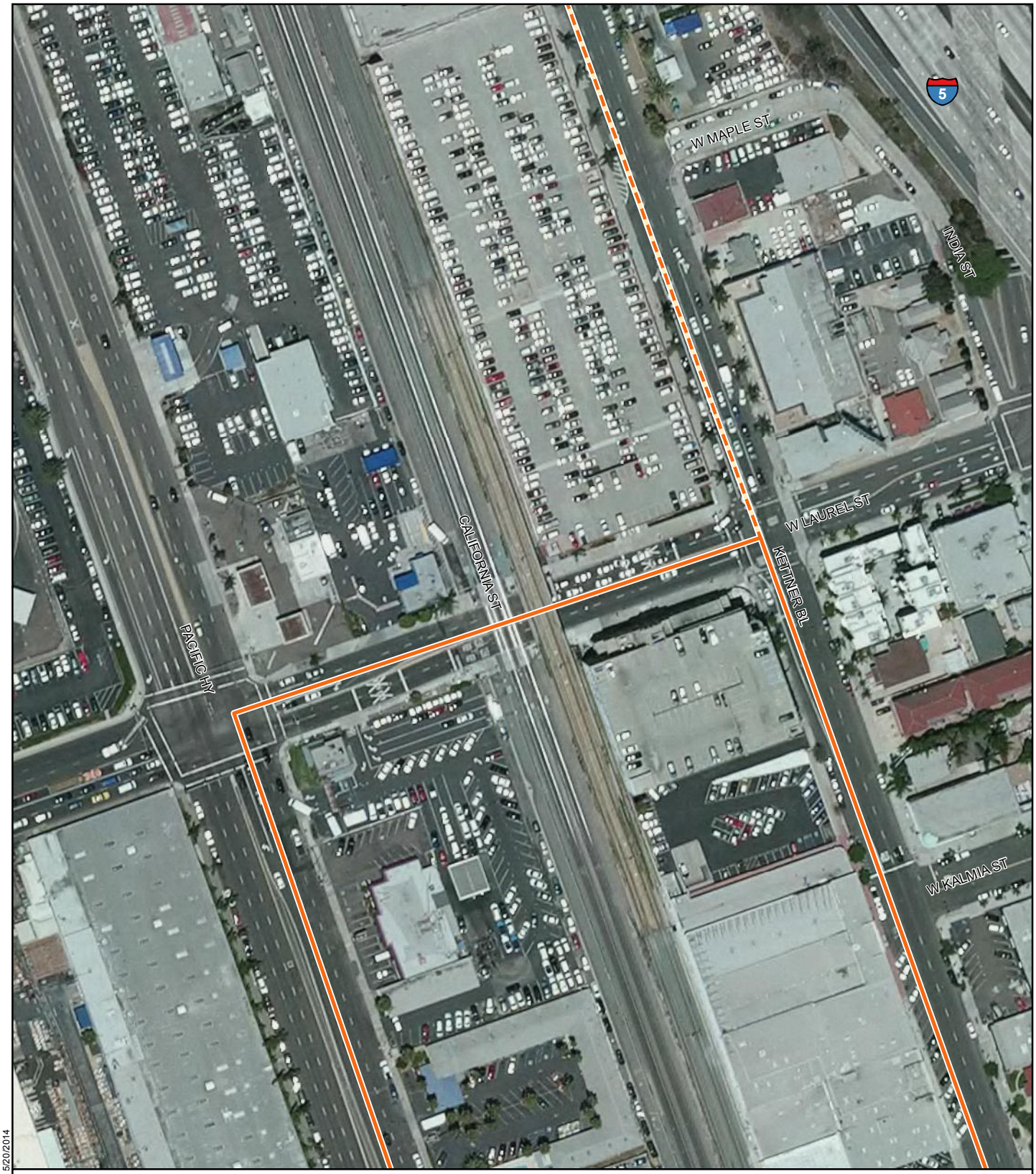

Attachment 3-A: Detailed Project Components Map 5 of 6

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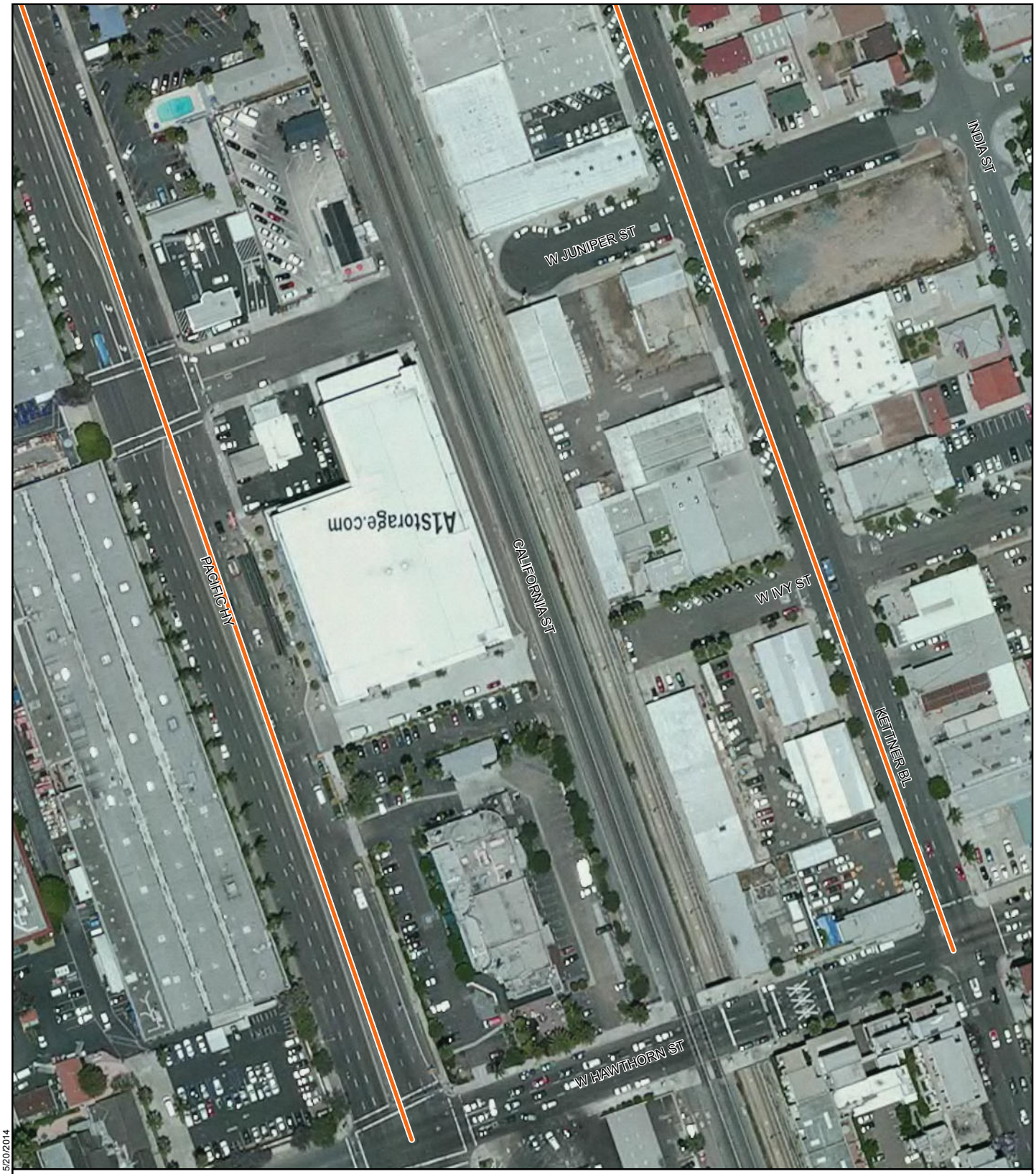

Attachment 3-A: Detailed Project Components Map 6 of 6

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CHAPTER 4 – ENVIRONMENTAL IMPACT ASSESSMENT SUMMARY

4.0 INTRODUCTION

The following sections (4.1 through 4.17) evaluate the potential environmental impacts from construction and operation of the San Diego Gas & Electric Company Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project). In accordance with the California Environmental Quality Act, the environmental impacts associated with the Proposed Project components are evaluated for the following resource areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Sections 4.1 through 4.17 include discussions of the existing conditions as they pertain to each resource area, as well as the Proposed Project's potential impacts to these resources. In addition, at the beginning of each section, a checklist summarizing the level of impact (i.e., No Impact, Less-than-Significant Impact, Less-than-Significant Impact with Mitigation Incorporated, and Potentially Significant Impact) to these resource areas, according to the significance criteria used for analysis, has been included. Section 4.18 Cumulative Analysis discusses past, present, and reasonably foreseeable future projects within the Proposed Project area and the Proposed Project's potential to contribute to a significant cumulative effect.

The Proposed Project will result in no impacts to the following resource areas:

- Agriculture and Forestry Resources
- Land Use and Planning
- Minerals
- Population and Housing
- Public Services

- Recreation

The Proposed Project will result in less-than-significant impacts to the following resource areas:

- Aethetics
- Air Quality
- Biological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Noise
- Transportation and Traffic
- Utilities and Service Systems
- Cumulative Impacts

The Proposed Project will result in potentially significant impacts to the remaining two resource areas; however, with the implementation of applicant-proposed measures (APMs), these impacts will be reduced to a less-than-significant level. A brief summary of these resource areas and the primary impacts that will result from the Proposed Project are provided as follows:

- Cultural Resources – Potential for discovery and damage to unknown cultural resources resulting from grading and excavation activities

- Hazards and Hazardous Materials – Temporary and permanent impacts associated with the transport and use of hazardous materials, as well as the potential release of hazardous materials resulting from the operation of the proposed Vine Substation

APMs will be implemented to ensure that all potential impacts are reduced to a less-than-significant level and are discussed in their relevant sections. In addition, these APMs are summarized in Table 3-8: Applicant-Proposed Measures in Chapter 3 – Project Description.

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4.1 AESTHETICS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			✓	

4.1.0 Introduction

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that can be seen and that contribute to the public's experience and appreciation of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics, potential visibility, and the extent to which its presence would alter the perceived visual character and quality of the environment. The Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) involves installing a new substation in a landscape dominated by industrial, transportation, and commercial structures. The Proposed Project will represent a noticeable change that is consistent with the existing visual environment and will not substantially alter the existing character of the Proposed Project area. As a result, the visual impacts of the Proposed Project will be less than significant.

4.1.1 Methodology

The analysis of potential visual effects associated with the Proposed Project is based on the review of technical data, including maps, drawings, and photographs of the Proposed Project, as well as field observations that were conducted in December 2013, to document existing visual conditions and to identify potentially affected sensitive viewing locations in the Proposed Project vicinity. Computer-generated visual simulations that show the Proposed Project's appearance were also used to demonstrate its anticipated appearance after construction is complete.

Based on review of Proposed Project data, background information, and field observations, the following viewing locations were determined to be potentially sensitive:

- locations along designated scenic roadways where Proposed Project-related change would be seen;
- locations along nearby travel corridors, including the railroad; and
- nearby residential areas.

The analysis that follows addresses the California Environmental Quality Act (CEQA) Guidelines for visual impact analysis. Central to this assessment is an evaluation of representative public views from which the Proposed Project will be visible. To document the visual changes that would occur, visual simulations depict the proposed Vine Substation site within the existing urban context from two close-range public viewpoints. The visual simulations are presented as before-and-after images. The visual impact assessment was based on an evaluation of the changes to the existing visual resources that would result from construction and operation of the Proposed Project.

4.1.2 Existing Conditions

This section includes a description of the visual setting and regulatory framework. Existing visual conditions are characterized in terms of the physical landscape features that comprise visual resources in the Proposed Project area.

Regulatory Background

Because the California Public Utilities Commission has exclusive jurisdiction over the siting, design, and construction of the Proposed Project, the Proposed Project is not subject to local discretionary land-use regulations. The following analysis of local regulations relating to visual resources is provided for informational purposes. As outlined in the following sections, the construction and operation of the Proposed Project will not conflict with any environmental plans, policies, or regulations adopted by agencies with jurisdiction over local aesthetic regulations.

City of San Diego General Plan

The City of San Diego (City) General Plan contains several elements, including Land Use and Community Planning, Urban Design, Recreation, Conservation, and Historic Preservation that address the need to protect the City's visual resources to some degree. The Mobility, Urban Design, Public Facilities, Services and Safety, and Recreation Elements of the San Diego General Plan (2008) contain provisions regarding aesthetics in the Proposed Project area.

Land Use Element

The Land Use Element delineates 50 Community Plan areas within the city, each with its own adopted community plan. The Proposed Project site is located within the Midway/Pacific Highway Corridor Community Plan area. This element also discusses the relationship between the Coastal Zone and Community Plans. However, it does not contain policies regarding aesthetics that apply to the Proposed Project.

Mobility Element

The 1989 Transportation Element (City of San Diego, 1989, p. 69) identified City-designated scenic routes, including North Harbor Drive, which is a portion of San Diego's 52-mile scenic drive; however, due to the intervening buildings and highway structures, the Proposed Project is not visible from this road.

The Mobility Element of the 2008 General Plan (City of San Diego 2008) supersedes the 1989 Transportation Element. While it recommends designating scenic routes within the City, no scenic routes are identified. Additionally, it recommends placing utility lines underground to the extent practicable (p. ME-25).

Urban Design Element

The Urban Design Element recommends minimizing the visual impact of utilities and undergrounding overhead utilities, and includes the following policies relevant to protecting or enhancing the visual environment:

a. Convert overhead utility wires and poles, and overhead structures such as those associated with supplying electric, communication, community antenna television, or similar service to underground.

b. Design and locate public and private utility infrastructure, such as phone, cable and communications boxes, transformers, meters, fuel ports, back-flow preventors, ventilation grilles, grease interceptors, irrigation valves, and any similar elements, to be integrated into adjacent development and as inconspicuous as possible. To minimize obstructions, elements in the sidewalk and public right-of-way should be located in below grade vaults or building recesses that do not encroach on the right of way (to the maximum extent permitted by codes). If located in a landscaped setback, they should be as far from the sidewalk as possible, clustered and integrated into the landscape design, and screened from public view with plant and/or fencelike elements.

Public Facilities, Services and Safety Element

The Public Facilities, Services and Safety Element recommends undergrounding utility lines. It also recommends incorporating public art into utility facilities.

In 2002, San Diego adopted a policy for the undergrounding of overhead utility lines to protect public health, safety, and general welfare.

- PF-M.4 Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large scale gas and electrical facilities) to maximize environmental and community benefits.

  e. Incorporate public art with public utility facilities, especially in urban areas.

Recreation Element

The Recreation Element has general provisions regarding aesthetics in the Proposed Project area including preserving open space view corridors to the water and significant topographic features; however, the Proposed Project will not affect view corridors to the water nor will it substantially affect significant topographic features.

Midway-Pacific Highway Corridor Community Plan and Local Coastal Program Land Use Plan

The Proposed Project is located in the Midway/Pacific Highway Corridor Community Plan area, which encompasses approximately 800 acres of relatively flat land situated north of the Centre City area between Old Town and Point Loma. The area is composed of two basic elements—the central Midway area and the narrow, linear-shaped Pacific Highway Corridor, which contains some of the City's oldest industrial areas, including the Proposed Project site.

The community's plan also includes a Local Coastal Program (LCP) Land Use Program as a small portion of it is located in the Coastal Zone. The majority of the Proposed Project site is just outside of but adjacent to the LCP area, with the exception of the approximately 0.3-mile portion of the 12 kV distribution relocation that will be placed in an existing conduit within Pacific Highway.

The plan contains general provisions regarding urban design in commercial areas, including the following:

- Improve the aesthetic and functional qualities of commercial areas.
- Unify the streetscape throughout the community with the installation of landscaping in commercial areas and along the public right-of-way (ROW).
- Provide and maintain setback and view corridors from the public ROW.

In addition, the plan recommends that commercial areas located along the Pacific Highway Corridor not obstruct scenic vistas and maintain view corridors from all public ROWs. More detailed urban design guidelines are outlined for the portion of the community south of Sassafras Street. These include incorporating pedestrian-oriented features and landscaping. However, the Proposed Project site lies just outside this area.

California Department of Transportation: Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for them to become designated.

In San Diego County, the Cabrillo Freeway, located approximately 1.25 miles east of the site, is the nearest Designated State Scenic Highway. Because of intervening topography and distance, the Proposed Project site is not visible from this road. Interstate (I-) 5, passing within 125 feet of the Proposed Project is an Eligible State Scenic Highway.

Regional and Local Landscape Setting

Located in southwestern San Diego approximately 0.75 mile north of San Diego Bay, the Proposed Project area is situated on a broad, relatively flat marine terrace that includes the City of San Diego and surrounding communities. Undulating topography and the foothills of the Laguna Mountains are visible east of the Proposed Project site.

The approximately 1.5-acre proposed Vine Substation site is situated on a relatively narrow, rectangular-shaped parcel that is located approximately 1.5 miles north of San Diego's downtown core alongside I-5. The Proposed Project site is located in an area dominated by parking lots, rental car facilities, and low-rise industrial facilities, and is within view of San Diego International Airport, which is located approximately 0.75 mile southwest of the site. The Amtrak Pacific Surfliner, North County Transit District (NCTD) Coaster, and the San Diego Metropolitan Transit System (MTS) Trolley railroad corridor borders the Proposed Project site along its western perimeter. An elevated transition ramp connecting I-5 and Pacific Highway is located northwest of the proposed Vine Substation site, adjacent to the rail corridor.

The residential neighborhood of Midtown is located immediately east of I-5, situated approximately 250 feet above sea level. Open views toward downtown San Diego, San Diego Bay, and the Point Loma peninsula beyond the bay are available from some places within this residential area. Figure 4.1-1: Regional Landscape Context depicts the Proposed Project location within a regional and local landscape context.

The area surrounding the Proposed Project site is sparsely vegetated, with intermittent small street trees and palms and large shrubs visible along the nearby railroad corridor and I-5 embankment. Plants in the area consist largely of ornamental species with little evidence of native vegetation. Electrical utility poles as well as pole-mounted light fixtures along the highway, local streets, and within parking lots are noticeable features of the existing landscape in the vicinity of the Proposed Project site. The proposed Vine Substation site includes existing pole-mounted fixtures used for nighttime lighting.

Proposed Project Visibility and Viewshed

The Proposed Project viewshed is defined as the general area from which it is visible or can be seen. For purposes of describing a project's visual setting and assessing potential visual impacts, the viewshed can be broken down into distance zones of foreground, middleground, and background. The foreground is defined as the zone within 0.25 to 0.5 mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground. The middleground is a zone that extends from the foreground up to approximately three to five miles from the viewer, and the background extends from about three to five miles to infinity.

For the purpose of this analysis, the potential effects on foreground viewshed conditions are emphasized. The site topography and geography generally limit the Proposed Project's visibility to locations along nearby roads. Passengers on Amtrak Pacific Surfliner and NCTD Coaster trains, and the San Diego MTS Trolley, which run along the adjacent railroad corridor, have fleeting views of the Proposed Project site. From many locations within the surrounding area, views of the Proposed Project are partially or fully screened by intervening topography and structures. These existing visual conditions are more fully described in the sections that follow.

Potentially Affected Public Views

Viewer sensitivity, typically divided into high, moderate, and low categories, is one of the criterion employed for evaluating visual impacts and their degree of significance. The factors considered in assigning a sensitivity level include viewer activity, view duration, viewing distance, and adjacent land uses.

Potentially affected viewer groups within the Proposed Project area include motorists, rail passengers, pedestrians, and residents, as well as adjacent commercial workplaces, including a commercial printing business and a rental car facility. These viewers experience the Proposed Project site within the context of an established commercial and industrial setting.

Motorists constitute the most substantial viewer group, particularly those traveling on southbound I-5, who experience fleeting, elevated views of the site where there are gaps in the roadside vegetation. Motorists on Pacific Highway and those traveling on surface streets, including Kettner Boulevard, Vine Street, and California Street have longer duration views of the Proposed Project site, due in part to slower vehicle speeds and to more open views of the site.

Rail passengers, including local travelers on the Green Line Trolley line from northern San Diego and regional travelers on Amtrak's Pacific Surfliner and NCTD's Coaster, are the second most numerous viewer group. The Proposed Project site is situated adjacent to a stretch of rail corridor between Washington Street Station and Middletown Station, which are approximately 0.3 mile from the proposed Vine Substation site. The Proposed Project site is not visible from these two stations; however, it can be seen from passing trains or trolleys, although the views are brief in duration, typically lasting well under a minute.

Pedestrians on sidewalks along Vine Street and Kettner Boulevard adjacent to the site comprise the third most prominent viewer group. However, given the automobile-oriented aspect of many nearby businesses, pedestrians are relatively few in numbers. Pedestrian views are relatively brief in duration, potentially lasting up to several minutes, before intervening topography interrupts the site view.

The fourth viewer group consists of residents of the Midtown neighborhood located east of I-5. The nearest residences lie approximately 450 feet east of the Proposed Project site. However, as described in the following subsection, the closely spaced buildings and mature vegetation lining the streets, together with the elevated embankment of the I-5 corridor, largely block views toward the site. While the Proposed Project site is potentially visible from the upper stories of a limited number of residences, these views would be seen within the context of an eight-lane freeway, surrounding industrial facilities, and the nearby airport.

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Figure 4.1-1:
Regional Landscape Context
SDG&E Vine 69/12 kV Substation Project

Visual Character of the Proposed Project Site

This section provides a description of the visual character found within the Proposed Project area and includes photographs that document representative views of the Proposed Project. The locations of photograph viewpoints are delineated on Figure 4.1-2: Photograph Viewpoint Locations. Figure 4.1-3: Photographs of the Proposed Project Site and Surrounding Area provides a set of eight photographs to document the existing views of the Proposed Project site.

Photograph 1 is a close-range view of the proposed Vine Substation site looking southeast from California Street that includes visual elements typical of the area immediately surrounding the site. Low-rise commercial and industrial buildings and small trees associated with individual businesses largely screen views of the site upon approaching from the north along this road. Additional open views are available from Vine Street along the northern perimeter of the site. From these areas, the existing parking lot, fence, and remnants of a masonry wall along Vine Street are seen against the vegetated I-5 embankment and retaining wall situated above Kettner Boulevard. An existing wood pole and concrete guy pole are prominent vertical elements visible along Vine Street.

Photograph 2 is an open street-level view looking south toward the proposed Vine Substation site from Kettner Boulevard near Vine Street. Unlike the view shown in Photograph 1 where many of the landscape elements blend in with the elevated backdrop, the same or similar elements—commercial signage, palm trees along Kettner Blvd, and numerous utility poles—appear prominently against the sky in Photograph 2 where the terrain descends gradually toward San Diego Bay, which is partially visible below the distant horizon.

Photograph 3 provides a view from southbound I-5 looking south. Typically, views toward the Proposed Project site from I-5 are screened by large roadside shrubs. However, the underpass at Vine Street provides a break in the roadway vegetation and a brief view of the site is available from southbound traffic lanes, as shown in Photograph 3. In this elevated view, the full extent of the Proposed Project area, as well as adjacent parking lots, existing utility poles, distant office buildings, the Pacific Highway transition ramp, the airport runway, and a larger portion of San Diego Bay are apparent. Palm trees planted intermittently along Kettner Boulevard provide some visual interest but little screening.

Photograph 4 shows a view downhill from the intersection of Vine Street and State Street toward the Vine Street underpass at I-5, which is less than 0.25 mile away. From nearby Midtown, views toward the Proposed Project site are almost completely blocked by the I-5 embankment and the closely spaced buildings and mature vegetation that line the streets of this residential neighborhood. Only a small portion of the Proposed Project site's northern perimeter can be seen through the opening provided by the underpass, and is less noticeable in comparison to the more dominant view of the airport and an adjacent construction site. Views of the northwestern boundary of San Diego Bay and the hills of Point Loma peninsula also provide focal points.

Photograph 5 is a view from Kettner Boulevard looking northwest toward the southern portion of the proposed Vine Substation site. From this vantage point, intervening structures that include low buildings associated with car rental facilities, signs and fencing, and street traffic partially screen views of the Proposed Project site.

Photograph 6 offers an elevated view of the Proposed Project site looking northwest from the transition ramp that connects I-5 to Pacific Highway. From this perspective, the visibility of the Proposed Project site is considerably diminished when viewed against the hillside backdrop, particularly when seen within the context of commercial and industrial elements that dominate the landscape.

From below the highway ramp, Photograph 7 provides a view looking northwest along the railroad corridor near Sassafras Street toward the western perimeter of the Proposed Project site. Existing vegetation lining the east side of the tracks largely screens views toward the proposed Vine Substation site when seen from this perspective.

Photograph 8, which was taken from the pedestrian overpass crossing the Pacific Highway, is an elevated close-range overview of the Proposed Project site looking northeast. The railroad tracks, trolley catenary structures, and existing overhead utility lines dominate the foreground while the I-5 embankment and some hillside residences form the backdrop.

Physical Characteristics of the Proposed Project

The Proposed Project involves the construction of the proposed Vine Substation on an approximately 1.5-acre parcel of land that is currently lease for long-term airport parking. As part of the Proposed Project design, the Vine Substation will be enclosed by a 10-foot-tall "Lapaz" brown-colored masonry perimeter wall. Facility components include transformer banks and firewalls, in addition to a control shelter. These components range in height from approximately eight to 16 feet. In addition, two 30-foot-high rack structures located near the western perimeter of the substation site will be installed. With the exception of the rack structures, the substation components will not be visible from the perspective of most viewers at street level in the immediate vicinity of the site. Figure 3-7: Vine Substation Profile View in Chapter 3 – Project Description provides a section and elevation drawing that illustrates substation profile views with the perimeter screening wall.

In addition to the previously described Vine Substation components, the Proposed Project involves the relocation of existing and installation of new distribution facilities. The bulk of the changes associated with these distribution facilities will occur underground; therefore, they will not be visible following construction. The 12 kV distribution relocation will involve the installation of approximately nine new above-ground switches which will be housed in painted enclosures. The enclosures will be mounted on concrete pads within the existing sidewalks and will be consistent with other aboveground facilities in the area. The project will also involve modifications to the existing power line facilities. These modifications include removing two approximately 70-foot-tall existing wood poles and one approximately 28-foot-tall steel guy pole. Three new approximately 100-foot-tall self-supported tubular steel poles will be installed on the west side of the proposed Vine Substation. The Proposed Project will also involve extending an existing telecommunication system; however, this work will be located primarily below ground or in association with the modified power line facilities.

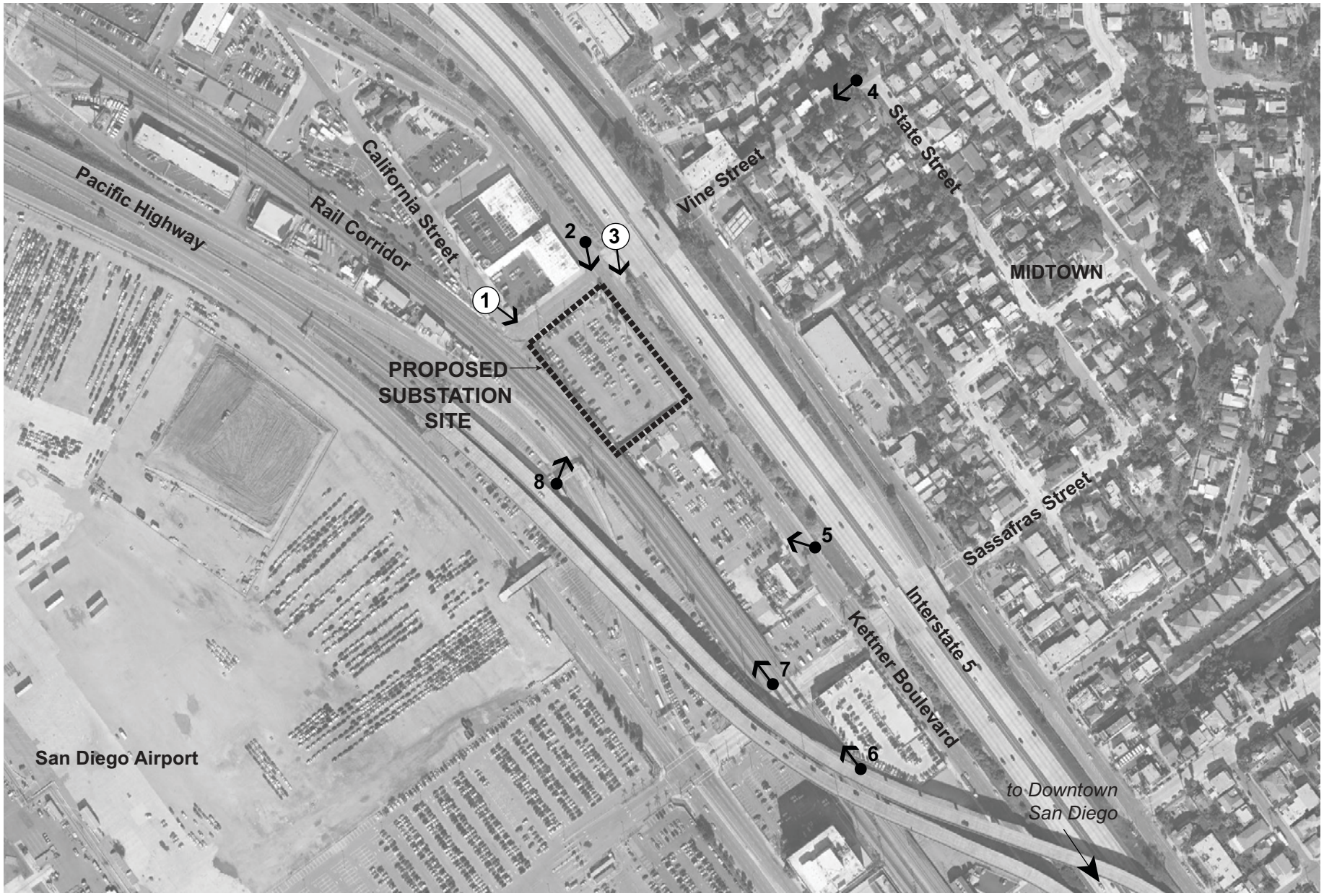

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Figure 4.1-2:
Photograph Viewpoint Locations
SDG&E Vine 69/12 kV Substation Project

1. California Street near Vine Street looking southeast

2. Kettner Boulevard near Vine Street looking south

Figure 4.1-3:
Photographs of Proposed Project Site and Surrounding Area
SDG&E Vine 69/12 kV Substation Project

Conceptual Landscape Plan

Landscaping will be installed at the proposed Vine Substation as part of the Proposed Project design. Figure 4.1-4: Conceptual Landscape Plan presents the proposed landscaping to be installed at the new Vine Substation following construction activities. The conceptual landscape plan calls for informal clusters of small and medium height shrubs outside the perimeter wall along Vine Street and Kettner Boulevard. Given the lack of existing landscaping at the site, the new landscaping will enhance the streetscape in the Proposed Project area. In addition, the proposed clusters of small and medium shrubs will provide some screening of lower portions of the perimeter wall. Suggested plant species are drought-tolerant and consistent with SDG&E requirements for planting near substation facilities.

Lighting

Substation lighting will be provided by approximately eight flood lights mounted on interior substation walls, one at each of the entry gates, and four lights mounted on the control shelter. Lighting may also be installed on the steel rack. All on-site lighting will be oriented downward to minimize glare onto surrounding property. With the exception of the gate entry lights, which will remain on at all times, the substation lighting will not be turned on unless it is required for nighttime work and/or emergencies. Nighttime maintenance is not expected to occur more than once per year.

In addition, due to the proximity of the proposed Vine Substation site to San Diego International Airport, flashing red beacons or white strobe lights on two to three poles located along the railroad tracks outside of the proposed Vine Substation site will be installed if necessary to comply with Federal Aviation Administration (FAA) requirements.

4.1.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to aesthetic resources would be considered significant if the Proposed Project:

- Has a substantial adverse effect on a scenic vista
- Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- Substantially degrades the existing visual character or quality of the site and its surroundings
- Creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

In applying these criteria to determine significance, the extent of the Proposed Project's visibility from sensitive viewing locations, the degree to which the Proposed Project components will contrast with or be integrated into the existing landscape, the extent of change in the landscape's composition and character, and the number and sensitivity of viewers are taken into account. Proposed Project conformance with public policies regarding visual quality is also considered.

Computer-generated visual simulations were used to evaluate the visual impacts of the Proposed Project, a description of which are included in the discussions that follow.

Question 4.1a – Scenic Vista Effects – *No Impact*

CEQA requires that the Proposed Project be evaluated as to whether its implementation has a substantial, adverse effect on a scenic vista. For the purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. Using this definition, there are no scenic vistas in the Proposed Project viewshed; therefore, the Proposed Project will not have a substantial effect on a scenic vista, and there will be no impact.

Question 4.1b – Scenic Resource Damage within a State Scenic Highway – *No Impact*

In San Diego County, the Cabrillo Freeway, which is located approximately 1.25 miles from the Proposed Project site, is the nearest designated State Scenic Highway. Because of intervening topography and distance from the site, the Proposed Project will not be visible from this roadway.

I-5, an eligible State Scenic Highway, passes within 125 feet of the Proposed Project site. Brief views of the Proposed Project will primarily be available from the southbound direction along this roadway; however, some views may also be available when traveling in the northbound direction. The speed limit on I-5 is 65 miles per hour; thus, motorists will only be provided a momentary glimpse of the Proposed Project while passing by. In addition, as noted below in the response to Question 4.1c, these views will be seen within the context of a developed, industrial landscape and will not obstruct views of San Diego Bay and the downtown San Diego skyline. Therefore, the Proposed Project will not substantially damage scenic resources within a State Scenic Highway, and there will be no impact.

Question 4.1c – Visual Character Degradation

Construction – Less-than-Significant Impact

Construction-related visual impacts will result from the presence of equipment, materials, and work crews along the underground distribution line route and at the Kettner Substation and proposed Vine Substation site. Views of the Proposed Project will generally occur from vantage points along Kettner Boulevard, Vine Street, California Street, Pacific Highway, and I-5, and to a lesser extent, from West Hawthorn and West Laurel streets. Construction activities will be noticeable to varying degrees and will be seen by motorists, rail passengers, and pedestrians. However, construction activities will be temporary in nature, taking place over an approximately 19-month period, and will occur within an industrial setting where trucks, trains, and other large machinery are found. Therefore, impacts to visual resources as the result of construction will be considered to be less than significant.

LANDSCAPE CONCEPT

The Vine Substation landscape plan calls for informal clusters of small and medium height shrubs to be planted within the setback area between the perimeter wall and the sidewalk along Kettner Boulevard and Vine Street. Landscaping will enhance the appearance of the substation site and also screen lower portions of the wall. The suggested plant palette consists of drought tolerant species that are approved by SDG&E for planting near substation facilities.

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NOTES:

1. Landscape layout is preliminary and subject to change based on final engineering and other factors.
2. A drip irrigation system will be installed to provide regular watering of new landscaping.
3. Bark mulch to a depth of 3 inches will be applied within the planting strip for water conservation and weed suppression.
4. All planting shall meet clearance requirements for underground and overhead conductors and be consistent with SDG&E and CPUC safety, operations, and maintenance requirements for landscaping in proximity to transmission facilities.

PRELIMINARY CONCEPT
Subject to change based on additional information and final engineering design.

PLANT PALETTE LEGEND

SYMBOL	TYPE OF PLANT	APPROXIMATE QUANTITY	SUGGESTED SPECIES	CONTAINER SIZE	APPROXIMATE MATURE HEIGHT/SPREAD
	Medium height broad leaf evergreen shrub	21	Leptospermum scoparium "Gaiety Girl" or "Ruby Glow" (Red New Zealand Tea Tree)	5 Gallon	5' / 4'
	Small broad leaf evergreen shrub	16	Rhaphiolepis indica (Indian Hawthorn)	5 Gallon	3'-5' / 5'
		15	Baccharis pilularis "Twin Peaks" (Coyote Brush)	1 Gallon	2'-3' / 5'

Plant size estimates based on information contained in:
SDG&E. (no date). Plant List for SDG&E /Sempra Installations.

North
0 40
Feet

ENVIRONMENTAL VISION
3-7-2014

Figure 4.1-4:
Conceptual Landscape Plan
SDG&E Vine 69/12 kV Substation Project

Operation and Maintenance – Less-than-Significant Impact

As shown in Figure 4.1-5: Existing View and Visual Simulation – California Street and Figure 4.1-6: Existing View and Visual Simulation – Southbound I-5, to varying degrees, portions of the Proposed Project will be visible to the public from some locations within the Proposed Project vicinity. The Proposed Project includes the relocation of 12 kV distribution lines; however, this component will be located underground and will generally not be visible during operation and maintenance of the Proposed Project. The three TSPs that will be installed west of the proposed Vine Substation to accommodate the 69 kV loop-in will replace four existing structures located south and west of the site, and will be seen as an incremental change to the existing view. The proposed Vine Substation will represent a noticeable change to the existing visual environment; however, the simulations demonstrate that the presence of the proposed Vine Substation will not substantially alter existing landscape character and visual quality within the Proposed Project area.

Figure 4.1-5: Existing View and Visual Simulation – California Street portrays an existing view of the Proposed Project site along with a visual simulation of the proposed Vine Substation looking south from California Street near Vine Street. This close-range perspective approximates the view experienced by passengers traveling on the adjacent rail corridor as well as passing local motorists and pedestrians in the immediate vicinity of the Proposed Project site. An open-surface parking facility currently occupies the Proposed Project site in the center foreground and a remnant masonry wall and chain-link fencing topped by razor wire enclose the paved parking area. A stand of shrubs partially screens the facility from the railroad corridor, which lies outside the view to the right. A wooden pole supported by a white guy pole is prominent in the foreground, while several steel floodlight standards can be seen within the fenced area. Concrete retaining walls and the vegetated embankment of the I-5 corridor are clearly visible above the roadway a short distance beyond the parking facility. A section of highway guardrail, Cobra head light standards, roadway signs, and a billboard along the I-5 right-of-way can also be seen along with part of the elevated roadway structure connecting I-5 to Pacific Highway in the distance on the right. On the left, portions of several residences are also visible above I-5.

The Figure 4.1-5: Existing View and Visual Simulation – California Street simulation view shows the proposed Vine Substation replacing the existing parking lot. A ten-foot-high masonry perimeter wall encloses the facility, effectively screening substation equipment, with the exception of the taller components that are encompassed by steel racks that are visible above the wall. The Vine Street entrance gate with multiple lighter-colored warning signs can be seen in the left foreground. The existing wooden pole and guy pole visible in the existing view have been removed, while new overhead conductors connect the substation with two new TSPs located out of the view to the right. Augmenting the existing stand of vegetation along the western perimeter of the site, which partially screens the wall and substation equipment visible above the wall, new landscaping has been installed along Vine Street at the base of the wall. Figure 4.1-4: Conceptual Landscape Plan illustrates the anticipated landscaping that will be installed at the proposed Vine Substation.

The Figure 4.1-5: Existing View and Visual Simulation – California Street simulation view demonstrates a noticeable change to the visual character of the area as seen from this close range

perspective, and shows that the Proposed Project represents an incremental improvement to the visual environment. The introduction of landscaping along Vine Street also results in a minor improvement to the streetscape. In addition, the earth-toned masonry perimeter wall (in place of the chain link fence) that will be constructed as part of the Proposed Project reduces visual clutter within this predominantly industrial landscape.

Figure 4.1-6: Existing View and Visual Simulation – Southbound I-5 presents a before-and-after view toward the proposed substation site as seen by southbound motorists on I-5 from approximately 150 feet away at the Vine Street overpass. From this elevated vantage point, a break in roadside vegetation permits a brief view of the Proposed Project site along with a panoramic view of the downtown San Diego skyline, San Diego Bay, and portions of the airport. In the existing view, a nearly full parking lot occupies the Proposed Project site in the foreground. Parked cars on the site appear nearly contiguous with other nearby expanses of parked cars south and west of the site. Except for several palm trees along Kettner Boulevard and vines along a far perimeter fence, the area beyond I-5 is nearly completely devoid of vegetation. The view toward San Diego Bay and Coronado Island on the horizon is interrupted by infrastructure associated with the railway corridor and Pacific Highway overpass just west of the site, and in the distance, airport construction and maintenance activities as well as maritime activities along the bay frontage.

The Figure 4.1-6: Existing View and Visual Simulation – Southbound I-5 simulation view shows the proposed Vine Substation, seen in the foreground. This elevated perspective provides an overview of substation equipment and the perimeter wall in its entirety. Replacing the existing utility pole along Vine Street, two taller TSPs are visible west of the site along the railroad tracks. Like the poles they replace, these poles are a minor intrusion into the bay view. Along Kettner Boulevard, existing palm trees have been removed and replaced by low shrubs along the perimeter wall that extends along the Vine Street frontage. Given this elevated perspective, the height of facility equipment, in particular the racks that extend above the perimeter wall seen in the simulation, is not particularly noticeable from this I-5 motorist perspective. Moreover, when seen from this perspective, the rectangular form of the overall facility serves to minimize visual contrasts with nearby structures including adjacent warehouses, office buildings and the Pacific Highway ramp.

A comparison of the views provided in Figure 4.1-6: Existing View and Visual Simulation – Southbound I-5 indicates that the Proposed Project represents an incremental visual change to the urban landscape that will be briefly visible from this location, and given the industrial setting, will not be particularly noticeable. Although some components of the Proposed Project are taller than existing site features, these elements will not substantially affect views of San Diego Bay or the downtown San Diego skyline. Therefore, the Proposed Project will not substantially alter or degrade the character of views from I-5 or other public vantage points, and the impact will be less than significant.

Existing view from California Street near Vine Street looking southeast (VP 1)

Visual simulation of Proposed Project

See Figure 4.1-2 for viewpoint location.

VISUAL SIMULATION SOURCE: BLACK AND VEATCH

Figure 4.1-5:
Existing View and Visual Simulation – California Street
SDG&E Vine 69/12 kV Substation Project

Existing view from Interstate 5 southbound looking south (VP 3)

Visual simulation of Proposed Project

See Figure 4.1-2 for viewpoint location.

VISUAL SIMULATION SOURCE: BLACK AND VEATCH

Figure 4.1-6:
Existing View and Visual Simulation – Southbound I-5
SDG&E Vine 69/12 kV Substation Project

Question 4.1d – New Light or Glare

Construction – Less-than-Significant Impact

For the most part, construction of the Proposed Project will occur during daytime hours. For some construction activities, work may be required at night. If nighttime construction is necessary, any temporary lighting used during construction will be directed on site and away from potentially sensitive receptors, including residences. Given the primarily industrial setting, potential temporary lighting effects will be less than significant.

Operation and Maintenance – No Impact

As previously noted, floodlights will be installed at approximately eight locations within the substation facility. However, with the exception of the two entry gate lights which will remain on at all times, the floodlights will not be turned on unless required for nighttime work and/or emergencies. In addition, all new lighting will be directed downward and on site. The approximately six existing pole-mounted floodlights used for nighttime illumination of the parking lot on the site will be removed, resulting in an overall reduction of lighting within the Proposed Project location. FAA safety lighting may also be installed on two to three new poles west of the site along the railroad tracks; however, due to the site's proximity to San Diego International Airport, similar safety lighting is typical in this setting. As previously described, the Proposed Project's existing industrial/commercial setting, includes numerous sources of overhead lighting, located both on site and off site along adjacent streets, I-5, and nearby parking facilities. As a result, new Proposed Project lighting will be a minor incremental effect that will not add a substantial new source of lighting to the area.

The Proposed Project will include a galvanized finish on steel substation structures and poles that will weather, creating a non-glare surface. The Proposed Project may also include replacing existing power line insulators with new grey polymer, non-specular insulators, which will reduce potential glare. In addition, the proposed Vine Substation site is currently being used as a long-term parking lot. By removing the automobiles from the site, the potential glare from these vehicles will be removed from the Proposed Project site. As a result, no significant impact from light and glare will occur during operation and maintenance of the Proposed Project.

4.1.4 Applicant-Proposed Measures

The Proposed Project will not result in any significant impacts related to aesthetics; therefore, no applicant-proposed measures are proposed.

4.1.5 References

City of San Diego General Plan. Land Use and Community Planning Element. Online. http://www.sandiego.gov/planning/genplan/pdf/generalplan/landuse2010.pdf. Site visited March 17, 2014.

Pacific-Midway Highway Corridor Community Plan and Local Coastal Program Land Use Plan. Online. https://www.sandiego.gov/planning/community/profiles/midwaypacifichwycorridor/pdf/midwayfullversion.pdf. Site visited March 17, 2014.

Visual Technical Memorandum, Vine 69/12 kV Substation Project. Environmental Vision. March 2014.

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4.2 AGRICULTURE AND FORESTRY RESOURCES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				✓

4.2.0 Introduction

This section describes the agricultural resources in the vicinity of the proposed San Diego Gas & Electric Company Vine 69/12 Kilovolt Substation Project (Proposed Project) and analyzes potential impacts to these resources from construction and operation of the Proposed Project. The California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program (FMMP) has not designated any farmland within three miles of the Proposed Project. The Proposed Project will have no impact to agricultural resources because the Proposed Project components will not cross any land that is under a Williamson Act contract, zoned for agricultural use, or designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance.

4.2.1 Methodology

Research involved the review of the City of San Diego's 2008 General Plan, 2012 General Plan Amendments, and its Municipal Code. A review of the DOC's FMMP, the Joint Powers Agency of the City of San Diego and County of San Diego geographic information system (GIS) database (SanGIS) for Williamson Act parcels, and general plan and zoning maps for the Proposed Project area was also conducted. In addition, a field visit to the site was conducted on December 10, 2013 to confirm land uses.

4.2.2 Existing Conditions

The regulatory requirements and overall existing agricultural conditions of the Proposed Project are described in the following subsections.

Regulatory Background

Federal and State

Department of Conservation Farmland Mapping and Monitoring Program Important Farmland Designations

The DOC Division of Land Resource Protection generates maps depicting Important Farmlands. These farmlands are categorized according to specific criteria, including soil quality and irrigation conditions. Approximately 94 percent of the FMMP study area is based on the United States Department of Agriculture Natural Resource Conservation Service soil classification system, which evaluates both physical and chemical conditions, including soil temperature, moisture regime, pH, flooding, groundwater depth, erodibility, permeability, and sodium content. FMMP maps are updated every two years using an aerial imagery review, field reconnaissance, computer mapping analyses, and public input. The minimum land use mapping unit is 10 acres, and smaller units of land are generally incorporated into surrounding map classifications.

The DOC has established the following eight land use classifications:

- Prime Farmland: Prime Farmland has the optimum combination of physical and chemical conditions that are able to sustain long-term agricultural production. The soil quality, growing season, and moisture supply on Prime Farmlands provides conditions to produce sustained high yields. Prime Farmlands must have been used for irrigated production within four years of the mapping date.

- Farmland of Statewide Importance: Farmland of Statewide Importance is similar to Prime Farmland; however, these farmlands have minor shortcomings, such as a higher slope or decreased ability to store soil moisture. Similar to Prime Farmlands, Farmlands of Statewide Importance must have been used for irrigated production within four years of the mapping date.

- Unique Farmland: Unique Farmland has lower-quality soils and is used for the production of California's leading agricultural products. Unique Farmlands are typically irrigated, but may also include non-irrigated vineyards or orchards found in certain climatic zones. Unique Farmlands must have been cropped within four years of the mapping date.

- Farmland of Local Importance: Farmlands of Local Importance are farmlands that are vital to the local agricultural economy, as identified by each county's local advisory committee and board of supervisors.

- Grazing Land: Grazing Land is land on which existing vegetation is suitable for livestock grazing.

- Urban and Built-Up Land: Urban and Built-Up Land is defined as land that is occupied by buildings or other structures at a minimum density of one unit to 1.5 acres (or approximately six structures to 10 acres). These lands are used for development purposes, including residential, commercial, industrial, construction, public administration, institutional, transportation yards, airports, cemeteries, golf courses, sewage treatment, sanitary landfills, and water control structures.

- Other Land: Other Land includes all lands that are not in any other map category, such as waterbodies smaller than 40 acres; low-density rural developments; confined livestock, poultry, or aquaculture facilities; and brush, timber, wetland, and riparian areas not suitable for livestock grazing.

- Water: Water includes all perennial waterbodies that are a minimum of 40 acres.

For the purposes of this section, "Important Farmlands" include Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

Williamson Act Land Designations

The Williamson Act, also known as the California Land Conservation Act of 1965 (California Government Code [CGC] Section 51200 et seq.), preserves agricultural and open space lands from conversion to urban land uses by establishing a contract between local governments and private landowners to voluntarily restrict their land holdings to agricultural or open space use. In return, landowners receive property tax assessments based on farming or open space use, rather than assessments based on the full market property value, which is typically 20 percent to 75 percent higher. Williamson Act contracts are valid for a minimum of 10 years and are automatically renewed each year for an additional 10-year term, in the absence of a notice of nonrenewal.

The Williamson Act also allows local governments to establish Agricultural Preserves, parcels of land for which cities or counties are willing to enter into Williamson Act contracts. Agricultural Preserves must include a minimum of 100 acres and typically avoid areas in which public utility improvements and associated land acquisitions may be necessary (CGC § 51230). Although the Williamson Act does not specify compatible land uses for property located adjacent to contract lands or Agricultural Preserves, it does state that cities and counties must determine compatible land use types while recognizing that temporary or permanent population increases frequently impair or hamper agricultural operations (CGC § 51220.5).

County of San Diego

Farmland of Local Importance is land of value to the local economy, as defined by each county's local advisory committee and adopted by its board of supervisors. Farmland of Local Importance is either currently producing, or has the capability to produce agricultural products, but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the San Diego County Board of Supervisors.

City of San Diego

The City of San Diego's 2008 General Plan and 2012 General Plan Amendments were reviewed for agricultural resource policies that are relevant to the Proposed Project. None were identified within these plans.

San Diego Unified Port District

The Proposed Project area is subject to the regulations and policies contained within the San Diego Unified Port District's Port Master Plan; however, this plan does not contain any regulations or policies that address agricultural uses.

Agricultural Setting

The Proposed Project is not located on and will not cross any Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, or land under a Williamson Act contract. None of the Proposed Project area is under active crop cultivation nor is it used for livestock grazing. The area is not designated or zoned by the City of San Diego for agricultural uses.

4.2.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to agricultural resources would be considered significant if the Proposed Project:

- Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use permanently or for a long period of time
- Conflicts with existing zoning for agricultural use
- Conflicts with a Williamson Act contract such that it must be cancelled
- Involves other changes in the existing environment, which—due to their location or nature—could result in the permanent or long-term conversion of farmland to a non-agricultural use

Question 4.2a – Farmland Conversion – *No Impact*

The Proposed Project is not located on nor does it span any land designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. As a result, no impact will occur.

Question 4.2b – Zoning or Williamson Act Contract Conflicts – *No Impact*

The Proposed Project is not located in nor does it span any land zoned for agricultural use under a Williamson Act contract. Therefore, there will be no conflicts with agricultural zoning or Williamson Act contracts, and no impact will occur.

Question 4.2c – Other Farmland Conversion – *No Impact*

The Proposed Project is not located on nor does it span any land used for agricultural purposes or with the potential to be used for agriculture. Therefore, there will be no conversion of farmland to a non-agricultural use as a result of the Proposed Project, and there will be no impact.

Question 4.2d – Loss or Conversion of Forest Land – *No Impact*

The Proposed Project is not located on nor does it span any land zoned for forest or timberland use or with the potential to be rezoned for forest or timberland use. Therefore, there will be no conversion of forest land to a non-forest use as a result of the Proposed Project, and there will be no impact.

Question 4.2e – Other Farmland or Forest Land Conversion – *No Impact*

The Proposed Project does not have the potential to convert any other farmland or forest land to a non-agricultural or non-forest use. Therefore, there will be no impact.

4.2.4 Applicant-Proposed Measures

Because the Proposed Project will have no impact on agricultural resources, no applicant-proposed measures are proposed.

4.2.5 References

California Public Utilities Commission. Memorandum. *Applicants Filing Proponent's Environmental Assessment*. November 24, 2008.

California Resources Agency. 2007. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

City of San Diego. Municipal Code. Online. http://www.sandiego.gov/city-clerk/officialdocs/legisdocs/muni.shtml. Site visited December 5, 2013.

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State of California. 1965. Government Code Section 51200 et seq. The Williamson Act or The California Land Conservation Act of 1965.

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Attachment 4.3–A: CalEEMod Input and Output Files

4.3 AIR QUALITY

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

4.3.0 Introduction

This section describes the existing air quality within the San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) area and evaluates the potential air quality impacts associated with construction and operation of the Proposed Project. Although some temporary impacts will result during construction, operation, and maintenance activities, the potential air quality impacts from the Proposed Project will be less than significant with implementation of SDG&E's ordinary construction restrictions.

4.3.1 Methodology

The existing air quality within San Diego County was researched using data obtained from the San Diego County Air Pollution Control District's (SDAPCD's) network of air quality monitoring stations. Recent regulations and guidance documents from the California Air Resources Board (CARB), California Public Utilities Commission, California Energy Commission, and the SDAPCD were also reviewed.

The majority of the Proposed Project's air emissions were assessed by estimating emission rates from construction, operation, and maintenance activities, and then comparing them to established significance criteria. In other cases, such as the odor and sensitive receptor analysis, the impact

assessment was based on subjective criteria, including experience with similar projects. Air pollutant emission rates were estimated using the publicly available software California Emissions Estimator Model (CalEEMod). This computer model allows users to generate estimates of construction and operational emissions of various pollutants, including inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), reactive organic gases (ROGs), sulfur oxides (SO_x), oxides of nitrogen (NO_x), and carbon dioxide. CalEEMod also allows users to input minimization measures and evaluate their effects on emission rates.

Diesel particulate matter (DPM) and other particulate matter (PM) are expected to be the two primary pollutants during construction of the Proposed Project, primarily from on- and off-road construction vehicles and soil-disturbing activities. DPM emissions can be inferred from the $PM_{2.5}$ modeling results.

The primary operation and maintenance emissions will result from maintenance vehicle travel to and from the Proposed Project area and heavy equipment use during repair activities. Similar to the construction phase, DPM and PM will be the two primary pollutants.

4.3.2 Existing Conditions

This section describes the regulations and regulatory agencies applicable to air quality for the Proposed Project, regional climate and meteorology, and existing air quality conditions in the area.

Regulatory Background

Federal

The 1970 federal Clean Air Act (CAA) established national ambient air quality standards (AAQS) for six pollutants: CO, ozone (O_3), PM_{10}, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. These six criteria pollutants are known to have adverse impacts on human health and the environment. To protect human health and the environment, the United States (U.S.) Environmental Protection Agency (EPA) has set primary and secondary maximum ambient thresholds. The primary thresholds were set to protect human health, particularly that of children and the elderly, as well as individuals that suffer from chronic lung conditions (e.g., asthma and emphysema). The secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings. The combined primary and secondary standards are termed the National AAQS (NAAQS).

The 1977 CAA required each state to develop and maintain a State Implementation Plan (SIP) for each criteria pollutant that exceeds ambient air quality standards. The SIP serves as a tool to reduce pollutants that are known to cause impacts that exceed the ambient thresholds and to achieve compliance with the NAAQS. In 1990, the CAA was amended to strengthen regulation of both stationary and mobile emission sources for the criteria pollutants.

In July 1997, the U.S. EPA developed new health-based NAAQS for O_3 and PM_{10}. However, these standards were not fully implemented until 2001, after the resolution of several lawsuits. The new federal O_3 standard of 0.08 parts per million (ppm), established in 1997, was based on a longer averaging period (eight hours versus one hour), recognizing that prolonged exposure to

O_3 is more damaging. In March 2008, the EPA further lowered the eight-hour O_3 standard from 0.08 ppm to 0.075 ppm. The new federal PM standard is based on finer particles (2.5 microns and smaller versus 10 microns and smaller), recognizing that finer particles may have a higher residence time in the lungs and contribute to greater respiratory illness. In February 2007, the NO_2 AAQS was amended to lower the existing one-hour standard of 0.25 ppm to 0.18 ppm, which is not to be exceeded, and established a new annual standard of 0.030 ppm, which is also not to be exceeded. Table 4.3-1: State and Federal Ambient Air Quality Standards contains a list of the NAAQS and California Ambient Air Quality Standards (CAAQS).

State

The California CAA of 1988 requires air districts to develop and implement strategies to attain CAAQS. For some pollutants, the California standards are more stringent than the national standards. Regional air quality management districts, such as the SDAPCD, had to prepare an air quality plan specifying how federal and state standards would be met.

CARB enforces the CAAQS and works with the state's Office of Environmental Health Hazard Assessment (OEHHA) in identifying toxic air contaminants (TACs) and enforcing rules related to TACs, including the Air Toxic Hot Spots Information and Assessment Act of 1987. Enacted to identify toxic air contaminant hot spots where emissions from specific sources may expose individuals to an elevated risk of adverse health effects, the act requires that business or other establishments identified as significant sources of toxic emissions provide the affected population with information about health risks posed by the emissions.

CARB also regulates mobile emission sources in California—such as construction equipment, trucks, and automobiles—and oversees the air districts. Relevant programs related to oversight of mobile source emissions include the Off-Road and On-Road Mobile Sources Emission Reduction programs, the Portable Equipment Registration Program (PERP), and the Airborne Toxic Control Measure for DPM from Portable Engines. The Mobile Sources Emission Reduction programs are aimed at reductions of NO_x, volatile organic compounds (VOCs), CO, and PM_{10}. CARB has also adopted specific control measures for the reduction of DPM from off-road, in-use diesel vehicles (rated 25 horsepower and higher), such as back hoes, dozers, and earthmovers used in construction projects. Additional DPM control measures are also in place for heavy-duty, on-road, diesel trucks operated by public utilities and municipalities. The PERP and Airborne Toxic Control Measure for DPM from Portable Engines provide for statewide registration and control of DPM from portable engines rated 50 horsepower and higher.

San Diego County Air Pollution Control District

The air districts are primarily responsible for regulating stationary emission sources at industrial and commercial facilities within their respective geographic areas and for preparing the air quality plans that are required under the federal and California CAAs. The SDAPCD is the primary agency responsible for planning, implementing, and enforcing federal and state ambient standards in San Diego County. The plans, rules, and regulations presented in the following subsections apply to all sources in the jurisdiction of the SDAPCD.

Table 4.3-1: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	Federal Standard	
			Primary	Secondary
O_3	1 hour	0.09 ppm (180 micrograms per cubic meter [µg/m^3])	Not Applicable (NA)	NA
	8 hours	0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	0.075 ppm (147 µg/m^3)
PM_{10}	24 hours	50 µg/m^3	150 µg/m^3	150 µg/m^3
	Annual arithmetic mean	20 µg/m^3	50 µg/m^3	50 µg/m^3
$PM_{2.5}$	24 hours	NA	35 µg/m^3	35 µg/m^3
	Annual arithmetic mean	12 µg/m^3	15 µg/m^3	15 µg/m^3
CO	1 hour	20 ppm (23 milligrams per cubic meter [mg/m^3])	35 ppm (40 mg/m^3)	NA
	8 hours	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	NA
	8 hours (Lake Tahoe)	6 ppm (7 mg/m^3)	NA	NA
NO_2	1 hour	0.18 ppm (339 µg/m^3)	NA	NA
	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	0.053 ppm (100 µg/m^3)
SO_2	1 hour	0.25 ppm (655 µg/m^3)	NA	NA
	3 hours	NA	NA	0.5 ppm (1,300 µg /m^3)
	24 hours	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	NA
	Annual arithmetic mean	NA	0.030 ppm (80 µg/m^3)	NA
Lead	30 days	1.5 µg/m^3	NA	NA
	Rolling 3 months	NA	0.15 µg/m^3	0.15 µg/m^3
	Quarterly	NA	1.5 µg/m^3	1.5 µg/m^3

Sources: CARB 2014d; EPA 2014b

Table Notes:
1. California standards for O_3, CO (except Lake Tahoe), SO_2 (one hour and 24 hours), NO_2, suspended PM—PM_{10} and $PM_{2.5}$—and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. NAAQS (other than O_3, PM, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth-highest eight-hour concentration in a year—averaged over three years—is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units used to promulgate the standard. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; "ppm" in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure that can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects established. These actions allow for implementation of control measures at levels below the ambient concentrations specified for these pollutants.
9. National lead standard, rolling three-month average; final rule signed October 15, 2008.

San Diego County Air Pollution Control District Air Quality Plans

The SDAPCD's air quality plans collectively provide an overview of the region's air quality and air pollution sources and identify the pollution-control measures needed to expeditiously attain and maintain air quality standards. The SDAPCD's air quality plans include the San Diego Regional Air Quality Strategy (RAQS) and the San Diego portion of the California SIP, which address state and federal requirements, respectively.

Ozone Air Quality Management Plan

The SDAPCD SIP predicts that state and local programs will allow San Diego County to reach attainment status for the previously applicable 0.08 ppm federal eight-hour O_3 AAQS (per the SIP submitted to the EPA in June 2007). It is anticipated that the EPA will designate San Diego County as a nonattainment area for the new 0.075 ppm eight-hour O_3 standard in the future. The SDAPCD will have to submit an updated SIP to address the new stringent standard at that time.

The SDAPCD maintains the RAQS, which acts as a road map demonstrating how the district will eventually meet the state O_3 AAQS. The RAQS details the measures and regulations that focus on managing and reducing O_3 precursors, such as NO_x and VOCs. The RAQS control measures concentrate on stationary sources that are under the SDAPCD's jurisdiction; however, all emission sources and control measures are included, such as any under the jurisdiction of CARB (e.g., on-road motor vehicles, off-road vehicles and equipment, and consumer products) and U.S. EPA (e.g., aircraft, ships, trains, and pre-empted off-road equipment).

Particulate Matter Air Quality Management Plan

The CCAA does not require local districts to establish an air quality management plan for state PM_{10} nonattainment, but the SDAPCD has prepared a report entitled Measures to Reduce Particulate Matter in San Diego County. The SDAPCD is considering rulemaking for source category-specific PM control measures for emissions from residential wood combustion and from fugitive dust generated at construction sites and from unpaved roads.

San Diego County Air Pollution Control District Regulation IV – Prohibitions, Rule 50 – Visible Emissions

This rule prohibits any activity that will create air contaminant emissions darker than 20-percent opacity for more than an aggregate of three minutes in any consecutive 60-minute time period.

San Diego County Air Pollution Control District Regulation IV – Prohibitions, Rule 51 – Nuisance

This regulation prohibits any activity that will discharge air contaminants that cause or have a tendency to cause injury, detriment, nuisance, or annoyance to people and the public or damage to any business or property.

San Diego County Air Pollution Control District Regulation IV – Prohibitions, Rule 55 – Fugitive Dust Control

This regulation prohibits any activity that will discharge visible dust emissions into the atmosphere beyond the property line bounding the activity for more than three minutes during

any 60-minute period. This regulation also prohibits visible roadway dust due to track-out or carry-out.

San Diego County Air Pollution Control District Rule XV – Federal Conformity

The federal conformity rule prohibits any federal actions that may be inconsistent with the SDAPCD's efforts to achieve attainment with the NAAQS.

Regional Climate and Meteorology

Climate in the San Diego Air Basin (SDAB) is generally warm, with low annual rainfall occurring mostly during the winter months. Climate plays an important role in the air quality of the SDAB. When cool, moist air from the coast travels toward the higher elevations, a temperature inversion can occur. This inversion layer prevents polluted air from rising and dispersing. According to the SDAPCD, most air quality exceedances are recorded on the lower mountain slopes that experience an inversion layer.

Local meteorological conditions in the vicinity of the Proposed Project conform to the regional pattern of strong onshore winds by day (especially in summer) and weak offshore winds at night (particularly during the winter). These local wind patterns are driven by the temperature difference between the ocean and the warm interior topography. In the summer, moderate breezes between eight and 12 miles per hour blow onshore and up through the valley from the southwest by day. Light onshore breezes may continue overnight when the land remains warmer than the ocean. In the winter, the onshore flow is weaker and the wind flow reverses to blow from the northeast in the evening as the land becomes cooler than the ocean.

The climate of the City of San Diego, as with all of Southern California, is largely controlled by the strength and position of the Pacific High. This high-pressure ridge over the West Coast creates a repetitive pattern of frequent early morning cloudiness, hazy afternoon shine, clean daytime onshore breezes and little temperature change throughout the year. Limited rainfall occurs in the winter as the fringes of mid-latitude storms occasionally move through the area. Average temperatures in January range from 47 degrees Fahrenheit (°F) at night to 63°F during the day. The warmest month is August, when the high temperatures average 74°F. Annual rainfall is approximately 10 inches in the Proposed Project area.

Air Quality

Criteria Air Pollutants

O_3, CO, NO_2, SO_2, lead, PM_{10}, and $PM_{2.5}$ are all criteria air pollutants (CAPs) that are regulated in California. Non-methane ethane VOCs, also referred to as ROGs, are also regulated as precursors to the formation of O_3. These criteria pollutants and their effects on humans are discussed in the following subsections.

Ozone

O_3 is a colorless gas that is not directly emitted as a pollutant, but is formed when hydrocarbons and NO_x react in the presence of sunlight. Low wind speeds or stagnant air mixed with warm temperatures typically provide optimum conditions for the formation of O_3. Because O_3 formation does not occur quickly, O_3 concentrations often peak downwind of the emission

source. As a result, O_3 is of regional concern as it impacts a larger area. When inhaled, O_3 irritates and damages the respiratory system.

Particulate Matter

PM, which is defined as particles suspended in a gas, is often a mixture of substances, including metals, nitrates, organic compounds, and complex mixtures, such as diesel exhaust and soil. PM can be traced back to both natural and man-made sources. The most common sources of natural PM are dust and fires, while the most common man-made source is the combustion of fossil fuels.

PM causes irritation to the human respiratory system when inhaled. The extent of the health risks due to PM exposure can be determined by the size of the particles. The smaller the particles, the deeper they can be deposited in the lungs. PM is often grouped into two categories—inhalable PM less than 10 microns in diameter (PM_{10}) and fine PM less than 2.5 microns in diameter ($PM_{2.5}$).

Carbon Monoxide

CO is a colorless, odorless, and tasteless gas that is directly emitted as a by-product of combustion. CO concentrations tend to be localized to the source, with the highest concentrations being associated with cold, stagnant weather conditions. CO is readily absorbed through the lungs into the blood, where it reduces the ability of the blood to carry oxygen.

Nitrogen Oxides

NO_x is a generic name for the group of highly reactive gases that contain nitrogen and oxygen in varying amounts. Many types of NO_x are colorless and odorless. However, when combined with particles in the air, the common pollutant NO_2 can often be seen as a reddish-brown layer over many urban areas.

NO_x form when fuel is burned at high temperatures. Typical man-made sources of NO_x include motor vehicles, fossil-fueled electricity generation utilities, and other industrial, commercial, and residential sources that burn fuels. NO_x can harm humans by affecting the respiratory system. Small particles can penetrate the sensitive parts of the lungs and can cause or worsen respiratory disease and can aggravate existing heart conditions.

As discussed previously, O_3 is formed when NO_x and VOCs react with sunlight.

Sulfur Oxides

SO_x are formed when sulfur-containing materials are processed or burned. SO_x sources include industrial facilities (e.g., petroleum refineries and cement manufacturing and metal processing facilities), locomotives, large ships, and some non-road diesel equipment.

A wide variety of health and environmental impacts are associated with SO_x because of the way it reacts with other substances in the air. A number of people are particularly sensitive to SO_x emissions, including children, the elderly, people with asthma, and people with heart or lung disease. When inhaled, these particles gather in the lungs and contribute to increased respiratory symptoms and disease, difficulty breathing, and premature death.

Volatile Organic Compounds

VOCs (or ROGs) are a group of chemicals that react with NO_x and hydrocarbons in the presence of heat and sunlight to form O_3. Examples of VOCs include gasoline fumes and oil-based paints. This group of chemicals does not include methane or other compounds determined by the U.S. EPA to have negligible photochemical reactivity.

Air Quality Designations

Three air quality designations can be given to an area for a particular pollutant:

- Nonattainment: This designation applies when air quality standards have not been consistently achieved.
- Attainment: This designation applies when air quality standards have been achieved.
- Unclassified: This designation applies when insufficient monitoring data exists to determine a nonattainment or attainment designation.

The current CAAQS and NAAQS attainment status is provided in Table 4.3-2: SDAPCD Attainment Status. The SDAPCD is currently designated as a nonattainment area for O_3 and PM.

Table 4.3-2: SDAPCD Attainment Status

Criteria Air Pollutants	State	Federal
O_3 (eight-hour)	Nonattainment	Nonattainment
$PM_{2.5}$	Nonattainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Attainment
Sulfates	Attainment	NA
Lead	Attainment	Attainment
Hydrogen Sulfide	Unclassified	NA
Visibility Reducing Particles	Unclassified	NA

Source: CARB 2014c

Toxic Air Contaminants

TACs are the listed toxic pollutants as established by OEHHA. Under Assembly Bill 1807, CARB is required to use certain criteria in prioritizing, identifying, and controlling air toxics. In selecting substances for review, CARB must consider pollutants that may pose a threat to human health or cause or contribute to serious illnesses or death. For many TACs, no threshold level exists below which adverse health impacts may not be expected to occur. This contrasts with the CAPs, for which acceptable levels of exposure can be determined and for which the federal and state governments have set AAQS.

PM emissions generated by diesel combustion, or DPM, are of particular concern in California. In 1998, the OEHHA completed a 10-year comprehensive human health assessment of diesel exhaust. The results of this assessment formed the basis for CARB to formally identify DPM as a TAC that poses a threat to human health. Because no established AAQS exist for TACs, they are managed on a case-by-case basis, depending on the quantity and type of emissions and the proximity of potential receptors. DPM emissions result from a wide variety of sources, including on-road and off-road vehicles and stationary and portable internal combustion engines. In California, diesel internal combustion engines were estimated to generate 28,000 tons of PM emissions in 2000.

Ambient Air Quality

Violations of NAAQS and CAAQS for O_3, PM, and CO have occurred historically in the Proposed Project area. The frequency of violations and current air quality conditions at the two monitoring sites nearest to the Proposed Project area are summarized for O_3, PM_{10}, and $PM_{2.5}$ in Table 4.3-3: Recent Air Quality Concentrations and Table 4.3-4: Frequency of Air Quality Standard Violations.[1] As shown in these tables, the air quality in the surrounding areas has been relatively stable over the past five years and has improved in some cases.

Sensitive Receptors

Some exposed population groups—including children, the elderly, and the ill—can be especially vulnerable to airborne chemicals and irritants and are termed "sensitive receptors." In addition, due to sustained exposure durations, all persons located within residential areas are considered to be sensitive receptors. The area is characterized by light- and medium-industrial and office uses, parking lots, and rental car facilities. The nearest sensitive receptors to the Proposed Project site are residential neighborhoods located approximately 450 feet east of the proposed Vine Substation. Interstate (I-) 5, a major transportation corridor in San Diego County, separates the Proposed Project site from these receptors. Section 4.10 Land Use provides more information about residences in close proximity to the Proposed Project components.

4.3.3 Impacts

Significance Criteria

San Diego County Air Pollution Control District Thresholds

To determine whether a significant impact will occur during construction, the SDAPCD informally recommends quantifying construction emissions and comparing them to significance thresholds (pounds per day) found in the SDAPCD regulations for stationary sources (pursuant to Rule 20.1, et seq.) and shown in Table 4.3-5: Air Quality Significance Thresholds. If emissions during Proposed Project construction exceed the thresholds that apply to stationary sources, then construction activities will have the potential to violate air quality standards or contribute substantially to existing violations.

[1] The Overland monitoring station is located approximately 7.2 miles northeast of the Proposed Project area at 5555 Overland Drive in San Diego. The Beardsley monitoring station is located approximately 6.5 miles north-northwest of the Proposed Project area at 1110A Beardsley Street in San Diego.

Table 4.3-3: Recent Air Quality Concentrations

Monitoring Site	Year	O_3, Maximum 1-hour (ppm)	PM_{10}, Maximum 24-hour ($\mu g/m^3$)	$PM_{2.5}$, Maximum 24-hour ($\mu g/m^3$)
Beardsley	2012	0.071	45.0	39.8
	2011	0.082	48.0	34.7
	2010	0.078	40.0	29.7
	2009	0.085	59.0	52.1
Overland	2012	0.050	22.0	20.0
	2011	0.097	47.0	29.9
	2010	0.100	33.0	18.7
	2009	0.105	50.0	25.1

Source: CARB 2014b

Table 4.3-4: Frequency of Air Quality Standard Violations

Monitoring Site	Year	Number of Days in Exceedance of Standard			
		State 1-hour O_3	State 24-hour PM_{10}	National 24-hour PM_{10}	National 24-hour $PM_{2.5}$
Beardsley	2012	0	0	0	1.0
	2011	0	0	0	0
	2010	0	0	0	0
	2009	0	18.2	0	3.4
Overland	2012	0	– –	– –	– –
	2011	1	0	0	0
	2010	2	0	0	0
	2009	2	0	0	0

Source: CARB 2014b

Notes: "– –" = insufficient or unavailable data. Days over PM_{10} CAAQS are based on monitoring every sixth day.

Table 4.3-5: Air Quality Significance Thresholds

Pollutant	Significance Threshold	
	Pounds per Day	Tons per Year
$PM_{2.5}$	55*	10*
PM_{10}	100	15
NO_x	250	40
SO_x	250	40
CO	550	100
VOCs	75**	13.7***

Source: SDAPCD, 2014

* EPA "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005. Also used by the South Coast Air Quality Management District (SCAQMD).
** Threshold for VOCs based on the threshold of significance for VOCs from the SCAQMD for the Coachella Valley.
*** Threshold based on 75 pounds per day multiplied by 365 days per year and divided by 2,000 pounds per ton.

California Environmental Quality Act Guidelines

In addition to the previously mentioned criteria, Appendix G of the California Environmental Quality Act (CEQA) Guidelines determines that impacts to air quality would be significant if the Proposed Project:

- Conflicts with or obstructs implementation of the applicable air quality plan
- Violates any air quality standard or contributes substantially to an existing or projected air quality violation
- Results in a cumulatively considerable net increase of any criteria pollutant for which the Proposed Project region is classified as nonattainment under an applicable federal or state ambient air quality standard
- Exposes sensitive receptors to substantial pollutant concentrations
- Creates objectionable odors affecting a substantial number of people

Question 4.3a – Applicable Air Quality Plan Conflicts – *Less-than-Significant Impact*

A potentially significant impact on air quality will occur if the Proposed Project conflicts with or obstructs the implementation of the applicable air quality plan. Although the Proposed Project will result in CAP emissions within the basin, the primary focus is that the Proposed Project's emissions are properly anticipated in the regional air quality planning process and reduced where feasible. To determine if the emissions were captured during the air quality planning process, it is necessary to assess the Proposed Project's consistency with the RAQS. Consistency with the RAQS is determined by evaluating if the Proposed Project's emissions exceed the CAP

thresholds established by the SDAPCD and if the Proposed Project will result in growth that has been anticipated.

The CalEEMod computer model was used to simulate the anticipated emissions during construction using site-specific information to generate emission rates based on the Proposed Project's anticipated size, schedule, land use, and construction methods. Using this data, the model calculated the maximum daily emissions for a range of pollutants. The CalEEMod input and output are provided in Attachment 4.3–A: CalEEMod Input and Output Files.

PM and NO_x are generally the primary air pollutants resulting from construction activities. The simulated PM emissions are the composite of two types of sources—fugitive dust and tailpipe emissions. Typical fugitive dust sources include earth-moving activities (e.g., grading of the substation pad and excavation of the underground duct bank trenches), the loading and unloading of fill and spoil materials, and vehicle travel across unpaved areas. Tailpipe emissions result from the combustion of fossil fuels in both off-road construction equipment and on-road vehicles. The results of the CalEEMod simulations included in Attachment 4.3–A: CalEEMod Input and Output Files indicate that the peak unmitigated emissions will be in compliance with all applicable SDAPCD thresholds, as indicated in Table 4.3-6: Peak Daily Unmitigated Construction Emissions.

To reduce impacts to the extent possible, SDG&E will implement the following air emissions control measures as part of its ordinary construction restrictions as described in Chapter 3 – Project Description:

- **Fugitive Dust Control.** All unpaved construction areas will be watered up to two times daily during construction to reduce dust emissions and to meet SDAPCD Rule 55 requirements. SDG&E or its contractor will keep the construction area sufficiently dampened to control dust caused by construction and hauling, and will provide at all times reasonable dust control of areas subject to windblown erosion.

- **Bulk Material Transport.** All loads will be secured by covering or be sufficiently watered and use of at least two feet of freeboard to avoid carry-over.

- **Equipment Emissions.** SDG&E or its contractor will maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues will have their engines turned off after five minutes when not in use. Construction activities will be phased and scheduled to avoid emission peaks, and equipment use will be curtailed during second-stage smog alerts.

- **Volatile Organic Compound (VOC) Reduction.** Low- and non-VOC-containing coatings, sealants, adhesives, solvents, asphalt, and architectural coatings will be used to reduce VOC emissions.

These control measures were entered into CalEEMod, as appropriate, and the resulting mitigated emissions are presented in Table 4.3-7: Peak Daily Mitigated Construction Emissions. As a result, with the implementation SDG&E's ordinary construction restrictions, the construction phase of the Proposed Project will not exceed the applicable SDAPCD thresholds.

Table 4.3-6: Peak Daily Unmitigated Construction Emissions

Year	Emissions (pounds per day)					
	$PM_{2.5}$	PM_{10}	NO_x	SO_x	CO	VOC
2016	14.37	26.26	185.45	0.18	124.01	16.76
2017	5.27	6.68	103.86	0.14	73.59	10.02
Threshold	55	100	250	250	550	75
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Table 4.3-7: Peak Daily Mitigated Construction Emissions

Year	Emissions (pounds per day)					
	$PM_{2.5}$	PM_{10}	NO_x	SO_x	CO	VOC
2016	11.63	21.27	185.45	0.18	124.01	16.76
2017	5.27	6.68	103.86	0.14	73.59	10.02
Threshold	55	100	250	250	550	75
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

The Proposed Project is not a trip-generating project, such as a residential or commercial development, nor will it result in population growth. Once construction of the Proposed Project has been completed, emissions will be relatively low, resulting only from scheduled maintenance and operation activities. The anticipated emissions from operation and maintenance activities were simulated using CalEEMod and the results are presented in Table 4.3-8: Peak Daily Operational Emissions. As indicated, all emissions will be well below the applicable thresholds. Therefore, the Proposed Project will not conflict with or obstruct implementation of the applicable air quality plan, and thus will have a less-than-significant impact in regard to plan consistency.

Question 4.3b – Air Quality Standard Violations

Construction – Less-than-Significant Impact

The site development phase of the Proposed Project will require various pieces of heavy equipment, including bulldozers, excavators, loaders, and compactors. Street-legal haul trucks will be employed during material export or import activities. In addition, portable cranes and heavy hauling trucks will be employed for equipment delivery and installation. Concrete trucks, back hoes, crew trucks, and pick-up trucks will arrive and depart the proposed Vine Substation site during installation of foundations, ground grid, and underground ducts. Until the substation is

energized, crew trucks, boom trucks, and pick-up trucks will arrive and depart from the site daily for construction activities, testing and check-out, final power line tie-ins, and circuit cabling.

Table 4.3-8: Peak Daily Operational Emissions

Category	Emissions (pounds per day)					
	$PM_{2.5}$	PM_{10}	NO_x	SO_x	CO	VOC
Off-Road	0.05	0.06	1.60	< 0.01	2.16	0.10
Threshold	55	100	250	250	550	75
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

It is anticipated that approximately 48 workers will be on site at the proposed Vine Substation at any one time during construction. A similar number of workers will be employed to install the 69 kV loop-in and 12 kV distribution relocation. Daily transportation of construction workers is not expected to cause a significant effect on air quality, because no more than 100 workers will be in any one location at any time during the peak of construction and emissions will not exceed any applicable threshold. In addition, the number of trips generated will be minimal and constitute an insignificant percentage of current daily volumes in the area, as described in Section 4.16 Transportation and Traffic. Moreover, SDG&E will encourage carpooling during construction.

Construction of the Proposed Project will generate short-term air quality impacts during grading and construction operations. CalEEMod was used to simulate emissions from construction activities based on the schedule and construction equipment lists provided in Chapter 3 – Project Description. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials transported on site or off site. The results of this simulation are presented in Table 4.3-6: Peak Daily Unmitigated Construction Emissions.

As described in response to Question 4.3a, SDG&E's ordinary construction restrictions were entered into the CalEEMod model, as appropriate, and the resulting mitigated emissions are presented in Table 4.3-7: Peak Daily Mitigated Construction Emissions. A detailed discussion of the Proposed Project's potential to impact air quality from fugitive dust, construction equipment exhaust, and TAC sources is provided in the subsections that follow.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust (PM_{10}) emissions that have the potential to temporarily impact local air quality. In addition, fugitive dust may be a nuisance to those living and working in the Proposed Project area. Fugitive dust emissions are associated with land clearing, excavation, cut and fill, and truck travel on unpaved roadways. Fugitive dust emissions can vary substantially from day to day, depending on the level of activity, specific operations,

and weather conditions. Fugitive dust from grading and construction is expected to be short-term and will cease when these activities are completed.

Fugitive dust emissions were simulated using CalEEMod and the resulting maximum daily unmitigated and mitigated emissions are presented in Table 4.3-9: Maximum Daily Fugitive Dust Emissions from Construction. As shown, the unmitigated emissions will be below the applicable thresholds. Nonetheless, SDG&E will implement its ordinary construction restrictions described in response to Question 4.3a to further reduce these emissions. These measures include adherence to ordinary construction restrictions (e.g., watering inactive and perimeter areas, cleaning track-out, and containing dirt and dust within the Proposed Project area) and compliance with the SDAPCD's Fugitive Dust Rule 55. As a result, impacts from fugitive dust will be less than significant.

Table 4.3-9: Maximum Daily Fugitive Dust Emissions from Construction

Year	Unmitigated (pounds per day)		Mitigated (pounds per day)	
	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}
2016	14.37	26.26	11.63	21.27
2017	5.27	6.68	5.27	6.68
Threshold	55	100	55	100
Threshold Exceeded?	**No**	**No**	**No**	**No**

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with transporting machinery and supplies to and from the Proposed Project area, emissions produced on site as the equipment is used, and emissions from trucks transporting fill material to the Vine Substation site. Emitted pollutants will include CO, VOC, NO_x, PM_{10}, and $PM_{2.5}$. As presented in Table 4.3-6: Peak Daily Unmitigated Construction Emissions, the maximum daily uncontrolled emissions for each year of construction of the Proposed Project will not exceed the SDAPCD's standards for all pollutants. Therefore, impacts associated with construction will be less than significant.

Toxic Air Contaminants

DPM will be emitted from on- and off-road vehicles that use diesel as fuel during the construction phase of the Proposed Project. Potential health effects associated with exposure to DPM are long-term and are evaluated on the basis of a lifetime of exposure (70 years). Because construction activities will be short-term, emissions will not impact any sensitive receptors for any length of time.

CARB has adopted airborne toxic control measures (ATCMs) applicable to off-road diesel equipment and portable diesel engines with a rating of 50 brake horsepower or greater. The purpose of these ATCMs is to reduce emissions of PM from engines subject to the rule. The

ATCMs require diesel engines to comply with PM emissions limitations on a fleet-averaged basis. CARB has also adopted an ATCM that limits diesel-fueled commercial motor vehicle idling. The rule applies to motor vehicles with gross vehicular weight ratings greater than 10,000 pounds that are licensed for on-road use. The rule restricts vehicles from idling for more than five minutes at any location, with exceptions for idling that may be necessary in the operation of the vehicle.

All off-road diesel equipment, on-road heavy-duty diesel trucks, and portable diesel equipment used for the Proposed Project will meet the state's applicable ATCMs for control of diesel PM or NO_x in the exhaust (e.g., ATCMs for portable diesel engines, off-road vehicles, and heavy-duty on-road diesel trucks, and five-minute diesel engine idling limits) that are in effect during implementation of the Proposed Project. The mobile fleets used in the Proposed Project are expected to be in full compliance with these ATCMs. This will ensure that pollutant emissions in diesel engine exhaust do not exceed applicable federal or state air quality standards. As a result, impacts will be less than significant.

Operation and Maintenance – No Impact

As shown in Table 4.3-8: Peak Daily Operational Emissions, operation and maintenance of the Proposed Project will generate limited CAP emissions and will be in compliance with all applicable thresholds. Therefore, the operation and maintenance of the Proposed Project will not result in any impacts related to existing air quality standards.

Question 4.3c – Criteria Pollutant Increases

Construction – Less-than-Significant Impact

As shown previously in Table 4.3-6: Peak Daily Unmitigated Construction Emissions and Table 4.3-7: Peak Daily Mitigated Construction Emissions, the construction of the Proposed Project will lead to a small, temporary increase in CAPs. SDG&E ordinary construction restrictions will be implemented, which include minimizing vehicle idling time and controls for dust emissions, to reduce the impacts of the construction. As a result, the temporary criteria pollutant emissions will not exceed the applicable SDAPCD thresholds and impacts will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Operational emissions were simulated using CalEEMod, assuming the levels of traffic described in Section 3.7 Operation and Maintenance. The results of these simulations are presented in Table 4.3-8: Peak Daily Operational Emissions. These increases in CAPs will be significantly less than those projected for the construction phase, and will be well below the acceptable significance thresholds. As a result, CAP increases due to operation and maintenance of the Proposed Project will be considered less than significant.

Question 4.3d – Sensitive Receptor Exposure – *Less-than-Significant Impact*

The Proposed Project site is located in an industrial and commercial area and in proximity to I-5 and Kettner Boulevard. Although sensitive receptors have been identified within 350 feet of the proposed substation, impacts to these receptors will be less than significant with the implementation of SDG&E's ordinary construction restrictions described in response to Question 4.3a. These restrictions include reducing idling time and implementing dust control

measures. In addition, emissions resulting from operation and maintenance activities associated with the Proposed Project were also determined to be in compliance with the applicable SDAPCD thresholds. Neither the construction nor operation and maintenance phases of the Proposed Project will contribute to the violation of an existing air quality standard. As a result, the Proposed Project will have a less-than-significant impact to sensitive receptors.

Question 4.3e – Odor

Construction – Less-than-Significant Impact

Due to the nature of the Proposed Project, odor impacts are unlikely. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. No significant sources of these pollutants will exist during construction. An additional potential source of Proposed Project-related odor is diesel engine emissions. These emissions will be temporary in nature and will be limited by the relatively small number of vehicles on site and the distance from any sensitive receptors. In addition, the Proposed Project site is located in close proximity to I-5, which supports a high volume of freeway traffic and generates odors that will be consistent with the construction equipment used during the Proposed Project. Therefore, impacts will be less than significant.

Operation and Maintenance – No Impact

Operation and maintenance activities associated with the Proposed Project will not result in detectable odors. As a result, there will be no impact.

4.3.4 Applicant-Proposed Measures

Because the Proposed Project will have a less-than-significant impact on air quality and SDG&E standard construction restrictions will be implemented, no applicant-proposed measures are proposed.

4.3.5 References

CARB. Air Monitoring Site Information. Online. http://www.arb.ca.gov/qaweb/site.php. Site visited April 2, 2014a.

CARB. Annual Toxics Summaries. Aerometric Data Analysis and Measurement System (ADAM). Online. http://www.arb.ca.gov/adam/. Site visited April 2, 2014b.

CARB. Area Designations Maps / State and National. Online. http://www.arb.ca.gov/desig/adm/adm.htm. Site visited April 4, 2014c.

CARB. California Ambient Air Quality Standards (CAAQS). Online. http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Site visited April 2, 2014d.

CARB. Laws and Regulations. Online. http://www.arb.ca.gov/html/lawsregs.htm. Site visited April 2, 2014e.

CARB. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.

City of San Diego. 2011. *Significance Determination Thresholds*.

SDAPCD. Air Pollution Control District County of San Diego Rules & Regulations. Online. http://www.sdapcd.org/rules/rules.html. Site visited April 2, 2014.

SCAQMD. CEQA Handbook. Online. http://www.aqmd.gov/ceqa/hdbk.html. Site visited April 2, 2014.

U.S. EPA. Air Pollution and the Clean Air Act. Online. http://www.epa.gov/air/caa/. Site visited April 2, 2014a.

U.S. EPA. National Ambient Air Quality Standards (NAAQS). Online. http://www.epa.gov/air/criteria.html. Site visited April 2, 2014b.

ATTACHMENT 4.3–A: CALEEMOD INPUT AND OUTPUT FILES

Vine 69/12 kV Substation Project

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Substation parcel size set to 1.5 acre

Construction Phase - Schedule taken from Chapter 3 - Project Description. Telecom cable installation will be conducted with the same equipment as 12 kV cable installation.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Trips and VMT - Values calculated from import and export needs.

On-road Fugitive Dust - Assume 98 percent of substation hauling trips are off pavement due to site development being conducted and the final roads not being paved.

Grading - Total area disturbed has been updated to indicate the size of the substation parcel

Vehicle Trips - Conservatively estimated an average of 10 trips per day to handle operation and maintenance.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - Assume 2 bucket trucks three times per year for tranmission line maintence. Remainder of maintenance is performed from on-road vehicles.

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tblConstructionPhase	NumDays	200.00	50.00

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tblConstructionPhase	PhaseEndDate	4/15/2017	11/15/2016
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tblOnRoadDust	HaulingPercentPave	100.00	98.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2577	13.4075	9.0507	0.0138	1.1537	0.6924	1.8460	0.4782	0.6418	1.1200	0.0000	1,266.1252	1,266.1252	0.3149	0.0000	1,272.7375
2017	0.5163	5.2548	3.7678	7.3800e-003	0.0864	0.2617	0.3481	0.0231	0.2468	0.2700	0.0000	655.0061	655.0061	0.1403	0.0000	657.9518
Total	**1.7740**	**18.6623**	**12.8185**	**0.0212**	**1.2401**	**0.9541**	**2.1942**	**0.5013**	**0.8887**	**1.3899**	**0.0000**	**1,921.1313**	**1,921.1313**	**0.4551**	**0.0000**	**1,930.6893**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.2577	13.4075	9.0507	0.0138	0.7311	0.6924	1.4234	0.2464	0.6418	0.8882	0.0000	1,266.1239	1,266.1239	0.3149	0.0000	1,272.7362
2017	0.5163	5.2548	3.7678	7.3800e-003	0.0864	0.2617	0.3481	0.0231	0.2468	0.2700	0.0000	655.0055	655.0055	0.1403	0.0000	657.9512
Total	**1.7740**	**18.6623**	**12.8185**	**0.0212**	**0.8175**	**0.9541**	**1.7716**	**0.2696**	**0.8887**	**1.1582**	**0.0000**	**1,921.1294**	**1,921.1294**	**0.4551**	**0.0000**	**1,930.6873**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**34.08**	**0.00**	**19.26**	**46.23**	**0.00**	**16.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	1.5000e-004	2.4000e-003	3.2400e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.4598	0.4598	1.4000e-004	0.0000	0.4627
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**2.4000e-003**	**3.2500e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.4598**	**0.4598**	**1.4000e-004**	**0.0000**	**0.4627**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	1.5000e-004	2.4000e-003	3.2400e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.4598	0.4598	1.4000e-004	0.0000	0.4627
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.5000e-004**	**2.4000e-003**	**3.2500e-003**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.4598**	**0.4598**	**1.4000e-004**	**0.0000**	**0.4627**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**100.00**	**100.00**	**99.69**	**0.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**100.00**	**0.00**	**100.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Vine - Site Development	Grading	1/1/2016	3/31/2016	6	78	
2	Vine - Wall Construction	Building Construction	3/1/2016	4/30/2016	6	53	
3	Vine - Below Grade	Site Preparation	4/1/2016	9/30/2016	6	157	
4	Vine - Equipment Installation	Building Construction	9/1/2016	6/30/2017	6	260	
5	12 kV - Bank and Vault Installation	Trenching	10/1/2016	3/31/2017	6	156	
6	69 kV - Foundation Installation	Trenching	11/1/2016	11/15/2016	6	13	
7	69 kV - Pole Installation and Removal	Building Construction	11/16/2016	2/28/2017	6	90	
8	69 kV - Conductor Installation	Building Construction	1/1/2017	2/28/2017	6	50	
9	Energization - Testing and Commissioning	Building Construction	2/1/2017	6/30/2017	6	129	
10	Telecom - Bank and Vault Installation	Trenching	4/1/2017	4/30/2017	6	25	
11	12 kV - Cable Installation	Building Construction	4/1/2017	6/30/2017	6	78	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Vine - Site Development	Excavators	1	6.00	162	0.38
Vine - Site Development	Graders	0	6.00	174	0.41
Vine - Site Development	Off-Highway Trucks	1	7.00	400	0.38
Vine - Site Development	Pavers	1	6.00	125	0.42
Vine - Site Development	Rollers	2	7.00	80	0.38
Vine - Site Development	Rollers	2	6.00	80	0.38

Vine - Site Development	Rubber Tired Dozers	0	6.00	255	0.40
Vine - Site Development	Rubber Tired Dozers	2	6.00	255	0.40
Vine - Site Development	Scrapers	4	7.00	361	0.48
Vine - Site Development	Skid Steer Loaders	2	3.00	64	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Trenchers	1	6.00	80	0.50
Vine - Wall Construction	Cranes	0	6.00	226	0.29
Vine - Wall Construction	Excavators	1	9.00	162	0.38
Vine - Wall Construction	Forklifts	0	6.00	89	0.20
Vine - Wall Construction	Generator Sets	0	8.00	84	0.74
Vine - Wall Construction	Graders	1	9.00	174	0.41
Vine - Wall Construction	Off-Highway Trucks	1	9.00	400	0.38
Vine - Wall Construction	Plate Compactors	3	9.00	8	0.43
Vine - Wall Construction	Rollers	1	9.00	80	0.38
Vine - Wall Construction	Rubber Tired Dozers	1	7.00	255	0.40
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	3	9.00	97	0.37
Vine - Wall Construction	Welders	0	8.00	46	0.45
Vine - Below Grade	Off-Highway Trucks	1	3.00	400	0.38
Vine - Below Grade	Skid Steer Loaders	1	4.00	64	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Below Grade	Trenchers	1	6.00	80	0.50

Vine - Equipment Installation	Aerial Lifts	1	6.00	62	0.31
Vine - Equipment Installation	Aerial Lifts	4	5.00	62	0.31
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	2	6.00	226	0.29
Vine - Equipment Installation	Forklifts	0	6.00	89	0.20
Vine - Equipment Installation	Generator Sets	0	8.00	84	0.74
Vine - Equipment Installation	Generator Sets	1	24.00	84	0.74
Vine - Equipment Installation	Off-Highway Trucks	1	2.00	400	0.38
Vine - Equipment Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Equipment Installation	Welders	0	8.00	46	0.45
12 kV - Bank and Vault Installation	Cranes	1	6.00	226	0.29
12 kV - Bank and Vault Installation	Excavators	3	8.00	162	0.38
12 kV - Bank and Vault Installation	Other Construction Equipment	1	1.00	171	0.42
12 kV - Bank and Vault Installation	Paving Equipment	1	6.00	130	0.36
12 kV - Bank and Vault Installation	Paving Equipment	2	7.00	130	0.36
12 kV - Bank and Vault Installation	Rollers	2	4.00	80	0.38
12 kV - Bank and Vault Installation	Skid Steer Loaders	4	6.00	64	0.37
12 kV - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
69 kV - Foundation Installation	Bore/Drill Rigs	1	8.00	205	0.50
69 kV - Foundation Installation	Cranes	1	3.00	226	0.29
69 kV - Foundation Installation	Forklifts	1	4.00	89	0.20
69 kV - Foundation Installation	Generator Sets	1	4.00	84	0.74
69 kV - Foundation Installation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
69 kV - Pole Installation and Removal	Aerial Lifts	1	8.00	62	0.31
69 kV - Pole Installation and Removal	Air Compressors	1	8.00	78	0.48
69 kV - Pole Installation and Removal	Cranes	1	8.00	226	0.29
69 kV - Pole Installation and Removal	Forklifts	0	6.00	89	0.20

69 kV - Pole Installation and Removal	Generator Sets	0	8.00	84	0.74
69 kV - Pole Installation and Removal	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Pole Installation and Removal	Welders	0	8.00	46	0.45
69 kV - Conductor Installation	Aerial Lifts	2	7.00	62	0.31
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	1	7.00	226	0.29
69 kV - Conductor Installation	Forklifts	0	6.00	89	0.20
69 kV - Conductor Installation	Generator Sets	0	8.00	84	0.74
69 kV - Conductor Installation	Other General Industrial Equipment	1	7.00	87	0.34
69 kV - Conductor Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Conductor Installation	Welders	0	8.00	46	0.45
Energization - Testing and Commissioning	Cranes	0	6.00	226	0.29
Energization - Testing and Commissioning	Forklifts	0	6.00	89	0.20
Energization - Testing and Commissioning	Generator Sets	0	8.00	84	0.74
Energization - Testing and Commissioning	Off-Highway Trucks	3	3.00	400	0.38
Energization - Testing and Commissioning	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Energization - Testing and Commissioning	Welders	0	8.00	46	0.45
Telecom - Bank and Vault Installation	Skid Steer Loaders	1	3.00	64	0.37
Telecom - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12 kV - Cable Installation	Cranes	0	6.00	226	0.29
12 kV - Cable Installation	Forklifts	0	6.00	89	0.20
12 kV - Cable Installation	Generator Sets	0	8.00	84	0.74
12 kV - Cable Installation	Other General Industrial Equipment	1	2.00	87	0.34
12 kV - Cable Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
12 kV - Cable Installation	Welders	0	8.00	46	0.45

Vine - Below Grade	Graders	1	8.00	174	0.41
Vine - Below Grade	Rubber Tired Dozers	1	7.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Vine - Site Development	20	33.00	7.00	922.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Wall Construction	11	15.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Below Grade	8	12.00	2.00	133.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Equipment Installation	9	29.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Bank and Vault Installation	15	28.00	2.00	765.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Foundation Installation	5	7.00	2.00	35.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Pole Installation and Remo	3	5.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Conductor Installation	4	5.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Energization - Testing and Commissioning	3	9.00	0.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Telecom - Bank and Vault Installation	2	0.00	2.00	24.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Cable Installation	1	16.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Vine - Site Development - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3539	0.0000	0.3539	0.1939	0.0000	0.1939	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4185	4.8062	3.1344	4.1400e-003		0.2334	0.2334		0.2148	0.2148	0.0000	390.8267	390.8267	0.1179	0.0000	393.3023
Total	**0.4185**	**4.8062**	**3.1344**	**4.1400e-003**	**0.3539**	**0.2334**	**0.5873**	**0.1939**	**0.2148**	**0.4086**	**0.0000**	**390.8267**	**390.8267**	**0.1179**	**0.0000**	**393.3023**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.6500e-003	0.1339	0.1103	3.4000e-004	0.2494	1.7700e-003	0.2512	0.0262	1.6300e-003	0.0279	0.0000	31.4887	31.4887	2.3000e-004	0.0000	31.4934
Vendor	4.8500e-003	0.0631	0.0482	1.7000e-004	4.8500e-003	1.0400e-003	5.9000e-003	1.3900e-003	9.6000e-004	2.3500e-003	0.0000	15.3942	15.3942	1.1000e-004	0.0000	15.3965
Worker	5.5500e-003	0.0102	0.0942	2.3000e-004	0.0191	1.4000e-004	0.0192	5.0700e-003	1.3000e-004	5.2000e-003	0.0000	17.5804	17.5804	9.0000e-004	0.0000	17.5994
Total	**0.0201**	**0.2071**	**0.2526**	**7.4000e-004**	**0.2734**	**2.9500e-003**	**0.2763**	**0.0327**	**2.7200e-003**	**0.0354**	**0.0000**	**64.4633**	**64.4633**	**1.2400e-003**	**0.0000**	**64.4893**

3.2 Vine - Site Development - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1592	0.0000	0.1592	0.0872	0.0000	0.0872	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4185	4.8062	3.1344	4.1400e-003		0.2334	0.2334		0.2148	0.2148	0.0000	390.8262	390.8262	0.1179	0.0000	393.3018
Total	**0.4185**	**4.8062**	**3.1344**	**4.1400e-003**	**0.1592**	**0.2334**	**0.3927**	**0.0872**	**0.2148**	**0.3020**	**0.0000**	**390.8262**	**390.8262**	**0.1179**	**0.0000**	**393.3018**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.6500e-003	0.1339	0.1103	3.4000e-004	0.2494	1.7700e-003	0.2512	0.0262	1.6300e-003	0.0279	0.0000	31.4887	31.4887	2.3000e-004	0.0000	31.4934
Vendor	4.8500e-003	0.0631	0.0482	1.7000e-004	4.8500e-003	1.0400e-003	5.9000e-003	1.3900e-003	9.6000e-004	2.3500e-003	0.0000	15.3942	15.3942	1.1000e-004	0.0000	15.3965
Worker	5.5500e-003	0.0102	0.0942	2.3000e-004	0.0191	1.4000e-004	0.0192	5.0700e-003	1.3000e-004	5.2000e-003	0.0000	17.5804	17.5804	9.0000e-004	0.0000	17.5994
Total	**0.0201**	**0.2071**	**0.2526**	**7.4000e-004**	**0.2734**	**2.9500e-003**	**0.2763**	**0.0327**	**2.7200e-003**	**0.0354**	**0.0000**	**64.4633**	**64.4633**	**1.2400e-003**	**0.0000**	**64.4893**

3.3 Vine - Wall Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1428	1.4931	0.9375	1.3400e-003		0.0812	0.0812		0.0748	0.0748	0.0000	125.2567	125.2567	0.0372	0.0000	126.0385
Total	**0.1428**	**1.4931**	**0.9375**	**1.3400e-003**		**0.0812**	**0.0812**		**0.0748**	**0.0748**	**0.0000**	**125.2567**	**125.2567**	**0.0372**	**0.0000**	**126.0385**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0122	9.3500e-003	3.0000e-005	9.4000e-004	2.0000e-004	1.1500e-003	2.7000e-004	1.9000e-004	4.6000e-004	0.0000	2.9886	2.9886	2.0000e-005	0.0000	2.9891
Worker	1.7100e-003	3.1500e-003	0.0291	7.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.4299	5.4299	2.8000e-004	0.0000	5.4357
Total	**2.6500e-003**	**0.0154**	**0.0384**	**1.0000e-004**	**6.8400e-003**	**2.4000e-004**	**7.0900e-003**	**1.8400e-003**	**2.3000e-004**	**2.0700e-003**	**0.0000**	**8.4185**	**8.4185**	**3.0000e-004**	**0.0000**	**8.4248**

3.3 Vine - Wall Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1428	1.4931	0.9375	1.3400e-003		0.0812	0.0812		0.0748	0.0748	0.0000	125.2566	125.2566	0.0372	0.0000	126.0384
Total	**0.1428**	**1.4931**	**0.9375**	**1.3400e-003**		**0.0812**	**0.0812**		**0.0748**	**0.0748**	**0.0000**	**125.2566**	**125.2566**	**0.0372**	**0.0000**	**126.0384**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4000e-004	0.0122	9.3500e-003	3.0000e-005	9.4000e-004	2.0000e-004	1.1500e-003	2.7000e-004	1.9000e-004	4.6000e-004	0.0000	2.9886	2.9886	2.0000e-005	0.0000	2.9891
Worker	1.7100e-003	3.1500e-003	0.0291	7.0000e-005	5.9000e-003	4.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.4299	5.4299	2.8000e-004	0.0000	5.4357
Total	**2.6500e-003**	**0.0154**	**0.0384**	**1.0000e-004**	**6.8400e-003**	**2.4000e-004**	**7.0900e-003**	**1.8400e-003**	**2.3000e-004**	**2.0700e-003**	**0.0000**	**8.4185**	**8.4185**	**3.0000e-004**	**0.0000**	**8.4248**

3.4 Vine - Below Grade - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4145	0.0000	0.4145	0.2275	0.0000	0.2275	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2901	3.0066	1.9021	2.3200e-003		0.1721	0.1721		0.1584	0.1584	0.0000	218.8955	218.8955	0.0660	0.0000	220.2821
Total	**0.2901**	**3.0066**	**1.9021**	**2.3200e-003**	**0.4145**	**0.1721**	**0.5867**	**0.2275**	**0.1584**	**0.3858**	**0.0000**	**218.8955**	**218.8955**	**0.0660**	**0.0000**	**220.2821**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3900e-003	0.0193	0.0159	5.0000e-005	0.0360	2.5000e-004	0.0362	3.7900e-003	2.3000e-004	4.0200e-003	0.0000	4.5423	4.5423	3.0000e-005	0.0000	4.5430
Vendor	2.7900e-003	0.0363	0.0277	1.0000e-004	2.7900e-003	6.0000e-004	3.3900e-003	8.0000e-004	5.5000e-004	1.3500e-003	0.0000	8.8531	8.8531	6.0000e-005	0.0000	8.8544
Worker	4.0600e-003	7.4600e-003	0.0689	1.7000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8100e-003	0.0000	12.8677	12.8677	6.6000e-004	0.0000	12.8816
Total	**8.2400e-003**	**0.0630**	**0.1126**	**3.2000e-004**	**0.0528**	**9.5000e-004**	**0.0537**	**8.3000e-003**	**8.7000e-004**	**9.1800e-003**	**0.0000**	**26.2631**	**26.2631**	**7.5000e-004**	**0.0000**	**26.2790**

3.4 Vine - Below Grade - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1865	0.0000	0.1865	0.1024	0.0000	0.1024	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2901	3.0066	1.9021	2.3200e-003		0.1721	0.1721		0.1584	0.1584	0.0000	218.8953	218.8953	0.0660	0.0000	220.2818
Total	**0.2901**	**3.0066**	**1.9021**	**2.3200e-003**	**0.1865**	**0.1721**	**0.3587**	**0.1024**	**0.1584**	**0.2607**	**0.0000**	**218.8953**	**218.8953**	**0.0660**	**0.0000**	**220.2818**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3900e-003	0.0193	0.0159	5.0000e-005	0.0360	2.5000e-004	0.0362	3.7900e-003	2.3000e-004	4.0200e-003	0.0000	4.5423	4.5423	3.0000e-005	0.0000	4.5430
Vendor	2.7900e-003	0.0363	0.0277	1.0000e-004	2.7900e-003	6.0000e-004	3.3900e-003	8.0000e-004	5.5000e-004	1.3500e-003	0.0000	8.8531	8.8531	6.0000e-005	0.0000	8.8544
Worker	4.0600e-003	7.4600e-003	0.0689	1.7000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8100e-003	0.0000	12.8677	12.8677	6.6000e-004	0.0000	12.8816
Total	**8.2400e-003**	**0.0630**	**0.1126**	**3.2000e-004**	**0.0528**	**9.5000e-004**	**0.0537**	**8.3000e-003**	**8.7000e-004**	**9.1800e-003**	**0.0000**	**26.2631**	**26.2631**	**7.5000e-004**	**0.0000**	**26.2790**

3.5 Vine - Equipment Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1793	1.7332	1.0855	1.9300e-003		0.0957	0.0957		0.0923	0.0923	0.0000	173.7372	173.7372	0.0337	0.0000	174.4449
Total	**0.1793**	**1.7332**	**1.0855**	**1.9300e-003**		**0.0957**	**0.0957**		**0.0923**	**0.0923**	**0.0000**	**173.7372**	**173.7372**	**0.0337**	**0.0000**	**174.4449**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-003	0.0364	0.0278	1.0000e-004	2.8000e-003	6.0000e-004	3.4000e-003	8.0000e-004	5.5000e-004	1.3500e-003	0.0000	8.8813	8.8813	6.0000e-005	0.0000	8.8826
Worker	6.5600e-003	0.0121	0.1114	2.7000e-004	0.0226	1.6000e-004	0.0228	6.0000e-003	1.5000e-004	6.1500e-003	0.0000	20.7974	20.7974	1.0700e-003	0.0000	20.8198
Total	**9.3600e-003**	**0.0484**	**0.1392**	**3.7000e-004**	**0.0254**	**7.6000e-004**	**0.0262**	**6.8000e-003**	**7.0000e-004**	**7.5000e-003**	**0.0000**	**29.6786**	**29.6786**	**1.1300e-003**	**0.0000**	**29.7024**

3.5 Vine - Equipment Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1793	1.7332	1.0855	1.9300e-003		0.0957	0.0957		0.0923	0.0923	0.0000	173.7370	173.7370	0.0337	0.0000	174.4447
Total	**0.1793**	**1.7332**	**1.0855**	**1.9300e-003**		**0.0957**	**0.0957**		**0.0923**	**0.0923**	**0.0000**	**173.7370**	**173.7370**	**0.0337**	**0.0000**	**174.4447**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8000e-003	0.0364	0.0278	1.0000e-004	2.8000e-003	6.0000e-004	3.4000e-003	8.0000e-004	5.5000e-004	1.3500e-003	0.0000	8.8813	8.8813	6.0000e-005	0.0000	8.8826
Worker	6.5600e-003	0.0121	0.1114	2.7000e-004	0.0226	1.6000e-004	0.0228	6.0000e-003	1.5000e-004	6.1500e-003	0.0000	20.7974	20.7974	1.0700e-003	0.0000	20.8198
Total	**9.3600e-003**	**0.0484**	**0.1392**	**3.7000e-004**	**0.0254**	**7.6000e-004**	**0.0262**	**6.8000e-003**	**7.0000e-004**	**7.5000e-003**	**0.0000**	**29.6786**	**29.6786**	**1.1300e-003**	**0.0000**	**29.7024**

3.5 Vine - Equipment Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2370	2.3246	1.5604	2.8600e-003		0.1239	0.1239		0.1196	0.1196	0.0000	254.5140	254.5140	0.0484	0.0000	255.5295
Total	**0.2370**	**2.3246**	**1.5604**	**2.8600e-003**		**0.1239**	**0.1239**		**0.1196**	**0.1196**	**0.0000**	**254.5140**	**254.5140**	**0.0484**	**0.0000**	**255.5295**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7900e-003	0.0476	0.0384	1.4000e-004	4.1300e-003	7.7000e-004	4.9100e-003	1.1800e-003	7.1000e-004	1.8900e-003	0.0000	12.8886	12.8886	9.0000e-005	0.0000	12.8905
Worker	8.6700e-003	0.0162	0.1481	4.1000e-004	0.0334	2.3000e-004	0.0336	8.8600e-003	2.2000e-004	9.0800e-003	0.0000	29.5141	29.5141	1.4600e-003	0.0000	29.5449
Total	**0.0125**	**0.0638**	**0.1866**	**5.5000e-004**	**0.0375**	**1.0000e-003**	**0.0385**	**0.0100**	**9.3000e-004**	**0.0110**	**0.0000**	**42.4027**	**42.4027**	**1.5500e-003**	**0.0000**	**42.4353**

3.5 Vine - Equipment Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2370	2.3246	1.5604	2.8600e-003		0.1239	0.1239		0.1196	0.1196	0.0000	254.5137	254.5137	0.0484	0.0000	255.5292
Total	**0.2370**	**2.3246**	**1.5604**	**2.8600e-003**		**0.1239**	**0.1239**		**0.1196**	**0.1196**	**0.0000**	**254.5137**	**254.5137**	**0.0484**	**0.0000**	**255.5292**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7900e-003	0.0476	0.0384	1.4000e-004	4.1300e-003	7.7000e-004	4.9100e-003	1.1800e-003	7.1000e-004	1.8900e-003	0.0000	12.8886	12.8886	9.0000e-005	0.0000	12.8905
Worker	8.6700e-003	0.0162	0.1481	4.1000e-004	0.0334	2.3000e-004	0.0336	8.8600e-003	2.2000e-004	9.0800e-003	0.0000	29.5141	29.5141	1.4600e-003	0.0000	29.5449
Total	**0.0125**	**0.0638**	**0.1866**	**5.5000e-004**	**0.0375**	**1.0000e-003**	**0.0385**	**0.0100**	**9.3000e-004**	**0.0110**	**0.0000**	**42.4027**	**42.4027**	**1.5500e-003**	**0.0000**	**42.4353**

3.6 12 kV - Bank and Vault Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1412	1.5929	1.1064	1.6900e-003		0.0854	0.0854		0.0786	0.0786	0.0000	159.1539	159.1539	0.0480	0.0000	160.1620
Total	**0.1412**	**1.5929**	**1.1064**	**1.6900e-003**		**0.0854**	**0.0854**		**0.0786**	**0.0786**	**0.0000**	**159.1539**	**159.1539**	**0.0480**	**0.0000**	**160.1620**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0600e-003	0.0563	0.0463	1.4000e-004	5.7300e-003	7.4000e-004	6.4800e-003	1.5000e-003	6.8000e-004	2.1900e-003	0.0000	13.2308	13.2308	9.0000e-005	0.0000	13.2328
Vendor	1.4000e-003	0.0183	0.0139	5.0000e-005	1.4000e-003	3.0000e-004	1.7100e-003	4.0000e-004	2.8000e-004	6.8000e-004	0.0000	4.4547	4.4547	3.0000e-005	0.0000	4.4554
Worker	4.7700e-003	8.7600e-003	0.0810	2.0000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4700e-003	0.0000	15.1080	15.1080	7.8000e-004	0.0000	15.1243
Total	**0.0102**	**0.0833**	**0.1412**	**3.9000e-004**	**0.0236**	**1.1600e-003**	**0.0247**	**6.2600e-003**	**1.0700e-003**	**7.3400e-003**	**0.0000**	**32.7935**	**32.7935**	**9.0000e-004**	**0.0000**	**32.8125**

3.6 12 kV - Bank and Vault Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1412	1.5929	1.1064	1.6900e-003		0.0854	0.0854		0.0786	0.0786	0.0000	159.1537	159.1537	0.0480	0.0000	160.1618
Total	**0.1412**	**1.5929**	**1.1064**	**1.6900e-003**		**0.0854**	**0.0854**		**0.0786**	**0.0786**	**0.0000**	**159.1537**	**159.1537**	**0.0480**	**0.0000**	**160.1618**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0600e-003	0.0563	0.0463	1.4000e-004	5.7300e-003	7.4000e-004	6.4800e-003	1.5000e-003	6.8000e-004	2.1900e-003	0.0000	13.2308	13.2308	9.0000e-005	0.0000	13.2328
Vendor	1.4000e-003	0.0183	0.0139	5.0000e-005	1.4000e-003	3.0000e-004	1.7100e-003	4.0000e-004	2.8000e-004	6.8000e-004	0.0000	4.4547	4.4547	3.0000e-005	0.0000	4.4554
Worker	4.7700e-003	8.7600e-003	0.0810	2.0000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4700e-003	0.0000	15.1080	15.1080	7.8000e-004	0.0000	15.1243
Total	**0.0102**	**0.0833**	**0.1412**	**3.9000e-004**	**0.0236**	**1.1600e-003**	**0.0247**	**6.2600e-003**	**1.0700e-003**	**7.3400e-003**	**0.0000**	**32.7935**	**32.7935**	**9.0000e-004**	**0.0000**	**32.8125**

3.6 12 kV - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.4165	1.0681	1.6500e-003		0.0754	0.0754		0.0694	0.0694	0.0000	152.6961	152.6961	0.0468	0.0000	153.6786
Total	**0.1273**	**1.4165**	**1.0681**	**1.6500e-003**		**0.0754**	**0.0754**		**0.0694**	**0.0694**	**0.0000**	**152.6961**	**152.6961**	**0.0468**	**0.0000**	**153.6786**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-003	0.0489	0.0433	1.4000e-004	5.7100e-003	6.4000e-004	6.3500e-003	1.5000e-003	5.9000e-004	2.0800e-003	0.0000	12.6762	12.6762	9.0000e-005	0.0000	12.6781
Vendor	1.2500e-003	0.0158	0.0127	5.0000e-005	1.3700e-003	2.6000e-004	1.6300e-003	3.9000e-004	2.4000e-004	6.3000e-004	0.0000	4.2685	4.2685	3.0000e-005	0.0000	4.2691
Worker	4.1600e-003	7.7700e-003	0.0710	1.9000e-004	0.0160	1.1000e-004	0.0161	4.2500e-003	1.0000e-004	4.3500e-003	0.0000	14.1563	14.1563	7.0000e-004	0.0000	14.1710
Total	**9.1100e-003**	**0.0724**	**0.1270**	**3.8000e-004**	**0.0231**	**1.0100e-003**	**0.0241**	**6.1400e-003**	**9.3000e-004**	**7.0600e-003**	**0.0000**	**31.1010**	**31.1010**	**8.2000e-004**	**0.0000**	**31.1182**

3.6 12 kV - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1273	1.4165	1.0681	1.6500e-003		0.0754	0.0754		0.0694	0.0694	0.0000	152.6959	152.6959	0.0468	0.0000	153.6784
Total	**0.1273**	**1.4165**	**1.0681**	**1.6500e-003**		**0.0754**	**0.0754**		**0.0694**	**0.0694**	**0.0000**	**152.6959**	**152.6959**	**0.0468**	**0.0000**	**153.6784**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-003	0.0489	0.0433	1.4000e-004	5.7100e-003	6.4000e-004	6.3500e-003	1.5000e-003	5.9000e-004	2.0800e-003	0.0000	12.6762	12.6762	9.0000e-005	0.0000	12.6781
Vendor	1.2500e-003	0.0158	0.0127	5.0000e-005	1.3700e-003	2.6000e-004	1.6300e-003	3.9000e-004	2.4000e-004	6.3000e-004	0.0000	4.2685	4.2685	3.0000e-005	0.0000	4.2691
Worker	4.1600e-003	7.7700e-003	0.0710	1.9000e-004	0.0160	1.1000e-004	0.0161	4.2500e-003	1.0000e-004	4.3500e-003	0.0000	14.1563	14.1563	7.0000e-004	0.0000	14.1710
Total	**9.1100e-003**	**0.0724**	**0.1270**	**3.8000e-004**	**0.0231**	**1.0100e-003**	**0.0241**	**6.1400e-003**	**9.3000e-004**	**7.0600e-003**	**0.0000**	**31.1010**	**31.1010**	**8.2000e-004**	**0.0000**	**31.1182**

3.7 69 kV - Foundation Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9400e-003	0.0875	0.0449	1.1000e-004		4.3900e-003	4.3900e-003		4.1300e-003	4.1300e-003	0.0000	9.9082	9.9082	2.6000e-003	0.0000	9.9629
Total	**7.9400e-003**	**0.0875**	**0.0449**	**1.1000e-004**		**4.3900e-003**	**4.3900e-003**		**4.1300e-003**	**4.1300e-003**	**0.0000**	**9.9082**	**9.9082**	**2.6000e-003**	**0.0000**	**9.9629**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-004	5.0800e-003	4.1900e-003	1.0000e-005	3.0000e-004	7.0000e-005	3.7000e-004	8.0000e-005	6.0000e-005	1.4000e-004	0.0000	1.1953	1.1953	1.0000e-005	0.0000	1.1955
Vendor	2.3000e-004	3.0000e-003	2.2900e-003	1.0000e-005	2.3000e-004	5.0000e-005	2.8000e-004	7.0000e-005	5.0000e-005	1.1000e-004	0.0000	0.7331	0.7331	1.0000e-005	0.0000	0.7332
Worker	2.0000e-004	3.6000e-004	3.3300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6215	0.6215	3.0000e-005	0.0000	0.6222
Total	**8.0000e-004**	**8.4400e-003**	**9.8100e-003**	**3.0000e-005**	**1.2100e-003**	**1.2000e-004**	**1.3300e-003**	**3.3000e-004**	**1.1000e-004**	**4.3000e-004**	**0.0000**	**2.5499**	**2.5499**	**5.0000e-005**	**0.0000**	**2.5509**

3.7 69 kV - Foundation Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9400e-003	0.0875	0.0449	1.1000e-004		4.3900e-003	4.3900e-003		4.1300e-003	4.1300e-003	0.0000	9.9082	9.9082	2.6000e-003	0.0000	9.9629
Total	**7.9400e-003**	**0.0875**	**0.0449**	**1.1000e-004**		**4.3900e-003**	**4.3900e-003**		**4.1300e-003**	**4.1300e-003**	**0.0000**	**9.9082**	**9.9082**	**2.6000e-003**	**0.0000**	**9.9629**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-004	5.0800e-003	4.1900e-003	1.0000e-005	3.0000e-004	7.0000e-005	3.7000e-004	8.0000e-005	6.0000e-005	1.4000e-004	0.0000	1.1953	1.1953	1.0000e-005	0.0000	1.1955
Vendor	2.3000e-004	3.0000e-003	2.2900e-003	1.0000e-005	2.3000e-004	5.0000e-005	2.8000e-004	7.0000e-005	5.0000e-005	1.1000e-004	0.0000	0.7331	0.7331	1.0000e-005	0.0000	0.7332
Worker	2.0000e-004	3.6000e-004	3.3300e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.6215	0.6215	3.0000e-005	0.0000	0.6222
Total	**8.0000e-004**	**8.4400e-003**	**9.8100e-003**	**3.0000e-005**	**1.2100e-003**	**1.2000e-004**	**1.3300e-003**	**3.3000e-004**	**1.1000e-004**	**4.3000e-004**	**0.0000**	**2.5499**	**2.5499**	**5.0000e-005**	**0.0000**	**2.5509**

3.8 69 kV - Pole Installation and Removal - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0254	0.2524	0.1316	2.3000e-004		0.0137	0.0137		0.0131	0.0131	0.0000	20.5585	20.5585	4.9500e-003	0.0000	20.6625
Total	**0.0254**	**0.2524**	**0.1316**	**2.3000e-004**		**0.0137**	**0.0137**		**0.0131**	**0.0131**	**0.0000**	**20.5585**	**20.5585**	**4.9500e-003**	**0.0000**	**20.6625**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	9.2400e-003	7.0600e-003	2.0000e-005	7.1000e-004	1.5000e-004	8.6000e-004	2.0000e-004	1.4000e-004	3.4000e-004	0.0000	2.2556	2.2556	2.0000e-005	0.0000	2.2559
Worker	4.3000e-004	7.9000e-004	7.3200e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3660	1.3660	7.0000e-005	0.0000	1.3675
Total	**1.1400e-003**	**0.0100**	**0.0144**	**4.0000e-005**	**2.1900e-003**	**1.6000e-004**	**2.3500e-003**	**5.9000e-004**	**1.5000e-004**	**7.4000e-004**	**0.0000**	**3.6216**	**3.6216**	**9.0000e-005**	**0.0000**	**3.6234**

3.8 69 kV - Pole Installation and Removal - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0254	0.2524	0.1316	2.3000e-004		0.0137	0.0137		0.0131	0.0131	0.0000	20.5585	20.5585	4.9500e-003	0.0000	20.6625
Total	**0.0254**	**0.2524**	**0.1316**	**2.3000e-004**		**0.0137**	**0.0137**		**0.0131**	**0.0131**	**0.0000**	**20.5585**	**20.5585**	**4.9500e-003**	**0.0000**	**20.6625**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1000e-004	9.2400e-003	7.0600e-003	2.0000e-005	7.1000e-004	1.5000e-004	8.6000e-004	2.0000e-004	1.4000e-004	3.4000e-004	0.0000	2.2556	2.2556	2.0000e-005	0.0000	2.2559
Worker	4.3000e-004	7.9000e-004	7.3200e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3660	1.3660	7.0000e-005	0.0000	1.3675
Total	**1.1400e-003**	**0.0100**	**0.0144**	**4.0000e-005**	**2.1900e-003**	**1.6000e-004**	**2.3500e-003**	**5.9000e-004**	**1.5000e-004**	**7.4000e-004**	**0.0000**	**3.6216**	**3.6216**	**9.0000e-005**	**0.0000**	**3.6234**

3.8 69 kV - Pole Installation and Removal - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0285	0.2852	0.1582	2.8000e-004		0.0151	0.0151		0.0143	0.0143	0.0000	25.4336	25.4336	6.0800e-003	0.0000	25.5614
Total	**0.0285**	**0.2852**	**0.1582**	**2.8000e-004**		**0.0151**	**0.0151**		**0.0143**	**0.0143**	**0.0000**	**25.4336**	**25.4336**	**6.0800e-003**	**0.0000**	**25.5614**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1000e-004	0.0102	8.2700e-003	3.0000e-005	8.9000e-004	1.7000e-004	1.0600e-003	2.5000e-004	1.5000e-004	4.1000e-004	0.0000	2.7717	2.7717	2.0000e-005	0.0000	2.7721
Worker	4.8000e-004	9.0000e-004	8.2400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6415	1.6415	8.0000e-005	0.0000	1.6432
Total	**1.2900e-003**	**0.0111**	**0.0165**	**5.0000e-005**	**2.7500e-003**	**1.8000e-004**	**2.9300e-003**	**7.4000e-004**	**1.6000e-004**	**9.1000e-004**	**0.0000**	**4.4132**	**4.4132**	**1.0000e-004**	**0.0000**	**4.4154**

3.8 69 kV - Pole Installation and Removal - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0285	0.2852	0.1582	2.8000e-004		0.0151	0.0151		0.0143	0.0143	0.0000	25.4336	25.4336	6.0800e-003	0.0000	25.5614
Total	**0.0285**	**0.2852**	**0.1582**	**2.8000e-004**		**0.0151**	**0.0151**		**0.0143**	**0.0143**	**0.0000**	**25.4336**	**25.4336**	**6.0800e-003**	**0.0000**	**25.5614**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1000e-004	0.0102	8.2700e-003	3.0000e-005	8.9000e-004	1.7000e-004	1.0600e-003	2.5000e-004	1.5000e-004	4.1000e-004	0.0000	2.7717	2.7717	2.0000e-005	0.0000	2.7721
Worker	4.8000e-004	9.0000e-004	8.2400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6415	1.6415	8.0000e-005	0.0000	1.6432
Total	**1.2900e-003**	**0.0111**	**0.0165**	**5.0000e-005**	**2.7500e-003**	**1.8000e-004**	**2.9300e-003**	**7.4000e-004**	**1.6000e-004**	**9.1000e-004**	**0.0000**	**4.4132**	**4.4132**	**1.0000e-004**	**0.0000**	**4.4154**

3.9 69 kV - Conductor Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0238	0.2686	0.1532	2.5000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	23.2960	23.2960	7.1400e-003	0.0000	23.4459
Total	**0.0238**	**0.2686**	**0.1532**	**2.5000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**23.2960**	**23.2960**	**7.1400e-003**	**0.0000**	**23.4459**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2200e-003	0.0154	0.0124	5.0000e-005	1.3300e-003	2.5000e-004	1.5800e-003	3.8000e-004	2.3000e-004	6.1000e-004	0.0000	4.1576	4.1576	3.0000e-005	0.0000	4.1582
Worker	4.8000e-004	9.0000e-004	8.2400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6415	1.6415	8.0000e-005	0.0000	1.6432
Total	**1.7000e-003**	**0.0163**	**0.0206**	**7.0000e-005**	**3.1900e-003**	**2.6000e-004**	**3.4500e-003**	**8.7000e-004**	**2.4000e-004**	**1.1100e-003**	**0.0000**	**5.7991**	**5.7991**	**1.1000e-004**	**0.0000**	**5.8014**

3.9 69 kV - Conductor Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0238	0.2686	0.1532	2.5000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	23.2960	23.2960	7.1400e-003	0.0000	23.4459
Total	**0.0238**	**0.2686**	**0.1532**	**2.5000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**23.2960**	**23.2960**	**7.1400e-003**	**0.0000**	**23.4459**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2200e-003	0.0154	0.0124	5.0000e-005	1.3300e-003	2.5000e-004	1.5800e-003	3.8000e-004	2.3000e-004	6.1000e-004	0.0000	4.1576	4.1576	3.0000e-005	0.0000	4.1582
Worker	4.8000e-004	9.0000e-004	8.2400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8700e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6415	1.6415	8.0000e-005	0.0000	1.6432
Total	**1.7000e-003**	**0.0163**	**0.0206**	**7.0000e-005**	**3.1900e-003**	**2.6000e-004**	**3.4500e-003**	**8.7000e-004**	**2.4000e-004**	**1.1100e-003**	**0.0000**	**5.7991**	**5.7991**	**1.1000e-004**	**0.0000**	**5.8014**

3.10 Energization - Testing and Commissioning - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0633	0.7136	0.3400	9.5000e-004		0.0265	0.0265		0.0244	0.0244	0.0000	88.4896	88.4896	0.0271	0.0000	89.0589
Total	**0.0633**	**0.7136**	**0.3400**	**9.5000e-004**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**88.4896**	**88.4896**	**0.0271**	**0.0000**	**89.0589**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2400e-003	4.1800e-003	0.0383	1.0000e-004	8.6200e-003	6.0000e-005	8.6800e-003	2.2900e-003	6.0000e-005	2.3400e-003	0.0000	7.6231	7.6231	3.8000e-004	0.0000	7.6311
Total	**2.2400e-003**	**4.1800e-003**	**0.0383**	**1.0000e-004**	**8.6200e-003**	**6.0000e-005**	**8.6800e-003**	**2.2900e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.6231**	**7.6231**	**3.8000e-004**	**0.0000**	**7.6311**

3.10 Energization - Testing and Commissioning - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0633	0.7136	0.3400	9.5000e-004		0.0265	0.0265		0.0244	0.0244	0.0000	88.4895	88.4895	0.0271	0.0000	89.0588
Total	**0.0633**	**0.7136**	**0.3400**	**9.5000e-004**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**88.4895**	**88.4895**	**0.0271**	**0.0000**	**89.0588**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2400e-003	4.1800e-003	0.0383	1.0000e-004	8.6200e-003	6.0000e-005	8.6800e-003	2.2900e-003	6.0000e-005	2.3400e-003	0.0000	7.6231	7.6231	3.8000e-004	0.0000	7.6311
Total	**2.2400e-003**	**4.1800e-003**	**0.0383**	**1.0000e-004**	**8.6200e-003**	**6.0000e-005**	**8.6800e-003**	**2.2900e-003**	**6.0000e-005**	**2.3400e-003**	**0.0000**	**7.6231**	**7.6231**	**3.8000e-004**	**0.0000**	**7.6311**

3.11 Telecom - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9800e-003	0.0207	0.0177	2.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	2.2384	2.2384	6.9000e-004	0.0000	2.2528
Total	**1.9800e-003**	**0.0207**	**0.0177**	**2.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**2.2384**	**2.2384**	**6.9000e-004**	**0.0000**	**2.2528**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	3.1100e-003	2.7500e-003	1.0000e-005	2.0000e-004	4.0000e-005	2.5000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.8057	0.8057	1.0000e-005	0.0000	0.8058
Vendor	4.1000e-004	5.1200e-003	4.1300e-003	2.0000e-005	4.4000e-004	8.0000e-005	5.3000e-004	1.3000e-004	8.0000e-005	2.0000e-004	0.0000	1.3859	1.3859	1.0000e-005	0.0000	1.3861
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4000e-004**	**8.2300e-003**	**6.8800e-003**	**3.0000e-005**	**6.4000e-004**	**1.2000e-004**	**7.8000e-004**	**1.9000e-004**	**1.2000e-004**	**2.9000e-004**	**0.0000**	**2.1916**	**2.1916**	**2.0000e-005**	**0.0000**	**2.1919**

3.11 Telecom - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9800e-003	0.0207	0.0177	2.0000e-005		1.4200e-003	1.4200e-003		1.3100e-003	1.3100e-003	0.0000	2.2384	2.2384	6.9000e-004	0.0000	2.2528
Total	**1.9800e-003**	**0.0207**	**0.0177**	**2.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**2.2384**	**2.2384**	**6.9000e-004**	**0.0000**	**2.2528**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3000e-004	3.1100e-003	2.7500e-003	1.0000e-005	2.0000e-004	4.0000e-005	2.5000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.8057	0.8057	1.0000e-005	0.0000	0.8058
Vendor	4.1000e-004	5.1200e-003	4.1300e-003	2.0000e-005	4.4000e-004	8.0000e-005	5.3000e-004	1.3000e-004	8.0000e-005	2.0000e-004	0.0000	1.3859	1.3859	1.0000e-005	0.0000	1.3861
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.4000e-004**	**8.2300e-003**	**6.8800e-003**	**3.0000e-005**	**6.4000e-004**	**1.2000e-004**	**7.8000e-004**	**1.9000e-004**	**1.2000e-004**	**2.9000e-004**	**0.0000**	**2.1916**	**2.1916**	**2.0000e-005**	**0.0000**	**2.1919**

3.12 12 kV - Cable Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3600e-003	0.0291	0.0203	2.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	2.2893	2.2893	7.0000e-004	0.0000	2.3040
Total	**3.3600e-003**	**0.0291**	**0.0203**	**2.0000e-005**		**2.3900e-003**	**2.3900e-003**		**2.2000e-003**	**2.2000e-003**	**0.0000**	**2.2893**	**2.2893**	**7.0000e-004**	**0.0000**	**2.3040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0160	0.0129	5.0000e-005	1.3900e-003	2.6000e-004	1.6500e-003	4.0000e-004	2.4000e-004	6.3000e-004	0.0000	4.3239	4.3239	3.0000e-005	0.0000	4.3245
Worker	2.4100e-003	4.5000e-003	0.0411	1.1000e-004	9.2600e-003	6.0000e-005	9.3300e-003	2.4600e-003	6.0000e-005	2.5200e-003	0.0000	8.1944	8.1944	4.1000e-004	0.0000	8.2029
Total	**3.6800e-003**	**0.0205**	**0.0540**	**1.6000e-004**	**0.0107**	**3.2000e-004**	**0.0110**	**2.8600e-003**	**3.0000e-004**	**3.1500e-003**	**0.0000**	**12.5183**	**12.5183**	**4.4000e-004**	**0.0000**	**12.5274**

3.12 12 kV - Cable Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3600e-003	0.0291	0.0203	2.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	2.2893	2.2893	7.0000e-004	0.0000	2.3040
Total	**3.3600e-003**	**0.0291**	**0.0203**	**2.0000e-005**		**2.3900e-003**	**2.3900e-003**		**2.2000e-003**	**2.2000e-003**	**0.0000**	**2.2893**	**2.2893**	**7.0000e-004**	**0.0000**	**2.3040**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0160	0.0129	5.0000e-005	1.3900e-003	2.6000e-004	1.6500e-003	4.0000e-004	2.4000e-004	6.3000e-004	0.0000	4.3239	4.3239	3.0000e-005	0.0000	4.3245
Worker	2.4100e-003	4.5000e-003	0.0411	1.1000e-004	9.2600e-003	6.0000e-005	9.3300e-003	2.4600e-003	6.0000e-005	2.5200e-003	0.0000	8.1944	8.1944	4.1000e-004	0.0000	8.2029
Total	**3.6800e-003**	**0.0205**	**0.0540**	**1.6000e-004**	**0.0107**	**3.2000e-004**	**0.0110**	**2.8600e-003**	**3.0000e-004**	**3.1500e-003**	**0.0000**	**12.5183**	**12.5183**	**4.4000e-004**	**0.0000**	**12.5274**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Vine 69/12 kV Substation Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Substation parcel size set to 1.5 acre

Construction Phase - Schedule taken from Chapter 3 - Project Description. Telecom cable installation will be conducted with the same equipment as 12 kV cable installation.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

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Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Trips and VMT - Values calculated from import and export needs.

On-road Fugitive Dust - Assume 98 percent of substation hauling trips are off pavement due to site development being conducted and the final roads not being paved.

Grading - Total area disturbed has been updated to indicate the size of the substation parcel

Vehicle Trips - Conservatively estimated an average of 10 trips per day to handle operation and maintenance.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - Assume 2 bucket trucks three times per year for tranmission line maintence. Remainder of maintenance is performed from on-road vehicles.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	78.00
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	200.00	90.00
tblConstructionPhase	NumDays	200.00	50.00

tblConstructionPhase	NumDays	200.00	129.00
tblConstructionPhase	NumDays	4.00	78.00
tblConstructionPhase	NumDays	200.00	53.00
tblConstructionPhase	NumDays	2.00	157.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	7/29/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	7/31/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	4/27/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	7/28/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	6/1/2016	4/30/2016
tblConstructionPhase	PhaseEndDate	7/29/2017	4/30/2017
tblConstructionPhase	PhaseEndDate	10/31/2016	9/30/2016
tblConstructionPhase	PhaseEndDate	12/29/2017	3/31/2017
tblConstructionPhase	PhaseEndDate	4/15/2017	11/15/2016
tblConstructionPhase	PhaseStartDate	5/1/2017	4/1/2017
tblConstructionPhase	PhaseStartDate	10/1/2016	9/1/2016
tblConstructionPhase	PhaseStartDate	3/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	3/1/2017	2/1/2017

tblConstructionPhase	PhaseStartDate	4/1/2016	3/1/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	4/1/2017
tblConstructionPhase	PhaseStartDate	5/1/2016	4/1/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	10/1/2016
tblConstructionPhase	PhaseStartDate	4/1/2017	11/1/2016
tblGrading	AcresOfGrading	273.00	1.50
tblGrading	AcresOfGrading	78.50	1.50
tblGrading	MaterialExported	0.00	4,200.00
tblGrading	MaterialExported	0.00	988.00
tblGrading	MaterialImported	0.00	6,700.00
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00

tblOffRoadEquipment	UsageHours	8.00	24.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	3.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	1,363.00	922.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	124.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	765.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00

tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripNumber	50.00	33.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripNumber	20.00	12.00
tblTripsAndVMT	WorkerTripNumber	0.00	29.00
tblTripsAndVMT	WorkerTripNumber	38.00	28.00

tblTripsAndVMT	WorkerTripNumber	13.00	7.00
tblTripsAndVMT	WorkerTripNumber	0.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	9.00
tblVehicleTrips	ST_TR	0.00	10.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	16.7158	185.2420	123.1982	0.1805	17.1280	9.1335	26.2615	5.9606	8.4054	14.3660	0.0000	18,470.1243	18,470.1243	4.9281	0.0000	18,573.6146
2017	9.9831	103.7014	73.2778	0.1400	1.4889	5.1919	6.6809	0.3979	4.8672	5.2650	0.0000	13,788.4974	13,788.4974	3.1349	0.0000	13,854.3295
Total	**26.6989**	**288.9434**	**196.4761**	**0.3205**	**18.6169**	**14.3254**	**32.9423**	**6.3584**	**13.2726**	**19.6310**	**0.0000**	**32,258.6217**	**32,258.6217**	**8.0630**	**0.0000**	**32,427.9440**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	16.7158	185.2420	123.1982	0.1805	12.1378	9.1335	21.2712	3.2268	8.4054	11.6322	0.0000	18,470.1243	18,470.1243	4.9281	0.0000	18,573.6146
2017	9.9831	103.7014	73.2778	0.1400	1.4889	5.1919	6.6809	0.3979	4.8672	5.2650	0.0000	13,788.4974	13,788.4974	3.1349	0.0000	13,854.3294
Total	**26.6989**	**288.9434**	**196.4761**	**0.3205**	**13.6267**	**14.3254**	**27.9521**	**3.6246**	**13.2726**	**16.8972**	**0.0000**	**32,258.6216**	**32,258.6216**	**8.0630**	**0.0000**	**32,427.9440**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.80**	**0.00**	**15.15**	**42.99**	**0.00**	**13.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Offroad	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1589**	**3.3100e-003**	**0.0000**	**0.0566**	**0.0566**	**0.0000**	**0.0520**	**0.0520**		**337.8595**	**337.8595**	**0.1035**	**0.0000**	**340.0334**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Offroad	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1589**	**3.3100e-003**	**0.0000**	**0.0566**	**0.0566**	**0.0000**	**0.0520**	**0.0520**		**337.8595**	**337.8595**	**0.1035**	**0.0000**	**340.0334**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**99.99**	**100.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**100.00**	**0.00**	**100.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Vine - Site Development	Grading	1/1/2016	3/31/2016	6	78	
2	Vine - Wall Construction	Building Construction	3/1/2016	4/30/2016	6	53	
3	Vine - Below Grade	Site Preparation	4/1/2016	9/30/2016	6	157	
4	Vine - Equipment Installation	Building Construction	9/1/2016	6/30/2017	6	260	
5	12 kV - Bank and Vault Installation	Trenching	10/1/2016	3/31/2017	6	156	
6	69 kV - Foundation Installation	Trenching	11/1/2016	11/15/2016	6	13	
7	69 kV - Pole Installation and Removal	Building Construction	11/16/2016	2/28/2017	6	90	
8	69 kV - Conductor Installation	Building Construction	1/1/2017	2/28/2017	6	50	
9	Energization - Testing and Commissioning	Building Construction	2/1/2017	6/30/2017	6	129	
10	Telecom - Bank and Vault Installation	Trenching	4/1/2017	4/30/2017	6	25	
11	12 kV - Cable Installation	Building Construction	4/1/2017	6/30/2017	6	78	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Vine - Site Development	Excavators	1	6.00	162	0.38
Vine - Site Development	Graders	0	6.00	174	0.41
Vine - Site Development	Off-Highway Trucks	1	7.00	400	0.38
Vine - Site Development	Pavers	1	6.00	125	0.42
Vine - Site Development	Rollers	2	7.00	80	0.38
Vine - Site Development	Rollers	2	6.00	80	0.38

Vine - Site Development	Rubber Tired Dozers	0	6.00	255	0.40
Vine - Site Development	Rubber Tired Dozers	2	6.00	255	0.40
Vine - Site Development	Scrapers	4	7.00	361	0.48
Vine - Site Development	Skid Steer Loaders	2	3.00	64	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Trenchers	1	6.00	80	0.50
Vine - Wall Construction	Cranes	0	6.00	226	0.29
Vine - Wall Construction	Excavators	1	9.00	162	0.38
Vine - Wall Construction	Forklifts	0	6.00	89	0.20
Vine - Wall Construction	Generator Sets	0	8.00	84	0.74
Vine - Wall Construction	Graders	1	9.00	174	0.41
Vine - Wall Construction	Off-Highway Trucks	1	9.00	400	0.38
Vine - Wall Construction	Plate Compactors	3	9.00	8	0.43
Vine - Wall Construction	Rollers	1	9.00	80	0.38
Vine - Wall Construction	Rubber Tired Dozers	1	7.00	255	0.40
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	3	9.00	97	0.37
Vine - Wall Construction	Welders	0	8.00	46	0.45
Vine - Below Grade	Off-Highway Trucks	1	3.00	400	0.38
Vine - Below Grade	Skid Steer Loaders	1	4.00	64	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Below Grade	Trenchers	1	6.00	80	0.50

Vine - Equipment Installation	Aerial Lifts	1	6.00	62	0.31
Vine - Equipment Installation	Aerial Lifts	4	5.00	62	0.31
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	2	6.00	226	0.29
Vine - Equipment Installation	Forklifts	0	6.00	89	0.20
Vine - Equipment Installation	Generator Sets	0	8.00	84	0.74
Vine - Equipment Installation	Generator Sets	1	24.00	84	0.74
Vine - Equipment Installation	Off-Highway Trucks	1	2.00	400	0.38
Vine - Equipment Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Equipment Installation	Welders	0	8.00	46	0.45
12 kV - Bank and Vault Installation	Cranes	1	6.00	226	0.29
12 kV - Bank and Vault Installation	Excavators	3	8.00	162	0.38
12 kV - Bank and Vault Installation	Other Construction Equipment	1	1.00	171	0.42
12 kV - Bank and Vault Installation	Paving Equipment	1	6.00	130	0.36
12 kV - Bank and Vault Installation	Paving Equipment	2	7.00	130	0.36
12 kV - Bank and Vault Installation	Rollers	2	4.00	80	0.38
12 kV - Bank and Vault Installation	Skid Steer Loaders	4	6.00	64	0.37
12 kV - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
69 kV - Foundation Installation	Bore/Drill Rigs	1	8.00	205	0.50
69 kV - Foundation Installation	Cranes	1	3.00	226	0.29
69 kV - Foundation Installation	Forklifts	1	4.00	89	0.20
69 kV - Foundation Installation	Generator Sets	1	4.00	84	0.74
69 kV - Foundation Installation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
69 kV - Pole Installation and Removal	Aerial Lifts	1	8.00	62	0.31
69 kV - Pole Installation and Removal	Air Compressors	1	8.00	78	0.48
69 kV - Pole Installation and Removal	Cranes	1	8.00	226	0.29
69 kV - Pole Installation and Removal	Forklifts	0	6.00	89	0.20

69 kV - Pole Installation and Removal	Generator Sets	0	8.00	84	0.74
69 kV - Pole Installation and Removal	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Pole Installation and Removal	Welders	0	8.00	46	0.45
69 kV - Conductor Installation	Aerial Lifts	2	7.00	62	0.31
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	1	7.00	226	0.29
69 kV - Conductor Installation	Forklifts	0	6.00	89	0.20
69 kV - Conductor Installation	Generator Sets	0	8.00	84	0.74
69 kV - Conductor Installation	Other General Industrial Equipment	1	7.00	87	0.34
69 kV - Conductor Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Conductor Installation	Welders	0	8.00	46	0.45
Energization - Testing and Commissioning	Cranes	0	6.00	226	0.29
Energization - Testing and Commissioning	Forklifts	0	6.00	89	0.20
Energization - Testing and Commissioning	Generator Sets	0	8.00	84	0.74
Energization - Testing and Commissioning	Off-Highway Trucks	3	3.00	400	0.38
Energization - Testing and Commissioning	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Energization - Testing and Commissioning	Welders	0	8.00	46	0.45
Telecom - Bank and Vault Installation	Skid Steer Loaders	1	3.00	64	0.37
Telecom - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12 kV - Cable Installation	Cranes	0	6.00	226	0.29
12 kV - Cable Installation	Forklifts	0	6.00	89	0.20
12 kV - Cable Installation	Generator Sets	0	8.00	84	0.74
12 kV - Cable Installation	Other General Industrial Equipment	1	2.00	87	0.34
12 kV - Cable Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
12 kV - Cable Installation	Welders	0	8.00	46	0.45

Vine - Below Grade	Graders	1	8.00	174	0.41
Vine - Below Grade	Rubber Tired Dozers	1	7.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Vine - Site Development	20	33.00	7.00	922.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Wall Construction	11	15.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Below Grade	8	12.00	2.00	133.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Equipment Installation	9	29.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Bank and Vault Installation	15	28.00	2.00	765.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Foundation Installation	5	7.00	2.00	35.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Pole Installation and Remo	3	5.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Conductor Installation	4	5.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Energization - Testing and Commissioning	3	9.00	0.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Telecom - Bank and Vault Installation	2	0.00	2.00	24.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Cable Installation	1	16.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Vine - Site Development - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0732	0.0000	9.0732	4.9705	0.0000	4.9705			0.0000			0.0000
Off-Road	10.7311	123.2350	80.3693	0.1063		5.9854	5.9854		5.5066	5.5066		11,046.4781	11,046.4781	3.3320		11,116.4503
Total	**10.7311**	**123.2350**	**80.3693**	**0.1063**	**9.0732**	**5.9854**	**15.0585**	**4.9705**	**5.5066**	**10.4771**		**11,046.4781**	**11,046.4781**	**3.3320**		**11,116.4503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2317	3.3125	2.3646	8.8400e-003	7.1618	0.0453	7.2070	0.7500	0.0416	0.7916		890.8853	890.8853	6.3400e-003		891.0184
Vendor	0.1178	1.5611	1.0573	4.3300e-003	0.1270	0.0268	0.1537	0.0362	0.0246	0.0608		435.6448	435.6448	3.1200e-003		435.7103
Worker	0.1457	0.2366	2.5619	6.2800e-003	0.5017	3.5500e-003	0.5053	0.1331	3.2600e-003	0.1363		524.1404	524.1404	0.0256		524.6770
Total	**0.4952**	**5.1102**	**5.9838**	**0.0195**	**7.7905**	**0.0756**	**7.8660**	**0.9192**	**0.0695**	**0.9887**		**1,850.6704**	**1,850.6704**	**0.0350**		**1,851.4057**

3.2 Vine - Site Development - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0829	0.0000	4.0829	2.2367	0.0000	2.2367			0.0000			0.0000
Off-Road	10.7311	123.2350	80.3693	0.1063		5.9854	5.9854		5.5066	5.5066	0.0000	11,046.4781	11,046.4781	3.3320		11,116.4503
Total	**10.7311**	**123.2350**	**80.3693**	**0.1063**	**4.0829**	**5.9854**	**10.0683**	**2.2367**	**5.5066**	**7.7433**	**0.0000**	**11,046.4781**	**11,046.4781**	**3.3320**		**11,116.4503**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2317	3.3125	2.3646	8.8400e-003	7.1618	0.0453	7.2070	0.7500	0.0416	0.7916		890.8853	890.8853	6.3400e-003		891.0184
Vendor	0.1178	1.5611	1.0573	4.3300e-003	0.1270	0.0268	0.1537	0.0362	0.0246	0.0608		435.6448	435.6448	3.1200e-003		435.7103
Worker	0.1457	0.2366	2.5619	6.2800e-003	0.5017	3.5500e-003	0.5053	0.1331	3.2600e-003	0.1363		524.1404	524.1404	0.0256		524.6770
Total	**0.4952**	**5.1102**	**5.9838**	**0.0195**	**7.7905**	**0.0756**	**7.8660**	**0.9192**	**0.0695**	**0.9887**		**1,850.6704**	**1,850.6704**	**0.0350**		**1,851.4057**

3.3 Vine - Wall Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3897	56.3432	35.3786	0.0506		3.0633	3.0633		2.8209	2.8209		5,210.2602	5,210.2602	1.5486		5,242.7804
Total	**5.3897**	**56.3432**	**35.3786**	**0.0506**		**3.0633**	**3.0633**		**2.8209**	**2.8209**		**5,210.2602**	**5,210.2602**	**1.5486**		**5,242.7804**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0662	0.1075	1.1645	2.8500e-003	0.2281	1.6100e-003	0.2297	0.0605	1.4800e-003	0.0620		238.2456	238.2456	0.0116		238.4895
Total	**0.0999**	**0.5536**	**1.4666**	**4.0900e-003**	**0.2643**	**9.2500e-003**	**0.2736**	**0.0708**	**8.5100e-003**	**0.0793**		**362.7156**	**362.7156**	**0.0125**		**362.9782**

3.3 Vine - Wall Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3897	56.3432	35.3786	0.0506		3.0633	3.0633		2.8209	2.8209	0.0000	5,210.2602	5,210.2602	1.5486		5,242.7804
Total	**5.3897**	**56.3432**	**35.3786**	**0.0506**		**3.0633**	**3.0633**		**2.8209**	**2.8209**	**0.0000**	**5,210.2602**	**5,210.2602**	**1.5486**		**5,242.7804**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0662	0.1075	1.1645	2.8500e-003	0.2281	1.6100e-003	0.2297	0.0605	1.4800e-003	0.0620		238.2456	238.2456	0.0116		238.4895
Total	**0.0999**	**0.5536**	**1.4666**	**4.0900e-003**	**0.2643**	**9.2500e-003**	**0.2736**	**0.0708**	**8.5100e-003**	**0.0793**		**362.7156**	**362.7156**	**0.0125**		**362.9782**

3.4 Vine - Below Grade - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2803	0.0000	5.2803	2.8977	0.0000	2.8977			0.0000			0.0000
Off-Road	3.6957	38.3002	24.2306	0.0296		2.1929	2.1929		2.0175	2.0175		3,073.7708	3,073.7708	0.9272		3,093.2411
Total	**3.6957**	**38.3002**	**24.2306**	**0.0296**	**5.2803**	**2.1929**	**7.4733**	**2.8977**	**2.0175**	**4.9152**		**3,073.7708**	**3,073.7708**	**0.9272**		**3,093.2411**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0166	0.2374	0.1695	6.3000e-004	0.5133	3.2400e-003	0.5165	0.0538	2.9800e-003	0.0567		63.8466	63.8466	4.5000e-004		63.8561
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0530	0.0860	0.9316	2.2800e-003	0.1825	1.2900e-003	0.1837	0.0484	1.1900e-003	0.0496		190.5965	190.5965	9.2900e-003		190.7916
Total	**0.1032**	**0.7695**	**1.4031**	**4.1500e-003**	**0.7320**	**0.0122**	**0.7442**	**0.1125**	**0.0112**	**0.1237**		**378.9130**	**378.9130**	**0.0106**		**379.1364**

3.4 Vine - Below Grade - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3762	0.0000	2.3762	1.3040	0.0000	1.3040			0.0000			0.0000
Off-Road	3.6957	38.3002	24.2306	0.0296		2.1929	2.1929		2.0175	2.0175	0.0000	3,073.7708	3,073.7708	0.9272		3,093.2411
Total	**3.6957**	**38.3002**	**24.2306**	**0.0296**	**2.3762**	**2.1929**	**4.5691**	**1.3040**	**2.0175**	**3.3214**	**0.0000**	**3,073.7708**	**3,073.7708**	**0.9272**		**3,093.2411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0166	0.2374	0.1695	6.3000e-004	0.5133	3.2400e-003	0.5165	0.0538	2.9800e-003	0.0567		63.8466	63.8466	4.5000e-004		63.8561
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0530	0.0860	0.9316	2.2800e-003	0.1825	1.2900e-003	0.1837	0.0484	1.1900e-003	0.0496		190.5965	190.5965	9.2900e-003		190.7916
Total	**0.1032**	**0.7695**	**1.4031**	**4.1500e-003**	**0.7320**	**0.0122**	**0.7442**	**0.1125**	**0.0112**	**0.1237**		**378.9130**	**378.9130**	**0.0106**		**379.1364**

3.5 Vine - Equipment Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4153	33.0135	20.6767	0.0369		1.8226	1.8226		1.7581	1.7581		3,647.8570	3,647.8570	0.7076		3,662.7157
Total	**3.4153**	**33.0135**	**20.6767**	**0.0369**		**1.8226**	**1.8226**		**1.7581**	**1.7581**		**3,647.8570**	**3,647.8570**	**0.7076**		**3,662.7157**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0505	0.6690	0.4531	1.8600e-003	0.0544	0.0115	0.0659	0.0155	0.0105	0.0261		186.7049	186.7049	1.3400e-003		186.7330
Worker	0.1280	0.2079	2.2513	5.5200e-003	0.4409	3.1200e-003	0.4440	0.1169	2.8600e-003	0.1198		460.6082	460.6082	0.0225		461.0798
Total	**0.1785**	**0.8770**	**2.7045**	**7.3800e-003**	**0.4954**	**0.0146**	**0.5099**	**0.1324**	**0.0134**	**0.1458**		**647.3131**	**647.3131**	**0.0238**		**647.8128**

3.5 Vine - Equipment Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4153	33.0135	20.6767	0.0369		1.8226	1.8226		1.7581	1.7581	0.0000	3,647.8570	3,647.8570	0.7076		3,662.7157
Total	**3.4153**	**33.0135**	**20.6767**	**0.0369**		**1.8226**	**1.8226**		**1.7581**	**1.7581**	**0.0000**	**3,647.8570**	**3,647.8570**	**0.7076**		**3,662.7157**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0505	0.6690	0.4531	1.8600e-003	0.0544	0.0115	0.0659	0.0155	0.0105	0.0261		186.7049	186.7049	1.3400e-003		186.7330
Worker	0.1280	0.2079	2.2513	5.5200e-003	0.4409	3.1200e-003	0.4440	0.1169	2.8600e-003	0.1198		460.6082	460.6082	0.0225		461.0798
Total	**0.1785**	**0.8770**	**2.7045**	**7.3800e-003**	**0.4954**	**0.0146**	**0.5099**	**0.1324**	**0.0134**	**0.1458**		**647.3131**	**647.3131**	**0.0238**		**647.8128**

3.5 Vine - Equipment Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0574	29.9947	20.1345	0.0369		1.5988	1.5988		1.5430	1.5430		3,620.0476	3,620.0476	0.6878		3,634.4909
Total	**3.0574**	**29.9947**	**20.1345**	**0.0369**		**1.5988**	**1.5988**		**1.5430**	**1.5430**		**3,620.0476**	**3,620.0476**	**0.6878**		**3,634.4909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	0.5929	0.4221	1.8500e-003	0.0544	9.9600e-003	0.0644	0.0155	9.1600e-003	0.0247		183.5467	183.5467	1.2500e-003		183.5730
Worker	0.1151	0.1891	2.0355	5.5200e-003	0.4409	3.0100e-003	0.4439	0.1169	2.7800e-003	0.1197		442.8268	442.8268	0.0208		443.2637
Total	**0.1615**	**0.7819**	**2.4575**	**7.3700e-003**	**0.4954**	**0.0130**	**0.5083**	**0.1324**	**0.0119**	**0.1444**		**626.3735**	**626.3735**	**0.0221**		**626.8366**

3.5 Vine - Equipment Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0574	29.9947	20.1345	0.0369		1.5988	1.5988		1.5430	1.5430	0.0000	3,620.0476	3,620.0476	0.6878		3,634.4909
Total	**3.0574**	**29.9947**	**20.1345**	**0.0369**		**1.5988**	**1.5988**		**1.5430**	**1.5430**	**0.0000**	**3,620.0476**	**3,620.0476**	**0.6878**		**3,634.4909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	0.5929	0.4221	1.8500e-003	0.0544	9.9600e-003	0.0644	0.0155	9.1600e-003	0.0247		183.5467	183.5467	1.2500e-003		183.5730
Worker	0.1151	0.1891	2.0355	5.5200e-003	0.4409	3.0100e-003	0.4439	0.1169	2.7800e-003	0.1197		442.8268	442.8268	0.0208		443.2637
Total	**0.1615**	**0.7819**	**2.4575**	**7.3700e-003**	**0.4954**	**0.0130**	**0.5083**	**0.1324**	**0.0119**	**0.1444**		**626.3735**	**626.3735**	**0.0221**		**626.8366**

3.6 12 kV - Bank and Vault Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5745	40.3264	28.0089	0.0428		2.1625	2.1625		1.9895	1.9895		4,441.4464	4,441.4464	1.3397		4,469.5801
Total	**3.5745**	**40.3264**	**28.0089**	**0.0428**		**2.1625**	**2.1625**		**1.9895**	**1.9895**		**4,441.4464**	**4,441.4464**	**1.3397**		**4,469.5801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0961	1.3742	0.9810	3.6700e-003	0.1486	0.0188	0.1674	0.0389	0.0173	0.0562		369.5918	369.5918	2.6300e-003		369.6470
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.1236	0.2007	2.1737	5.3300e-003	0.4257	3.0100e-003	0.4287	0.1129	2.7700e-003	0.1157		444.7252	444.7252	0.0217		445.1805
Total	**0.2534**	**2.0210**	**3.4568**	**0.0102**	**0.6106**	**0.0294**	**0.6401**	**0.1621**	**0.0271**	**0.1892**		**938.7869**	**938.7869**	**0.0252**		**939.3161**

3.6 12 kV - Bank and Vault Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5745	40.3264	28.0089	0.0428		2.1625	2.1625		1.9895	1.9895	0.0000	4,441.4464	4,441.4464	1.3397		4,469.5801
Total	**3.5745**	**40.3264**	**28.0089**	**0.0428**		**2.1625**	**2.1625**		**1.9895**	**1.9895**	**0.0000**	**4,441.4464**	**4,441.4464**	**1.3397**		**4,469.5801**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0961	1.3742	0.9810	3.6700e-003	0.1486	0.0188	0.1674	0.0389	0.0173	0.0562		369.5918	369.5918	2.6300e-003		369.6470
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.1236	0.2007	2.1737	5.3300e-003	0.4257	3.0100e-003	0.4287	0.1129	2.7700e-003	0.1157		444.7252	444.7252	0.0217		445.1805
Total	**0.2534**	**2.0210**	**3.4568**	**0.0102**	**0.6106**	**0.0294**	**0.6401**	**0.1621**	**0.0271**	**0.1892**		**938.7869**	**938.7869**	**0.0252**		**939.3161**

3.6 12 kV - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3061	36.7931	27.7433	0.0428		1.9581	1.9581		1.8015	1.8015		4,371.9122	4,371.9122	1.3396		4,400.0427
Total	**3.3061**	**36.7931**	**27.7433**	**0.0428**		**1.9581**	**1.9581**		**1.8015**	**1.8015**		**4,371.9122**	**4,371.9122**	**1.3396**		**4,400.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0900	1.2254	0.9355	3.6600e-003	0.1520	0.0165	0.1685	0.0397	0.0152	0.0549		363.2974	363.2974	2.5100e-003		363.3502
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.1111	0.1826	1.9653	5.3300e-003	0.4257	2.9100e-003	0.4286	0.1129	2.6800e-003	0.1156		427.5570	427.5570	0.0201		427.9787
Total	**0.2321**	**1.8032**	**3.1822**	**0.0102**	**0.6140**	**0.0261**	**0.6400**	**0.1630**	**0.0240**	**0.1869**		**913.2188**	**913.2188**	**0.0234**		**913.7109**

3.6 12 kV - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3061	36.7931	27.7433	0.0428		1.9581	1.9581		1.8015	1.8015	0.0000	4,371.9122	4,371.9122	1.3396		4,400.0427
Total	**3.3061**	**36.7931**	**27.7433**	**0.0428**		**1.9581**	**1.9581**		**1.8015**	**1.8015**	**0.0000**	**4,371.9122**	**4,371.9122**	**1.3396**		**4,400.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0900	1.2254	0.9355	3.6600e-003	0.1520	0.0165	0.1685	0.0397	0.0152	0.0549		363.2974	363.2974	2.5100e-003		363.3502
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.1111	0.1826	1.9653	5.3300e-003	0.4257	2.9100e-003	0.4286	0.1129	2.6800e-003	0.1156		427.5570	427.5570	0.0201		427.9787
Total	**0.2321**	**1.8032**	**3.1822**	**0.0102**	**0.6140**	**0.0261**	**0.6400**	**0.1630**	**0.0240**	**0.1869**		**913.2188**	**913.2188**	**0.0234**		**913.7109**

3.7 69 kV - Foundation Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2214	13.4673	6.9069	0.0165		0.6755	0.6755		0.6350	0.6350		1,680.2971	1,680.2971	0.4414		1,689.5660
Total	**1.2214**	**13.4673**	**6.9069**	**0.0165**		**0.6755**	**0.6755**		**0.6350**	**0.6350**		**1,680.2971**	**1,680.2971**	**0.4414**		**1,689.5660**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0528	0.7545	0.5386	2.0100e-003	0.0469	0.0103	0.0572	0.0129	9.4800e-003	0.0223		202.9131	202.9131	1.4400e-003		202.9435
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0309	0.0502	0.5434	1.3300e-003	0.1064	7.5000e-004	0.1072	0.0282	6.9000e-004	0.0289		111.1813	111.1813	5.4200e-003		111.2951
Total	**0.1173**	**1.2507**	**1.3841**	**4.5800e-003**	**0.1896**	**0.0187**	**0.2083**	**0.0514**	**0.0172**	**0.0686**		**438.5644**	**438.5644**	**7.7500e-003**		**438.7272**

3.7 69 kV - Foundation Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2214	13.4673	6.9069	0.0165		0.6755	0.6755		0.6350	0.6350	0.0000	1,680.2971	1,680.2971	0.4414		1,689.5660
Total	**1.2214**	**13.4673**	**6.9069**	**0.0165**		**0.6755**	**0.6755**		**0.6350**	**0.6350**	**0.0000**	**1,680.2971**	**1,680.2971**	**0.4414**		**1,689.5660**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0528	0.7545	0.5386	2.0100e-003	0.0469	0.0103	0.0572	0.0129	9.4800e-003	0.0223		202.9131	202.9131	1.4400e-003		202.9435
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0309	0.0502	0.5434	1.3300e-003	0.1064	7.5000e-004	0.1072	0.0282	6.9000e-004	0.0289		111.1813	111.1813	5.4200e-003		111.2951
Total	**0.1173**	**1.2507**	**1.3841**	**4.5800e-003**	**0.1896**	**0.0187**	**0.2083**	**0.0514**	**0.0172**	**0.0686**		**438.5644**	**438.5644**	**7.7500e-003**		**438.7272**

3.8 69 kV - Pole Installation and Removal - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2674	12.6173	6.5818	0.0113		0.6872	0.6872		0.6532	0.6532		1,133.0957	1,133.0957	0.2728		1,138.8252
Total	**1.2674**	**12.6173**	**6.5818**	**0.0113**		**0.6872**	**0.6872**		**0.6532**	**0.6532**		**1,133.0957**	**1,133.0957**	**0.2728**		**1,138.8252**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0221	0.0359	0.3882	9.5000e-004	0.0760	5.4000e-004	0.0766	0.0202	4.9000e-004	0.0207		79.4152	79.4152	3.8700e-003		79.4965
Total	**0.0557**	**0.4819**	**0.6902**	**2.1900e-003**	**0.1123**	**8.1800e-003**	**0.1205**	**0.0305**	**7.5200e-003**	**0.0380**		**203.8851**	**203.8851**	**4.7600e-003**		**203.9852**

3.8 69 kV - Pole Installation and Removal - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2674	12.6173	6.5818	0.0113		0.6872	0.6872		0.6532	0.6532	0.0000	1,133.0957	1,133.0957	0.2728		1,138.8252
Total	**1.2674**	**12.6173**	**6.5818**	**0.0113**		**0.6872**	**0.6872**		**0.6532**	**0.6532**	**0.0000**	**1,133.0957**	**1,133.0957**	**0.2728**		**1,138.8252**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0337	0.4460	0.3021	1.2400e-003	0.0363	7.6400e-003	0.0439	0.0103	7.0300e-003	0.0174		124.4699	124.4699	8.9000e-004		124.4887
Worker	0.0221	0.0359	0.3882	9.5000e-004	0.0760	5.4000e-004	0.0766	0.0202	4.9000e-004	0.0207		79.4152	79.4152	3.8700e-003		79.4965
Total	**0.0557**	**0.4819**	**0.6902**	**2.1900e-003**	**0.1123**	**8.1800e-003**	**0.1205**	**0.0305**	**7.5200e-003**	**0.0380**		**203.8851**	**203.8851**	**4.7600e-003**		**203.9852**

3.8 69 kV - Pole Installation and Removal - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1394	11.4076	6.3265	0.0113		0.6024	0.6024		0.5727	0.5727		1,121.4317	1,121.4317	0.2682		1,127.0648
Total	**1.1394**	**11.4076**	**6.3265**	**0.0113**		**0.6024**	**0.6024**		**0.5727**	**0.5727**		**1,121.4317**	**1,121.4317**	**0.2682**		**1,127.0648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0198	0.0326	0.3509	9.5000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		76.3495	76.3495	3.5900e-003		76.4248
Total	**0.0508**	**0.4278**	**0.6323**	**2.1800e-003**	**0.1123**	**7.1600e-003**	**0.1195**	**0.0305**	**6.5900e-003**	**0.0371**		**198.7139**	**198.7139**	**4.4300e-003**		**198.8068**

3.8 69 kV - Pole Installation and Removal - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1394	11.4076	6.3265	0.0113		0.6024	0.6024		0.5727	0.5727	0.0000	1,121.4317	1,121.4317	0.2682		1,127.0648
Total	**1.1394**	**11.4076**	**6.3265**	**0.0113**		**0.6024**	**0.6024**		**0.5727**	**0.5727**	**0.0000**	**1,121.4317**	**1,121.4317**	**0.2682**		**1,127.0648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0198	0.0326	0.3509	9.5000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		76.3495	76.3495	3.5900e-003		76.4248
Total	**0.0508**	**0.4278**	**0.6323**	**2.1800e-003**	**0.1123**	**7.1600e-003**	**0.1195**	**0.0305**	**6.5900e-003**	**0.0371**		**198.7139**	**198.7139**	**4.4300e-003**		**198.8068**

3.9 69 kV - Conductor Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9529	10.7453	6.1259	0.0100		0.5644	0.5644		0.5192	0.5192		1,027.1793	1,027.1793	0.3147		1,033.7886
Total	**0.9529**	**10.7453**	**6.1259**	**0.0100**		**0.5644**	**0.5644**		**0.5192**	**0.5192**		**1,027.1793**	**1,027.1793**	**0.3147**		**1,033.7886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	0.5929	0.4221	1.8500e-003	0.0544	9.9600e-003	0.0644	0.0155	9.1600e-003	0.0247		183.5467	183.5467	1.2500e-003		183.5730
Worker	0.0198	0.0326	0.3509	9.5000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		76.3495	76.3495	3.5900e-003		76.4248
Total	**0.0662**	**0.6255**	**0.7730**	**2.8000e-003**	**0.1305**	**0.0105**	**0.1409**	**0.0357**	**9.6400e-003**	**0.0453**		**259.8961**	**259.8961**	**4.8400e-003**		**259.9978**

3.9 69 kV - Conductor Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9529	10.7453	6.1259	0.0100		0.5644	0.5644		0.5192	0.5192	0.0000	1,027.1793	1,027.1793	0.3147		1,033.7886
Total	**0.9529**	**10.7453**	**6.1259**	**0.0100**		**0.5644**	**0.5644**		**0.5192**	**0.5192**	**0.0000**	**1,027.1793**	**1,027.1793**	**0.3147**		**1,033.7886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0464	0.5929	0.4221	1.8500e-003	0.0544	9.9600e-003	0.0644	0.0155	9.1600e-003	0.0247		183.5467	183.5467	1.2500e-003		183.5730
Worker	0.0198	0.0326	0.3509	9.5000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		76.3495	76.3495	3.5900e-003		76.4248
Total	**0.0662**	**0.6255**	**0.7730**	**2.8000e-003**	**0.1305**	**0.0105**	**0.1409**	**0.0357**	**9.6400e-003**	**0.0453**		**259.8961**	**259.8961**	**4.8400e-003**		**259.9978**

3.10 Energization - Testing and Commissioning - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9810	11.0636	5.2710	0.0148		0.4107	0.4107		0.3779	0.3779		1,512.2953	1,512.2953	0.4634		1,522.0259
Total	**0.9810**	**11.0636**	**5.2710**	**0.0148**		**0.4107**	**0.4107**		**0.3779**	**0.3779**		**1,512.2953**	**1,512.2953**	**0.4634**		**1,522.0259**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0357	0.0587	0.6317	1.7100e-003	0.1368	9.4000e-004	0.1378	0.0363	8.6000e-004	0.0372		137.4290	137.4290	6.4600e-003		137.5646
Total	**0.0357**	**0.0587**	**0.6317**	**1.7100e-003**	**0.1368**	**9.4000e-004**	**0.1378**	**0.0363**	**8.6000e-004**	**0.0372**		**137.4290**	**137.4290**	**6.4600e-003**		**137.5646**

3.10 Energization - Testing and Commissioning - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9810	11.0636	5.2710	0.0148		0.4107	0.4107		0.3779	0.3779	0.0000	1,512.2953	1,512.2953	0.4634		1,522.0259
Total	**0.9810**	**11.0636**	**5.2710**	**0.0148**		**0.4107**	**0.4107**		**0.3779**	**0.3779**	**0.0000**	**1,512.2953**	**1,512.2953**	**0.4634**		**1,522.0259**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0357	0.0587	0.6317	1.7100e-003	0.1368	9.4000e-004	0.1378	0.0363	8.6000e-004	0.0372		137.4290	137.4290	6.4600e-003		137.5646
Total	**0.0357**	**0.0587**	**0.6317**	**1.7100e-003**	**0.1368**	**9.4000e-004**	**0.1378**	**0.0363**	**8.6000e-004**	**0.0372**		**137.4290**	**137.4290**	**6.4600e-003**		**137.5646**

3.11 Telecom - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1588	1.6561	1.4174	1.9300e-003		0.1135	0.1135		0.1044	0.1044		197.3953	197.3953	0.0605		198.6654
Total	**0.1588**	**1.6561**	**1.4174**	**1.9300e-003**		**0.1135**	**0.1135**		**0.1044**	**0.1044**		**197.3953**	**197.3953**	**0.0605**		**198.6654**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0176	0.2399	0.1832	7.2000e-004	0.0167	3.2300e-003	0.0200	4.5800e-003	2.9700e-003	7.5500e-003		71.1208	71.1208	4.9000e-004		71.1312
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0485**	**0.6351**	**0.4645**	**1.9500e-003**	**0.0530**	**9.8700e-003**	**0.0629**	**0.0149**	**9.0800e-003**	**0.0240**		**193.4853**	**193.4853**	**1.3300e-003**		**193.5131**

3.11 Telecom - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1588	1.6561	1.4174	1.9300e-003		0.1135	0.1135		0.1044	0.1044	0.0000	197.3953	197.3953	0.0605		198.6654
Total	**0.1588**	**1.6561**	**1.4174**	**1.9300e-003**		**0.1135**	**0.1135**		**0.1044**	**0.1044**	**0.0000**	**197.3953**	**197.3953**	**0.0605**		**198.6654**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0176	0.2399	0.1832	7.2000e-004	0.0167	3.2300e-003	0.0200	4.5800e-003	2.9700e-003	7.5500e-003		71.1208	71.1208	4.9000e-004		71.1312
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0485**	**0.6351**	**0.4645**	**1.9500e-003**	**0.0530**	**9.8700e-003**	**0.0629**	**0.0149**	**9.0800e-003**	**0.0240**		**193.4853**	**193.4853**	**1.3300e-003**		**193.5131**

3.12 12 kV - Cable Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0861	0.7462	0.5215	6.3000e-004		0.0614	0.0614		0.0565	0.0565		64.7055	64.7055	0.0198		65.1218
Total	**0.0861**	**0.7462**	**0.5215**	**6.3000e-004**		**0.0614**	**0.0614**		**0.0565**	**0.0565**		**64.7055**	**64.7055**	**0.0198**		**65.1218**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0635	0.1043	1.1230	3.0400e-003	0.2433	1.6600e-003	0.2449	0.0645	1.5300e-003	0.0660		244.3183	244.3183	0.0115		244.5593
Total	**0.0944**	**0.4996**	**1.4044**	**4.2700e-003**	**0.2796**	**8.3000e-003**	**0.2879**	**0.0749**	**7.6400e-003**	**0.0825**		**366.6827**	**366.6827**	**0.0123**		**366.9413**

3.12 12 kV - Cable Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0861	0.7462	0.5215	6.3000e-004		0.0614	0.0614		0.0565	0.0565	0.0000	64.7055	64.7055	0.0198		65.1218
Total	**0.0861**	**0.7462**	**0.5215**	**6.3000e-004**		**0.0614**	**0.0614**		**0.0565**	**0.0565**	**0.0000**	**64.7055**	**64.7055**	**0.0198**		**65.1218**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0309	0.3952	0.2814	1.2300e-003	0.0363	6.6400e-003	0.0429	0.0103	6.1100e-003	0.0165		122.3644	122.3644	8.4000e-004		122.3820
Worker	0.0635	0.1043	1.1230	3.0400e-003	0.2433	1.6600e-003	0.2449	0.0645	1.5300e-003	0.0660		244.3183	244.3183	0.0115		244.5593
Total	**0.0944**	**0.4996**	**1.4044**	**4.2700e-003**	**0.2796**	**8.3000e-003**	**0.2879**	**0.0749**	**7.6400e-003**	**0.0825**		**366.6827**	**366.6827**	**0.0123**		**366.9413**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Aerial Lifts	2	8.00	3	62	0.31	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Aerial Lifts	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1588**	**3.3100e-003**		**0.0566**	**0.0566**		**0.0520**	**0.0520**		**337.8592**	**337.8592**	**0.1035**		**340.0331**

10.0 Vegetation

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Aerial Lifts	2	8.00	3	62	0.31	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Aerial Lifts	1.5000e-004	2.4000e-003	3.2400e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.4598	0.4598	1.4000e-004	0.0000	0.4627
Total	**1.5000e-004**	**2.4000e-003**	**3.2400e-003**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.4598**	**0.4598**	**1.4000e-004**	**0.0000**	**0.4627**

10.0 Vegetation

Vine 69/12 kV Substation Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Substation parcel size set to 1.5 acre

Construction Phase - Schedule taken from Chapter 3 - Project Description. Telecom cable installation will be conducted with the same equipment as 12 kV cable installation.

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default values set to zero. Construction equipment list taken from Chapter 3 - Project Description.

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Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Off-road Equipment - Default equipment set to a quantity of zero, remaining equipment taken from Chapter 3 - Project Description

Trips and VMT - Values calculated from import and export needs.

On-road Fugitive Dust - Assume 98 percent of substation hauling trips are off pavement due to site development being conducted and the final roads not being paved.

Grading - Total area disturbed has been updated to indicate the size of the substation parcel

Vehicle Trips - Conservatively estimated an average of 10 trips per day to handle operation and maintenance.

Construction Off-road Equipment Mitigation -

Operational Off-Road Equipment - Assume 2 bucket trucks three times per year for tranmission line maintence. Remainder of maintenance is performed from on-road vehicles.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	200.00	78.00
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	200.00	90.00
tblConstructionPhase	NumDays	200.00	50.00

tblConstructionPhase	NumDays	200.00	129.00
tblConstructionPhase	NumDays	4.00	78.00
tblConstructionPhase	NumDays	200.00	53.00
tblConstructionPhase	NumDays	2.00	157.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	7/29/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	7/31/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	4/27/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	7/28/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	6/1/2016	4/30/2016
tblConstructionPhase	PhaseEndDate	7/29/2017	4/30/2017
tblConstructionPhase	PhaseEndDate	10/31/2016	9/30/2016
tblConstructionPhase	PhaseEndDate	12/29/2017	3/31/2017
tblConstructionPhase	PhaseEndDate	4/15/2017	11/15/2016
tblConstructionPhase	PhaseStartDate	5/1/2017	4/1/2017
tblConstructionPhase	PhaseStartDate	10/1/2016	9/1/2016
tblConstructionPhase	PhaseStartDate	3/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	3/1/2017	2/1/2017

tblConstructionPhase	PhaseStartDate	4/1/2016	3/1/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	4/1/2017
tblConstructionPhase	PhaseStartDate	5/1/2016	4/1/2016
tblConstructionPhase	PhaseStartDate	7/1/2017	10/1/2016
tblConstructionPhase	PhaseStartDate	4/1/2017	11/1/2016
tblGrading	AcresOfGrading	273.00	1.50
tblGrading	AcresOfGrading	78.50	1.50
tblGrading	MaterialExported	0.00	4,200.00
tblGrading	MaterialExported	0.00	988.00
tblGrading	MaterialImported	0.00	6,700.00
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00

tblOffRoadEquipment	UsageHours	8.00	24.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	6.00	9.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	3.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	1,363.00	922.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	124.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	765.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
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tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00

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tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
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tblTripsAndVMT	WorkerTripNumber	50.00	33.00
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tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripNumber	20.00	12.00
tblTripsAndVMT	WorkerTripNumber	0.00	29.00
tblTripsAndVMT	WorkerTripNumber	38.00	28.00

tblTripsAndVMT	WorkerTripNumber	13.00	7.00
tblTripsAndVMT	WorkerTripNumber	0.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	9.00
tblVehicleTrips	ST_TR	0.00	10.00
tblVehicleTrips	SU_TR	0.00	10.00
tblVehicleTrips	WD_TR	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	16.7647	185.4530	124.0135	0.1799	17.1280	9.1337	26.2617	5.9606	8.4056	14.3662	0.0000	18,419.5997	18,419.5997	4.9282	0.0000	18,523.0926
2017	10.0176	103.8619	73.5868	0.1391	1.4889	5.1921	6.6810	0.3979	4.8673	5.2652	0.0000	13,714.5484	13,714.5484	3.1349	0.0000	13,780.3822
Total	**26.7823**	**289.3149**	**197.6003**	**0.3190**	**18.6169**	**14.3258**	**32.9427**	**6.3584**	**13.2730**	**19.6314**	**0.0000**	**32,134.1481**	**32,134.1481**	**8.0632**	**0.0000**	**32,303.4748**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	16.7647	185.4530	124.0135	0.1799	12.1378	9.1337	21.2715	3.2268	8.4056	11.6324	0.0000	18,419.5997	18,419.5997	4.9282	0.0000	18,523.0926
2017	10.0176	103.8619	73.5868	0.1391	1.4889	5.1921	6.6810	0.3979	4.8673	5.2652	0.0000	13,714.5484	13,714.5484	3.1349	0.0000	13,780.3822
Total	**26.7823**	**289.3149**	**197.6003**	**0.3190**	**13.6267**	**14.3258**	**27.9525**	**3.6246**	**13.2730**	**16.8976**	**0.0000**	**32,134.1481**	**32,134.1481**	**8.0632**	**0.0000**	**32,303.4748**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.80**	**0.00**	**15.15**	**42.99**	**0.00**	**13.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Offroad	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1589**	**3.3100e-003**	**0.0000**	**0.0566**	**0.0566**	**0.0000**	**0.0520**	**0.0520**		**337.8595**	**337.8595**	**0.1035**	**0.0000**	**340.0334**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Offroad	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1589**	**3.3100e-003**	**0.0000**	**0.0566**	**0.0566**	**0.0000**	**0.0520**	**0.0520**		**337.8595**	**337.8595**	**0.1035**	**0.0000**	**340.0334**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**99.99**	**100.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**	**100.00**	**0.00**	**100.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Vine - Site Development	Grading	1/1/2016	3/31/2016	6	78	
2	Vine - Wall Construction	Building Construction	3/1/2016	4/30/2016	6	53	
3	Vine - Below Grade	Site Preparation	4/1/2016	9/30/2016	6	157	
4	Vine - Equipment Installation	Building Construction	9/1/2016	6/30/2017	6	260	
5	12 kV - Bank and Vault Installation	Trenching	10/1/2016	3/31/2017	6	156	
6	69 kV - Foundation Installation	Trenching	11/1/2016	11/15/2016	6	13	
7	69 kV - Pole Installation and Removal	Building Construction	11/16/2016	2/28/2017	6	90	
8	69 kV - Conductor Installation	Building Construction	1/1/2017	2/28/2017	6	50	
9	Energization - Testing and Commissioning	Building Construction	2/1/2017	6/30/2017	6	129	
10	Telecom - Bank and Vault Installation	Trenching	4/1/2017	4/30/2017	6	25	
11	12 kV - Cable Installation	Building Construction	4/1/2017	6/30/2017	6	78	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Vine - Site Development	Excavators	1	6.00	162	0.38
Vine - Site Development	Graders	0	6.00	174	0.41
Vine - Site Development	Off-Highway Trucks	1	7.00	400	0.38
Vine - Site Development	Pavers	1	6.00	125	0.42
Vine - Site Development	Rollers	2	7.00	80	0.38
Vine - Site Development	Rollers	2	6.00	80	0.38

Vine - Site Development	Rubber Tired Dozers	0	6.00	255	0.40
Vine - Site Development	Rubber Tired Dozers	2	6.00	255	0.40
Vine - Site Development	Scrapers	4	7.00	361	0.48
Vine - Site Development	Skid Steer Loaders	2	3.00	64	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Site Development	Trenchers	1	6.00	80	0.50
Vine - Wall Construction	Cranes	0	6.00	226	0.29
Vine - Wall Construction	Excavators	1	9.00	162	0.38
Vine - Wall Construction	Forklifts	0	6.00	89	0.20
Vine - Wall Construction	Generator Sets	0	8.00	84	0.74
Vine - Wall Construction	Graders	1	9.00	174	0.41
Vine - Wall Construction	Off-Highway Trucks	1	9.00	400	0.38
Vine - Wall Construction	Plate Compactors	3	9.00	8	0.43
Vine - Wall Construction	Rollers	1	9.00	80	0.38
Vine - Wall Construction	Rubber Tired Dozers	1	7.00	255	0.40
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Wall Construction	Tractors/Loaders/Backhoes	3	9.00	97	0.37
Vine - Wall Construction	Welders	0	8.00	46	0.45
Vine - Below Grade	Off-Highway Trucks	1	3.00	400	0.38
Vine - Below Grade	Skid Steer Loaders	1	4.00	64	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Vine - Below Grade	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Vine - Below Grade	Trenchers	1	6.00	80	0.50

Vine - Equipment Installation	Aerial Lifts	1	6.00	62	0.31
Vine - Equipment Installation	Aerial Lifts	4	5.00	62	0.31
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	0	6.00	226	0.29
Vine - Equipment Installation	Cranes	2	6.00	226	0.29
Vine - Equipment Installation	Forklifts	0	6.00	89	0.20
Vine - Equipment Installation	Generator Sets	0	8.00	84	0.74
Vine - Equipment Installation	Generator Sets	1	24.00	84	0.74
Vine - Equipment Installation	Off-Highway Trucks	1	2.00	400	0.38
Vine - Equipment Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Vine - Equipment Installation	Welders	0	8.00	46	0.45
12 kV - Bank and Vault Installation	Cranes	1	6.00	226	0.29
12 kV - Bank and Vault Installation	Excavators	3	8.00	162	0.38
12 kV - Bank and Vault Installation	Other Construction Equipment	1	1.00	171	0.42
12 kV - Bank and Vault Installation	Paving Equipment	1	6.00	130	0.36
12 kV - Bank and Vault Installation	Paving Equipment	2	7.00	130	0.36
12 kV - Bank and Vault Installation	Rollers	2	4.00	80	0.38
12 kV - Bank and Vault Installation	Skid Steer Loaders	4	6.00	64	0.37
12 kV - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
69 kV - Foundation Installation	Bore/Drill Rigs	1	8.00	205	0.50
69 kV - Foundation Installation	Cranes	1	3.00	226	0.29
69 kV - Foundation Installation	Forklifts	1	4.00	89	0.20
69 kV - Foundation Installation	Generator Sets	1	4.00	84	0.74
69 kV - Foundation Installation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
69 kV - Pole Installation and Removal	Aerial Lifts	1	8.00	62	0.31
69 kV - Pole Installation and Removal	Air Compressors	1	8.00	78	0.48
69 kV - Pole Installation and Removal	Cranes	1	8.00	226	0.29
69 kV - Pole Installation and Removal	Forklifts	0	6.00	89	0.20

69 kV - Pole Installation and Removal	Generator Sets	0	8.00	84	0.74
69 kV - Pole Installation and Removal	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Pole Installation and Removal	Welders	0	8.00	46	0.45
69 kV - Conductor Installation	Aerial Lifts	2	7.00	62	0.31
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	0	6.00	226	0.29
69 kV - Conductor Installation	Cranes	1	7.00	226	0.29
69 kV - Conductor Installation	Forklifts	0	6.00	89	0.20
69 kV - Conductor Installation	Generator Sets	0	8.00	84	0.74
69 kV - Conductor Installation	Other General Industrial Equipment	1	7.00	87	0.34
69 kV - Conductor Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
69 kV - Conductor Installation	Welders	0	8.00	46	0.45
Energization - Testing and Commissioning	Cranes	0	6.00	226	0.29
Energization - Testing and Commissioning	Forklifts	0	6.00	89	0.20
Energization - Testing and Commissioning	Generator Sets	0	8.00	84	0.74
Energization - Testing and Commissioning	Off-Highway Trucks	3	3.00	400	0.38
Energization - Testing and Commissioning	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Energization - Testing and Commissioning	Welders	0	8.00	46	0.45
Telecom - Bank and Vault Installation	Skid Steer Loaders	1	3.00	64	0.37
Telecom - Bank and Vault Installation	Tractors/Loaders/Backhoes	1	3.00	97	0.37
12 kV - Cable Installation	Cranes	0	6.00	226	0.29
12 kV - Cable Installation	Forklifts	0	6.00	89	0.20
12 kV - Cable Installation	Generator Sets	0	8.00	84	0.74
12 kV - Cable Installation	Other General Industrial Equipment	1	2.00	87	0.34
12 kV - Cable Installation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
12 kV - Cable Installation	Welders	0	8.00	46	0.45

Vine - Below Grade	Graders	1	8.00	174	0.41
Vine - Below Grade	Rubber Tired Dozers	1	7.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Vine - Site Development	20	33.00	7.00	922.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Wall Construction	11	15.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Below Grade	8	12.00	2.00	133.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Vine - Equipment Installation	9	29.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Bank and Vault Installation	15	28.00	2.00	765.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Foundation Installation	5	7.00	2.00	35.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Pole Installation and Remo	3	5.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
69 kV - Conductor Installation	4	5.00	3.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Energization - Testing and Commissioning	3	9.00	0.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Telecom - Bank and Vault Installation	2	0.00	2.00	24.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT
12 kV - Cable Installation	1	16.00	2.00	0.00	20.00	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Vine - Site Development - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0732	0.0000	9.0732	4.9705	0.0000	4.9705			0.0000			0.0000
Off-Road	10.7311	123.2350	80.3693	0.1063		5.9854	5.9854		5.5066	5.5066		11,046.4781	11,046.4781	3.3320		11,116.4503
Total	**10.7311**	**123.2350**	**80.3693**	**0.1063**	**9.0732**	**5.9854**	**15.0585**	**4.9705**	**5.5066**	**10.4771**		**11,046.4781**	**11,046.4781**	**3.3320**		**11,116.4503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2579	3.4194	3.0548	8.8300e-003	7.1618	0.0454	7.2071	0.7500	0.0418	0.7917		888.7959	888.7959	6.4200e-003		888.9308
Vendor	0.1291	1.6095	1.3242	4.3200e-003	0.1270	0.0269	0.1539	0.0362	0.0247	0.0609		434.3643	434.3643	3.1500e-003		434.4305
Worker	0.1513	0.2654	2.4120	5.8900e-003	0.5017	3.5500e-003	0.5053	0.1331	3.2600e-003	0.1363		491.9731	491.9731	0.0256		492.5096
Total	**0.5383**	**5.2943**	**6.7909**	**0.0190**	**7.7905**	**0.0758**	**7.8663**	**0.9192**	**0.0697**	**0.9890**		**1,815.1332**	**1,815.1332**	**0.0351**		**1,815.8709**

3.2 Vine - Site Development - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0829	0.0000	4.0829	2.2367	0.0000	2.2367			0.0000			0.0000
Off-Road	10.7311	123.2350	80.3693	0.1063		5.9854	5.9854		5.5066	5.5066	0.0000	11,046.4781	11,046.4781	3.3320		11,116.4503
Total	**10.7311**	**123.2350**	**80.3693**	**0.1063**	**4.0829**	**5.9854**	**10.0683**	**2.2367**	**5.5066**	**7.7433**	**0.0000**	**11,046.4781**	**11,046.4781**	**3.3320**		**11,116.4503**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2579	3.4194	3.0548	8.8300e-003	7.1618	0.0454	7.2071	0.7500	0.0418	0.7917		888.7959	888.7959	6.4200e-003		888.9308
Vendor	0.1291	1.6095	1.3242	4.3200e-003	0.1270	0.0269	0.1539	0.0362	0.0247	0.0609		434.3643	434.3643	3.1500e-003		434.4305
Worker	0.1513	0.2654	2.4120	5.8900e-003	0.5017	3.5500e-003	0.5053	0.1331	3.2600e-003	0.1363		491.9731	491.9731	0.0256		492.5096
Total	**0.5383**	**5.2943**	**6.7909**	**0.0190**	**7.7905**	**0.0758**	**7.8663**	**0.9192**	**0.0697**	**0.9890**		**1,815.1332**	**1,815.1332**	**0.0351**		**1,815.8709**

3.3 Vine - Wall Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3897	56.3432	35.3786	0.0506		3.0633	3.0633		2.8209	2.8209		5,210.2602	5,210.2602	1.5486		5,242.7804
Total	**5.3897**	**56.3432**	**35.3786**	**0.0506**		**3.0633**	**3.0633**		**2.8209**	**2.8209**		**5,210.2602**	**5,210.2602**	**1.5486**		**5,242.7804**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0688	0.1206	1.0963	2.6800e-003	0.2281	1.6100e-003	0.2297	0.0605	1.4800e-003	0.0620		223.6241	223.6241	0.0116		223.8680
Total	**0.1057**	**0.5805**	**1.4747**	**3.9100e-003**	**0.2643**	**9.2800e-003**	**0.2736**	**0.0708**	**8.5400e-003**	**0.0794**		**347.7282**	**347.7282**	**0.0125**		**347.9910**

3.3 Vine - Wall Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3897	56.3432	35.3786	0.0506		3.0633	3.0633		2.8209	2.8209	0.0000	5,210.2602	5,210.2602	1.5486		5,242.7804
Total	**5.3897**	**56.3432**	**35.3786**	**0.0506**		**3.0633**	**3.0633**		**2.8209**	**2.8209**	**0.0000**	**5,210.2602**	**5,210.2602**	**1.5486**		**5,242.7804**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0688	0.1206	1.0963	2.6800e-003	0.2281	1.6100e-003	0.2297	0.0605	1.4800e-003	0.0620		223.6241	223.6241	0.0116		223.8680
Total	**0.1057**	**0.5805**	**1.4747**	**3.9100e-003**	**0.2643**	**9.2800e-003**	**0.2736**	**0.0708**	**8.5400e-003**	**0.0794**		**347.7282**	**347.7282**	**0.0125**		**347.9910**

3.4 Vine - Below Grade - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2803	0.0000	5.2803	2.8977	0.0000	2.8977			0.0000			0.0000
Off-Road	3.6957	38.3002	24.2306	0.0296		2.1929	2.1929		2.0175	2.0175		3,073.7708	3,073.7708	0.9272		3,093.2411
Total	**3.6957**	**38.3002**	**24.2306**	**0.0296**	**5.2803**	**2.1929**	**7.4733**	**2.8977**	**2.0175**	**4.9152**		**3,073.7708**	**3,073.7708**	**0.9272**		**3,093.2411**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0185	0.2451	0.2189	6.3000e-004	0.5133	3.2500e-003	0.5165	0.0538	2.9900e-003	0.0567		63.6968	63.6968	4.6000e-004		63.7065
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0550	0.0965	0.8771	2.1400e-003	0.1825	1.2900e-003	0.1837	0.0484	1.1900e-003	0.0496		178.8993	178.8993	9.2900e-003		179.0944
Total	**0.1104**	**0.8014**	**1.4743**	**4.0000e-003**	**0.7320**	**0.0122**	**0.7442**	**0.1125**	**0.0112**	**0.1237**		**366.7002**	**366.7002**	**0.0107**		**366.9239**

3.4 Vine - Below Grade - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3762	0.0000	2.3762	1.3040	0.0000	1.3040			0.0000			0.0000
Off-Road	3.6957	38.3002	24.2306	0.0296		2.1929	2.1929		2.0175	2.0175	0.0000	3,073.7708	3,073.7708	0.9272		3,093.2411
Total	**3.6957**	**38.3002**	**24.2306**	**0.0296**	**2.3762**	**2.1929**	**4.5691**	**1.3040**	**2.0175**	**3.3214**	**0.0000**	**3,073.7708**	**3,073.7708**	**0.9272**		**3,093.2411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0185	0.2451	0.2189	6.3000e-004	0.5133	3.2500e-003	0.5165	0.0538	2.9900e-003	0.0567		63.6968	63.6968	4.6000e-004		63.7065
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0550	0.0965	0.8771	2.1400e-003	0.1825	1.2900e-003	0.1837	0.0484	1.1900e-003	0.0496		178.8993	178.8993	9.2900e-003		179.0944
Total	**0.1104**	**0.8014**	**1.4743**	**4.0000e-003**	**0.7320**	**0.0122**	**0.7442**	**0.1125**	**0.0112**	**0.1237**		**366.7002**	**366.7002**	**0.0107**		**366.9239**

3.5 Vine - Equipment Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4153	33.0135	20.6767	0.0369		1.8226	1.8226		1.7581	1.7581		3,647.8570	3,647.8570	0.7076		3,662.7157
Total	**3.4153**	**33.0135**	**20.6767**	**0.0369**		**1.8226**	**1.8226**		**1.7581**	**1.7581**		**3,647.8570**	**3,647.8570**	**0.7076**		**3,662.7157**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0553	0.6898	0.5675	1.8500e-003	0.0544	0.0115	0.0659	0.0155	0.0106	0.0261		186.1561	186.1561	1.3500e-003		186.1845
Worker	0.1330	0.2332	2.1196	5.1800e-003	0.4409	3.1200e-003	0.4440	0.1169	2.8600e-003	0.1198		432.3400	432.3400	0.0225		432.8115
Total	**0.1883**	**0.9230**	**2.6871**	**7.0300e-003**	**0.4954**	**0.0146**	**0.5100**	**0.1324**	**0.0135**	**0.1459**		**618.4961**	**618.4961**	**0.0238**		**618.9960**

3.5 Vine - Equipment Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4153	33.0135	20.6767	0.0369		1.8226	1.8226		1.7581	1.7581	0.0000	3,647.8570	3,647.8570	0.7076		3,662.7157
Total	**3.4153**	**33.0135**	**20.6767**	**0.0369**		**1.8226**	**1.8226**		**1.7581**	**1.7581**	**0.0000**	**3,647.8570**	**3,647.8570**	**0.7076**		**3,662.7157**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0553	0.6898	0.5675	1.8500e-003	0.0544	0.0115	0.0659	0.0155	0.0106	0.0261		186.1561	186.1561	1.3500e-003		186.1845
Worker	0.1330	0.2332	2.1196	5.1800e-003	0.4409	3.1200e-003	0.4440	0.1169	2.8600e-003	0.1198		432.3400	432.3400	0.0225		432.8115
Total	**0.1883**	**0.9230**	**2.6871**	**7.0300e-003**	**0.4954**	**0.0146**	**0.5100**	**0.1324**	**0.0135**	**0.1459**		**618.4961**	**618.4961**	**0.0238**		**618.9960**

3.5 Vine - Equipment Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0574	29.9947	20.1345	0.0369		1.5988	1.5988		1.5430	1.5430		3,620.0476	3,620.0476	0.6878		3,634.4909
Total	**3.0574**	**29.9947**	**20.1345**	**0.0369**		**1.5988**	**1.5988**		**1.5430**	**1.5430**		**3,620.0476**	**3,620.0476**	**0.6878**		**3,634.4909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	0.6111	0.5331	1.8500e-003	0.0544	0.0100	0.0644	0.0155	9.1900e-003	0.0247		183.0055	183.0055	1.2700e-003		183.0321
Worker	0.1190	0.2121	1.9051	5.1800e-003	0.4409	3.0100e-003	0.4439	0.1169	2.7800e-003	0.1197		415.6234	415.6234	0.0208		416.0602
Total	**0.1697**	**0.8232**	**2.4382**	**7.0300e-003**	**0.4954**	**0.0130**	**0.5084**	**0.1324**	**0.0120**	**0.1444**		**598.6289**	**598.6289**	**0.0221**		**599.0923**

3.5 Vine - Equipment Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0574	29.9947	20.1345	0.0369		1.5988	1.5988		1.5430	1.5430	0.0000	3,620.0476	3,620.0476	0.6878		3,634.4909
Total	**3.0574**	**29.9947**	**20.1345**	**0.0369**		**1.5988**	**1.5988**		**1.5430**	**1.5430**	**0.0000**	**3,620.0476**	**3,620.0476**	**0.6878**		**3,634.4909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	0.6111	0.5331	1.8500e-003	0.0544	0.0100	0.0644	0.0155	9.1900e-003	0.0247		183.0055	183.0055	1.2700e-003		183.0321
Worker	0.1190	0.2121	1.9051	5.1800e-003	0.4409	3.0100e-003	0.4439	0.1169	2.7800e-003	0.1197		415.6234	415.6234	0.0208		416.0602
Total	**0.1697**	**0.8232**	**2.4382**	**7.0300e-003**	**0.4954**	**0.0130**	**0.5084**	**0.1324**	**0.0120**	**0.1444**		**598.6289**	**598.6289**	**0.0221**		**599.0923**

3.6 12 kV - Bank and Vault Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5745	40.3264	28.0089	0.0428		2.1625	2.1625		1.9895	1.9895		4,441.4464	4,441.4464	1.3397		4,469.5801
Total	**3.5745**	**40.3264**	**28.0089**	**0.0428**		**2.1625**	**2.1625**		**1.9895**	**1.9895**		**4,441.4464**	**4,441.4464**	**1.3397**		**4,469.5801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1070	1.4186	1.2673	3.6600e-003	0.1486	0.0188	0.1675	0.0389	0.0173	0.0562		368.7250	368.7250	2.6600e-003		368.7809
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.1284	0.2252	2.0465	5.0000e-003	0.4257	3.0100e-003	0.4287	0.1129	2.7700e-003	0.1157		417.4317	417.4317	0.0217		417.8870
Total	**0.2722**	**2.1036**	**3.6922**	**9.8900e-003**	**0.6106**	**0.0295**	**0.6402**	**0.1621**	**0.0272**	**0.1893**		**910.2607**	**910.2607**	**0.0252**		**910.7909**

3.6 12 kV - Bank and Vault Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5745	40.3264	28.0089	0.0428		2.1625	2.1625		1.9895	1.9895	0.0000	4,441.4464	4,441.4464	1.3397		4,469.5801
Total	**3.5745**	**40.3264**	**28.0089**	**0.0428**		**2.1625**	**2.1625**		**1.9895**	**1.9895**	**0.0000**	**4,441.4464**	**4,441.4464**	**1.3397**		**4,469.5801**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1070	1.4186	1.2673	3.6600e-003	0.1486	0.0188	0.1675	0.0389	0.0173	0.0562		368.7250	368.7250	2.6600e-003		368.7809
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.1284	0.2252	2.0465	5.0000e-003	0.4257	3.0100e-003	0.4287	0.1129	2.7700e-003	0.1157		417.4317	417.4317	0.0217		417.8870
Total	**0.2722**	**2.1036**	**3.6922**	**9.8900e-003**	**0.6106**	**0.0295**	**0.6402**	**0.1621**	**0.0272**	**0.1893**		**910.2607**	**910.2607**	**0.0252**		**910.7909**

3.6 12 kV - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3061	36.7931	27.7433	0.0428		1.9581	1.9581		1.8015	1.8015		4,371.9122	4,371.9122	1.3396		4,400.0427
Total	**3.3061**	**36.7931**	**27.7433**	**0.0428**		**1.9581**	**1.9581**		**1.8015**	**1.8015**		**4,371.9122**	**4,371.9122**	**1.3396**		**4,400.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0999	1.2649	1.2160	3.6600e-003	0.1520	0.0165	0.1685	0.0397	0.0152	0.0549		362.4441	362.4441	2.5500e-003		362.4977
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.1149	0.2048	1.8394	5.0000e-003	0.4257	2.9100e-003	0.4286	0.1129	2.6800e-003	0.1156		401.2916	401.2916	0.0201		401.7133
Total	**0.2486**	**1.8770**	**3.4108**	**9.8900e-003**	**0.6140**	**0.0261**	**0.6401**	**0.1630**	**0.0240**	**0.1870**		**885.7393**	**885.7393**	**0.0235**		**886.2324**

3.6 12 kV - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3061	36.7931	27.7433	0.0428		1.9581	1.9581		1.8015	1.8015	0.0000	4,371.9122	4,371.9122	1.3396		4,400.0427
Total	**3.3061**	**36.7931**	**27.7433**	**0.0428**		**1.9581**	**1.9581**		**1.8015**	**1.8015**	**0.0000**	**4,371.9122**	**4,371.9122**	**1.3396**		**4,400.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0999	1.2649	1.2160	3.6600e-003	0.1520	0.0165	0.1685	0.0397	0.0152	0.0549		362.4441	362.4441	2.5500e-003		362.4977
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.1149	0.2048	1.8394	5.0000e-003	0.4257	2.9100e-003	0.4286	0.1129	2.6800e-003	0.1156		401.2916	401.2916	0.0201		401.7133
Total	**0.2486**	**1.8770**	**3.4108**	**9.8900e-003**	**0.6140**	**0.0261**	**0.6401**	**0.1630**	**0.0240**	**0.1870**		**885.7393**	**885.7393**	**0.0235**		**886.2324**

3.7 69 kV - Foundation Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2214	13.4673	6.9069	0.0165		0.6755	0.6755		0.6350	0.6350		1,680.2971	1,680.2971	0.4414		1,689.5660
Total	**1.2214**	**13.4673**	**6.9069**	**0.0165**		**0.6755**	**0.6755**		**0.6350**	**0.6350**		**1,680.2971**	**1,680.2971**	**0.4414**		**1,689.5660**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0587	0.7788	0.6958	2.0100e-003	0.0469	0.0103	0.0573	0.0129	9.5100e-003	0.0224		202.4372	202.4372	1.4600e-003		202.4680
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0321	0.0563	0.5116	1.2500e-003	0.1064	7.5000e-004	0.1072	0.0282	6.9000e-004	0.0289		104.3579	104.3579	5.4200e-003		104.4717
Total	**0.1277**	**1.2950**	**1.5858**	**4.4900e-003**	**0.1896**	**0.0188**	**0.2084**	**0.0514**	**0.0173**	**0.0687**		**430.8992**	**430.8992**	**7.7800e-003**		**431.0627**

3.7 69 kV - Foundation Installation - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2214	13.4673	6.9069	0.0165		0.6755	0.6755		0.6350	0.6350	0.0000	1,680.2971	1,680.2971	0.4414		1,689.5660
Total	**1.2214**	**13.4673**	**6.9069**	**0.0165**		**0.6755**	**0.6755**		**0.6350**	**0.6350**	**0.0000**	**1,680.2971**	**1,680.2971**	**0.4414**		**1,689.5660**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0587	0.7788	0.6958	2.0100e-003	0.0469	0.0103	0.0573	0.0129	9.5100e-003	0.0224		202.4372	202.4372	1.4600e-003		202.4680
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0321	0.0563	0.5116	1.2500e-003	0.1064	7.5000e-004	0.1072	0.0282	6.9000e-004	0.0289		104.3579	104.3579	5.4200e-003		104.4717
Total	**0.1277**	**1.2950**	**1.5858**	**4.4900e-003**	**0.1896**	**0.0188**	**0.2084**	**0.0514**	**0.0173**	**0.0687**		**430.8992**	**430.8992**	**7.7800e-003**		**431.0627**

3.8 69 kV - Pole Installation and Removal - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2674	12.6173	6.5818	0.0113		0.6872	0.6872		0.6532	0.6532		1,133.0957	1,133.0957	0.2728		1,138.8252
Total	**1.2674**	**12.6173**	**6.5818**	**0.0113**		**0.6872**	**0.6872**		**0.6532**	**0.6532**		**1,133.0957**	**1,133.0957**	**0.2728**		**1,138.8252**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0229	0.0402	0.3655	8.9000e-004	0.0760	5.4000e-004	0.0766	0.0202	4.9000e-004	0.0207		74.5414	74.5414	3.8700e-003		74.6227
Total	**0.0598**	**0.5001**	**0.7438**	**2.1200e-003**	**0.1123**	**8.2100e-003**	**0.1205**	**0.0305**	**7.5500e-003**	**0.0381**		**198.6455**	**198.6455**	**4.7700e-003**		**198.7457**

3.8 69 kV - Pole Installation and Removal - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2674	12.6173	6.5818	0.0113		0.6872	0.6872		0.6532	0.6532	0.0000	1,133.0957	1,133.0957	0.2728		1,138.8252
Total	**1.2674**	**12.6173**	**6.5818**	**0.0113**		**0.6872**	**0.6872**		**0.6532**	**0.6532**	**0.0000**	**1,133.0957**	**1,133.0957**	**0.2728**		**1,138.8252**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0369	0.4599	0.3783	1.2300e-003	0.0363	7.6700e-003	0.0440	0.0103	7.0600e-003	0.0174		124.1041	124.1041	9.0000e-004		124.1230
Worker	0.0229	0.0402	0.3655	8.9000e-004	0.0760	5.4000e-004	0.0766	0.0202	4.9000e-004	0.0207		74.5414	74.5414	3.8700e-003		74.6227
Total	**0.0598**	**0.5001**	**0.7438**	**2.1200e-003**	**0.1123**	**8.2100e-003**	**0.1205**	**0.0305**	**7.5500e-003**	**0.0381**		**198.6455**	**198.6455**	**4.7700e-003**		**198.7457**

3.8 69 kV - Pole Installation and Removal - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1394	11.4076	6.3265	0.0113		0.6024	0.6024		0.5727	0.5727		1,121.4317	1,121.4317	0.2682		1,127.0648
Total	**1.1394**	**11.4076**	**6.3265**	**0.0113**		**0.6024**	**0.6024**		**0.5727**	**0.5727**		**1,121.4317**	**1,121.4317**	**0.2682**		**1,127.0648**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0205	0.0366	0.3285	8.9000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		71.6592	71.6592	3.5900e-003		71.7345
Total	**0.0543**	**0.4440**	**0.6839**	**2.1200e-003**	**0.1123**	**7.1800e-003**	**0.1195**	**0.0305**	**6.6100e-003**	**0.0371**		**193.6629**	**193.6629**	**4.4300e-003**		**193.7559**

3.8 69 kV - Pole Installation and Removal - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1394	11.4076	6.3265	0.0113		0.6024	0.6024		0.5727	0.5727	0.0000	1,121.4317	1,121.4317	0.2682		1,127.0648
Total	**1.1394**	**11.4076**	**6.3265**	**0.0113**		**0.6024**	**0.6024**		**0.5727**	**0.5727**	**0.0000**	**1,121.4317**	**1,121.4317**	**0.2682**		**1,127.0648**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0205	0.0366	0.3285	8.9000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		71.6592	71.6592	3.5900e-003		71.7345
Total	**0.0543**	**0.4440**	**0.6839**	**2.1200e-003**	**0.1123**	**7.1800e-003**	**0.1195**	**0.0305**	**6.6100e-003**	**0.0371**		**193.6629**	**193.6629**	**4.4300e-003**		**193.7559**

3.9 69 kV - Conductor Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9529	10.7453	6.1259	0.0100		0.5644	0.5644		0.5192	0.5192		1,027.1793	1,027.1793	0.3147		1,033.7886
Total	**0.9529**	**10.7453**	**6.1259**	**0.0100**		**0.5644**	**0.5644**		**0.5192**	**0.5192**		**1,027.1793**	**1,027.1793**	**0.3147**		**1,033.7886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	0.6111	0.5331	1.8500e-003	0.0544	0.0100	0.0644	0.0155	9.1900e-003	0.0247		183.0055	183.0055	1.2700e-003		183.0321
Worker	0.0205	0.0366	0.3285	8.9000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		71.6592	71.6592	3.5900e-003		71.7345
Total	**0.0712**	**0.6476**	**0.8616**	**2.7400e-003**	**0.1305**	**0.0105**	**0.1410**	**0.0357**	**9.6700e-003**	**0.0454**		**254.6647**	**254.6647**	**4.8600e-003**		**254.7666**

3.9 69 kV - Conductor Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9529	10.7453	6.1259	0.0100		0.5644	0.5644		0.5192	0.5192	0.0000	1,027.1793	1,027.1793	0.3147		1,033.7886
Total	**0.9529**	**10.7453**	**6.1259**	**0.0100**		**0.5644**	**0.5644**		**0.5192**	**0.5192**	**0.0000**	**1,027.1793**	**1,027.1793**	**0.3147**		**1,033.7886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0507	0.6111	0.5331	1.8500e-003	0.0544	0.0100	0.0644	0.0155	9.1900e-003	0.0247		183.0055	183.0055	1.2700e-003		183.0321
Worker	0.0205	0.0366	0.3285	8.9000e-004	0.0760	5.2000e-004	0.0765	0.0202	4.8000e-004	0.0206		71.6592	71.6592	3.5900e-003		71.7345
Total	**0.0712**	**0.6476**	**0.8616**	**2.7400e-003**	**0.1305**	**0.0105**	**0.1410**	**0.0357**	**9.6700e-003**	**0.0454**		**254.6647**	**254.6647**	**4.8600e-003**		**254.7666**

3.10 Energization - Testing and Commissioning - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9810	11.0636	5.2710	0.0148		0.4107	0.4107		0.3779	0.3779		1,512.2953	1,512.2953	0.4634		1,522.0259
Total	**0.9810**	**11.0636**	**5.2710**	**0.0148**		**0.4107**	**0.4107**		**0.3779**	**0.3779**		**1,512.2953**	**1,512.2953**	**0.4634**		**1,522.0259**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0658	0.5912	1.6100e-003	0.1368	9.4000e-004	0.1378	0.0363	8.6000e-004	0.0372		128.9866	128.9866	6.4600e-003		129.1221
Total	**0.0369**	**0.0658**	**0.5912**	**1.6100e-003**	**0.1368**	**9.4000e-004**	**0.1378**	**0.0363**	**8.6000e-004**	**0.0372**		**128.9866**	**128.9866**	**6.4600e-003**		**129.1221**

3.10 Energization - Testing and Commissioning - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9810	11.0636	5.2710	0.0148		0.4107	0.4107		0.3779	0.3779	0.0000	1,512.2953	1,512.2953	0.4634		1,522.0259
Total	**0.9810**	**11.0636**	**5.2710**	**0.0148**		**0.4107**	**0.4107**		**0.3779**	**0.3779**	**0.0000**	**1,512.2953**	**1,512.2953**	**0.4634**		**1,522.0259**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0658	0.5912	1.6100e-003	0.1368	9.4000e-004	0.1378	0.0363	8.6000e-004	0.0372		128.9866	128.9866	6.4600e-003		129.1221
Total	**0.0369**	**0.0658**	**0.5912**	**1.6100e-003**	**0.1368**	**9.4000e-004**	**0.1378**	**0.0363**	**8.6000e-004**	**0.0372**		**128.9866**	**128.9866**	**6.4600e-003**		**129.1221**

3.11 Telecom - Bank and Vault Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1588	1.6561	1.4174	1.9300e-003		0.1135	0.1135		0.1044	0.1044		197.3953	197.3953	0.0605		198.6654
Total	**0.1588**	**1.6561**	**1.4174**	**1.9300e-003**		**0.1135**	**0.1135**		**0.1044**	**0.1044**		**197.3953**	**197.3953**	**0.0605**		**198.6654**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0196	0.2476	0.2380	7.2000e-004	0.0167	3.2400e-003	0.0200	4.5800e-003	2.9800e-003	7.5600e-003		70.9538	70.9538	5.0000e-004		70.9643
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0534**	**0.6550**	**0.5935**	**1.9500e-003**	**0.0530**	**9.9000e-003**	**0.0629**	**0.0149**	**9.1100e-003**	**0.0240**		**192.9574**	**192.9574**	**1.3400e-003**		**192.9856**

3.11 Telecom - Bank and Vault Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1588	1.6561	1.4174	1.9300e-003		0.1135	0.1135		0.1044	0.1044	0.0000	197.3953	197.3953	0.0605		198.6654
Total	**0.1588**	**1.6561**	**1.4174**	**1.9300e-003**		**0.1135**	**0.1135**		**0.1044**	**0.1044**	**0.0000**	**197.3953**	**197.3953**	**0.0605**		**198.6654**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0196	0.2476	0.2380	7.2000e-004	0.0167	3.2400e-003	0.0200	4.5800e-003	2.9800e-003	7.5600e-003		70.9538	70.9538	5.0000e-004		70.9643
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0534**	**0.6550**	**0.5935**	**1.9500e-003**	**0.0530**	**9.9000e-003**	**0.0629**	**0.0149**	**9.1100e-003**	**0.0240**		**192.9574**	**192.9574**	**1.3400e-003**		**192.9856**

3.12 12 kV - Cable Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0861	0.7462	0.5215	6.3000e-004		0.0614	0.0614		0.0565	0.0565		64.7055	64.7055	0.0198		65.1218
Total	**0.0861**	**0.7462**	**0.5215**	**6.3000e-004**		**0.0614**	**0.0614**		**0.0565**	**0.0565**		**64.7055**	**64.7055**	**0.0198**		**65.1218**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0657	0.1170	1.0511	2.8600e-003	0.2433	1.6600e-003	0.2449	0.0645	1.5300e-003	0.0660		229.3095	229.3095	0.0115		229.5505
Total	**0.0995**	**0.5244**	**1.4065**	**4.0900e-003**	**0.2796**	**8.3200e-003**	**0.2879**	**0.0749**	**7.6600e-003**	**0.0825**		**351.3131**	**351.3131**	**0.0123**		**351.5719**

3.12 12 kV - Cable Installation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0861	0.7462	0.5215	6.3000e-004		0.0614	0.0614		0.0565	0.0565	0.0000	64.7055	64.7055	0.0198		65.1218
Total	**0.0861**	**0.7462**	**0.5215**	**6.3000e-004**		**0.0614**	**0.0614**		**0.0565**	**0.0565**	**0.0000**	**64.7055**	**64.7055**	**0.0198**		**65.1218**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0338	0.4074	0.3554	1.2300e-003	0.0363	6.6600e-003	0.0430	0.0103	6.1300e-003	0.0165		122.0036	122.0036	8.4000e-004		122.0214
Worker	0.0657	0.1170	1.0511	2.8600e-003	0.2433	1.6600e-003	0.2449	0.0645	1.5300e-003	0.0660		229.3095	229.3095	0.0115		229.5505
Total	**0.0995**	**0.5244**	**1.4065**	**4.0900e-003**	**0.2796**	**8.3200e-003**	**0.2879**	**0.0749**	**7.6600e-003**	**0.0825**		**351.3131**	**351.3131**	**0.0123**		**351.5719**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

Vine 69/12 kV Substation Project

San Diego County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
12 kV - Bank and Vault Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12 kV - Cable Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Conductor Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Foundation Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Pole Installation and Removal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energization - Testing and Commissioning	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telecom - Bank and Vault Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Below Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Equipment Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Site Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Wall Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Aerial Lifts	Diesel	No Change	0	8	No Change	0.00
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	6	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	1	No Change	0.00
Generator Sets	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Off-Highway Trucks	Diesel	No Change	0	7	No Change	0.00
Other Construction Equipment	Diesel	No Change	0	1	No Change	0.00
Other General Industrial Equipment	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	3	No Change	0.00
Plate Compactors	Diesel	No Change	0	3	No Change	0.00
Rollers	Diesel	No Change	0	7	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	4	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	8	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	13	No Change	0.00
Trenchers	Diesel	No Change	0	2	No Change	0.00
Welders	Diesel	No Change	0	0	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Aerial Lifts	2.62000E-002	4.32800E-001	5.52940E-001	8.50000E-004	1.63000E-002	1.50000E-002	0.00000E+000	7.88105E+001	7.88105E+001	2.40100E-002	0.00000E+000	7.93146E+001
Air Compressors	2.09000E-002	1.36090E-001	1.12510E-001	1.80000E-004	1.10200E-002	1.10200E-002	0.00000E+000	1.53195E+001	1.53195E+001	1.70000E-003	0.00000E+000	1.53553E+001
Bore/Drill Rigs	2.26000E-003	3.41000E-002	1.33100E-002	6.00000E-005	1.00000E-003	9.20000E-004	0.00000E+000	5.35268E+000	5.35268E+000	1.61000E-003	0.00000E+000	5.38659E+000
Cranes	2.18600E-001	2.59309E+000	9.19670E-001	1.82000E-003	1.16490E-001	1.07170E-001	0.00000E+000	1.70112E+002	1.70112E+002	5.17900E-002	0.00000E+000	1.71200E+002
Excavators	1.10760E-001	1.25070E+000	1.00389E+000	1.55000E-003	6.15400E-002	5.66200E-002	0.00000E+000	1.45295E+002	1.45295E+002	4.41000E-002	0.00000E+000	1.46221E+002
Forklifts	7.40000E-004	6.35000E-003	4.10000E-003	0.00000E+000	5.30000E-004	4.90000E-004	0.00000E+000	4.67970E-001	4.67970E-001	1.40000E-004	0.00000E+000	4.70930E-001
Generator Sets	2.35290E-001	1.81511E+000	1.48869E+000	2.59000E-003	1.24300E-001	1.24300E-001	0.00000E+000	2.22268E+002	2.22268E+002	1.89500E-002	0.00000E+000	2.22666E+002
Graders	1.10340E-001	1.12427E+000	5.33710E-001	6.80000E-004	6.31600E-002	5.81100E-002	0.00000E+000	6.38104E+001	6.38104E+001	1.92500E-002	0.00000E+000	6.42146E+001
Off-Highway Trucks	1.80480E-001	2.05988E+000	9.69010E-001	2.61000E-003	7.71700E-002	7.09900E-002	0.00000E+000	2.44175E+002	2.44175E+002	7.41900E-002	0.00000E+000	2.45733E+002
Other Construction Equipment	6.33000E-003	6.98800E-002	4.13400E-002	6.00000E-005	3.68000E-003	3.39000E-003	0.00000E+000	5.60195E+000	5.60195E+000	1.70000E-003	0.00000E+000	5.63771E+000
Other General Industrial Equipment	1.08900E-002	9.44000E-002	6.59600E-002	8.00000E-005	7.76000E-003	7.14000E-003	0.00000E+000	7.42553E+000	7.42553E+000	2.28000E-003	0.00000E+000	7.47331E+000
Pavers	1.17300E-002	1.32010E-001	8.34200E-002	1.30000E-004	6.56000E-003	6.03000E-003	0.00000E+000	1.24457E+001	1.24457E+001	3.75000E-003	0.00000E+000	1.25245E+001
Paving Equipment	5.75100E-002	6.61810E-001	4.95300E-001	7.80000E-004	3.29400E-002	3.03100E-002	0.00000E+000	7.31589E+001	7.31589E+001	2.22400E-002	0.00000E+000	7.36259E+001
Plate Compactors	3.59000E-003	2.24800E-002	1.88200E-002	4.00000E-005	8.70000E-004	8.70000E-004	0.00000E+000	2.79753E+000	2.79753E+000	2.90000E-004	0.00000E+000	2.80363E+000
Rollers	7.80100E-002	7.22000E-001	4.71420E-001	6.10000E-004	5.30300E-002	4.87900E-002	0.00000E+000	5.78303E+001	5.78303E+001	1.74900E-002	0.00000E+000	5.81976E+001
Rubber Tired Dozers	1.86200E-001	2.08580E+000	1.57667E+000	1.33000E-003	9.70500E-002	8.92900E-002	0.00000E+000	1.25973E+002	1.25973E+002	3.80000E-002	0.00000E+000	1.26771E+002
Scrapers	1.88710E-001	2.40181E+000	1.50443E+000	2.03000E-003	9.68100E-002	8.90600E-002	0.00000E+000	1.91625E+002	1.91625E+002	5.78000E-002	0.00000E+000	1.92839E+002
Skid Steer Loaders	3.41400E-002	4.40990E-001	4.26470E-001	6.30000E-004	2.42800E-002	2.23400E-002	0.00000E+000	5.85635E+001	5.85635E+001	1.77700E-002	0.00000E+000	5.89367E+001
Tractors/Loaders/ Backhoes	1.58700E-001	1.51750E+000	1.13071E+000	1.46000E-003	1.16600E-001	1.07270E-001	0.00000E+000	1.37503E+002	1.37503E+002	4.15400E-002	0.00000E+000	1.38375E+002
Trenchers	4.89900E-002	4.29110E-001	2.47950E-001	3.00000E-004	3.36600E-002	3.09600E-002	0.00000E+000	2.87585E+001	2.87585E+001	8.67000E-003	0.00000E+000	2.89407E+001
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Aerial Lifts	2.62000E-002	4.32800E-001	5.52930E-001	8.50000E-004	1.63000E-002	1.50000E-002	0.00000E+000	7.88104E+001	7.88104E+001	2.40100E-002	0.00000E+000	7.93146E+001
Air Compressors	2.09000E-002	1.36090E-001	1.12510E-001	1.80000E-004	1.10200E-002	1.10200E-002	0.00000E+000	1.53195E+001	1.53195E+001	1.70000E-003	0.00000E+000	1.53552E+001
Bore/Drill Rigs	2.26000E-003	3.41000E-002	1.33100E-002	6.00000E-005	1.00000E-003	9.20000E-004	0.00000E+000	5.35268E+000	5.35268E+000	1.61000E-003	0.00000E+000	5.38658E+000
Cranes	2.18600E-001	2.59308E+000	9.19670E-001	1.82000E-003	1.16490E-001	1.07170E-001	0.00000E+000	1.70112E+002	1.70112E+002	5.17900E-002	0.00000E+000	1.71200E+002
Excavators	1.10760E-001	1.25069E+000	1.00389E+000	1.55000E-003	6.15400E-002	5.66200E-002	0.00000E+000	1.45295E+002	1.45295E+002	4.41000E-002	0.00000E+000	1.46221E+002
Forklifts	7.40000E-004	6.35000E-003	4.10000E-003	0.00000E+000	5.30000E-004	4.90000E-004	0.00000E+000	4.67970E-001	4.67970E-001	1.40000E-004	0.00000E+000	4.70930E-001
Generator Sets	2.35290E-001	1.81511E+000	1.48869E+000	2.59000E-003	1.24300E-001	1.24300E-001	0.00000E+000	2.22268E+002	2.22268E+002	1.89500E-002	0.00000E+000	2.22666E+002
Graders	1.10340E-001	1.12427E+000	5.33710E-001	6.80000E-004	6.31600E-002	5.81100E-002	0.00000E+000	6.38103E+001	6.38103E+001	1.92500E-002	0.00000E+000	6.42145E+001
Off-Highway Trucks	1.80480E-001	2.05987E+000	9.69010E-001	2.61000E-003	7.71700E-002	7.09900E-002	0.00000E+000	2.44175E+002	2.44175E+002	7.41900E-002	0.00000E+000	2.45733E+002
Other Construction Equipment	6.33000E-003	6.98800E-002	4.13400E-002	6.00000E-005	3.68000E-003	3.39000E-003	0.00000E+000	5.60194E+000	5.60194E+000	1.70000E-003	0.00000E+000	5.63770E+000
Other General Industrial Equipment	1.08900E-002	9.44000E-002	6.59600E-002	8.00000E-005	7.76000E-003	7.14000E-003	0.00000E+000	7.42552E+000	7.42552E+000	2.28000E-003	0.00000E+000	7.47330E+000
Pavers	1.17300E-002	1.32010E-001	8.34200E-002	1.30000E-004	6.56000E-003	6.03000E-003	0.00000E+000	1.24457E+001	1.24457E+001	3.75000E-003	0.00000E+000	1.25245E+001
Paving Equipment	5.75100E-002	6.61810E-001	4.95300E-001	7.80000E-004	3.29400E-002	3.03100E-002	0.00000E+000	7.31588E+001	7.31588E+001	2.22400E-002	0.00000E+000	7.36258E+001
Plate Compactors	3.59000E-003	2.24800E-002	1.88200E-002	4.00000E-005	8.70000E-004	8.70000E-004	0.00000E+000	2.79753E+000	2.79753E+000	2.90000E-004	0.00000E+000	2.80363E+000
Rollers	7.80100E-002	7.22000E-001	4.71420E-001	6.10000E-004	5.30300E-002	4.87900E-002	0.00000E+000	5.78303E+001	5.78303E+001	1.74900E-002	0.00000E+000	5.81975E+001
Rubber Tired Dozers	1.86200E-001	2.08580E+000	1.57667E+000	1.33000E-003	9.70500E-002	8.92900E-002	0.00000E+000	1.25973E+002	1.25973E+002	3.80000E-002	0.00000E+000	1.26770E+002
Scrapers	1.88710E-001	2.40181E+000	1.50442E+000	2.03000E-003	9.68100E-002	8.90600E-002	0.00000E+000	1.91625E+002	1.91625E+002	5.78000E-002	0.00000E+000	1.92839E+002
Skid Steer Loaders	3.41400E-002	4.40980E-001	4.26470E-001	6.30000E-004	2.42800E-002	2.23400E-002	0.00000E+000	5.85634E+001	5.85634E+001	1.77700E-002	0.00000E+000	5.89367E+001
Tractors/Loaders/Backhoes	1.58700E-001	1.51750E+000	1.13071E+000	1.46000E-003	1.16600E-001	1.07270E-001	0.00000E+000	1.37503E+002	1.37503E+002	4.15400E-002	0.00000E+000	1.38375E+002
Trenchers	4.89900E-002	4.29110E-001	2.47950E-001	3.00000E-004	3.36600E-002	3.09600E-002	0.00000E+000	2.87585E+001	2.87585E+001	8.67000E-003	0.00000E+000	2.89406E+001
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Aerial Lifts	0.00000E+000	0.00000E+000	1.80851E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14198E-006	1.14198E-006	0.00000E+000	0.00000E+000	1.13472E-006
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.30552E-006	1.30552E-006	0.00000E+000	0.00000E+000	1.30249E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.85646E-006
Cranes	0.00000E+000	3.85640E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17570E-006	1.17570E-006	0.00000E+000	0.00000E+000	1.22664E-006
Excavators	0.00000E+000	7.99552E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17003E-006	1.17003E-006	0.00000E+000	0.00000E+000	1.16262E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16976E-006	1.16976E-006	0.00000E+000	0.00000E+000	1.21258E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.25371E-006	1.25371E-006	0.00000E+000	0.00000E+000	1.09010E-006
Off-Highway Trucks	0.00000E+000	4.85465E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.18767E-006	1.18767E-006	0.00000E+000	0.00000E+000	1.18014E-006
Other Construction Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.78509E-006	1.78509E-006	0.00000E+000	0.00000E+000	1.77377E-006
Other General Industrial Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.34671E-006	1.34671E-006	0.00000E+000	0.00000E+000	1.33810E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	8.03491E-007	8.03491E-007	0.00000E+000	0.00000E+000	1.59687E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23020E-006	1.23020E-006	0.00000E+000	0.00000E+000	1.22240E-006
Plate Compactors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21044E-006	1.21044E-006	0.00000E+000	0.00000E+000	1.20280E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19073E-006	1.19073E-006	0.00000E+000	0.00000E+000	1.18324E-006
Scrapers	0.00000E+000	0.00000E+000	6.64704E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20026E-006	1.20026E-006	0.00000E+000	0.00000E+000	1.19271E-006
Skid Steer Loaders	0.00000E+000	2.26763E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19528E-006	1.19528E-006	0.00000E+000	0.00000E+000	1.18771E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23634E-006	1.23634E-006	0.00000E+000	0.00000E+000	1.15628E-006
Trenchers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.04317E-006	1.04317E-006	0.00000E+000	0.00000E+000	1.38214E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
12 kV - Bank and Vault Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
12 kV - Bank and Vault Installation	Roads	0.05	0.01	0.05	0.01	0.00	0.00
12 kV - Cable Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
12 kV - Cable Installation	Roads	0.01	0.00	0.01	0.00	0.00	0.00
69 kV - Conductor Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Conductor Installation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Foundation Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Foundation Installation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Pole Installation and Removal	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
69 kV - Pole Installation and Removal	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Energization - Testing and Commissioning	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Energization - Testing and Commissioning	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Telecom - Bank and Vault Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Telecom - Bank and Vault Installation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Below Grade	Fugitive Dust	0.41	0.23	0.19	0.10	0.55	0.55
Vine - Below Grade	Roads	0.05	0.01	0.05	0.01	0.00	0.00
Vine - Equipment Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Equipment Installation	Roads	0.06	0.02	0.06	0.02	0.00	0.00
Vine - Site Development	Fugitive Dust	0.35	0.19	0.16	0.09	0.55	0.55
Vine - Site Development	Roads	0.27	0.03	0.27	0.03	0.00	0.00
Vine - Wall Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Vine - Wall Construction	Roads	0.01	0.00	0.01	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Aerial Lifts	2	8.00	3	62	0.31	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Aerial Lifts	0.0967	1.6025	2.1588	3.3100e-003		0.0566	0.0566		0.0520	0.0520		337.8592	337.8592	0.1035		340.0331
Total	**0.0967**	**1.6025**	**2.1588**	**3.3100e-003**		**0.0566**	**0.0566**		**0.0520**	**0.0520**		**337.8592**	**337.8592**	**0.1035**		**340.0331**

10.0 Vegetation

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LIST OF ATTACHMENTS

Attachment 4.4-A: USFWS Species Lists
Attachment 4.4-B: Biological Survey Memo
Attachment 4.4-C: SDG&E NCCP and Operational Protocols

4.4 BIOLOGICAL RESOURCES

Will the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States (U.S.) Fish and Wildlife Service?			✓	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

4.4.0 Introduction

This section describes the biological resources in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project), and identifies potential impacts to habitats and species that could result from the construction, operation, and maintenance of the Proposed Project. In addition, potential impacts to riparian communities, jurisdictional wetlands and waters, and migratory wildlife corridors are addressed. The SDG&E Subregional Natural Community Conservation Plan (NCCP), City of San Diego General Plan, and City of San Diego Multiple Species Conservation Program (MSCP) were also reviewed to confirm that the construction of the Proposed Project will not conflict with the aforementioned plans' goals, objectives, and policies. With the implementation of SDG&E's NCCP, which is included as an ordinary construction/operating restriction in Chapter 3 – Project Description, impacts to biological resources from the Proposed Project will be reduced to a less-than-significant level.

4.4.1 Methodology

Data regarding biological resources within the Proposed Project site[1] were obtained through a field reconnaissance survey and a literature review of applicable reference materials and reports. The primary objective of the reconnaissance-level survey was to assess the existing conditions of the biological resources in the Proposed Project site, focusing on conducting a plant and wildlife species inventory, assessing the potential occurrence of sensitive species, and determining if jurisdictional resources are present.

Literature Review

Preliminary investigations included a study of aerial photographs, United States (U.S.) Geological Survey (USGS) topographic maps, National Wetland Inventory maps, and literature and database searches. Other sources of information included the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, as well as the San Diego County Bird Atlas.

All planning documents that are relevant to the Proposed Project site were reviewed, including two City of San Diego plans—the City of San Diego MSCP and City of San Diego General Plan. The SDG&E Mira Sorrento Substation Project Proponent's Environmental Assessment and the Draft Initial Study and Mitigated Negative Declaration for SDG&E's Mira Sorrento Distribution Substation Project were also reviewed.

A search of the California Natural Diversity Database (CNDDB), maintained by the California Department of Fish and Wildlife (CDFW), was conducted for the 7.5-minute USGS quadrangle spanned by the Proposed Project, as well as all surrounding quadrangles.

[1] The Proposed Project site includes all areas directly adjacent to the Proposed Project footprint. The Proposed Project footprint is defined as all areas that will be directly impacted by construction activities. This area includes the parcel that the proposed Vine Substation will be located on, portions of Kettner Boulevard and Pacific Highway where underground duct banks and associated facilities will be installed, and areas adjacent to Pacific Highway and California Street where poles associated with the 69 kV loop-in will be installed or removed.

The Carlsbad office of the U.S. Fish and Wildlife Service (USFWS) also provided a list of threatened and endangered species known to occur near or within the Proposed Project site. This list is included in Attachment 4.4-A: USFWS Species Lists.

Determination of the potential occurrence for listed, sensitive, or noteworthy species was based on known ranges and habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the survey area.

General Biological Surveys

Insignia Environmental biologist Jeff Coward conducted a reconnaissance-level biological survey of the Proposed Project footprint on January 2, 2014. The biologist documented the dominant plant communities and potential habitat for wildlife species. He also documented plant and animal species observed directly or detected from calls, tracks, scat, nests, or other signs. The wildlife survey was performed during the day; therefore, nocturnal animals were identified by evidence that was apparent at the time of the survey. The potential for sensitive plant and animal species, determined by the presence of diagnostic habitat elements, was documented. A more detailed discussion of the reconnaissance-level biological survey is provided in Attachment 4.4-B: Biological Survey Memo.

Delineation of Jurisdictional Waters

A field investigation of the approximately 1.5-acre proposed Vine Substation site, as well as the Proposed Project footprint along Kettner Boulevard from the Vine Substation site near Vine Street to SDG&E's existing Kettner Substation near West Palm Street was conducted by Jeff Coward on January 2, 2014 to identify any jurisdictional waters regulated under the federal Clean Water Act (CWA), California Porter-Cologne Water Quality Control Act, and California Fish and Game Code Sections 1600 through 1606. Prior to conducting the site visit, aerial photographs and USGS topographic maps of the site were examined. Once on site, the Proposed Project footprint was evaluated to determine the presence of any jurisdictional areas or drainage channels. The remainder of the survey area was also examined by the biologist for the presence of potential waters of the U.S. A more detailed discussion of the field investigation is provided in Attachment 4.4-B: Biological Survey Memo.

4.4.2 Existing Conditions

Regulatory Setting

The following sections describe federal, state, and local regulations regarding biological resources that apply to the Proposed Project.

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service. The FESA prohibits take of endangered wildlife, where "take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (16 U.S. Code [U.S.C.] §§ 1532(19), 1538). For

plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S.C. § 1538(c)).

Under Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed species (including plants) or its critical habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement, allowing take of the species that is incidental to another authorized activity, provided that the action will not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties with the development of a habitat conservation plan (HCP), such as SDG&E's NCCP.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) recognizes international treaties between the U.S. and other countries that have been accorded to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities:

- falconry;
- raptor propagation;
- scientific collection;
- special purposes (e.g., rehabilitation, education, migratory game bird propagation, and salvage); and
- take of depredating birds, taxidermy, and waterfowl sale and disposal.

The regulations governing migratory bird permits can be found in Title 50 of the Code of Federal Regulations (CFR) Part 13 (General Permit Procedures) and Title 50 of the CFR Part 21 (Migratory Bird Permits).

Clean Water Act

The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredge or fill material into waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR § 328.3(b)). The U.S. Environmental Protection Agency has veto authority over the USACE's administration of the Section 404 program and may override a USACE decision with respect to permitting.

Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits, provided that such permits' other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit

actions. For the Proposed Project, this certification or waiver will need to be issued by the San Diego Regional Water Quality Control Board (RWQCB).

State

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA. Section 2080 of the California Fish and Game Code prohibits the take, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. "Take" is defined in Section 86 of the California Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful projects. State lead agencies are required to consult with the CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, including fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the CESA and/or the FESA. Fully protected species may not be taken or possessed at any time (California Fish and Game Code § 4700).

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to "preserve, protect, and enhance rare and endangered plants in this State" (California Fish and Game Code §§ 1900 to 1913). The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from take.

California Fish and Game Code Sections 1600-1606

Sections 1601 through 1606 of the California Fish and Game Code require that a Notification of Lake or Streambed Alteration Agreement application be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions as described in the Section 1602 notification submitted by the applicant and, if necessary, prepares a Lake or Streambed Alteration Agreement that includes measures to protect affected fish and wildlife resources.

California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800

The State of California has incorporated the protection of birds into Sections 3503, 3503.5, 3513, and 3800 of the California Fish and Game Code.

Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans, which identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as "waters of the State," include isolated waters that are no longer regulated by the USACE. Any person discharging, or proposing to discharge, waste to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

Local

City of San Diego General Plan

The City of San Diego General Plan provides a framework of policies and objectives to guide long-term development. The Conservation Element portion of the City of San Diego General Plan provides biological resource policies that may be relevant to the Proposed Project, including policies for urban runoff management, protection and restoration of waterbodies, preservation of biologically diverse ecosystems, and conservation of sensitive species and their habitats.

City of San Diego Multiple Species Conservation Program

The City of San Diego uses its MSCP Subarea Plan as the basis for the implementing agreement contract between the city and the wildlife agencies and ensures implementation of the Subarea Plan. The Subarea Plan allows the city to issue take permits at the local level, and was prepared pursuant to general standards developed by the USFWS and the CDFW to meet the requirements of the California Natural Community Conservation Planning Act (NCCP Act) of 1992. The Subarea Plan is consistent with the MSCP plan and serves to implement the city's portion of the MSCP preserve.

In cooperation with the wildlife agencies, property owners, developers, and environmental groups, the City of San Diego also developed its Multi-Habitat Planning Area (MHPA). The MHPA delineates specific core biological resource areas and corridors within the city boundaries that are intended for long-term conservation; however, limited development may occur within the MHPA.

San Diego Gas & Electric Company Subregional Natural Community Conservation Plan

Under Section 10(a) of the FESA, SDG&E developed this comprehensive multiple species and habitat NCCP to effectively preserve and enhance covered sensitive species and their native habitats during operation, maintenance, and expansion of its electric and natural gas transmission system (16 U.S.C. § 1539). In addition, the NCCP is also a permit issued pursuant to California Fish and Game Code Section 2081 with an implementation agreement with the CDFW for the

management and conservation of multiple species and their associated habitats as established according to the CESA and the state's NCCP Act.[2]

The purpose of the Subregional NCCP is to establish and implement a long-term agreement between SDG&E, the USFWS, and the CDFW for the preservation and conservation of sensitive species and their habitats while allowing SDG&E to develop, install, maintain, operate, and repair the necessary facilities to provide energy services to customers living within SDG&E's service area. The NCCP does not cover major expansions of SDG&E's electric system and only covers new electric substations that will result in no more than 20 acres of habitat disturbance.

The NCCP identifies 61 Operational Protocols designed to avoid and minimize potential impacts to sensitive species and their habitats, and to provide appropriate mitigation where such impacts are unavoidable, thus ensuring survivability and conservation of protected species and their habitats. These 61 protocols, as detailed in Attachment 4.4-C: SDG&E NCCP and Operational Protocols, include provisions for personnel training, pre-activity studies, maintenance, and repair and construction of facilities, such as access roads, survey work, and emergency repairs. SDG&E's NCCP does not exempt projects subject to permits from the California Public Utilities Commission or several other federal and state agencies. Therefore, many projects—including the Proposed Project—will be subject to California Environmental Quality Act (CEQA) review. It is intended that the subsequent environmental reviews use the NCCP to evaluate the impacts to covered species and their habitats.

Under its NCCP, SDG&E performs pre-activity studies prior to field operation in a natural area and/or when work is performed off of access roads in natural areas. As the Proposed Project is not in a natural area, a pre-activity survey was not conducted. SDG&E consults with the USFWS and CDFW when impacts to narrow endemic species may occur. As described in the Implementing Agreement for the SDG&E NCCP, SDG&E, the USFWS, and the CDFW agree that for absent unforeseen circumstances, the mitigation measures provided in SDG&E's NCCP constitute the only mitigation measures that will be required for any activity covered by the NCCP when a project results in an impact to a covered species or its habitat.

The Proposed Project falls within the area where SDG&E's utility operations are governed by the NCCP. For the Proposed Project, SDG&E has adopted the mitigation measures and Operational Protocols contained in the NCCP, as detailed in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. With the implementation of SDG&E's NCCP which is included as an ordinary construction/operating restriction in Chapter 3 – Project Description, SDG&E will minimize potential impacts and ensure the protection and conservation of listed and covered species and their habitats. While the Proposed Project is located within areas included in both the City of San Diego's General Plan and MSCP Subarea Plan, SDG&E's public utility activities, such as the Proposed Project, are generally not subject to the discretionary regulatory jurisdiction of such local governments; therefore, they are not governed by the terms and conditions of such plans. However, in implementing its NCCP for the Proposed Project, SDG&E will coordinate with the City of San Diego and other jurisdictions to achieve

[2] California Fish and Game Code Sections 2081(b) and (c) allow the CDFW to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. (*See also* the California Code of Regulations, Title 14, Section 783.4(a),(b)).

consistency to the extent feasible. Where consistency is not feasible, SDG&E's NCCP provides appropriate protocols and mitigation measures to protect natural community and natural resource values in these conservation-planning areas.

Physical Setting

The Proposed Project is located in the southwestern portion of the City of San Diego, approximately two miles northwest of downtown San Diego and directly adjacent to and east of the San Diego International Airport. The majority of the Proposed Project site is characterized by light- and medium-industrial office uses, parking lots, and rental car facilities.

The proposed Vine Substation site is located on the southwestern corner of the intersection of Vine Street and Kettner Boulevard, just west of Interstate (I-) 5 and east of Pacific Highway. The proposed Vine Substation parcel is currently a long-term airport parking lot. It is bordered to the north by Vine Street and a commercial printing business, to south by an Advantage Rental Car facility, to the east by Kettner Boulevard, and to the west by railroad tracks used by the Amtrak Pacific Surfliner, North County Transit District Coaster, and the San Diego Metropolitan Transit District Trolley. The proposed 12 kV distribution relocation and the telecommunication system extension runs along Kettner Boulevard between West Hawthorn Street and Vine Street within a public right-of-way (ROW). Existing uses along the relocated distribution circuits include I-5 to the east, and rental car facilities, offices, and airport parking lots to the west. The proposed 69 kV loop-in is located west of the proposed Vine Substation site adjacent to railroad tracks and Pacific Highway.

The elevations for the Proposed Project footprint range from 30 feet to 70 feet above mean sea level, with the lower elevations in the southwest corner of the proposed Vine Substation site. Annual average precipitation for the Proposed Project is approximately 10 inches per year, with the majority of precipitation falling between December and April. Rainfall between June and October averages less than 0.5 inch per month.

Vegetation Communities and Sensitive Habitats

The majority of the Proposed Project footprint consists of developed land. Two additional vegetation communities—ornamental vegetation and disturbed habitat—occur within the Proposed Project footprint. Vegetation and habitat type are prime factors in determining the suitability of a site for use by certain wildlife species and the occurrence of certain plant species. The following subsections provide descriptions of each habitat type and/or vegetation community and the location of each habitat within the Proposed Project footprint.

Ornamental Vegetation

Ornamental vegetation includes lands that have been planted with landscaping and are maintained on an ongoing basis. Such landscaping materials may include native and non-native plant materials; however, such manicured plantings have been artificially installed and do not naturally occur on site. At the Proposed Project site, ornamental vegetation occurs intermittently within the proposed Vine Substation site and along Kettner Boulevard, Pacific Highway, and California Street (i.e., the northern and southern edges of the Proposed Project site). This

vegetation is dominated by species such as English ivy (*Hedera helix*), Mexican fan palm (*Washintonia robusta*), pepper tree (*Schinus* sp.), and horseweed (*conyza bonariensis*).

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or lands containing a preponderance of non-native plant species. This type of habitat can also include areas that are mowed or landscaped regularly and, thus, preclude the development of native vegetation communities. Disturbed habitat was observed along the ROW for the proposed 12 kV distribution relocation, 69 kV loop-in, and telecommunication system extension. In addition, a small strip of disturbed habitat was observed along the perimeter of the proposed Vine Substation site. Disturbed habitat includes all areas within the Proposed Project footprint or in the immediate Proposed Project vicinity that have been previously disturbed and have not returned to native habitat. The disturbed habitat within the Proposed Project footprint consists of little to no vegetation, although some non-native grasses were observed in these areas.

Developed Land

Developed land includes areas where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is cleared, tended, and maintained. Developed land occurs in the majority of the Proposed Project footprint.

General Biological Survey Results

The majority of the Proposed Project footprint consists of developed land. Developed land consists of paved roadways, existing paved parking lots, office buildings, and an existing substation. Two vegetation communities, as described previously, occur within the Proposed Project footprint—ornamental vegetation and disturbed habitat. Ornamental vegetation occurs adjacent to the proposed Vine Substation site and along Kettner Boulevard, Vine Street, Pacific Highway, and California Street. The majority of ornamental vegetation in the Proposed Project footprint and surrounding areas consists of English ivy, Mexican fan palm, pepper tree, and horseweed. Disturbed habitat was observed along the ROW for the proposed distribution circuits and along the perimeter of the proposed Vine Substation site. The disturbed habitat within the Proposed Project footprint consisted of little to no vegetation, although some non-native grasses were observed in these areas.

During the January 2 reconnaissance-level survey of the Proposed Project footprint, only one wildlife species—rock dove (*Columbia livia*)—was observed flying over the proposed Vine Substation site. This species is typical of urban areas.

Sensitive Vegetation Communities

Sensitive vegetation communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the USFWS and the CDFW. No sensitive natural communities—as defined by the USACE, RWQCB, CDFW, and/or the City of San Diego—exist in the Proposed Project footprint. The Proposed Project is mostly industrial in nature, consisting of public roads, light- and medium-industrial office uses, parking lots, and rental car facilities. Based on the results of the general survey, focused surveys were considered unnecessary.

Special-Status Species

Based on habitat suitability and CNDDB search results of all surrounding quadrangle maps, no special-status species, as described in the following subsections, have a moderate or high potential to occur in the Proposed Project footprint.

Sensitive Plants

Special-status plant species include those species listed by the USFWS and CDFW as endangered, threatened, proposed, or candidate species, and those listed as sensitive or rare. In addition, sensitive plant species include those occurring on the CNPS Inventory of Rare and Endangered Vascular Plants of California.

A total of 14 special-status plant species were originally identified as having potential to occur within the Proposed Project site; however, because the Proposed Project site is mostly developed and much of the area is paved, no special-status plant species are expected to occur within the Proposed Project footprint. Therefore, all special-status plant species that were identified during the literature review were determined to have no potential to occur within the Proposed Project footprint.

Sensitive Wildlife Species

Special-status wildlife species include those species listed by the USFWS or CDFW as endangered, threatened, proposed; those listed by the CDFW as Fully Protected or Species of Special Concern (SSC); and those listed as regionally sensitive in SDG&E's NCCP. The special-status wildlife species with potential to occur in the Proposed Project footprint include the following:

- American peregrine falcon (*Falco peregrinus anatum*) is a California fully protected species and has low potential to occur because some marginal nesting habitat in the form of tall buildings and bridges is present in the vicinity of the Proposed Project site.

- Mexican long-tongued bat (*Choeronycteris mexicana*) is an SSC and has a low potential to occur because some marginal habitat in the form of overpasses and buildings is present in the vicinity of the Proposed Project site.

No suitable habitat for other special-status wildlife species is present within the Proposed Project footprint; however, special-status avian species (e.g., western snowy plover [*Charadrius alexandrines nivosus*] and California least tern [*Sternula antillarum browni*]) may fly through the Proposed Project site to reach more suitable habitat in the San Diego Bay or inland areas.

Critical Habitat

Under the FESA, to the extent prudent and determinable, the USFWS is required to designate critical habitat for endangered and threatened species (16 U.S.C. § 1533 (a)(3)). Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated critical habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter.

Designated critical habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. A critical habitat designation delineates all suitable habitat, occupied or not, essential to the survival and recovery of the species.

There are no USFWS-designated critical habitats located in the Proposed Project footprint or within one mile of the Proposed Project footprint. Critical habitat for western snowy plover does not occur within the Proposed Project footprint, but exists approximately three miles southwest of the Proposed Project on Coronado Island.

Wildlife Migration Corridors

Wildlife corridors are defined as areas that connect suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features—such as canyon drainages, ridgelines, or areas with vegetation cover—provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetics between populations. Wildlife corridors are considered sensitive by resource and conservation agencies.

No major migration corridors traverse the Proposed Project, largely due to its location within a highly urbanized area and adjacent to several roadways carrying high volumes of traffic. As such, the Proposed Project site does not represent an important corridor for wildlife movement, and development of the Proposed Project will not interfere with wildlife movement.

The Pacific Flyway is located just south of the Proposed Project within the San Diego Bay; therefore, some avian species may pass through the Proposed Project site to reach the San Diego Bay. The Pacific Flyway is one of the six major north-south migration routes for waterfowl in the U.S., Mexico, and Canada. The Pacific Flyway links breeding grounds in the north to more southerly wintering areas and is, therefore, utilized by an abundance of bird species during migration. As part of the Pacific Flyway, the San Diego Bay waterbodies provide high-quality rest and forage areas for numerous birds during the migratory seasons.

Terrestrial wildlife species tend to travel along natural drainages that provide protective cover from predators and a foraging source. There are no natural drainage features within the Proposed Project footprint. Furthermore, development occurs throughout the area; therefore, the quality of the site as a wildlife movement corridor for terrestrial species is diminished.

Preserve Areas

A preserve area is a protected area of importance for wildlife, flora, or other special interest. A preserve area is reserved and managed for conservation and to provide special opportunities for study or research. There are no preserve areas in the Proposed Project footprint.

Wetlands and Jurisdictional Waters

As described in Attachment 4.4-B: Biological Survey Memo, a small concrete-lined drainage channel is located on the west side of the proposed Vine Substation site. The channel is an approximately 12-inch wide concrete v-ditch that was designed for storm water conveyance.

There was no vegetation or accumulated sediment observed within the channel. The channel is Municipal Separate Stormwater Sewer System (MS4) and is also referred to in Section 4.9 Hydrology and Water Quality. Wetlands or jurisdictional waters as defined by Section 404 of the Clean Water Act are not present within the Proposed Project footprint.

4.4.3 Impacts

The following discussion describes the Proposed Project's potential to impact sensitive species and habitat that may occur as a result of construction and operation of the Proposed Project. SDG&E will be operating under its own NCCP, which was established according to the FESA and CESA and the state's NCCP Act. With the implementation of SDG&E's NCCP, which is included as an ordinary construction/operating restriction in Chapter 3 – Project Description, potential impacts will be minimized, ensuring the protection and conservation of listed and covered species and their habitats.

Significance Criteria

Standards of impact significance were derived from Appendix G of the CEQA Guidelines. Under these guidelines, impacts to biological resources would be considered significant if the Proposed Project:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW

- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the USFWS or CDFW

- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, or other wetland areas) through direct removal, filling, hydrological interruption, or other means

- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites

- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

- Conflicts with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP

Direct take of a federally or state-listed species will be considered a significant impact. Temporary and/or permanent habitat loss is not considered a significant impact to sensitive species (other than for listed or candidate species under the FESA and CESA) unless a significant percentage of total suitable habitat throughout the species' range is degraded or

somehow made unsuitable, or areas supporting a large proportion of the species' population are substantially and adversely impacted.

Potential impacts to nesting bird species will be considered significant due to their protection under the MBTA, and such impacts will need to be avoided.

Question 4.4a – Sensitive Species

Construction – Less-than-Significant Impact

Sensitive Plant Species

No sensitive plant species or suitable habitat for sensitive plant species were observed during the reconnaissance-level survey on January 2. In addition, no sensitive plant species were identified during the literature review with potential to occur within the Proposed Project footprint; therefore, no impacts to sensitive plant species are anticipated during construction of the Proposed Project.

Sensitive Invertebrate Species

No sensitive invertebrate species were identified during the literature review as having potential to occur within the Proposed Project site. In addition, no suitable habitat for sensitive invertebrate species is present in the Proposed Project footprint. As such, no impacts to sensitive invertebrate species are anticipated during construction of the Proposed Project.

Sensitive Reptile Species

No sensitive reptile species were identified during the literature review as having potential to occur within Proposed Project site and no sensitive reptile species were observed during the reconnaissance-level survey on January 2. In addition, no suitable habitat for sensitive reptile species is present in the Proposed Project footprint. As such, no impacts to sensitive reptile species are anticipated during construction of the Proposed Project.

Sensitive Avian and Other Nesting Avian Species

No sensitive avian species were identified to have a moderate or high potential to occur in the Proposed Project footprint; however, some common avian species may nest within or in the vicinity of the Proposed Project footprint. Impacts to nesting bird species may include the removal of potential nesting habitat (e.g., ornamental vegetation, including six Mexican fan palms) and the disruption of nesting behavior due to a temporary increase in noise from construction equipment and vehicles. However, the Proposed Project is located in an industrial area near numerous major roadways (including I-5 and Pacific Coast Highway), Amtrak, the North County Transit District Coaster and San Diego Metropolitan Transit System Trolley railroad tracks, and the San Diego International Airport; therefore, impacts from construction noise are not anticipated to be substantial. SDG&E will utilize NCCP protocols, as applicable and described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, avoiding wildlife to the extent practicable and conducting pre-construction surveys. Implementation of SDG&E's NCCP will reduce the impacts to nesting avian species to a less-than-significant level.

Sensitive Mammal Species

No mammal species were identified to have a moderate or high potential to occur within the Proposed Project site. In addition, no suitable habitat for sensitive mammal species is present in the Proposed Project footprint. As such, no impacts to sensitive mammal species are anticipated during construction of the Proposed Project.

Critical Habitat

There is no USFWS-designated critical habitat located in or within one mile of the Proposed Project footprint. Consequently, all ground-disturbing activities associated with construction of the Proposed Project will occur outside of critical habitat for sensitive wildlife species; therefore, no impacts to critical habitat for sensitive wildlife species will occur.

Preserve Areas

The Proposed Project falls within the boundaries of the City of San Diego MSCP Subarea Plan; however, the Proposed Project is located outside land designated as a preserve. As such, no impacts to preserves will occur.

Common Species

Common plant and wildlife species have the potential to be impacted by construction of the Proposed Project. Direct impacts to wildlife may include mortality from vehicle collisions, vegetation removal, or possible entrapment. Disturbance to wildlife from construction noise is not anticipated to be substantial because the Proposed Project is located in an industrial area near numerous major roadways (including I-5 and Pacific Coast Highway), the North County Transit District Coaster and San Diego Metropolitan Transit System Trolley tracks, and the San Diego International Airport. The majority of the Proposed Project footprint consists of developed land, and a limited amount of vegetation removal is anticipated. Common wildlife species have the potential to fall into and become trapped within the Proposed Project power line pole excavation areas, as well as trenches. In addition, wildlife has the potential to fall into and become trapped within the oil spill containment basins at the proposed Vine Substation. SDG&E will implement existing NCCP protocols, as applicable and described in Attachment 4.4-C: SDG&E NCCP and Operational Protocols. These protocols include, but are not limited to, training, pre-construction surveys, monitoring during clearing and grading activities, requiring all trenches and excavations to be inspected for wildlife entrapment, and requiring ramping in open excavations. Therefore, impacts to common wildlife species will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Concerns regarding potential electrocution and collision impacts from power lines to wildlife species are primarily focused on avian species. Electrocution with avian species can occur from wing contact as avian species perch, land, or take off from a utility pole by contact with two conductors to complete the electrical circuit, simultaneous contact with energized phase conductors and other equipment, and simultaneous contact with energized wire and a grounded wire. Electrocution of avian species is a greater potential hazard to larger birds, such as raptors, because their body size and wing span are large enough to span the distance between the

conductor wires and, thus, complete the electrical circuit. Collision impacts typically occur to migratory bird species and are generally due to poor visibility of electrical lines.

The power line component of the Proposed Project will consist of looping in an existing 69 kV power line. The 69 kV loop-in will involve removing two existing wood poles; installing two new, self-supported tubular steel poles (TSPs); and replacing an existing wood distribution pole with a new, self-supported TSP. No additional electrocution impacts are anticipated from the power line component of Proposed Project because it will not differ substantially from the existing overhead power line in place. As described in Chapter 3 – Project Description, the power line structures will be constructed in compliance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines. In addition, the 12 kV distribution relocation component of the Proposed Project will utilize a combination of existing and new underground distribution conduit, which will not increase the possibility of avian electrocution within the Proposed Project site. Therefore, the potential impacts of increased wildlife electrocution and collision are anticipated to be less than significant.

Standard operation and maintenance activities—such as structure installation, replacement, and repairs—may potentially impact sensitive species if they are present in the Proposed Project site. Impacts may include the disruption of nesting behavior and direct mortality from maintenance vehicles and equipment. Operation and maintenance work for the Proposed Project will primarily occur within the Proposed Project's fence lines and existing ROW. Because there are numerous major roadways, as well as coaster and trolley tracks present in the area, there will be only a minor increase in vehicle trips and activities; therefore, it is not anticipated that operation and maintenance activities will increase the potential to impact sensitive species and/or sensitive species' habitat. In addition, SDG&E will utilize its existing NCCP during all routine operation and maintenance activities for the Proposed Project. Thus, potential operation and maintenance impacts will be less than significant.

Question 4.4b – Sensitive Natural Communities – *No Impact*

Sensitive vegetation communities include riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or designated by the USFWS and the CDFW. No sensitive natural communities—as defined by the USACE, RWQCB, CDFW, and/or the City of San Diego—exist in the Proposed Project footprint. Therefore, there will be no impact to sensitive natural communities.

Question 4.4c – Effects on Jurisdictional Waters – *No Impact*

The Proposed Project footprint does not contain any wetlands or other jurisdictional waters as defined by Section 404 of the Clean Water Act. In addition, with the implementation of the NCCP as described Chapter 3 – Project Description, the Proposed Project's Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan—which are both required by law—as well as SDG&E's Water Quality Construction Best Management Practices (BMP) Manual, indirect impacts to jurisdictional waters resulting from the construction, operation, and maintenance of the Proposed Project will also be avoided.

Question 4.4d – Interfere with Native Wildlife Movement – *Less-than-Significant Impact*

The construction of the Proposed Project will not interfere with the movement of any native wildlife species or interfere with known migration corridors. The Proposed Project is located within a highly urbanized area and adjacent to several roadways carrying high volumes of traffic, as well as coaster and trolley tracks which are movement barriers for some wildlife species (e.g., amphibians and mammals). No known migration corridors and no waterways that contain fish are in the Proposed Project footprint. While vehicle traffic associated with Proposed Project construction or operation may result in species injury or mortality, impacts will be less than significant due to the low likelihood of these collisions occurring and the fact that the potential for this to occur already exists in the Proposed Project footprint due to the existing network of roads and high vehicle use.

The Pacific Flyway is located south of the Proposed Project within the San Diego Bay; therefore, some avian species may traverse through the Proposed Project to reach the San Diego Bay. However, no waterbodies are located within the Proposed Project footprint, which could provide high-quality rest or foraging habitat for avian species during their migration. Avian species that use the Pacific Flyway for migration are more likely to use the waterbodies located outside the Proposed Project footprint for rest and foraging habitat.

Terrestrial wildlife species tend to travel along natural drainages that provide protective cover from predators and a foraging source. There are no natural drainage features within the Proposed Project footprint. Furthermore, development occurs throughout the area; as a result, the quality of the site as a wildlife movement corridor for terrestrial species is diminished. Therefore, potential impacts to terrestrial wildlife movement will be less than significant.

Question 4.4e – Conflict with Local Policies – *No Impact*

Construction, operation, and maintenance of the Proposed Project will not conflict with any local environmental policies or ordinances promulgated to protect biological resources. The following section addresses policies detailed in the Conservation Element of the City of San Diego General Plan that may be applicable to the Proposed Project.

Urban Runoff Management

- *Goal: Protection and restoration of water bodies, including reservoirs, coastal waters, creeks, bays, and wetlands.*

- *Policy CE-E.2. Apply water quality protection measures to land development projects early in the process-during project design, permitting, construction, and operations in order to minimize the quantity of runoff generated onsite, the disruption of natural water flows and the contamination of storm water runoff.*

- *Policy CE-E.6. Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system.*

The Proposed Project will not significantly alter the existing on site drainage patterns or significantly increase the amount of runoff generated from the site. The proposed Vine

Substation is within a paved parking lot and the other Proposed Project components are located within existing paved roads. Therefore, storm water flow patterns are not expected to change substantially from pre-construction conditions. All areas temporarily disturbed during grading will be restored to their original contours, and the surrounding area will be repaired, as appropriate. In addition, landscaping will be installed consistent with SDG&E's Landscape Plan, which is described further in Section 4.1 Aesthetics. The use of pesticides and herbicides will be limited to the minimum necessary to properly maintain on-site landscaping and ensure its long-term survival.

In addition, SDG&E will implement the Proposed Project's SWPPP and SPCC Plan, which are both required by law, as well as SDG&E's Water Quality Construction BMP Manual. As such, potential short-term impacts will be minimized through compliance with applicable Federal, State, and local laws, and proper implementation of SDG&E's Water Quality Construction BMP Manual. In doing so, potential impacts relative to drainage and water quality will be avoided or minimized and will remain to less than significant. For these reasons, the Proposed Project will be consistent with the previously noted goal and policies.

Biological Diversity

- *Goal: Preservation of healthy, biologically diverse, regional ecosystems and conservation of endangered, threatened, and key sensitive species and their habitats.*

No sensitive plant or wildlife species are anticipated to occur within the Proposed Project footprint. In addition, no sensitive natural communities—as defined by the USACE, RWQCB, CDFW, and/or the City of San Diego—exist in the Proposed Project footprint. As such, the Proposed Project will not impact any native vegetation communities or sensitive species and will be consistent with this goal of preserving regional ecosystems and conserving endangered, threatened, and key sensitive species and their habitats.

No other local ordinances protecting biological resources have been identified. Therefore, the Proposed Project will be consistent with local ordinances protecting biological resources and no impact will occur.

Question 4.4f – Conflict with Conservation Plan – *No Impact*

SDG&E's existing NCCP and the City of San Diego MSCP Subarea Plan are the only conservation plans that may apply to the Proposed Project site. SDG&E will operate under its existing NCCP, which was established according to the FESA and CESA and the state's NCCP Act. The NCCP addresses potential impacts to sensitive resources associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems, as well as typical expansions of those systems throughout SDG&E's existing service area. The NCCP was developed in coordination with the USFWS and the CDFW, and is designed to be consistent with local HCPs and the overall preserve planning effort, including the City of San Diego MSCP Subarea Plan. The NCCP protocols will be applied to the Proposed Project, as appropriate, to avoid and/or minimize potential impacts resulting from construction of the Proposed Project. Therefore, the Proposed Project will not conflict with any applicable conservation plan, and no impacts will occur.

4.4.4 Applicant-Proposed Measures

With implementation of SDG&E's ordinary construction/operating restrictions, potential impacts related to biological resources, will remain less than significant. As a result, no applicant-proposed measures have been proposed.

4.4.5 References

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ATTACHMENT 4.4-A: USFWS SPECIES LISTS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
CARLSBAD FISH AND WILDLIFE OFFICE
6010 HIDDEN VALLEY ROAD, SUITE 101
CARLSBAD, CA 92011
PHONE: (760)431-9440 FAX: (760)431-5901
URL: www.fws.gov/carlsbad/

Consultation Tracking Number: 08ECAR00-2014-SLI-0106 January 03, 2014
Project Name: Development Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Development Project

Official Species List

Provided by:

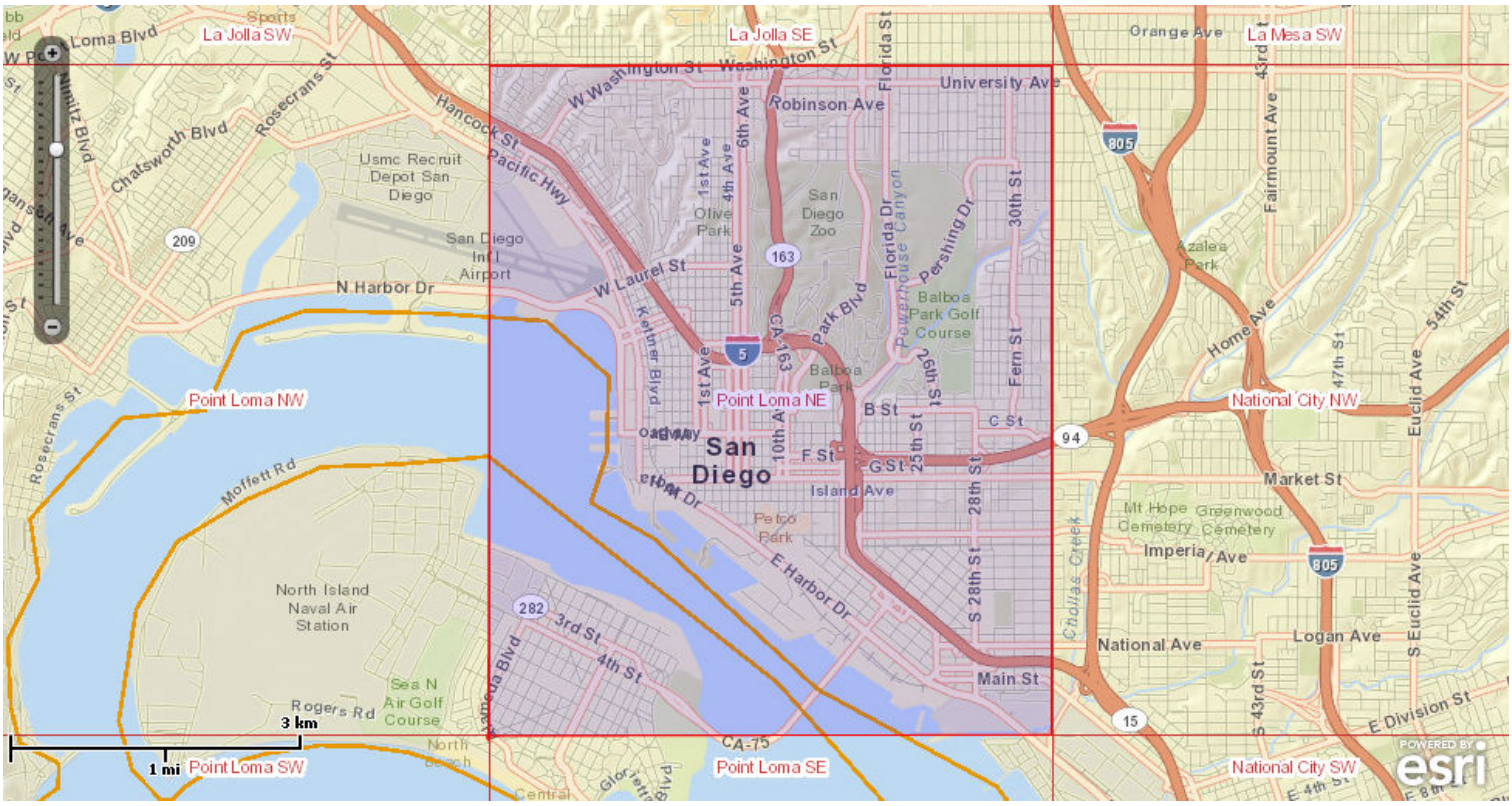
CARLSBAD FISH AND WILDLIFE OFFICE
6010 HIDDEN VALLEY ROAD, SUITE 101
CARLSBAD, CA 92011
(760) 431-9440
http://www.fws.gov/carlsbad/

Consultation Tracking Number: 08ECAR00-2014-SLI-0106
Project Type: Development
Project Description: This would be a development project in the Point Loma USGS 7.5 minute Quad.

United States Department of Interior
Fish and Wildlife Service

Project name: Development Project

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-117.18766016 32.68742628, -117.1876614 32.6869925, -117.1878244 32.6874259, -117.18766016 32.68742628)), ((-117.18766016 32.68742628, -117.1874811 32.7499618, -117.1251766 32.7499618, -117.1251766 32.6875704, -117.18766016 32.68742628)))

Project Counties: San Diego, CA

Endangered Species Act Species List

There are a total of 14 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed on the **Has Critical Habitat** lines may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

California Least tern *(Sterna antillarum browni)*
Listing Status: Endangered

California Orcutt grass *(Orcuttia californica)*
Listing Status: Endangered

Coastal California gnatcatcher *(Polioptila californica californica)*
Population: Entire
Listing Status: Threatened
Has Critical Habitat: Final designated, Proposed

Least Bell's vireo *(Vireo bellii pusillus)*
Population: Entire
Listing Status: Endangered
Has Critical Habitat: Final designated

Light-Footed Clapper rail *(Rallus longirostris levipes)*
Population: U.S.A. only
Listing Status: Endangered

Mexican flannelbush *(Fremontodendron mexicanum)*
Listing Status: Endangered
Has Critical Habitat: Final designated

Orcutt's spineflower *(Chorizanthe orcuttiana)*
Listing Status: Endangered

Otay tarplant *(Deinandra (=hemizonia) conjugens)*
Listing Status: Threatened
Has Critical Habitat: Final designated

Pacific Pocket mouse *(Perognathus longimembris pacificus)*
Population: Entire
Listing Status: Endangered

Salt Marsh bird's-beak *(Cordylanthus maritimus ssp. maritimus)*
Listing Status: Endangered

San Diego ambrosia *(Ambrosia pumila)*
Listing Status: Endangered
Has Critical Habitat: Final designated

San Diego button-celery *(Eryngium aristulatum var. parishii)*
Listing Status: Endangered

San Diego fairy shrimp *(Branchinecta sandiegonensis)*
Listing Status: Endangered
Has Critical Habitat: Final designated

western snowy plover *(Charadrius nivosus ssp. nivosus)*
Population: Pacific coastal pop.
Listing Status: Threatened
Has Critical Habitat: Final designated

Critical habitats that lie within your project area

There are no critical habitats within your project area.

ATTACHMENT 4.4-B: BIOLOGICAL SURVEY MEMO

MEMO

To: Edalia Olivo-Gomez, San Diego Gas & Electric Company

From: Robert Curley, Insignia Environmental (Insignia)

Date: April 18, 2014

Re: Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) Reconnaissance-Level Survey

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Introduction: On January 2, 2014, Insignia biologist Jeffry Coward conducted a reconnaissance-level biological and hydrological survey of the Proposed Project site. The Proposed Project site is comprised of all areas that will be impacted by the Proposed Project (Proposed Project footprint), including:

- The proposed Vine Substation site
- Areas along Kettner Boulevard and Pacific Highway where new and relocated 12 kV distribution circuits and telecommunication facilities will be installed
- Areas adjacent to Kettner Boulevard where the 69 kV loop-in will be constructed

Due to limited access, the western side of the parking lot between the existing fence and the railroad tracks was visually surveyed through a locked chain-link gate. The biologist also surveyed the area surrounding the Proposed Project footprint (Proposed Project site), including the Interstate 5 overpass at Vine Street directly west of the proposed Vine Substation and the Pacific Highway overpass at Sassafras Street. Figure 1: Survey Overview Map depicts the Proposed Project components and the survey area.

Methodology: The biologist conducted a pedestrian survey and documented the dominant plant communities and potential for wildlife species habitat within the Proposed Project site. He also documented plant and animal species observed directly or detected from calls, tracks, scat, nests, or other signs. The wildlife survey was performed during the day; therefore, nocturnal animals were identified by evidence that was apparent at the time of the survey. The potential for sensitive plant and animal species, determined by the presence of diagnostic habitat elements, was documented.

A field investigation for hydrological features within the Proposed Project footprint was also conducted to identify any jurisdictional waters regulated under the federal Clean Water Act (CWA), California Porter-Cologne Water Quality Control Act, and California Fish and Game Code Sections 1600 through 1606. Prior to conducting the site visit, aerial photographs and United States (U.S.) Geological Survey topographic maps of the site were examined. The presence of any jurisdictional areas or drainage channels was noted during the visit. The area was also examined for the presence of potential waters of the U.S.

Survey Results:

Biological Resources

The entire proposed Vine Substation site is an active parking lot surrounded by a chain-link fence. The southern fence is covered with non-native English ivy (*Hedera helix*), which provides a visual barrier between the parking lot and the adjacent rental car facility. No trees were observed along the southern side of the parking lot. The eastern and northern sides of the parking lot have no plants growing near or within the chain-link fence. There are six non-native Mexican fan palm trees (*Washingtonia robusta*) located along the eastern side of the parking lot (Photograph 1). There are no trees along the northern side of the parking lot. The western side of the parking lot contains a dense collection of ornamental and non-native plant species on the outside of the fence line, including Mexican fan palm, pepper tree (*Schinus* sp.) and horseweed (*Conyza bonariensis*) (Photographs 2 and 3).

A small strip of dirt, approximately three feet wide, runs along the entire perimeter of the parking lot, adjacent to the pavement of the parking lot. This strip of dirt is sparsely vegetated with non-native species (Photograph 4). No burrows were observed within this dirt strip.

The interstate and highway overpasses were inspected for potential bird nesting or bat roosting areas. Within each overpass, pre-cast holes were observed within the concrete. The biologist could not determine the depth of these holes; however, no sign of bat or bird use (e.g., white wash, guano, feathers, etc.) was observed. The Port of San Diego building—located near the Pacific Highway overpass at Sassafras Street—was the one structure of sufficient height for potential raptor nests within the survey area (Photograph 5). As shown in Figure 1: Survey Overview Map, the Port of San Diego Building is located approximately 350 feet west of the 12 kV circuits that will be relocated within Kettner Boulevard and approximately 1,100 feet south of the proposed Vine Substation. No sign of any nests or other raptor use of the building was observed. Due to the industrial nature of the area surrounding the building and the numerous major roadways (including Interstate 5 and Pacific Coast Highway), the North County Transit District Coaster and San Diego Metropolitan Transit System Trolley tracks, and the San Diego International Airport, potential nests at this location will not be disturbed by construction. Only one wildlife species was observed during the survey—a rock dove (*Columba livia*)—was observed flying over the parking lot.

The proposed 69 kV loop-in transmission pole sites are located adjacent to a chain-link fence and the railroad tracks. Because the biologist was unable to access these sites, only a portion of the site was surveyed directly; however, the entire site was observed visually. Little to no vegetation was observed directly beneath the transmission line and between the fence and the railroad tracks.

Hydrological Features

The entire Proposed Project footprint was surveyed for the presence of jurisdictional areas, drainage channels, and potential waters of the U.S. The only feature noted was a small (approximately 12-inch-wide and 12-inch-deep) concrete storm water v-ditch located outside the western boundary of the proposed Vine Substation site (Photograph 3). This feature is designed for storm water conveyance and is located in an upland location along the edge of the ornamental vegetation between the railroad tracks and the proposed Vine Substation site. This concrete channel conveys only storm water runoff from the parking lots east of the v-ditch, and the channel flows south to north into a storm drain located on California Street. There was no vegetation or accumulated sediment observed within the channel. The channel is associated with a Municipal Separate Stormwater Sewer System and will be avoided during construction. Wetlands or jurisdictional waters—as defined by Section 404 of the CWA, or under the jurisdiction of the California Department of Fish and Wildlife or the Regional Water Quality Control Board—are not present within the Proposed Project footprint.

Photographs (see Figure 1: Survey Overview Map for the location of each photograph):

Photograph 1: View of the proposed Vine Substation site facing southwest from Vine Street.

Photograph 2: View of ornamental vegetation located adjacent to the proposed Vine Substation site looking south.

Photograph 3: Ornamental vegetation and a concrete channel located between the proposed Vine Substation site and railroad tracks looking south.

Photograph 4: Non-native annual weeds located within the dirt strip along the existing paved parking lot.

Photograph 5: View of the Port of San Diego building facing south. The Port of San Diego building is located approximately 350 feet west of the 12 kV distribution relocation and approximately 1,100 feet south of the proposed Vine Substation.

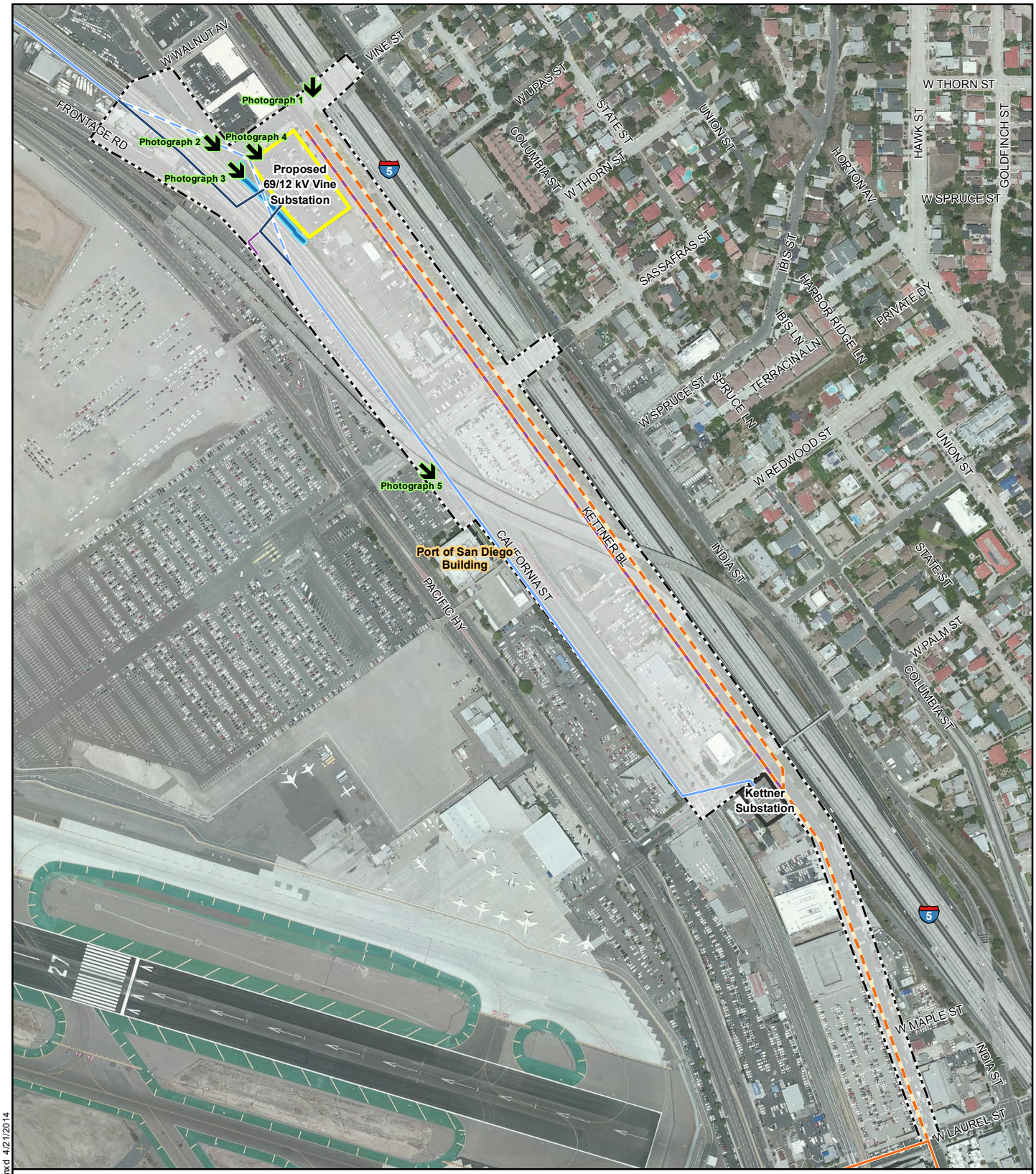

Figure 1: Survey Overview Map

Vine 69/12 kV Substation Project

- Proposed Vine 69/12 kV Substation
- Existing Kettner Substation
- Existing 69 kV Overhead
- Existing 69 kV Overhead to be Removed
- Proposed 69 kV Overhead
- Existing 12 kV Duct Bank
- Proposed 12 kV Duct Bank
- Proposed 12 kV and Telecommunications Duct Bank
- Proposed Telecommunications Duct Bank
- Survey Boundary
- Concrete Storm Water V-Ditch
- Photograph Location (indicating direction)

1:5,500

0 200 400 Feet

SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

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ATTACHMENT 4.4-C: SDG&E NCCP AND OPERATIONAL PROTOCOLS

7.1 Operational Protocols

Operational protocols represent an environmentally sensitive approach to traditional utility construction, maintenance and repair Activities recognizing that slight adjustments in construction techniques can yield major benefits for the environment. The appropriate Operational Protocols for each individual project will be determined and documented by the Environmental Surveyor. The information regarding the qualifications and responsibilities of the environmental surveyor is contained in Appendix B. The following mitigation measures shall be adhered to by SDG&E.

7.1.1 General Behavior for All Field Personnel

1. Vehicles must be kept on access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads to allow reptile species to disperse. Vehicles must be turned around in established or designated areas only.

2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb.

3. Firearms shall be prohibited on the rights-of-way except for those used by security personnel.

4. Feeding of wildlife is not allowed.

5. SDG&E personnel are not allowed to bring pets on the rights-of-way in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations.

6. Parking or driving underneath oak trees is not allowed in order to protect root structures except in established traffic areas.

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7. Plant or wildlife species may not be collected for pets or any other reason.

8. Littering is not allowed. SDG&E shall not deposit or leave any food or waste on the rights-of-way or adjacent property.

9. Wild Fires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, it may be necessary for trucks to carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care should be exhibited when smoking in natural habitats.

10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may need to be brought in by Environmental Surveyor for assistance with wildlife relocations.

7.1.2 Training

11. All SDG&E personnel working within the project area shall participate in an employee training program conducted by SDG&E, with annual updates. The program will consist of a brief discussion of endangered species biology and the legal protections afforded to Covered Species; a discussion of the biology of the Covered Species protected under this Subregional Plan; the habitat requirements of these Covered Species; their status under the Endangered Species Acts; measures being taken for the protection of Covered Species and their habitats under this Subregional Plan; and a review of the Operational Protocols. A fact sheet conveying this information will also be distributed to all employees working in the project area.

12. Designated SDG&E staff will conduct selected reviews of SDG&E operations. Any proposed modifications to Operational Protocols, procedures or conditions will be promptly provided to CDFG and USFWS for their review and input for required permit or Subregional Plan amendments.

7.1.3 Preactivity Studies

13. The Environmental Surveyor shall conduct preactivity studies for all activities occurring off of access roads in natural areas. The scope of these studies is included in Appendix A. The Environmental Surveyor will complete a preactivity study form contained in Appendix A, including recommendations for review by a biologist and construction monitoring as appropriate. Biologists should be called in when there is the potential for unavoidable impacts to Covered Species. The forms are for information only, and will not require CDFG or USFWS approval. These forms shall be faxed to CDFG and USFWS, along with phone notification, who will reply within 5 working days, indicating if they would like to review the project and/or suggest recommendations for post project monitoring. If a biologist is required, he/she will be contacted concurrent to notification to CDFG and USFWS. SDG&E's project may proceed during this time if necessary, in compliance with the recommendations of the biologist (For narrow endemic species see mitigation IV following Table 3.1). USFWS survey protocols performed by qualified biologists will be required for new projects which are defined as projects requiring CEQA review.

In those situations where the Environmental Surveyor cannot make a definitive species

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identification, an on-call biologist will be brought in. When the biologist is called, he or she will be contacted concurrently with CDFG and USFWS. The biologist will make the determination of the species in question and recommend avoidance or mitigation approaches to the Environmental Surveyor and a decision will be made. In those situations where more than one visit may be necessary to identify a given species, such as certain birds, no more than three site visits shall be required. It is expected that the typical USFWS search protocols will not be utilized in most situations due to the Plan's avoidance priority. Background information necessary to complete the annual report shall be collected on the preactivity study form and used by SDG&E to prepare the annual report.

14. In order to ensure that habitats are not inadvertently impacted, the Environmental Surveyor shall determine the extent of habitat and flag boundaries of habitats which must be avoided. When necessary, the Environmental Surveyor should also demark appropriate equipment laydown areas, vehicle turn around areas, and pads for placement of large construction equipment such as cranes, bucket trucks, augers, etc. When appropriate, the Environmental Surveyor shall make office and/or field presentations to field staff to review and become familiar with natural resources to be protected on a project specific basis.

15. SDG&E will maintain a library of rare plant locations known to SDG&E occurring within easements and fee owned properties. "Known" means a verified population, either extant or documented using record data. Information on known sites may come from a variety of record data sources including local agency Habitat Conservation Plans, pre-activity surveys, or biological surveys conducted for environmental compliance on a project site (e.g. initial study), but there is no requirement for development of original biological data. Plant inventories shall be consulted as part of pre-activity survey procedures.

7.1.4 Maintenance, Repair and Construction of Facilities

16. Maintenance, repair and construction Activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs.

17. Routine maintenance of all Facilities includes visual inspections on a regular basis, conducted from vehicles driven on the access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot, or from the air.

18. When the view of a gas transmission line marker becomes obscured by vegetation on a regular basis requiring repeated habitat removal, consideration shall be given to the replacement of markers with taller versions.

19. Erosion will be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion.

20. Hydrologic impacts will be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices.

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21. When siting new facilities, every effort will be made to cross the wetland habitat perpendicular to the watercourse, spanning the watercourse to minimize the amount of disturbance to riparian areas (See Figure 4).

22. Gas and other facilities cross streambeds and require maintenance and repair. During such times water may be temporarily diverted as long as after disturbance natural drainage patterns are restored to minimize the impact of the disturbance and help to reestablish or enhance the native habitat. Erosion control during construction in the form of intermittent check dams and culverts should also be considered to prevent alteration to natural drainage patterns and prevent siltation.

23. Impacts to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines.

24. During work on facilities, all trucks, tools, and equipment should be kept on existing access roads or cleared areas, to the extent possible.

25. Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable.

26. Insulator washing is allowed from access roads if other applicable protocols are followed.

27. Brush clearing around facilities for fire protection shall not be conducted from March through August without prior approval by the Environmental Surveyor. The Environmental Surveyor will make sure that the habitat contains no active nests, burrows, or dens prior to clearing.

28. In the event SDG&E identifies a covered species of plant within a 10' radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify USFWS (for ESA listed plants), and CDFG (for CESA listed plants), in writing, of the plant's identity and location and of the proposed Activity, which will result in a Take of such plant. Notification will occur ten (10) working days prior to such Activity, during which time USFWS or CDFG may remove such plant(s). If neither USFWS or CDFG have removed such plant(s) within the ten (10) working days following the notice, SDG&E may proceed to complete its fire clearing and cause a Take of such plant(s).

    When fire clearing is necessary in instances other than around power poles, and the potential for impacts to Covered Species exists, SDG&E will follow the preactivity study and notification procedures in Operational Protocol number 13.

29. Wire stringing is allowed year round in sensitive habitats if conductor is not allowed to drag on ground or in brush and vehicles remain on access roads.

30. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.

31. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the Environmental Surveyor or used immediately to fill eroded areas. Cleared vegetation shall be hauled off the rights-of-way to a permitted disposal location.

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32. Within 6 months of Plan approval, environmentally sensitive tree trimming locations will be identified in the tree trim computer data base system utilized by tree trim contractors. (This data base also tracks the date of each tree trim, type of tree, where threatening dogs reside, etc.). The Environmental Surveyor should be contacted to perform a preactivity survey when trimming is planned in environmentally sensitive areas. Whenever possible, trees in environmentally sensitive areas (determined by CDFG and SDG&E) will be scheduled for trimming in the non-sensitive times.

33. No new Facilities and Activities shall be planned which disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads is allowed to continue in areas containing vernal pool habitat. New construction of overhead infrastructure which spans vernal pool habitats is allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.

34. If any previously unidentified dens, burrows, or plants are located on any project site after the preactivity survey, the Environmental Surveyor shall be contacted. Environmental Surveyor will determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc...

35. The Environmental Surveyor shall conduct monitoring as recommended in the preactivity survey report. At completion of work, the Environmental Surveyor shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the Environmental Surveyor is responsible for removing all habitat flagging from the construction site.

36. The Environmental Surveyor shall conduct checks on mowing procedures, to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than 4 inches.

37. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected or from which animals could not be removed shall be capped or otherwise covered at the end of each work day. Old piping or other supplies that have been left open, shall not be capped until inspected and any species found in it allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by CDFG.

38. All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife are located in the trench or excavation, the Environmental Surveyor shall be called immediately to remove them if they cannot escape unimpeded.

39. Large amounts of fugitive dust could interfere with photosynthesis. Fugitive dust created during clearing, grading, earth-moving, excavation or other construction activities will be controlled by regular watering. At all times, fugitive dust emissions will be controlled by limiting on-site vehicle speed to 15 miles per hour.

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40. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey will be conducted.

7.1.5 Maintenance of access roads shall consist of:

41. Repair of erosion by grading, addition of fill, and compacting. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after preactivity surveys conducted by the Environmental Surveyor and in accordance with the recommendations regarding construction monitoring and relevant protocols. Consideration should be given to source of erosion problem, when source is within control of SDG&E.

42. Vegetation control through grading should be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of Facility failure or fire hazard exists. The graded access road area should not exceed 12'-wide on straight portions (radius turns may be slightly wider) (See Figure 23).

43. Mowing habitat can be an effective method for protecting the vegetative understory while at the same time creating access to a work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing will be necessary to maintain permanent access.

44. Maintenance work on access roads should not expand the existing road bed (See Figure 23).

45. Material for filling in road ruts should never be obtained from the sides of the road which contain habitat without approval from Environmental Surveyor..

7.1.6 Construction of new access roads shall comply with the following:

46. SDG&E access roads will be designed and constructed according to the SDG&E *Guide for Encroachment on Transmission Rights-of-Way (4/91).*

47. Access roads will be made available to managers of the regional preserve system subject to coordination with SDG&E.

48. New access roads shall be designed to be placed in previously disturbed areas and areas which require the least amount of grading in sensitive areas during construction whenever possible (See Figure 5). Preference shall be given to the use of stub roads rather than linking facilities tangentially.

49. SDG&E will consider providing access control on access roads leading into the regional preserve system where such control provides benefit to sensitive resources.

50. New access road construction is allowed year round. Every effort shall be made to avoid constructing roads during the nesting season. During the nesting season, the presence or absence of nesting species shall be determined by a biologist and appropriate avoidance and minimization recommendations followed.

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7.1.7 Construction and Maintenance of Access Roads Through Streambeds

51. Construction of new access roads through streambeds requires a Streambed Alteration Agreement from CDFG and/or consultation with the Army Corps of Engineers.

52. Maintenance or construction vehicle access through shallow creeks or streams is allowed. However, no filling for access purposes in waterways is allowed without the installation of appropriately sized culverts. The use of geotextile matting should be considered when it would protect wetland species.

53. Staging/storage areas for equipment and materials shall be located outside of riparian areas. (See Figure 23).

7.1.8 Survey Work

54. Brush clearing for foot paths or line-of-sight cutting is not allowed from March through August in sensitive habitats without prior approval from the Environmental Surveyor, who will ensure that activity does not adversely affect a sensitive species.

55. SDG&E survey personnel must keep vehicles on existing access roads. No clearing of brush for panel point placement is allowed from March through August without prior approval from the Environmental Surveyor.

56. Hiking off roads or paths for survey data collection is allowed year round so long as other protocols are met.

7.1.9 Emergency Repairs

57. During a system emergency, unnecessary carelessness which results in environmental damage is prohibited.

58. Emergency repair of facilities is required in situations which potentially or immediately threaten the integrity of the SDG&E system, such as pipe leaks, or downed lines, slumps, slides, major subsidence, etc. During emergency repairs the Operational Protocols contained in this Subregional Plan shall continued to be followed to fullest extent possible.

59. Once the emergency has stabilized, any unavoidable environmental damage will be reported to the Environmental Surveyor by the foreman. The Environmental Surveyor will develop a mitigation plan and ensure its implementation is consistent with this Subregional Plan.

7.1.10 Activities of Underlying Fee Owners

60. Most SDG&E rights-of-way are held in easement only. The activities of underlying fee owners cannot be controlled by SDG&E and are not covered by this Subregional Plan.

61. When sensitive habitat exists on either side of a utility right-of-way, SDG&E will not oppose underlying fee owners dedicating said property to conservation purposes. Underlying fee owners are expected to comply with applicable federal, state, and local regulations.

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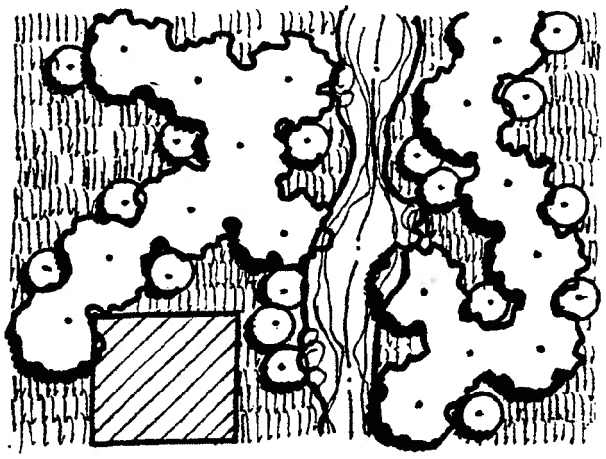

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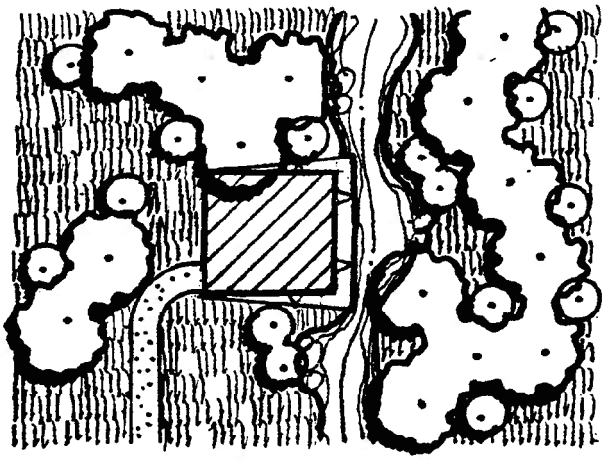

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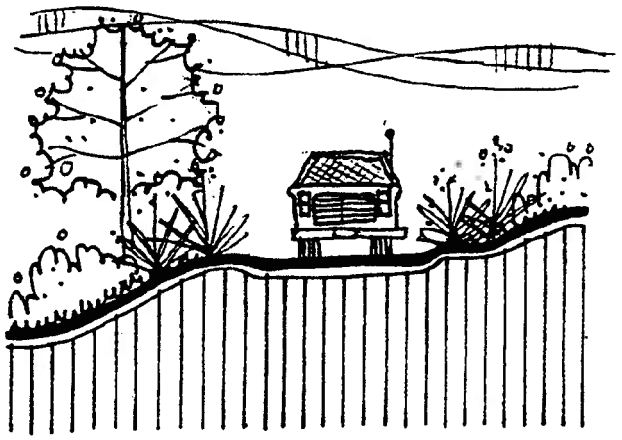
CONSTRUCTION STAGING/STORAGE AREAS SHOULD BE LOCATED OUTSIDE OF STREAMS



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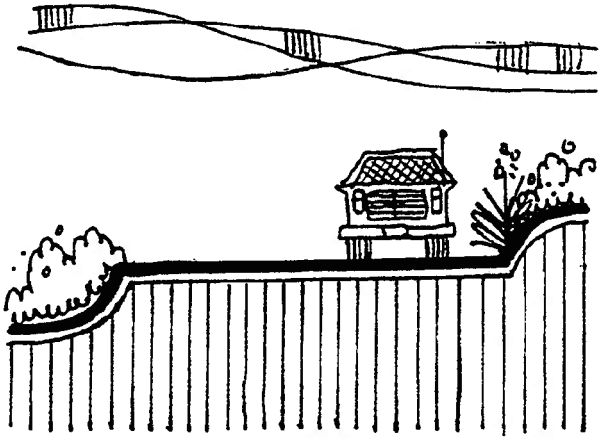

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ACCESS ROAD MAINTENANCE SHOULD NOT EXPAND THE EXISTING ROAD BED

FIGURE

Operational Protocol Diagrams

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LIST OF ATTACHMENTS

Attachment 4.5-A: NAHC Correspondence

4.5 CULTURAL RESOURCES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			✓	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
d) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

4.5.0 Introduction

This section describes the archaeological, historical, and paleontological resources identified within the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and identifies potential impacts that could result from construction, operation, and maintenance of the Proposed Project. The analysis in this section is based on the Cultural Resource Review for the Proposed Project that was prepared by ASM Affiliates, Inc. (ASM) in February 2014 (ASM 2014), as well as a Paleontological Record Search that was completed by the San Diego Natural History Museum's (SDNHM's) Department of PaleoServices in May 2013 (SDNHM 2013).

Cultural resources, as defined under the California Environmental Quality Act (CEQA), include archaeological sites, sacred sites, traditional cultural properties, rock art, rock piles or cairns, historic buildings, and other features of the historic built environment. Cultural resources identified within the Proposed Project site are limited to prehistoric and historic archaeological sites. With the implementation of applicant-proposed measures (APMs), potential impacts to cultural resources that may result from the Proposed Project will be reduced to a less-than-significant level.

There is a moderate to high sensitivity for paleontological resources in the Bay Point geologic formation within the Proposed Project area and in the Lindavista and San Diego geologic formations that are located within 500 feet of the Proposed Project area. These formations will most likely be impacted if the Proposed Project's excavation activities extend below the more recent Bay Point Formation. With the implementation of APMs, potential impacts to paleontological resources that may result from the Proposed Project will be reduced to a less-than-significant level.

4.5.1 Methodology

Cultural Resources

Records Search

Site record and archival searches were completed at the South Coastal Information Center (SCIC) of the California Historic Resources Information System. The records search study area encompassed a one-mile radius around the Proposed Project. Extant historic maps, historic registers, landmark lists, and other documents were consulted. Previously identified cultural resources within the study area were identified in the records search. A Cultural Resource Review was prepared (ASM 2014) for the Proposed Project.

Native American Contacts

The Native American Heritage Commission (NAHC) was contacted for a Sacred Lands Record Search to obtain additional information regarding potential cultural resources within or near the Proposed Project area. The response from the NAHC indicated that no Native American traditional cultural places had been submitted for the Proposed Project area. The NAHC also provided a list of local Native American contacts that may be knowledgeable about cultural resources within or near the Proposed Project area. Letters were sent to these representatives by ASM, and copies of the letters are included in Attachment 4.5-A: NAHC Correspondence. No replies have been received to date.

Cultural Resources Field Survey

As the Proposed Project area is located within previously developed area, a cultural resources field survey was not conducted. A cultural resources summary report was prepared (ASM 2014) for the Proposed Project.

Paleontological Resources

A thorough literature review and records search was conducted of relevant published geologic reports, unpublished paleontological reports, and museum paleontological records of known localities to identify the potential for paleontological resources to exist in the vicinity of the Proposed Project. This approach was utilized due to the direct relationship between paleontological resources and the geologic formations within which they occur. A paleontological resource assessment summary letter was prepared for the Proposed Project (SDNHM 2013).

4.5.2 Existing Conditions

Regulatory Background

The following sections describe federal and state regulations regarding cultural and paleontological resources that apply to the Proposed Project.

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA), enacted in 1969, requires federal agencies to consider the effects of their undertakings on historic properties. Historic properties are cultural resources (i.e., archaeological sites, historic built environment features, or Native American sites) that are listed on or determined to be eligible for listing on the National Register of Historic Places (NRHP). The governing regulation, Section 106 of the NHPA—which is codified in Title 36 of the Code of Federal Regulations (CFR) Part 800—requires the project's lead federal agency to consult with the State Historic Preservation Officer regarding potential impacts to historic properties. The goal of the Section 106 process is to offer a measure of protection for cultural resources that are determined eligible or potential eligible for listing on the NRHP. The criteria for determining eligibility can be found in 36 CFR Part 60.

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act establishes a federal policy of respect for, and protection of, Native American religious practices. It also contains provisions that allow limited access to Native American religious sites.

Paleontological Resources Preservation Act

On March 30, 2009, the Paleontological Resources Preservation Act (PRPA), 16 USC 470aaa, became law. This law requires the United States (U.S.) Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal lands using scientific principles and expertise. New policies from the agencies regarding paleontological resources are now in progress.

State

California Environmental Quality Act

CEQA requires that impacts to cultural resources be identified and, if impacts will be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible. In the protection and management of the cultural environment, both the statute and its CEQA Guidelines provide definitions and standards for cultural resources management. Pursuant to Guideline 15064.5(a), the term "historical resource" includes:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR).

- A resource included in a local register of historical resources…or identified as significant in a historical resource survey…shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or

cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR, including the following:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in our past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- It has yielded, or may be likely to yield, information important in prehistory or history.

- The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources, or identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource.

As defined in Section 21083.2(g) of CEQA, a "unique archaeological resource" is:

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
  - It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
  - It has a special and particular quality such as being the oldest of its type or the best available example of its type.
  - It is directly associated with a scientifically recognized important prehistoric or historical event or person.

Section 15064.5(b)(1) of the CEQA Guidelines explains that effects on cultural properties that qualify as historical resources or unique archaeological resources would be considered adverse if they involve physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired.

The statutes and guidelines cited above specify how cultural resources are to be analyzed for projects subject to CEQA. Archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways.

California Register of Historical Resources

The CRHR is a public listing of specific properties to be "protected from substantial adverse change" that was established by the California Office of Historic Preservation. Any resource eligible for listing in the CRHR must also be considered under the CEQA, described under California Public Resources Code (PRC) Section 21000 et seq., and California Code of Regulations, Title 14, Section 15000 et seq.

A historical resource may be listed in the CRHR if it meets one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the U.S.
- It is associated with the lives of persons important to local, California, or national history.
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic value.
- It has yielded or has the potential to yield information that is important in the prehistory or history of the local area, California, or the nation.

Automatic listings include properties listed in the NRHP—which are determined to be eligible either by the Keeper of the National Register or through a consensus determination on a project review—or State Historical Landmarks from number 770 onward. In addition, Points of Historical Interest nominated since January 1998 are to be jointly listed as Points of Historical Interest and in the CRHR. Landmarks prior to number 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

Resources listed in a local historic register or deemed significant in a historical resources survey, as provided under PRC Section 5024.1(g), are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates that they are not. A resource that is not listed on or determined to be ineligible for listing in the CRHR, not included in a local register of historical resources, or not deemed significant in a historical resources survey may, nonetheless, be historically significant (PRC Section 21084.1).

California Native American Graves Protection and Repatriation Act of 2001, California Health and Safety Code

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030), including the California Native American Graves Protection and Repatriation Act (Cal NAGPRA). Cal NAGPRA established a state policy to ensure that California Native American human remains and cultural items are treated with respect and dignity. The Cal NAGPRA also provides the mechanism for disclosure and return of human remains and cultural items held by publicly funded agencies and museums in California. Likewise, the Cal NAGPRA outlines the process that California Native American tribes who are not recognized by the federal government may follow to file claims for human remains and cultural items held in agencies or museums.

California Public Resources Code

Several provisions of the PRC govern archaeological finds in terms of human remains, or any other related object of archaeological or historical interest or value. Procedures are detailed under PRC Section 5097.9 through 5097.996 for actions to be taken whenever Native American remains are discovered. Under these provisions, if a county coroner determines that human remains found during excavation or disturbance of land are Native American, the coroner must contact the NAHC within 48 hours, and the NAHC must determine and notify the Most Likely Descendant (MLD) who may make recommendations for removal and nondestructive analysis of the remains and for the removal of items associated with Native American burials or cremations. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing any human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

CEQA – Paleontological Resources

Paleontological resources are limited, non-renewable resources of scientific, cultural, and educational value that are protected under CEQA (PRC Section 21000 et seq.). CEQA and PRC Section 5097 et seq. govern the preservation and protection of these resources.

City of San Diego

The City of San Diego regulations and policies pertaining to cultural resources and paleontological resources can be found in Chapters 11, 12, and 14 of the Municipal Code, which establish the Historical Resources Board authority, appointment and terms, meeting conduct, and powers and duties; the designation process including the nomination process, noticing and report requirements, appeals, recordation, amendments or recision, and nomination of historical resources to state and national registers; and development regulations for historical resources. The purpose of these regulations is to protect, preserve, and, where damaged, restore the historical resources of San Diego. The historical resources regulations require that designated historical resources, important archeological sites, and traditional cultural properties be preserved unless deviation findings can be made by the decision-maker as part of a discretionary permit. Minor alterations consistent with the U.S. Secretary of the Interior's Standards are exempt from the requirement to obtain a separate permit, but must comply with the regulations and associated historical resources guidelines. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval.

The Historical Resources Guidelines, located in the City of San Diego's Land Development Manual, provide property owners, the development community, consultants, and the general public explicit guidance for the management of historical resources located within the City of San Diego's jurisdiction. These guidelines are designed to implement the historical resources regulations and guide the development review process. The guidelines also address the need for a survey and how impacts are to be assessed, available mitigation strategies, and report

requirements. They also include appropriate methodologies for treating historical resources located in the City of San Diego.

Cultural Setting

Prehistoric Background

The earliest well-documented sites in the San Diego area belong to the San Dieguito complex, thought to be over 9,000 years old. Related materials were found in the Mojave Desert and in the Great Basin, sometimes called the Lake Mojave complex. Diagnostic artifact types and categories associated with the San Dieguito complex include scraper planes; choppers; scraping tools; crescentics; elongated bifacial knives; and Silver Lake, Lake Mojave, and leaf-shaped projectile points. In areas adjacent to the coast, many Paleoamerican period sites were probably covered by rising sea levels since the end of the Pleistocene. In more inland regions, alluvial sedimentation in valley areas may cover these materials. Stable mesa landforms in the region, an abundance of appropriate lithic material, and soil column exposures along areas such as the San Diego River make the foothills an important area for Paleoamerican research.

The Archaic period (7,000 to 1,500 years before present [B.P.]) brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. Local cultural manifestations of the Archaic period are called the La Jollan complex along the coast and the Pauma complex inland. Pauma complex sites lack the shell that dominates many La Jollan complex site assemblages. The La Jollan tool assemblage is dominated by rough, cobble-based choppers and scrapers, as well as slab and basin metates. Recently, there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques or whether they are separate cultural patterns.

The Late Prehistoric period (1500 B.P. to 200 B.P.) is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period, with continued elaboration of trade networks, use of shell-bead currency, and appearance of more labor-intensive but effective technological innovations.

Subsistence is thought to have focused on acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources except for areas immediately adjacent to the coast where they assumed primary importance. The settlement system is characterized by seasonal villages where people utilized a central-based collecting subsistence strategy. Artifactual material is characterized by the presence of arrow shaft straighteners, pendants, comales (heating stones), Tizon Brownware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic “Yuman bow pipes,” ceramic rattles, miniature pottery, various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, and mortars and pestles. The arrow point assemblage is dominated by the Desert Side-notched series, but the Cottonwood series and the Dos Cabazas Serrated type also occur.

Ethnographic Setting

The Proposed Project area is in the traditional territory of the Kumeyaay. Also known as Kamia, Ipai, Tipai, and Diegueño, the Kumeyaay occupied the southern two-thirds of San Diego County. The Kumeyaay spoke a language belonging to the Hokan language family, which includes the lower Colorado River tribes and Arizona groups to whom they are closely related. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that aboriginally some clans had more than one rancheria and some rancherias contained more than one clan.

Historic Setting

Cultural activities within San Diego County between the late 1700s and the present provide a record of Native American, Spanish, Mexican, and American occupation and land use. The Spanish period (1769 to 1821) represents a time of European exploration and settlement. Dual military and religious contingents established the San Diego Presidio and the San Diego Mission. The mission system used Native American labor to build the infrastructure needed for European settlement. By about 1821, the traditional lifeways were disrupted, and Native American populations were tied economically to the missions. In addition to providing new construction methods and architectural styles, the mission system introduced horses, cattle, and other agricultural goods and implements to the area. The cultural systems and institutions established by the Spanish continued to influence the region beyond 1821, when California came under Mexican rule.

The Mexican period (1821 to 1848) retained many of the Spanish institutions and laws; however, in 1834 the mission system was secularized. This allowed for increased Mexican settlement, but it also meant that many Native Americans were dispossessed. After secularization, large tracts of land were granted to individuals and families, and a rancho system was established. Land was used primarily for grazing cattle. Cattle ranching dominated the agricultural activities, and development of hide and tallow trade with the U.S. increased during the early part of this period. Pueblo of San Diego was established at this time and Native American influence greatly declined. The Mexican period ended when Mexico ceded California to the U.S. after the Mexican-American War (1846 to 1848).

Proposed Project Area Historic Background

The first attempt to establish a city on the San Diego Bay occurred in 1850 when William Heath Davis and Andrew B. Gray purchased 160 acres of bayfront property bounded by present-day Broadway, Market Street, First Street, and Pacific Highway. However, due to financial and other constraints, this initial enterprise was unsuccessful. It was not until almost 20 years later that southern California's first true boom resulted in the establishment of the City of San Diego.

San Diego's first boom was due to the energy of Alonzo E. Horton, a San Francisco merchant and former land speculator who came to California to seek his fortune in the gold rush. He established a mercantile business in San Francisco and, in 1867, purchased a tract of approximately 1,000 acres on San Diego Bay surrounding Davis' earlier subdivision. Horton's Addition included present-day downtown San Diego and Hillcrest. He had the parcel surveyed and laid out a park, streets, blocks, and lots on the scrub-covered hills and plains, and initially

gave lots free to anyone that would build a permanent structure. In 1869, people began pouring into San Diego to buy lots from Horton, and it is likely that the Proposed Project area saw much of its initial development in this period. By March 24, 1869, 124 dwellings had been erected. Framed Italianate-style buildings, typical of most urban areas of the west, dominated architecture for the next 15 years. By 1870, San Diego was a community of 2,300 inhabitants. On April 3, 1871, the county courts moved from Old San Diego to Horton's Addition, signifying that San Diego was no longer to be identified as a small pueblo of adobe houses but as a city on the bay.

The Proposed Project area is located outside of the main area of development in the City of San Diego and is not shown in the 1876 bird's eye view maps or available Sanborn fire insurance maps from that time. In 1928, houses existed on the northeast and south sides of the proposed Vine Substation site. This site was an asphalt-paved parking lot since at least 1953 until 1964 when the property was graded for commercial buildings that were constructed by 1972. By 1980, the buildings had been demolished and the property was returned to its prior use as an asphalt-paved parking lot.

Cultural Resources in the Proposed Project Area

The results of the record search indicate that six previously recorded archaeological resources and 17 historic built resources were recorded within 0.25 mile of the Proposed Project area, as provided in Table 4.5-1: Previously Recorded Cultural Resources within a 0.25-Mile Radius of the Proposed Area of Potential Effect and Table 4.5-2: Previously Recorded Sites Built Resources within a 0.25-Mile Radius of the Proposed Area of Potential Effect. A number of the historical structures, as well as the district itself, were recommended eligible for listing in the CRHR; however, they were subsequently demolished to provide additional parking and staging for the San Diego International Airport. No sites were identified in the APE for the Proposed Project.

Table 4.5-1: Previously Recorded Cultural Resources within a 0.25-Mile Radius of the Proposed Area of Potential Effect

Site Number	Description	Eligibility Status
CA-SDI-00053	Prehistoric Habitation	Not evaluated
CA-SDI-00054	Prehistoric Scatter	Not evaluated
CA-SDI-13761	Historic Barth Foundry Dump	Not evaluated
CA-SDI-16926	Historic Refuse Deposit	Not evaluated
CA-SDI-16927	Historic Refuse Deposit	Not evaluated
P-37-024258	Historic Refuse Deposit	Not evaluated

Table 4.5-2: Previously Recorded Sites Built Resources within a 0.25-Mile Radius of the Proposed Area of Potential Effect

Site Number	Description	Eligibility Status
P-37-015531	Industrial Building	Part of CRHR District
P-37-015532	Industrial Building	Part of CRHR District
P-37-015533	Industrial Building	Recommended eligible
P-37-015534	Industrial Building	Recommended eligible
P-37-015535	Industrial Building	Recommended eligible
P-37-015536	Industrial Building	Recommended eligible
P-37-015537	Engineering Structure	Recommended eligible
P-37-015538	Industrial Building	Recommended eligible
P-37-015539	Industrial Building	Recommended eligible
P-37-015540	Industrial Building	Recommended eligible
P-37-015542	Industrial Building	Not eligible
P-37-015543	Industrial Building	Not eligible
P-37-015547	Industrial Building	Not eligible
P-37-015548	Industrial Building	Not evaluated
P-37-015549	Industrial Building	Not eligible
P-37-015550	Industrial Building	Not evaluated
P-37-015554	Engineering Building	Not eligible

Paleontological Resources in the Proposed Project Area

The Proposed Project site is directly underlain by sedimentary rock that has been mapped by Kennedy (1975) as the Pleistocene-age Bay Point Formation (approximately 220,000 years old). The Pleistocene-age Lindavista Formation (0.5 to 1.5 million years old) and the Pliocene-age San Diego Formation (approximately two to four million years old) are mapped within less than 500 feet of the Proposed Project site, and will most likely be impacted if excavations extend below the Bay Point Formation. The Bay Point and San Diego formations have a high paleontological sensitivity, and the Lindavista Formation has a moderate paleontological sensitivity.

The records search and literature conducted by the SDNHM Department of PaleoServices has identified 85 fossil localities within a one-mile radius of the Proposed Project. All of these localities occur within deposits of the San Diego Formation. These localities produced impressions of plants (e.g., kelp), trace remains of marine invertebrates (e.g., bryozoans, foraminifera, barnacles, branchiopods, shrimp, crabs, urchins, snails, clams, mussels, oysters, scallops, and tusk shells), mineralized bone remains of marine vertebrates (e.g., rays, sharks, fish, seals, walruses, sea cows, dolphins, porpoises, and toothed and baleen whales), and mineralized bone remains of terrestrial vertebrates (e.g., snakes, rabbits, and birds).

4.5.3 Impacts

Significance Criteria

Cultural Resources

Under CEQA, Proposed Project construction, operation, and maintenance effects to unique or important resources must be considered. A resource is unique or important if it meets any of the following criteria:

- It is associated with an event or person of recognized importance in California or American history or scientific importance in prehistory.
- It is associated with the lives of persons important to our past.
- It has or can provide useful information of demonstrable public interest and is useful in addressing scientifically consequential and reasonable archaeological research questions.
- It has a special or particular quality, such as oldest, best example, largest, or last surviving example of its kind.

Construction-related subsurface and surface disturbances could result in a loss of integrity of cultural deposits, a loss of scientific information, and the alteration of an archaeological site setting. Potential indirect impacts—primarily vandalism—can result from increased access and use of the general area during construction and long-term operation and maintenance activities. The potential also exists for the inadvertent discovery of buried or masked archaeological materials during construction activities.

Impacts to cultural resources would be considered significant if the Proposed Project:

- Causes a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5 of the CEQA Guidelines

- Causes a substantial adverse change in the significance of an archaeological resource, pursuant to Section 15064.5 of the CEQA Guidelines
- Disturbs any human remains, including those interred outside of formal cemeteries

"Substantial adverse change" means demolition, destruction, relocation, or alteration such that the significance of a historical resource will be impaired. Section 21084.1 of the CEQA Guidelines stipulates that any resource listed on, or eligible for listing on, the CRHR is presumed to be historically or culturally significant. Section 21084.1 requires treatment of any substantial adverse change in the significance of a historical resource listed on, or eligible to be listed on, the CRHR as a significant effect on the environment.

Paleontological Resources

Impacts to paleontological resources will be considered significant if the Proposed Project directly or indirectly destroys a unique paleontological resource or site or unique geologic feature. Because fossils are the remains of prehistoric animal and plant life, they are considered to be non-renewable. Impacts to paleontological resources are identified from high to zero depending on the resource sensitivity of impacted formations. The specific criteria applied for each sensitivity category are summarized as follows:

- High significance: Impacts to high-sensitivity formations (Bay Point and San Diego formations).
- Moderate significance: Impacts to moderate-sensitivity formations (Lindavista Formation).
- Low significance: Impacts to low-sensitivity formations (none expected within the Proposed Project boundaries).
- Zero significance: Impacts to zero-sensitivity formations (none expected within the Proposed Project boundaries).

Question 4.5a – Historical Resource Change

Construction – Less-than-Significant Impact

Based on archival information, no historical resources are located within the Proposed Project area. Therefore, the Proposed Project will not have an adverse effect on historical resources, and no impacts are anticipated.

Construction of the Proposed Project will involve grading, trenching, and excavation activities, which have the potential to uncover and potentially damage or destroy unknown resources. While the potential to discover buried historical resources is unlikely due to the previous disturbance to the Proposed Project area, SDG&E will implement APM-CUL-01, as described in Section 4.5.4 Applicant-Proposed Measures to minimize potential impacts to unknown historical resources. This APM requires the presence of an archaeological monitor during ground-disturbing activities and allows for the halting of construction activities and contacting SDG&E's Cultural Resource Specialist if a cultural resource is discovered. In addition, SDG&E will implement a Safety and Environmental Awareness Program as part of their ordinary construction restrictions. This program will include training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental

laws and regulations, including the potential for exposing subsurface cultural resources. Impacts to unknown resources will therefore be reduced to a less-than-significant level.

Operation and Maintenance – No Impact

Typically, operation and maintenance activities associated with the Proposed Project will not require ground disturbance; however, if ground disturbance is required for the repair of Proposed Project components, it will be conducted in areas that were previously disturbed during construction of the Proposed Project. Therefore operation and maintenance activities will not have an adverse effect on historical resources, and no impact will occur.

Question 4.5b – Archaeological Resource Change

Construction – Less-than-Significant Impact

No archaeological resources are located within the Proposed Project area based on archival information. However, ground-disturbing construction activities—including pole installation, the grading and excavation necessary to develop the proposed Vine Substation site, and trenching activities necessary to install the underground facilities—have the potential to inadvertently impact unknown buried archaeological resources within the Proposed Project area. These activities disturb subsurface soils and can potentially disturb or destroy unknown buried deposits (i.e., archaeological sites). As described previously, the Proposed Project areas have been previously disturbed for the construction of a parking lot and roadways; therefore, the potential to discover unknown archaeological resources is unlikely. SDG&E will implement APM-CUL-01, as described in Section 4.5.4 Applicant-Proposed Measures, to minimize potential impacts to unknown archaeological resources. This APM allows for the halting of work and contacting SDG&E's Cultural Resource Specialist if a cultural resource is discovered. SDG&E will also implement a Safety and Environmental Awareness Program as part of their ordinary construction restrictions. This program will include training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources. Impacts to unknown resources will therefore be reduced to a less-than-significant level.

Operation and Maintenance – No Impact

Typically, operation and maintenance activities associated with the Proposed Project will not require ground disturbance; however, if ground disturbance is required for the repair of Proposed Project components, it will be conducted in areas that were previously disturbed during construction of the Proposed Project. As no archaeological resources have been identified in the Proposed Project area, impacts to archaeological resources are not anticipated during operation and maintenance of the Proposed Project.

Question 4.5c – Paleontological Resource Destruction

Construction – Less-than-Significant Impact

Direct impacts to paleontological resources occur when earthwork activities—such as mass grading, excavation, and trenching operations—cut into the geological deposits (i.e., formations) within which fossils are buried. These direct impacts occur in the form of physical destruction of

the fossil locality and the contained fossil remains. The top of the Bay Point Formation within the immediate vicinity of the proposed Vine Substation site varies from 3.5 to 11.5 feet below the ground surface (bgs), and the San Diego and Lindavista formations lie below the Bay Point Formation. As shown in Table 4.5-3: Proposed Excavation Depths, the Proposed Project will involve excavations up to 45 feet bgs. Therefore, excavation activities associated with the construction of the Proposed Project have the potential to impact paleontological resources because the potential for discovery of a sensitive paleontological resource is High within the Bay Point and San Diego formations and Moderate within the Lindavista Formation.

Table 4.5-3: Proposed Excavation Depths

Proposed Excavation Activity	Approximate Excavation Depth (feet)
Substation Containment Basins	3 to 4
Substation Equipment Footings	3 to 20
12 kV Distribution Duct Bank Trenches	5.5
12 kV Underground Vaults	7.5
Telecommunication System Duct Bank Trenches	5
Telecommunication System Handholes	3
Tubular Steel Pole Foundation Holes	20 to 45

SDG&E will implement APM-CUL-02, as described in Section 4.5.4 Applicant-Proposed Measures. This APM allows for the halting of work and contacting SDG&E's Cultural Resource Specialist if a paleontological resource is discovered. SDG&E will also implement a Safety and Environmental Awareness Program as part of their ordinary construction restrictions. This program will include training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural resources. With implementation of the APM and SDG&E's ordinary construction restrictions, any Proposed Project impacts to paleontological resources will be reduced to a less-than-significant level.

Operation and Maintenance – No Impact

Typically, operation and maintenance activities associated with the Proposed Project will not require ground disturbance; however, if ground disturbance is required for the repair of Proposed Project components, it will be conducted in areas that were previously disturbed during construction of the Proposed Project. As a result, it is not anticipated that paleontological resources will be encountered during such activities, and there will be no impact.

Question 4.5d – Human Remains Disturbance

Construction – Less-than-Significant Impact

No known cemeteries exist and no recorded Native American or other human remains have been previously identified within or adjacent to the Proposed Project area. As such, the potential for

the unintended discovery of Native American or other human remains during subsurface construction activities required for the Proposed Project is considered to be low. If human remains are encountered during the course of construction, work will be halted in the vicinity of the find, and SDG&E will implement the appropriate notification processes as required by law. As a result, any potential impacts will be less than significant.

Operation and Maintenance – No Impact

As previously described, the presence of human remains is considered unlikely in the Proposed Project area. Typically, operation and maintenance activities associated with the Proposed Project will not require ground disturbance; however, if ground disturbance is required for the repair of Proposed Project components, it will be conducted in areas that were previously disturbed during construction of the Proposed Project. As a result, it is not anticipated that human remains will be encountered during such activities, and there will be no impact.

4.5.4 Applicant-Proposed Measures

The following APMs will be implemented as part of the Proposed Project to reduce any potential impacts to cultural or paleontological resources to a less-than-significant level:

- APM-CUL-01: An archaeological monitor will be present during ground-disturbing activities. In the event that cultural resources are discovered, the archaeological monitor will have the authority to divert or temporarily halt ground disturbance to allow evaluation of the potentially significant cultural resources. The archaeological monitor will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeological monitor, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities in the vicinity of the discovery are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program will be prepared and carried out to mitigate impacts. All collected cultural remains will be cleaned, cataloged, and permanently curated with an appropriate institution. All artifacts will be analyzed to identify function and chronology as they relate to the history of the area. Faunal material will be identified to the species level. A monitoring results report—which includes appropriate graphics and describes the results, analyses, and conclusions of the monitoring program—will be prepared and submitted to SDG&E's Cultural Resource Specialist and Environmental Project Manager following completion of the program. Any cultural sites or features encountered will be recorded on appropriate Department of Parks and Recreation forms. All forms and reports will be submitted to the SCIC at San Diego State University.

- APM-CUL-02: A paleontological monitor will be on site to observe excavation operations that involve the original cutting of deposits with high paleontological resource sensitivity (i.e., Bay Point Formation) to depths greater than 3.5 feet. In the event that fossils are encountered, the paleontological monitor will have the authority to divert or temporarily halt construction activities in the area of discovery to allow the recovery of fossil remains. The paleontological monitor will contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The

paleontologist, in consultation with SDG&E's Cultural Resource Specialist, will determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. When fossils are discovered, a paleontologist (or the paleontological monitor) will recover them, along with pertinent stratigraphic data. Fossil remains collected during monitoring and salvage will be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections. A final summary report will be completed that outlines the results of the mitigation program. The report will discuss the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

4.5.5 References

ASM. 2014. Cultural Resource Review for the SDG&E proposed Vine 69/12 kV Substation Project, San Diego County, California (SDG&E ETS# 25059, ASM Project#). City of Pasadena, Los Angeles County, California. Prepared for SDG&E.

SDNHM Department of PaleoServices. 2013. Paleontological Record Search for the SDG&E Vine 69/12kV Substation (eTS No. 25059). City of Chula Vista, San Diego County, California. Prepared for SG&E.

ATTACHMENT 4.5-A: NAHC CORRESPONDENCE

STATE OF CALIFORNIA — Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
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West Sacramento, CA 95691
(916) 373-3715
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December 19, 2013

Ms. Angela N. Pham, M.A., RPA, Associate Archaeologist
ASM Affiliates, Inc.
2034 Corte del Nogal
Carlsbad, CA 92011

Sent by FAX to: 760-804-5755
No. of Pages: 5

RE: Sacred Lands File Search and Native American Contacts list for the **"San Diego Gas & Electric Vine Street Substation Project;"** located in the Downtown San Diego area; San Diego County, California

Dear Ms. Pham:

A record search of the NAHC Sacred Lands File **failed to indicate** the presence of Native American traditional cultural places in the project site(s) submitted as defined by the USGS coordinates configuring the 'Area of Potential Effect' or APE. Also, please note that the absence of archaeological or cultural resources does not preclude their existence at the subsurface level. Other data sources for Native American sacred places/sites should also be contacted. A Native American tribe or individual may be the only sources of information about traditional cultural places or sites.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the project area (APE). As part of the consultation process the NAHC recommends that local government and project developers contact the tribal governments and individuals in order to determine the proposed action on any cultural places/sacred sites. If a response from those listed is not received in two weeks of notification, the NAHC requests that a follow-up telephone call be made to ensure the project information has been received.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies" and Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into

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the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

Dave Singleton
Program Analyst

Attachments

Happy Holidays!

Native American Contacts
San Diego County California
December 19, 2013

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his list s only applicable for contacting local Native Americans with regard to cultural resources for the proposed San Diego Gas & Electric Vine Street Substation Project; located in the Downtown San Diego area; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

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4.6 GEOLOGY AND SOILS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			✓	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?[1]			✓	
ii) Strong seismic ground shaking?			✓	
iii) Seismic-related ground failure, including liquefaction?			✓	
iv) Landslides?				✓
b) Result in substantial soil erosion or the loss of topsoil?			✓	
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

[1] Refers to Divisions of Mines and Geology Special Publication #42.

4.6.0 Introduction

This section describes the existing geologic and pedogenic soil conditions related to the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project). The potential geologic and seismic impacts of the Proposed Project are analyzed and include the potential for exposure of people and structures to substantial adverse effects involving strong seismic ground shaking, fault rupture, liquefaction, unstable soils, landslides, expansive soil, substantial soil erosion, or the loss of topsoil. The evaluation concludes that with adherence to SDG&E's project design methods, and by considering the results and recommendations provided in the Proposed Project-specific geotechnical investigations in the final design, that construction of the proposed Vine Substation, installation and relocation of the distribution circuits, and looping in the existing 69 kV power line will result in less-than-significant impacts to geology and soils.

4.6.1 Methodology

The existing conditions and potential impacts associated with geologic hazards were primarily obtained from the Preliminary Geotechnical and Geological Hazards Investigation prepared by Geosyntec Consultants (Geosyntec) for the Proposed Project site, which is included as Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation. The research and analysis conducted by Geosyntec included a review of regional information and previous geotechnical investigations, as well as pre-investigation activities conducted in support of the soil borings and cone penetration test (CPT) soundings that were taken for the proposed Vine Substation site.[2] Geotechnical laboratory analyses and seismic shear wave velocity measurements were conducted from the borings and CPT soundings to obtain empirical results regarding the subsurface soil characteristics. In addition to the research and analysis provided in Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation, a thorough review of available geologic resource literature relevant to the Proposed Project area was conducted independent of the analyses performed by Geosyntec. The materials reviewed include publications and/or data from the United States Geological Survey (USGS), the California Geological Survey (CGS), California Building Code, and other technical reports and resources. A reconnaissance-level field investigation was also performed on December 10, 2013.

4.6.2 Existing Conditions

Geologic Setting

The Proposed Project area is situated in the western portion of the Peninsular Ranges geomorphic province of Southern California. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California, and varies in width from approximately 30 to 100 miles. The province is characterized by mountainous terrain on the east, composed mostly of Mesozoic igneous and metamorphic rocks; and relatively low-lying coastal terraces to the west, underlain by Upper-Cretaceous, Tertiary-, and Quaternary-age sedimentary rocks. Most of the coastal region of San Diego County, including the general Proposed Project area, occurs within this coastal region and is underlain by sedimentary rock. Specifically, the Proposed Project site

[2] A geotechnical investigation for the 69 kV tubular steel pole installation sites will also be conducted prior to construction of the Proposed Project.

in this portion of the province is underlain by Late Cretaceous, Eocene, and Oligocene period sediments.

Faults, Seismicity, and Related Hazards

Faults

In comparison to other areas of Southern California, the immediate San Diego area has a relatively quiet seismic history. The historical pattern of seismic activity in coastal San Diego has generally been characterized as a broad scattering of small- to moderate-magnitude earthquakes, whereas the surrounding regions of Southern California—such as the Imperial Valley, northern Baja California, and the nearby offshore regions—are characterized by a higher rate of seismicity. The geologic structure of Southern California is dominated by right-lateral strike-slip faults with a general northwest-by-southwest trend. Regional faults include the Elsinore and San Jacinto faults to the east, the Coronado Bank and San Diego Trough faults offshore to the west, the San Miguel-Vallecitos and Aqua Blanca faults to the south, and the Rose Canyon fault zone (RCFZ), which extends through the general vicinity of the Proposed Project site. The RCFZ is the southern extension of the Newport-Inglewood-Rose Canyon fault zone and is associated with the San Andreas fault system, which forms the tectonic boundary between the North American and Pacific plates.

Fault Rupture

The on-shore portion of the RCFZ extends along the northeast flank of Mount Soledad in La Jolla and continues southward along the eastern margins of Mission Bay. Between Mission Bay and San Diego Bay, the zone widens and diverges. The Alquist-Priolo Earthquake Fault Zoning Act of 1972, formerly known as the Special Studies Zoning Act, regulates construction and development of buildings intended for human occupancy to avoid rupture hazards from surface faults. This act does not specifically regulate overhead power lines, but it does aid in defining areas where fault rupture is most likely to occur. The Proposed Project site is located within a mapped Alquist-Priolo fault zone—the Point Loma quadrangle—in which active portions of the RCFZ have been identified. However, the nearest active portion does not cross the Proposed Project and is located approximately one mile southwest of the Proposed Project site.

Strands of the RCFZ have been mapped within relatively close proximity to the Proposed Project. The smaller, but potentially active La Nacion fault zone lies approximately two miles to the east. As previously mentioned, the RCFZ extends through the general vicinity of the Proposed Project site. In addition, the Proposed Project is located approximately 12 miles east of the Coronado Bank fault zone, and approximately 40 to 45 miles west of the Elsinore fault zone.

Strong Ground Motion

Ground shaking is the seismic effect that results in the vast majority of damage. Several factors control how the ground motion interacts with structures, making the impact hazard of ground shaking difficult to predict. Seismic waves propagating through the earth's crust are responsible for the ground vibrations normally felt during an earthquake. Seismic waves can vibrate in any direction and at different frequencies, depending on the frequency content of the earthquake, its rupture mechanism, the distance from the seismic epicenter, and the path and material through which the waves are propagating.

Strong ground motion or intensity of seismic shaking during an earthquake is dependent on the distance from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the area. The Proposed Project site is located in a seismically active region of Southern California that is subject to significant hazards from moderate to large earthquakes. Ground shaking due to nearby and distant earthquakes should be anticipated during the life of the structure. Based on data from the USGS and from information provided in Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation that was prepared for the proposed Vine Substation site, the predominant fault for this area is the Rose Canyon fault—which is located at approximately 0.2 mile southwest from the Proposed Project site—or one of the previously described regional faults in the Proposed Project vicinity, such as the Elsinore fault.

Active faults are classified as Type A, Type B, or Type C. Type A faults are capable of producing large-magnitude events ($M \geq 7.0$) and have a high rate of seismic activity. Type C faults are not capable of producing large magnitude events and have a relatively low rate of seismic activity. Type B faults are all other faults that are not classified as Type A or Type C. Segments of the San Jacinto and Elsinore fault zones are Type A. Type B faults are the majority of the rest of the seismic faults in the San Diego area and include the RCFZ. The RCFZ is more dominant than the nearest Type A fault zone due to its proximity to the Proposed Project site.

Table 4.6-1: Active Faults in the Vicinity of the Proposed Project lists active earthquake events and estimated site accelerations for the faults considered most likely to subject the Proposed Project area to ground shaking.

The intensity of ground motions induced by earthquakes can be described using peak site accelerations, represented as a fraction of the acceleration of gravity (g). CGS Probabilistic Seismic Hazard Assessment (PSHA) maps were used to estimate peak ground accelerations within the vicinity of the Proposed Project area. Considering the uncertainties regarding the size and location of potential earthquakes and resulting ground motions that can affect a particular site, PSHA maps indicate that there is approximately 10-percent probability of exceeding a peak site acceleration of 0.257g in a 50-year period (Upper Bound Earthquake as defined in Chapter 16 of the 2001 California Building Code) at the proposed Vine Substation site using a magnitude weighting factor based on a 7.5 magnitude earthquake, which equals an annual probability of one in 475 of being exceeded each year.

The Modified Mercalli Scale is another common measure of earthquake intensity, which is a subjective measure of earthquake strength at a particular place as determined by its effects on people, structures, and earth materials. Table 4.6-2: Earthquake Intensity Scale presents the Modified Mercalli Scale for Earthquake Intensity, including a range of approximate average peak accelerations associated with each intensity value. Based on the previously described approximate peak accelerations provided for the Proposed Project site, this area is estimated to fall within Intensity Range VII.

Liquefaction

Liquefaction is the process in which the soil below the water table becomes converted to a fluid state and loses its strength when sufficiently shaken or vibrated during a seismic event.

Table 4.6-1: Active Faults in the Vicinity of the Proposed Project

Fault	Approximate Distance to Proposed Project (miles)	Approximate Fault Length (miles)	Maximum Estimated Earthquake Magnitude
Rose Canyon (San Diego section)	0.2 mile southwest 0.7 mile west	19	7.2
Coronado Bank	11.7 miles west	56	7.6
San Diego Trough	22.1 miles east	93	7.7
San Miguel-Vallecitos	35.0 miles southeast	99	7.8
Agua Blanca	40.0 miles southeast	80	7.0
Elsinore (Julian section)	41.2 miles northeast	112	7.1
Elsinore (Temecula section)	42.4 miles east	26	6.8

Sources: USGS, 2005; Journal of Geophysical Research, 2002; Geological Society of America, 1960; Bulletin of the Seismological Society of America, 1996; California Geological Survey, 2002.

The soil types considered most susceptible to liquefaction are granular, low-plasticity fine-grained soils, which are saturated and have a density that ranges loose to medium. Adverse effects of liquefaction include loss of bearing strength, lateral spreading, sand boils, ground oscillation, and settlement when liquefied ground reconsolidates following the seismic event.

The proposed Vine Substation site is currently occupied by an asphalt-paved commercial parking lot. Soils underlying the paved area and along the underground alignment consist of undocumented fill that typically overlies colluvial deposits and old paralic deposits (previously referred to as the Bay Point Formation) across the site area. Additional detail on soil characteristics are provided in the Soils subsection.

Slope Instability

Strong ground motion can result in rockfall hazards and/or slope instability. The slopes most susceptible to earthquake-induced failure include those with highly weathered and unconsolidated materials on moderately steep slopes, especially in areas of previously existing landslides.

Landslides occur when masses of rock, earth, or debris move down a slope, including rock falls, deep failure of slopes, and shallow debris flows. The actuators of landslides can be both natural events—such as earthquakes, rainfall, and erosion—and human activities. Those induced by man are most commonly related to large grading activities that can potentially cause new slides or reactivate old ones when compacted fill is placed on potentially unstable slopes.

Table 4.6-2: Earthquake Intensity Scale

Intensity Value	Intensity Description	Average Peak Acceleration Range
I	Not felt except by very few people under especially favorable circumstances.	<0.0017g
II	Felt only by a few people at rest, especially on upper floors of buildings. Delicately suspended objects may swing.	0.0017–0.014g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck.	
IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, and doors disturbed; walls make cracking sound. Sensation is like a heavy truck striking a building. Standing motor cars rock noticeably.	0.014–0.039g
V	Felt by nearly everyone, and many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.039–0.092g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moves and plaster falls or chimneys are damaged. Damage slight.	0.092–0.18g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built, ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by people driving motor cars.	0.18–0.34g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Chimneys, factory stacks, columns, monuments, and walls fall. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. People driving motor cars disturbed.	0.34–0.65g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	>1.24g

Intensity Value	Intensity Description	Average Peak Acceleration Range
XI	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	>1.24g
XII	Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	

Sources: GeoSyntec, 2013

Excavation operations can also contribute to landslides when lateral support is removed near the base of unstable hillside areas. Conditions to be considered in regard to slope instability include slope inclination, characteristics of the soil materials, the presence of groundwater, and degree of soil saturation. The proposed Vine Substation site has been previously graded and is relatively flat with a terrain that slopes gently to the southwest.

Differential Settlement

If the soil beneath a structure settles non-uniformly, the structure can be damaged. The reasons for differential settlement are usually traced to differences in the bearing characteristics of the soils. Alternatively, a portion of the soil beneath a structure may lose strength during an earthquake due to liquefaction. If liquefaction occurs non-uniformly, differential compaction will occur. Unconsolidated or weakened geologic units in the Proposed Project area may be subject to differential settlement; however, the reconnaissance-level survey and geotechnical investigation did not reveal any evidence of differential settling.

Subsidence

Subsidence occurs most often when fluids are withdrawn from the ground, removing partial support for previously saturated soils. More rarely, subsidence occurs due to tectonic down-warping during earthquakes. Neither source of subsidence appears to be present in the Proposed Project area.

Soils

The soils directly underlying the Proposed Project area consist of undocumented fill, colluvium, and old paralic deposits and alluvium. Soil horizons near the surface (from approximately five feet below [existing] ground surface to the surface) are composed of undocumented fill that consists primarily of silty fine sand to fine sandy silt that may contain localized gravels and metal and concrete debris in some areas. The fill layer is underlain by colluvium at depths of 3.5 to 11.5 feet below the ground surface that accumulated at the foot of the slope located east of the proposed Vine Substation site. The colluvium in this area consists of silty fine sand to silt and silty clay that is slightly porous to very porous in nature. Pleistocene-age old paralic deposits (formerly referred to as the Bay Point Formation) also underlie the Proposed Project area and primarily consist of poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone, and conflomerate. There is currently no erosion potential at the site because it is covered with asphalt. In the absence of asphalt, exposed soil is anticipated to have a low to moderate erosion potential when considering the slope, slope length, and soil type.

Expansive or Collapsible Soils

Expansive soils are characterized by the ability to undergo significant volume change (i.e., shrink and swell) as a result of variation in soil moisture content. Soil moisture content can change due to many factors, including perched groundwater, landscape irrigation, rainfall, and utility leakage. Expansive soils typically have high clay content and are associated with many of the geologic units throughout the San Diego region. Soils with some expansion potential are present near the surface of the Proposed Project site. The results of two expansion index tests performed as part of the analysis described in Attachment 4.6-A: Preliminary Geotechnical and Geologic

Hazards Investigation determined that the soils near the surface are considered to have a low to medium potential for expansion, with expansion index values ranging between 31 and 51.

4.6.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act Guidelines. Impacts to geology and soils would be considered significant if the Proposed Project:

- Exposes people or structures to potential substantial adverse effects involving strong seismic ground shaking, fault rupture, liquefaction, or landslides
- Results in substantial soil erosion or the loss of topsoil
- Is located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
- Is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property
- Is located on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

Question 4.6a – Human Safety and Structural Integrity

i. Earthquake Fault Rupture – Less-than-Significant Impact

During earthquakes, the potential for the ground to rupture can occur either at or below the earth's surface, causing large vertical and/or horizontal displacement of the ground along the fault. Any structures built across or in very close proximity to a fault could experience significant damage in the event of surface fault rupture.

The Rose Canyon fault is the closest mapped active fault and extends nearly onto the Proposed Project site, as it is located approximately 0.2 mile from the Proposed Project site. Review of published geologic maps did not identify the presence of any active or potentially active faults crossing the Proposed Project site. Further, the site is not located within a delineated earthquake fault rupture hazard zone, as defined by the CGS. In addition, the site is not situated in the "Downtown Special Fault Zone," designated by the City of San Diego Seismic Safety Study, and is instead delineated as Geologic Hazard Category 53 (i.e., level or sloping terrain, unfavorable geologic structure, low to moderate risk). Further, as described in Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation, desktop-level and field vaulting evaluations of the proposed Vine Substation site were conducted, and indicated the absence of mapped active or potentially active faulting projecting through the site, and the evaluation of the site subsurface stratigraphy. As described in Section 4.1.3 of Attachment 4.6-A: Preliminary

Geotechnical and Geologic Hazards Investigation, the potential for fault-related surface rupture at the site is low.

Nonetheless, to minimize the potential for damage to occur from rupture of an earthquake fault, the results and recommendations from the geotechnical report will be considered in the final design of the proposed Vine Substation and SDG&E's project design features will also be implemented. The design and construction of the Proposed Project will adhere to all appropriate and applicable codes and seismic standards in order to withstand the maximum predicted ground motion. As described in Section 4.6.0 Introduction, SDG&E's project design features will be adhered to and consideration of the site-specific results and recommendations provided in the geotechnical reports in the final design will reduce impacts related to earthquake fault rupture. As such, the potential for damage caused by fault rupture lurching, or cracking of the ground surface as a result of nearby or distant events, is considered unlikely. Therefore, potential impacts are considered less than significant.

ii. Strong Seismic Shaking – Less-than-Significant Impact

The Proposed Project, including the substation structures and foundations, will be designed to withstand strong seismic accelerations in accordance with SDG&E's project design features to reduce the potential for damage to occur to the proposed facilities in the event of a major seismic event. The design and construction of the Proposed Project will conform to the specific mandated structural design and performance requirements to protect against the effects of strong seismic shaking. In addition, the results and recommendations provided in the Proposed Project-specific geotechnical investigations will be considered in the final design to ensure that Proposed Project components are constructed to withstand strong seismic shaking. With consideration of the existing soil conditions in the final design, the recommendations from the geotechnical reports, and adherence to SDG&E's project design features which comply with all appropriate and applicable codes and seismic standards, the potential for damage caused by strong seismic shaking is considered less than significant.

iii. Ground Failure – Less-than-Significant Impact

As described in Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation, the results of the geotechnical laboratory analyses that were performed on the samples obtained from the geotechnical borings, as well as the CPT soundings that were conducted for the proposed Vine Substation site, indicated that undocumented fill typically overlies colluvial deposits and old paralic deposits (previously referred to as the Bay Point Formation) across the site area. The results of the liquefaction analyses indicate that relatively thin and non-continuous lenses of the old paralic deposits have the potential for liquefaction and that liquefaction may impact the site after development. Liquefaction would most likely be manifested at this site as local ground subsidence, settlement, and localized reduction in shear strength at depth.

The laboratory analyses conducted from the geotechnical borings and CPT soundings revealed that the potential for lateral spreading at the site is considered to be low based on the location of liquefiable soil lenses and the fact that the site and its surroundings are relatively level. As provided in Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation, the magnitude of liquefaction-induced settlement at the proposed Vine Substation site is

anticipated to be relatively small; however, it should be recognized that total and differential settlements may cause damage to surface improvements and subsurface utilities under seismic conditions. As described in Chapter 3 – Project Description, imported fill will be used to replace existing unstable soils at the Proposed Project site. The imported fill will meet SDG&E's standards and the geotechnical engineer's requirements for compaction and stability. In addition, to ensure the Proposed Project is designed to minimize the risk from geological hazards related to ground failure as a result of liquefaction, the SDG&E will also consider the results and recommendations provided in the Proposed Project-specific geotechnical investigations. As a result, impacts related to ground failure, including liquefaction, are anticipated to be less than significant.

iv. Landslides – No Impact

Hazards related to slope instability and landslides are generally associated with foothill areas and mountain terrain, as well as steep riverbanks and levees. The Proposed Project site is relatively flat and does not contain landslide hazards. In addition, the Proposed Project will not result in any new landslide hazards. Therefore, there will be no impact.

Question 4.6b – Soil Erosion or Topsoil Loss

Construction – Less-than-Significant Impact

The proposed Vine Substation will occupy approximately 1.3 acres on a parcel that is currently paved for use as long-term airport parking. The existing pavement will be removed and the lot will be graded during construction of the proposed Vine Substation. Grading will create the potential for soil erosion by removing the existing paved surface and exposing soil during the construction phase of the Proposed Project. Rain and wind have the ability to detach soil particles and transport them off site. However, SDG&E will implement a Storm Water Pollution Prevention Plan (SWPPP) and adhere to its Water Quality Construction Best Management Practices (BMP) Manual, which will minimize soil erosion and reduce impacts to a less-than-significant level. The SWPPP and the SDG&E Water Quality Construction BMP Manual are described in more detail in Section 4.9 Hydrology and Water Quality. In addition, as previously discussed, the Proposed Project site is disturbed and does not contain any valuable topsoil. As a result, impacts will be less than significant.

Construction of the other Proposed Project components will occur within previously disturbed areas and along existing roads where no topsoil is present. Because impacts related to soil erosion will be temporary and controlled through the use of BMPs and because no topsoil will be disturbed, impacts associated with the other Proposed Project components will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Within a developed substation, the potential for erosion is considered low due to the site drainage and surfacing improvements that will be in place. Operation and maintenance of the Proposed Project components will not typically involve ground-disturbing activities or grading. If grading is required, SDG&E will implement the BMPs outlined in its Water Quality Construction BMP Manual. In addition, maintenance vehicles will utilize existing roads to access Proposed Project

areas for routine operation and maintenance activities. Therefore, impacts to soil erosion and topsoil will be less than significant.

Question 4.6c – Geologic Unit Instability – *Less-than-Significant Impact*

As previously described, Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation provides that the proposed Vine Substation site is relatively flat, and new slopes—if proposed at the site—will be engineered slopes designed at stable inclinations. Thus, slope instability is not considered a hazard. The soils located at the proposed Vine Substation site do have the potential for liquefaction. However, the results and recommendations from the Proposed Project-specific geotechnical investigations will be considered and implemented, as needed, to reduce the potential for adverse effects, such as differential settlement, lateral spreading, subsidence, or collapse in the rare occasion that liquefaction does occur. Thus, impacts from geologic instability will be less than significant.

The Proposed Project area is subject to relatively strong seismic shaking due to earthquakes. However, as described previously, the Proposed Project components will be constructed to withstand strong ground movement and moderate ground deformation in accordance with SDG&E's project design features and by considering the results and recommendations from the geotechnical investigations. As a result, impacts from strong ground movements are anticipated to be less than significant.

Question 4.6d – Expansive Soils – *Less-than-Significant Impact*

Soils with expansion characteristics are present near the surface of the Proposed Project site. Based on the plasticity characteristics of the soils encountered (typically indicating silty sand, sandy lean clay, and sandy low plasticity silt) and the results of two expansion index tests performed as part of the current investigation (expansion index values of 31 and 51), the soils near the surface are considered to have a low to medium potential for expansion. As described in Chapter 3 – Project Description, on-site material will be reused to the extent possible, as recommended by a Geotechnical Engineer. Unsuitable (i.e., loose, porous, soft, or expansive) soils will be removed and replaced with imported fill that meets the requirements of SDG&E and the geotechnical engineer's recommendations. In addition, the results and recommendations from the Proposed Project-specific geotechnical investigations will be considered in the final engineering design to reduce risks associated with expansive soils. Thus, impacts related to expansive soils will be less than significant.

Question 4.6e – Septic Suitability – *No Impact*

Soil permeability is a consideration for projects that require septic system installation. Because the Proposed Project will not involve the installation of a septic tank or alternative wastewater disposal system, no impacts will occur.

4.6.4 Applicant-Proposed Measures

The Proposed Project will not result in any significant impacts related to geology and soils; therefore, no applicant-proposed measures are proposed.

4.6.5 References

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ATTACHMENT 4.6-A: PRELIMINARY GEOTECHNICAL AND GEOLOGIC HAZARDS INVESTIGATION

Prepared for

San Diego Gas & Electric Company
8316 Century Park Court, CP52G
San Diego, California 92123

PRELIMINARY GEOTECHNICAL AND GEOLOGIC HAZARDS INVESTIGATION VINE SUBSTATION

SAN DIEGO, CALIFORNIA

Prepared by

Geosyntec consultants

engineers | scientists | innovators

10875 Rancho Bernardo Road, Suite 200
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Project Number SC0368-30

December 2013

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11 December 2013

Mr. Edwin Reese
San Diego Gas & Electric Company
8316 Century Park Court, CP52G
San Diego, California 92123

Subject: Preliminary Geotechnical and Geologic Hazards Investigation
Vine Substation
San Diego, California
Geosyntec Project: SC0368-30

Dear Mr. Reese:

Geosyntec Consultants, Inc. (Geosyntec) is pleased to provide the San Diego Gas & Electric Company (SDG&E) with the accompanying report presenting the results of our preliminary geotechnical and geologic hazards investigation for the Vine Substation project. Our engineering services were performed in accordance with our proposal dated 6 May 2013, our Agreement No. 6160015028 with the SDG&E Civil/Structural Engineering Group, and Release Order 5660028999. This report presents our conclusions and recommendations pertaining to the project and the results of the field exploration program and laboratory testing.

In our opinion, the site is suitable to develop the proposed substation, provided that the recommendations of this report are incorporated into planning, preliminary design, detailed design, and construction. However, interaction will be required during design development between SDG&E and Geosyntec, particularly with respect to re-evaluation and refinement of remedial grading and deep foundation design recommendations. Design iteration and additional geotechnical investigation will be required to optimize the substation geotechnical design.

We appreciate the opportunity to provide geotechnical support to the project. If you need further assistance, please contact us at (858) 674-6559.

Sincerely,

Jennifer L. Nevius, G.E. 2825
Senior Project Engineer

Alexander J. Greene, C.E.G. 2249
Senior Project Geologist

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LIST OF ACRONYMS AND ABBREVIATIONS

ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
Benton	Benton Engineering, Inc.
bgs	below (existing) ground surface
BMPs	Best Management Practices
Cal OSHA	California Occupational Safety and Health Administration
Caltrans	State of California Department of Transportation
CBC	California Building Code
CGS	California Geological Survey
CIDH	Cast-In-Drilled-Hole
CPT	Cone Penetration Test
CUFAD	Compression/Uplift Foundation Analysis and Design
DCV	design capture volume
E_{pmt}	pressuremeter modulus
EPRI	Electric Power Research Institute
FEMA	Federal Emergency Management Agency
Geosyntec	Geosyntec Consultants, Inc.
IEEE	Institute of Electrical and Electronics Engineers
km	kilometer
ksi	kips per square inch
KTE	Kehoe Testing and Engineering, Inc.
kV	kilovolt
LID	low impact development
M	moment magnitude
M_L	Local magnitude
m	meter
MFAD	Moment Foundation Analysis and Design
MS4	municipal separate storm sewers
NAVD 88	North American Vertical Datum of 1988
NPDES	National Pollutant Discharge Elimination System
ohm-cm	ohm-centimeters
PCC	portland cement concrete
pcf	pounds per cubic foot
pci	pounds per cubic inch

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

PID	photoionization detector
ppm	parts per million
psf	pounds per square foot
PVC	poly-vinyl chloride
Qaf	artificial fill
Qc	colluvium
Qop6	old paralic deposits
R-value	Resistance value for pavement design
RCFZ	Rose Canyon fault zone
SBT	Soil Behavior Type
SDG&E	San Diego Gas & Electric Company
USCS	Unified Soil Classification System
USGS	United States Geological Survey

1. INTRODUCTION

This report presents the results of the preliminary geotechnical and geologic hazards investigation performed by Geosyntec Consultants, Inc. (Geosyntec) for the San Diego Gas & Electric Company (SDG&E) Vine Substation in San Diego, California. This report was prepared for SDG&E and their consultants for project planning and preliminary design by Ms. Jennifer Nevius, G.E. and Mr. Alexander Greene, C.E.G. of Geosyntec. Mr. Steve Fitzwilliam, G.E. of Geosyntec provided senior review.

1.1 Project Description

We understand that SDG&E is proposing to develop a new 69/12 kilovolt (kV) substation on the approximately 1.5-acre site south of Vine Street and west of Kettner Boulevard in San Diego, California (Figure 1 and Figure 2). Geosyntec's understanding of the project is based on discussions with Mr. Edwin Reese, Mr. Chris Bolton, and Mr. Craig Riker of SDG&E. The new substation is anticipated to be energized by December 2016.

A preliminary concept for the grading and arrangement for substation facilities and equipment are shown on Figure 3. Elements of the new substation are anticipated to include typical substation equipment such as switchgears, capacitor banks, firewalls, circuit breakers, transformers, switch gear, switch rack, bus supports, a control shelter, and screen walls. Foundation types for such equipment typically include shallow spread, strip, and mat foundations, or deep drilled pier foundations. Detailed design information is not currently available. Preliminary deep foundation design information for selected structures foundations, including diameters and estimated structural loads from SDG&E standard designs or similar projects are summarized in the following table.

Typical or Preliminary Foundation Design Parameter	Foundation Type		
	Switch Rack	12 kV Terminal Arrestor	Firewall
Diameter (feet)	4	2.5	3
Depth (feet)	14	8	10
Center to Center Spacing (feet)	30	8	8
Center to Center Spacing (diameters, D)	7.5D	3.2D	2.7D
Unfactored Downward Axial Load (kips)	43	0	NA
Unfactored Uplift Axial Load (kips)	1	0	NA
Factored Shear X-direction (kips)	18.6	2.5	NA
Factored Shear Y-direction (kips)	38.8	2.5	NA
Factored Moment X-direction (kips-ft)	406	35	NA
Factored Moment Y-direction (kips-ft)	170	35	NA

a. Notes:
b. Preliminary foundation information provided by SDG&E.
c. Axial loads shown are unfactored; our understanding is that SDG&E typically uses a load factor of 2.0.
d. Factored shear and moment values shown include a factor of 2.0.
e. NA = Not available at this time.

1.2 Purpose and Scope of Investigation

The purpose of this preliminary geotechnical and geologic hazards investigation was to explore the subsurface conditions and provide geologic information and geotechnical engineering recommendations for project planning, design, and construction. The scope of our investigation included a review of previous geotechnical investigations, site reconnaissance, field explorations including geotechnical borings and Cone Penetration Test (CPT) soundings, geotechnical laboratory testing, engineering and geologic analyses and evaluations, and development of the conclusions and recommendations presented herein.

1.3 Report Organization

This report presents our findings and conclusions, and provides geologic information and geotechnical recommendations for the civil and structural design and construction of the project. Specifically, the results of the investigation were used to develop conclusions and recommendations regarding:

- General subsurface conditions;
- Geologic setting;
- Geologic and seismic hazards;
- Earthwork;

- Seismic design considerations, including building code and substation equipment qualification level;
- Allowable vertical and lateral capacities of shallow foundations;
- Parameters for design of axially and laterally loaded drilled pier foundations;
- Estimated foundation settlements;
- Earth pressures for retaining walls;
- Utility trenches;
- Slabs-on-grade;
- Flexible pavements;
- Corrosion potential; and
- Construction considerations.

The previous investigations, geotechnical borings, CPT soundings, geotechnical laboratory testing, and seismic evaluations are provided in the appendices of this report.

2. GEOTECHNICAL INVESTIGATION

This preliminary geotechnical and geologic hazards investigation included a review of published regional geologic information, review of previous site geotechnical information, a site reconnaissance, geotechnical borings, CPT soundings, and geotechnical laboratory testing.

2.1 Review of Regional Information

To develop our understanding of the geologic setting and site history, Geosyntec reviewed the following publically-available documents:

- United States Geological Survey (USGS) Historic Site Aerial Photograph [USGS, 1972];
- Historic Site Aerial Photographs [GoogleEarth, 1994-2013];
- "Maps of Known Active Fault Near-Source Zones, California and Adjacent Portions of Nevada" [California Department of Conservation, Division of Mines and Geology 1998];
- "City of San Diego Seismic Safety Study" [City of San Diego Development Services Department, 2008];
- "Earthquake Fault Zones – Point Loma Quadrangle" [California Geological Survey, 2003]; and
- "Geologic Map of the San Diego 30'x60' Quadrangle, California" [Kennedy and Tan, 2005].

Detailed references for these documents are provided in Section 8 of this report.

2.2 Previous Geotechnical Investigations

The previous site development is not well documented in the referenced information available for review. Our knowledge of previous site conditions is based largely on conditions reported in the previous geotechnical investigations provided by SDG&E. Geosyntec reviewed two site geotechnical investigation reports prepared by Benton Engineering, Inc. (Benton) [1974 and 1977].

The Benton [1974] report documented a preliminary geotechnical investigation for the site that advanced two large-diameter (24- and 36-inch diameter) borings, designated Boring 1 and Boring 2, to depths of 15 feet and 25 feet, respectively, and performed geotechnical laboratory testing for compaction and consolidation characteristics. No groundwater was observed in these borings.

The Benton [1974] investigation concluded that site fill indicated insufficient compaction, and therefore removal and recompaction of fill was recommended for structural support. This report also documents that at the time of the investigation, a retaining wall bounded approximately the northeast portion of the site. Benton [1974] reported that a gas station previously occupied the northeast portion of the site, and the fuel reservoir had been removed. However, no records are referenced within that report, or are currently available to document environmental closure of the gas station, the reservoir removal, or the environmental soil conditions in this area. Figure 3 presents a historical aerial photograph of the site area from the USGS archive [USGS, 1972] which shows two structures in the northeast portion of the site, and landscaping along the retaining wall alignment reported by Benton [1974]; the approximate locations of these features are presented on Figure 2. The Benton [1974] report recommended additional borings for fill and environmental characterization.

The Benton [1977] report documented the results of a supplemental geotechnical investigation to evaluate the removal depths of unsuitable soils. Twelve test pits (designated Test Pit 3 to Test Pit 14) were excavated at the site to depths between 4 feet and 13 feet below the existing ground surface (bgs). The report concluded that loose fill and/or porous alluvium existed to a depth of 0.5 feet in the upper area behind the existing retaining wall and from 2.7 feet to 5.7 feet in the lower area of the site. These unsuitable soils were recommended to be removed and recompacted. The Benton [1977] report indicated that the unsuitable soils in the lower area of the site were to be removed and recompacted in one phase of work, and that in a later phase of work, the unsuitable soils behind the retaining wall would be removed and the retaining wall removed by cutting off the wall 2 feet below the proposed finish grade. No records are available to document that the recommended remedial earthwork was completed or to what extent the retaining wall was removed.

Copies of these Benton investigation reports are presented in Appendix A of this report. The locations of the previous borings, test pits, retaining wall, and site structures are shown on Figure 2 as best approximated from the respective Benton [1974 and 1977] reports and the referenced USGS photograph.

2.3 Pre-Investigation Activities

Prior to commencing our field investigation program, a site- and project-specific health and safety plan was prepared, and Geosyntec contacted Underground Service Alert to coordinate clearance of the proposed exploration locations with respect to below ground utilities. A Geosyntec geologist performed a visual site reconnaissance on 5 July 2013 to evaluate surficial site conditions and to mark out the boring locations for utility clearance.

Due to the proposed depth and the potential to encounter groundwater within the borings and CPT soundings, Geosyntec obtained the required geotechnical construction boring permits from the County of San Diego Department of Environmental Health.

2.4 Geotechnical Borings

The current field investigation included drilling five borings (designated Boring B-1 through Boring B-5), generally located in the four corners and the center of the site, to collect representative geotechnical data. The borings were advanced by Tri-County Drilling, Inc. of San Diego, California using a CME 75 truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers. The borings were advanced on 10 and 11 July 2013 to their target depths of approximately 41.5 feet or 51.5 feet bgs. These boring locations are shown on Figure 2, as located in the field by measured offsets from existing landmarks. A summary of the boring exploration information is presented in Table 1.

The borings were logged by a Geosyntec geologist, and the soil samples classified in accordance with the Unified Soil Classification System (USCS). A key to logs and the individual boring logs are presented in Appendix B of this report. Sampling information and other pertinent field data and observations are included on the boring logs. Due to the reported former presence of a gas station at the site, Geosyntec screened the soil samples in the field for potential indications of contamination (visual or olfactory) using a Photoionization Detector (PID). The PID did not measure volatile organic compounds or other soil vapors from the site soil samples; notations for the PID measurements are presented on the boring logs in Appendix B of this report.

Boring B-2 and Boring B-3 were left open for about one day during the field exploration program with a two-inch diameter slotted poly-vinyl chloride (PVC) pipe installed as a temporary piezometer for groundwater level observation purposes. On 11 July 2013, groundwater level measurements were recorded periodically, and the PVC pipe was subsequently removed prior to backfill of the borings.

After withdrawal of the augers, portions of the unsupported bore holes caved, generally near the observed groundwater level. The free-standing portions of the borings were backfilled with bentonite grout, and hydrated bentonite chips in some instances, and topped with quickset concrete to restore the pavement surface. Investigative derived waste (soil cuttings) from the borings were temporarily stored in a roll-off bin on site, and then transported for disposal at a municipal solid waste landfill.

2.5 Cone Penetration Test Soundings

CPTs are vertical soundings advanced through the soil with a truck-mounted rig providing thrust. Geosyntec engaged Kehoe Testing and Engineering, Inc. (KTE) of Huntington Beach, California to advance CPT soundings in alignments near the southern and northern property boundaries to support geologic and geotechnical site characterization.

The soundings were conducted using a 60-kilopound capacity cone with a tip area of 2.3 square inches. The CPT measures cone bearing, sleeve friction, and dynamic pore water pressure at 1-inch intervals during penetration to provide a nearly continuous geologic log. The CPT soundings were performed in accordance with American Society for Testing and Materials (ASTM) Standard Test Method D5778 [ASTM, 2012]. Measurements of CPT resistance were used to evaluate the variation of material types and engineering properties. Soil Behavior Type (SBT) and stratigraphic interpretation is based on relationships between cone bearing, sleeve friction, and pore water pressure. The friction ratio is a calculated parameter (defined as the ratio of the sleeve friction to cone bearing) and is used to infer SBT. The results of the CPT soundings and interpretive data provided by KTE are presented in Appendix C of this report.

Twenty-six CPT soundings (designated CPT C-1 through CPT C-22) were advanced between 30 July and 2 August 2013 to their target depths or CPT refusal. The CPT soundings were performed to depths ranging from approximately 43 to 100 feet bgs. CPT refusal was encountered in a few localized areas at depths less than 5 feet and between approximately 43 and 60 feet bgs. Where additional CPT sounding attempts were made, those explorations were designated with a sequential letter after the CPT identification numbers (i.e., C-12, C-12A, C-12B etc.). The locations of the CPT soundings are shown on Figure 2, as located in the field by measured offsets from existing landmarks. CPT soundings performed adjacent to geotechnical borings were compared to correlate and validate the SBT. A summary of the CPT exploration information is presented in Table 1.

Seismic shear wave velocity measurements were collected during CPTs C-1, C-8, C-10, C-15, C-16, and C-22 by measuring the travel time and distance between a geophone in the CPT cone and a seismic source (an air-actuated hammer located inside the front jack of the CPT rig) at the ground surface. The shear wave velocity measurements ranged from about 900 to 1,500 feet per second (ft/s) with an average of approximately 1,300 ft/s. A summary of the shear wave velocity measurements is presented in Appendix C of this report.

After withdrawal of the CPT rods, portions of the unsupported holes caved, generally near the groundwater level. The free-standing portions of the CPT holes were backfilled with bentonite grout, and pavements restored using asphaltic cold patch.

2.6 Geotechnical Laboratory Testing

The soil encountered in the borings was visually classified, and soil samples from the borings were tested by GForce of San Diego, California or their subcontractors to evaluate the physical and engineering properties of the material. The laboratory tests were performed in general accordance with ASTM [2012] or other standard test procedures. The geotechnical laboratory tests performed for this investigation are summarized below.

Geotechnical Laboratory Test	Test Designation
Moisture Content	ASTM D2216
Grain Size Analysis	ASTM D422 or D1140
Laboratory Compaction	ASTM D1557
Atterberg Limits	ASTM D4318
Expansion Index	ASTM D4829
Unit Weight	ASTM D2937
Specific Gravity of Soils	ASTM D854
Soil Corrosivity	ASTM D4972, CTM 417, CTM 422
R-value	CTM 301

A suite of tests for chloride and sulfate content, resistivity, and pH were performed on selected soil samples to evaluate their potential corrosivity. One R-value test was performed to evaluate subgrade resistance for pavement design. The laboratory tests and results are summarized at the corresponding sample locations on the boring logs in Appendix B of this report; detailed test results are presented in Appendix D of this report.

3. SITE CONDITIONS

Knowledge of the site conditions was developed from a review of regional geologic conditions, previous geotechnical investigations by others, and the current investigation.

3.1 Regional Geology

The San Diego area is locally underlain by a thick sequence (greater than 5 kilometers [km]) of Mesozoic volcanic flow rocks and volcaniclastic breccias, of which a large portion has undergone low-grade metamorphism. These late Jurassic to early Cretaceous-age rocks have been intruded by a basement of Cretaceous-age granitic rocks of the Peninsular Ranges Batholith. A series of sedimentary rocks from the Late Cretaceous, Eocene, and Oligocene periods overlie the basement and metamorphic rocks and are represented by the Rosario, La Jolla, and Poway Groups, respectively. The sedimentary deposits of the Rosario group unconformably rest upon the deeply weathered basement and rocks, followed by the La Jolla and Poway Group sediments which were deposited during several major marine transgressive-regressive cycles. The next major marine transgression did not occur until the Pliocene when the strata of the San Diego Formation were deposited. The San Diego coastal margin has undergone relatively steady uplift since the deposition of the San Diego Formation and continues today. A series of marine abrasion platforms have evolved during this time and are represented as terraces which contain Pleistocene-age paralic deposits locally [Kennedy and Tan, 2005].

The site lies within the coastal margin along the western flanks of the Peninsular Ranges of southern California. The general site area includes hilly, locally rugged terraced surfaces dissected by numerous drainages extending to the southwest. The site is at the northwest corner of San Diego Bay, which roughly defines a gently folded, fault-bounded, sedimentary basin referred to as the “San Diego Embayment”. A regional geologic map is presented on Figure 4.

3.2 Seismic Setting

The tectonic setting of the San Diego region is dominated by right-lateral, strike-slip faults with a general northwest by southeast trend. Faults of tectonic significance that have been mapped in the San Diego region and the historical earthquake epicenters in the region are presented on Figure 5. These regional faults include the Elsinore and San Jacinto faults to the east, the Coronado Bank and San Diego Trough faults in the offshore zone to the west, the San Miguel-Vallecitos and Aqua Blanca faults to the south, and the Rose Canyon fault zone (RCFZ) which extends through the general

vicinity of the site. These faults and their respective distances from the site and design maximum moment magnitudes are presented in Table 2.

The site is located within the RCFZ, which dominates the seismic exposure in San Diego [Lindvall and Rockwell, 1995]. The RCFZ is the southern extension of the Newport-Inglewood - Rose Canyon fault zone and is associated with the San Andreas fault system which forms the tectonic boundary between the North American and Pacific plates. Together with the Newport-Inglewood fault zone, the RCFZ is considered a continuous zone of five fault segments with a total length of approximately 175 km. Studies in San Diego indicate an estimated slip rate of 1.5 millimeters/year along the RCFZ [Rockwell et al., 1991].

The on-shore portion of the RCFZ extends along the northeast flank of Mount Soledad and continues southward along the eastern margins of Mission Bay. The RCFZ splays out to the south as a number of strands between Mission Bay and San Diego Bay. These strands are known as the Silver Strand, Coronado, and Spanish Bight faults, respectively [Treiman, 2002].

San Diego has experienced strong seismic shaking and minor damage from local and distant earthquakes, but none have been very destructive. A large earthquake in 1862 may have been centered locally [Anderson et al., 1989], and some researchers have suggested the 1862 event could have been in or near San Diego Bay. More recently, San Diego Bay has been the location of several "swarms" of repeated small to moderate magnitude earthquakes. In 1985, a series of earthquakes (largest event was Moment Magnitude [**M**] 4.7) was generally centered just south of the San Diego-Coronado Bridge [Reichle et al., 1985]. The maximum credible earthquake on the Rose Canyon Fault is **M**7.2. In comparison, the **M** of this historic earthquake and the maximum credible earthquake on the RCFZ would correspond to respective local magnitudes (M_L) of approximately 4.7 and between 6.7 to 7.0 on the obsolete Richter Scale.

3.3 Surface Conditions

The site is currently occupied by an asphalt-paved commercial parking lot. The site is bounded respectively to the north, east, south, and west by Vine Street, Kettner Boulevard, the closed portion of Upas Street, and trolley and rail right-of-way to the west. Aerial imagery and topographic information referencing the North American Vertical Datum of 1988 (NAVD 88) is presented on Figure 2 [Project Design Consultants, 2013].

The site has been previously graded and is gently sloping to the southwest. Elevations in the general site area range from approximately +44 feet NAVD 88 near the eastern site boundary along Kettner Boulevard to an elevation of approximately +35 feet to +36 feet NAVD 88 near the western site boundary. From the parking area, a 3-foot to 4-foot high slope ascends to Kettner Boulevard, and an approximately 4-foot high slope descends to the San Diego Metropolitan Transit System right-of-way.

As seen on Figure 2, the low-height slopes are vegetated with a few trees and moderate height brush. A concrete-lined drainage ditch is present at the toe of the descending slope on the west side of the site.

3.4 Subsurface Conditions

The site subsurface conditions were observed and documented in the previous Benton borings and test pit explorations and the recent geotechnical borings and CPT soundings. These explorations indicate that undocumented fill typically overlies colluvial deposits and old paralic deposits (previously referred to as the Bay Point Formation) across the site area. Generalized geologic cross sections are presented on Figure 6 through Figure 9; the locations of these cross sections, previous explorations, and current explorations are presented on Figure 2. Additionally, detailed logs of these explorations are presented in Appendix A (previous investigations), Appendix B (geotechnical borings), and Appendix C (CPT soundings) of this report.

3.4.1 Undocumented Fill

Fill was reported by Benton [1974 and 1977] and observed in the borings and inferred from the CPT soundings performed for this investigation to a depth of approximately 0 to 5 feet bgs in a majority of the subsurface explorations. Benton Boring 2 and Test Pit 14, and Geosyntec Boring B-5 were the deepest reported or observed fill depths at 12.25 feet, 10.5 feet, and 7 feet bgs, respectively. These explorations are approximately located in the central portion of the site, in the area of previous site development. These deeper fill depths may be associated with underground storage tank installation or removal activities.

Records for fill placement and compaction are not available for review; therefore, the fill is considered undocumented fill. The Benton [1977] report indicates that removal and recompaction was planned, but confirming documentation is not available. The fill observed in the Geosyntec borings and reported by Benton consists primarily of silty fine sand to fine sandy silt. Localized gravels were observed in the fill in Geosyntec Boring B-2, Boring B-4, and Boring B-5. Metal debris was observed in the fill at a

depth of approximately 6 feet in Boring B-5, and concrete debris was observed in shallow refusal attempts near CPT C-18C and reported in Benton Test Pit 14.

3.4.2 Colluvium

The native soil immediately below the fill is described as alluvium by Benton [1974 and 1977]; Geosyntec describes these same materials as colluvium. Alluvium refers to materials deposited by flowing streams, whereas colluvium refers to material that accumulates at the foot of a slope, such as the ascending slope to the east of the site, east of Kettner Boulevard. These Quaternary-age materials were not encountered in Boring B-3, but were encountered during the current investigation below the fill to a depth of approximately 3.5 to 11.5 feet bgs in other areas of the site. The consistency of the colluvium was variable in nature and the descriptions range from silty fine sand to silt and silty clay that is slightly porous to very porous.

3.4.3 Old Paralic Deposits

The Bay Point Formation is widespread and well exposed in the area adjacent to the present-day coastline [Kennedy, 1975]. Subsequent geologic mapping efforts have subdivided the Bay Point Formation into a series of paralic and older paralic deposits [Kennedy and Tan, 2005]. These deposits are composed mostly of marine and nonmarine, poorly consolidated, fine- and medium-grained, pale brown, fossiliferous sandstone. These old paralic deposits are considered to be nonmarine slope wash.

Recent geologic mapping (shown on Figure 4) describes the site area as underlain by "Old Paralic Deposits, Unit 6" (Qop_6) of middle to early Pleistocene age [Kennedy and Tan, 2005]. These old paralic deposits (late to middle Pleistocene) rest on the 22-23 meter (m) Nestor terrace; and primarily consist of poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone and conglomerate.

3.5 Groundwater

Groundwater was not encountered within the previous Benton explorations performed at the site to depths up to 25 feet bgs. However, groundwater was inferred at the time of drilling of the geotechnical borings performed for this investigation between depths of 24 feet and 25 feet bgs based on measured groundwater level. Groundwater level was also inferred based on other conditions such as soil sample saturation or borehole caving upon auger or CPT rod withdrawal. The observed groundwater levels mimic the site grades and geologic layering, sloping to the southwest. The groundwater was measured at elevations between +11 feet NAVD 88 and +19 feet NAVD 88.

Temporary piezometers were installed in Boring B-2 and Boring B-3, consisting of a 2-inch diameter slotted PVC pipe, installed after drilling and prior to auger withdrawal, to monitor the groundwater level. The groundwater level measured in these temporary piezometers was recorded between approximately 24 feet and 25 feet bgs and is considered to represent relatively stabilized levels, inasmuch as standing water levels were monitored up to about 6 to 18 hours after drilling. However, the subsurface materials at the site generally exhibited a relatively high percentage of silt and clay-sized materials, which reduce permeability. It is possible that the observed groundwater levels in the temporary piezometers may not represent fully stabilized groundwater conditions due to the time rate of travel of groundwater through these materials.

In addition, the field investigation was performed during a season characterized with relatively little rainfall. Seasonal rainfall can influence the position of the groundwater level, with wetter seasons increasing the elevation of groundwater.

Groundwater samples were not collected during this investigation, in accordance with the SDG&E environmental release for the project, because visual or olfactory indications of contamination were not observed in site soil.

3.6 Stratigraphic Correlations

3.6.1 Geologic Cross Section A-A'

Geologic Cross Section A-A' (Figure 6) was created adjacent to the northern site boundary from the southwest to the northeast and includes two borings, one test pit, and eight CPT soundings. Section A-A' suggests that the fill and colluvium within this portion of the site are of relatively uniform thickness and extend to depths of approximately 4 and 9 feet bgs, respectively. Within the underlying old paralic deposits, six stratigraphic packages of alternating silty sands and silts to clays were observed within the limits of our subsurface explorations at respective basal contact elevations between elevation +9 and -30 to -35 feet, NAVD 88. These stratigraphic units exhibit relatively uniform thickness, and range in dip direction from slight westerly in the upper portion of the unit to easterly with increasing depth.

3.6.2 Geologic Cross Section B-B'

Geologic Cross Section B-B' (Figure 7) was created adjacent to the southern site boundary from the southwest to the northeast and includes two borings, three test pits, and 17 CPT soundings. Section B-B' indicates that the fill pinches out in the vicinity of CPT C-13A near the northeastern site boundary; the fill basal contact increases with depth uniformly to the southwest to a maximum thickness of 3 to 4 feet bgs near the southwestern site boundary. The underlying colluvium appears to outcrop immediately

beneath the asphalt surface northeast of CPT C-13A. Similar to the overlying fill, the basal contact of the colluvium increases with depth uniformly to the southwest to a maximum thickness of 10 to 11 feet bgs. Within the underlying old paralic deposits, seven stratigraphic packages of alternating silty sands, sands, and silts to clays were identified within the limits of our subsurface explorations. These stratigraphic units exhibit a gentle westerly dip, and the basal contacts undulate locally resulting in variable unit thicknesses from northeast to southwest.

3.6.3 Geologic Cross Section C-C'

Geologic Cross Section C-C' (Figure 8) was located diagonally across the site from the northwest to the southeast and includes four borings, five test pits, and two CPT soundings. Section C-C' indicates that the thickness of the fill across the site from northwest to southeast is variable, ranging in depth from approximately 3 to 12 feet bgs. The deepest fill appears to be located in the vicinity of the Benton Boring 2. It is possible that the area of the deepest fill was associated with a previous underground storage tank installation or removal; the excavation appears to extend to the underlying old paralic deposits. The colluvial deposits underlie the fill across the majority of Section C-C' except in the vicinity of the deeper fill noted above and within the southeastern portion of the site where it pinches out and fill was observed to overlie the old paralic deposits directly. The basal contact of the colluvium exhibits a uniform westerly dip and ranges in elevation from +38 to +26 feet, NAVD 88, from southeast to northwest, respectively. Old paralic deposits were encountered beneath the colluvium to the maximum extent of the subsurface explorations performed for this investigation. Stratigraphic packages were not interpreted along Section C-C' within the old paralic deposits due to the widely spaced subsurface explorations.

3.6.4 Geologic Cross Section D-D'

Geologic Cross Section D-D' (Figure 9) was located diagonally across the site from south to north, and includes 4 borings, one test pit, and one CPT sounding. Section D-D' indicates that the thickness of the fill is variable from south to north, ranging in depth from approximately 3 to 12 feet bgs. Similar to Section C-C', the deepest fill was observed in the vicinity of Benton Boring 2. The basal contact of the underlying colluvium exhibits a uniform southerly dip, ranging in elevation from +38 to +26 feet NAVD 88, respectively from north to south. The colluvium also maintains a relatively consistent thickness across the site except in the vicinity of the noted deeper fill where it appears to have been removed. Old paralic deposits are encountered beneath the colluvium to the maximum extent of the subsurface explorations performed for this investigation. Stratigraphic packages were not interpreted along Section D-D' within the old paralic deposits due to the widely spaced subsurface explorations.

4. GEOLOGIC HAZARDS

The conclusions and discussions below are based on the current field explorations, previous investigations by others, and geologic interpretation of the site-specific subsurface information.

4.1 Potential Site Faulting

The potential for fault surface rupture is generally considered to be significant along "active" faults (defined as exhibiting surface rupture within the past 11,000 years) and to a lesser degree along "potentially active" faults (surface rupture within the past 1.6 million years).

4.1.1 Desktop Faulting Evaluation

Prior to the field investigation, the position of the site relative to mapped fault traces was evaluated. A review of published geologic maps did not identify the presence of any active or potentially active faults crossing the project site. Further, the site is not located within a delineated earthquake fault rupture hazard zone as defined by the California Geological Survey (CGS), formerly known as the California Division of Mines and Geology [Hart and Bryant, 1997]. In addition, the site is not situated in the "Downtown Special Fault Zone," designated by the City of San Diego Seismic Safety Study [City of San Diego, 2008] and is instead delineated as Geologic Hazard Category 53 (level or sloping terrain, unfavorable geologic structure, low to moderate risk). However, mapped segments of the RCFZ are located to the northeast and west of the site at distances of approximately 650 and 3,600 feet, respectively, and the site is mapped within the RCFZ [USGS and CGS, 2010].

4.1.2 Field Faulting Evaluation

The approach for the field data collection portion of the preliminary fault investigation was to advance explorations in two alignments roughly perpendicular to the direction of mapped faulting along the southern and northern property boundaries and to evaluate the continuity of the subsurface stratigraphy.

Local faults in San Diego are known to exhibit vertical offset (vertical separation), possibly as a result of significant lateral movement. Within an exploratory trench, a discrete planar surface (i.e., a fault plane) can often be directly observed separating dissimilar geologic units. Older geologic units at depth should also exhibit increasing amounts of vertical offset, as the deeper units have accumulated greater relative movement as a result of repeated fault movement over geologic time. Borings and/or CPT soundings on opposite sides of a fault would be expected to penetrate dissimilar

stratigraphy, which would be indicated by strata of varying composition and thickness. Laterally continuous subsurface layers in borings and/or CPT soundings would suggest significant faulting does not pass between the explorations.

The CPT soundings advanced for this project were located at a close spacing (typically less than 10 feet) to reduce the uncertainty of correlating layers from adjacent explorations. If present, multiple laterally continuous layers at increasing depths below the site would increase the confidence that faulting does not exist at the site.

4.1.3 Faulting Evaluation Conclusions

The borings and CPT soundings advanced for this investigation penetrate several stratigraphic units and packages that can be correlated in the subsurface to depths in excess of 80 feet bgs. These units appear to reflect an overall slight west to southwesterly dip component which is common given the geologic setting of much of the western San Diego area. The stratigraphic contacts, which mark the boundary from one material type to another, are generally laterally continuous, although depth variations and thicknesses change across the site were observed in some of the stratigraphic packages; however, this is typical for near shore marine deposits.

The site appears to be underlain by a repetitive sequence of westerly dipping units within the older paralic deposits that are unlikely to have been offset by a fault. It is anticipated that repeated fault movement would induce vertical stratigraphic separations. Geologic cross sections designated Section A-A' and Section B-B' (Figures 6 and 7) were oriented to intercept the anticipated northwest-southeast and northeast-southwest trend of potential faults within the site vicinity. If present, a through-going fault would be expected to exhibit anomalous offsets of the underlying stratigraphic units on one or both of the cross sections. Such subsurface anomalies were not observed and fault related offsets are not indicated within the overlapping site area covered by the two sections. Areas where unit depth and/or thickness variations are indicated over short lateral distances are more difficult to interpret, but are likely to be a result of depositional features such as scoured channels which are typical given the depositional environment of the underlying deposits rather than faulting. Given the absence of mapped active or potentially active faulting projecting through the site, and the evaluation of the site subsurface stratigraphy, it is our opinion that the potential for fault-related surface rupture at the site is low.

4.2 Strong Ground Shaking

The project site is situated within a seismically-active region and will likely experience moderate to severe ground shaking in response to a large magnitude earthquake

occurring on a local or more distant active fault during the expected lifespan of the substation. As a result, seismically-induced ground shaking in response to an earthquake occurring on a nearby active fault, such as the RCFZ, or a regional fault, such as the Elsinore fault zone, is considered to be the major geologic hazard affecting the project. Site-specific seismic design recommendations are presented in Section 5.

4.3 Liquefaction Potential

Seismically-induced liquefaction is a phenomenon in which saturated soils lose a significant portion of their strength and acquire some mobility from seismic shaking or other large cyclic loading. The material types considered most susceptible to liquefaction are granular and low-plasticity fine grained soils which are saturated and loose to medium dense. A rapid increase in groundwater pressures (excess pore water pressures) causes the loss of soil strength.

Manifestations of soil liquefaction can include sand boils, surface settlements and tilting in level ground, lateral spreading, and global instability (flow slides) in areas of sloping ground. The impact of liquefaction on structures can include loss of bearing capacity, drag loads on deep foundations, liquefaction-induced total and differential settlement, and increased lateral and uplift pressures on buried structures.

A summary of the liquefaction potential evaluation methodology, evaluation results, and potential impacts to the project are presented in the following subsections; detailed information regarding the liquefaction evaluation is presented in Appendix E of this report.

4.3.1 Evaluation Methodology

The potential for soil liquefaction can be evaluated based on in-situ measurements of the soil resistance, including Standard Penetration Test (SPT) blow counts in borings, CPT data, and shear wave velocity data. Each form of soil resistance measurement has advantages and disadvantages for the evaluation of liquefaction potential. For the current study, a detailed evaluation of soil liquefaction potential was performed using the CPT data, considering the nearly continuous subsurface characterization and the potential to identify thin layers that would be undetectable with the spatial resolution of the SPT data and shear wave velocity measurements, and in general, the larger number of CPT soundings. Liquefaction potential was evaluated using the Youd et al. [2001] methodology as implemented in the computer program CLiq [GeoLogismiki, 2013].

The procedure for evaluating liquefaction potential was empirical and is based on data and observations at sites that have and have not liquefied during an earthquake. The

capacity of the soil to resist liquefaction is expressed as the cyclic resistance ratio. The seismic demand is a function of the anticipated peak ground acceleration (PGA) at the site generated by the design earthquake and is termed the cyclic stress ratio.

Details of seismic evaluations, including development of PGA and design earthquake magnitude, and liquefaction potential evaluation, are provided in Appendix E of this report. The values of PGA (expressed as units of gravity [g]) and earthquake magnitude used in the liquefaction evaluation were 0.60g and **M**6.6, respectively. The evaluation also utilized the design high groundwater level of 20 feet bgs.

Materials were considered potentially liquefiable if the factor of safety against liquefaction, calculated as the cyclic resistance ratio divided by the cyclic stress ratio, was less than 1.0. Estimates of the liquefaction-induced settlements were calculated using the Zhang et al. [2002] methodology implemented in the computer program CLiq [GeoLogismiki, 2013].

4.3.2 Evaluation Results

The results of the liquefaction analyses indicate that relatively thin and non-continuous lenses of the old paralic deposits have the potential for liquefaction. These layers generally occur within an approximately 40-foot range between the design high groundwater level (20 feet bgs) and -20 feet NAVD 88 (about 60 feet bgs). These analyses also indicate that the liquefaction-induced settlements could range from a fraction of an inch to more than 2.3 inches, with an average value less than 1 inch.

Other factors such as soil mineralogy, void ratio, overconsolidation ratio, and age are contributing factors to liquefaction susceptibility. In general, the older or denser a deposit, the less susceptible it is to liquefaction. Saturated cohesionless sediments within marine terraces of Pleistocene age are reported to have a low likelihood of being susceptible to liquefaction [Idriss and Boulanger, 2008]. In addition, the shear wave velocity measurements from this site, by inspection, suggest a low likelihood of liquefaction. These general conclusions support the results of the more detailed evaluation described above.

4.3.3 Liquefaction Impacts

Liquefaction potential will impact the site design, and may impact the site after development. Liquefaction would most likely be manifested at this site as local ground subsidence, settlement, and localized reduction in shear strength at depth.

The potential for lateral spreading at the site is considered to be low as (i) potentially liquefiable soil lenses do not appear to be continuous across the site; (ii) the site is relatively level; (iii) the potentially liquefiable lenses are located at depth; and (iv) a free face and/or steep slopes are not present in the immediate site vicinity.

Ground improvement to remediate the potentially liquefiable lenses is not considered economically feasible due to the thin and non-continuous lenses of material identified as potentially liquefiable. The magnitude of liquefaction-induced settlement is anticipated to be relatively small (on the order of 1.5 inch); however, it should be recognized that total and differential settlements may cause damage to surface improvements and subsurface utilities under seismic conditions. Foundation design recommendations incorporating the potential impacts of liquefaction are presented in Sections 5.7 and 5.8 of this report.

4.4 Expansive Soil

Soils with some expansion potential are present in the near surface of the site. Based on the plasticity characteristics of the soils encountered (typically indicating silty sand, sandy lean clay, and sandy low plasticity silt) and the results of two expansion index tests performed as part of the current investigation (expansion index values of 31 and 51), the near surface soils are considered to have a low to medium potential for expansion.

4.5 Flooding

The Federal Emergency Management Agency (FEMA) presents the flood hazard potential in the vicinity of the site as part of their Flood Insurance Rate Maps. FEMA Map No. 06073C1885G, dated 16 May 2012 [FEMA, 2012], indicates that the subject area is located in an un-shaded Zone X which is defined as “areas determined to be outside the 0.2% annual change flood plain”. Additionally, due to a lack of any reservoirs up gradient from the site, flooding as a result of dam failure is not considered to be a viable hazard. Based on our review of the FEMA mapping, the geologic setting, and the site elevation, the potential for flooding at the site is very low.

4.6 Hydroconsolidation

Hydroconsolidation is the collapse and compaction of silty to sandy soil having a low bulk density that has been saturated for sustained periods and the water is subsequently removed. Given the location and subsurface conditions observed at the site, when combined with the engineering recommendation provided for site earthwork activities (Section 5.3), the potential for hydroconsolidation is considered to be very low.

4.7 Other Geologic Hazards

Other potential geologic hazards evaluated which could possibly affect the site include slope instability, floods, seiches, and tsunamis. The site is relatively flat, and new slopes, if proposed at the site, will be engineered slopes designed at stable inclinations. Therefore, slope instability is not considered a hazard. Tsunamis are seismically-induced waves generated by sudden movements of the ocean bottom during submarine earthquakes, landslides or volcanic activity. Seiches are similarly generated but are oscillating waves within bodies of water such as reservoirs, lakes or bays. The site is not located within the County of San Diego [County of San Diego Office of Emergency Services, 2009] mapped tsunami run-up zone. Similarly, potential seiche inundation would not likely exceed the extent of tsunami run up. Based on the physiographic setting of this site, the distance to the ocean or other large water bodies, and the elevation of the site, it is our opinion that the potential for flooding from seismically-induced seiches and tsunamis is very low.

5. CONCLUSIONS AND RECOMMENDATIONS

The conclusions and preliminary design recommendations presented herein for the design of the proposed Vine Substation are based on our current understanding of the proposed project, previous investigations by others, and results of our field investigation, laboratory testing, engineering and geologic analyses, and professional judgment.

5.1 Design Development

In our opinion, the site is suitable for the construction of the project, provided the recommendations of this report are incorporated into planning, preliminary design, detailed design, and construction. However, interaction will be required during design development between SDG&E and Geosyntec, particularly with respect to re-evaluation and refinement of remedial grading and foundation design recommendations to optimize the substation design. Information regarding foundation type, layout, preliminary size, and settlement tolerances can be used to more specifically evaluate soil resistance and settlement potential.

5.2 Design Groundwater Level

The project design should incorporate provisions to account for the effect of groundwater. Based on the groundwater levels observed at the time of drilling in the geotechnical borings (24 to 25 feet bgs), and considering the potential for groundwater rise due to seasonal variation or nearby irrigation, a high groundwater level corresponding to a depth of 20 feet bgs is recommended for design.

5.3 Earthwork

Site earthwork will generally consist of demolition of existing site features and pavement, removal of unsuitable (loose, porous, soft, or expansive) soils, site grading and fill placement to construct a relatively level substation pad, foundation excavations, and backfill of utility trenches. Engineered fill is defined as fill meeting the material, placement, and compaction recommendations presented in this report. Earthwork should be performed in accordance with SDG&E requirements, the recommendations of this report, the Standard Specifications for Public Works Construction "Greenbook," and California Occupational Safety and Health Administration (Cal OSHA) safety requirements. A preconstruction conference should be held at the site with SDG&E, the contractor, civil engineer, and geotechnical engineer in attendance. Existing structures identified by SDG&E to remain should be protected in place during earthwork construction.

5.3.1 Site Clearing and Demolition

General debris, construction debris, and vegetative matter in the project area should be cleared and properly disposed of off-site. Existing infrastructure within areas to be improved should be properly demolished and disposed of off-site. Existing utilities should be properly terminated and the portion within the proposed development area removed completely.

A portion of the site was previously developed, reportedly as a gas station. The Benton [1974 and 1977] reports reference a retaining wall (planned to be cut off below grade) and the removal of an underground storage tank at the site. Based on the referenced information, the potential to encounter buried infrastructure such as foundations for walls or buildings, piping, tanks, etc. associated with the previous site development during construction of the proposed site improvements is considered high.

5.3.2 Remedial Grading and Site Preparation

Based on the previous and current borings, the site is underlain by undocumented fill and colluvium to depths up to approximately 3.5 to 9 feet typically, and locally in the central and north-central portion of the site (as reported in Benton Boring 2 and Test Pit 14) up to a depth of approximately 12.5 feet. These materials are conventionally considered unsuitable soils and removed and recompacted to provide uniform support of new fill and structures.

However, the recommended depth of overexcavation and recompaction should be based on anticipated geologic conditions and the proposed development in an area. Given the depths of undocumented fill and colluvium observed and reported in field explorations, it may be impractical to perform full depth remedial grading at this site. Since many of the proposed site structures will be supported on mat foundations, on deep foundations, could tolerate estimated settlements, less than full depth remedial grading should be acceptable.

For preliminary planning and design purposes, we recommend that a minimum of five feet of the undocumented fill and colluvium below existing or finish grade, whichever is lower, be overexcavated and recompacted (if suitable fill material) prior to substation development. Foundation design parameters and estimated settlements provided in subsequent sections of this report incorporate this remedial grading recommendation. The depth of remedial grading should be based upon SDG&E's knowledge of the design criteria, foundation type, and settlement tolerances for the proposed structures and equipment. These recommendations for remedial grading should be reevaluated as part of design development.

In addition, areas to be overexcavated and recompacted should extend a minimum of five feet beyond the footprint of the foundations in each direction. If variable depths of remedial grading are planned, areas of deeper remedial grading should transition to areas of shallower remedial grading to reduce the potential contrast in stiffness between materials. Specific guidelines for such transitions should be determined in the field during grading operations by a representative of the geotechnical engineer.

Due to the geologic conditions and the location of the site within the RCFZ, geologic mapping within the grading limits should also be performed during site earthwork operations to document subsurface conditions. Geologic mapping includes observation and documentation of exposed geologic strata (and potential shears or faults, if encountered) prior to recompaction (fill placement) under the supervision of a certified engineering geologist.

Based on historic site information, a retaining wall reportedly occupied the northeast corner of the site adjacent to the gas station and was planned to be removed by cutting off the wall a few feet below grade. It is likely that concrete debris or foundation remnants from the retaining wall or other structures may be present in the fill at the site. If foundations or other concrete debris greater than 6 inches in maximum dimension is encountered, they should be removed and properly disposed off site. Depending on the depth encountered, removal of such foundations may require localized remedial grading deeper than 5 feet bgs to restore areas disturbed by foundation removal.

Loose or soft soil, or soil disturbed by demolition activities within the proposed grading area, as identified by the geotechnical consultant during grading and foundation excavation, should be excavated or scarified as required, moisture conditioned, and then recompacted before placing additional fill or preparing subgrade. Soil containing organic or other deleterious matter, if encountered, should be removed from the site and properly disposed. Areas to receive new fill, including areas of overexcavation and recompaction, should be proof rolled and moisture conditioned prior to compacting new fill.

5.3.3 Fill Materials

Based on limited observation and laboratory testing performed for this investigation, the on-site fill and formational materials should meet the engineering properties for Common Fill; these materials may not meet the expansion index criteria for Select Fill. The colluvium demonstrated high plasticity characteristics and is not anticipated to meet the requirements for select fill or common fill; however, additional fill suitability confirmation testing should be performed during subsequent geotechnical investigation

during design development or during construction. Biodegradable, organic, or other compressible material should not be used for Common Fill or Select Fill. The following material types are applicable to the project:

Common Fill should consist of native or import soil and be granular soil (less than 50% passing the No. 200 sieve) that has a plasticity index less than 40 and does not contain quantities of oversize material that could make compaction difficult. Rocks or hard lumps less than 6 inches in maximum dimension may be used, provided the distribution of rocks or hard lumps is satisfactory to the geotechnical consultant.

Select Fill should consist of granular native or import soil that contains at least 40 percent of material, by dry weight, less than ¼ inch in size. Select fill should not contain rocks or hard lumps greater than 3 inches in maximum dimension. In addition, select fill should have an expansion index less than 30, a liquid limit less than 30, and a plasticity index less than or equal to 15.

Class 2 Aggregate Base should conform to the State of California, Department of Transportation (Caltrans) "Standard Specifications" Section 26-1.02B.

We recommend that if import soil is needed to achieve the design site grades, the import soil should be non-expansive in accordance with California Building Code (CBC) Section 1803A.5.3. These soils generally correlate to materials with an expansion index of 20 or less and which have a plasticity index of 15 or less.

5.3.4 Fill Placement and Compaction

Fill should be moisture conditioned and compacted between 0 and 3 percent above the optimum moisture contents in layers that do not exceed 8-inch loose lifts for heavy equipment compaction and 4-inch loose lifts for hand-held equipment compaction. Each lift of fill should be compacted to a minimum 90 percent relative compaction unless otherwise specified. Relative compaction is defined as the ratio (in percent) of the in-place dry density to the maximum dry density determined using the latest version of ASTM D1557 as the compaction standard. Fill placed should demonstrate a moisture content within 3 percent of optimum moisture content, also determined with ASTM D1557. Class 2 aggregate base should be compacted to a minimum relative compaction of 95 percent.

SDG&E typical substation requirements include a 3-foot thick substation pad. This pad structural section consists of a 12-inch thick section of select fill compacted to a minimum relative compaction of 90 percent, overlain by a 12-inch thick section of select fill compacted to a minimum relative compaction of 95 percent, overlain by a

12-inch thick section of Class 2 aggregate base compacted to a minimum relative compaction of 95 percent.

5.3.5 Subdrains

Due to the proposed development grades and existing site topography, subdrains are not anticipated as part of the project.

5.3.6 Bulking and Shrinkage

The fill and colluvium may shrink in volume, and the old paralic deposits may bulk in volume when excavated and recompacted in accordance with the recommendations presented in this report. We anticipate that the range of material shrinkage and bulking is on the order of 5 to 10 percent.

5.4 Surface Drainage

Surface drainage should be planned to prevent ponding and promote the drainage of surface water away from structure foundations, slabs, edges of pavements and sidewalks, and towards suitable collection and discharge facilities. Paved and aggregate-surfaced areas should be sloped to drain water away from structures and pavements at a minimum gradient of 1 percent, and unpaved areas should be finish graded with a minimum slope of 2 percent away from structures and pavements. Stormwater collected by roof drainage systems should be discharged at suitable locations away from the structures to reduce the possibility of saturation of foundation soil. Even when these measures are taken, experience has shown that a shallow groundwater or surface-water condition can develop in areas where no such water condition existed before site development.

5.5 CBC Seismic Design Parameters

Seismic design parameters were developed in accordance with the 2010 and the 2013 California Building Code (CBC). The approximate geometric center of the site (latitude and longitude of 32.739 degrees and -117.179 degrees, respectively) was used to evaluate the minimum seismic design parameters presented in Tables 3a and 3b. The structural designer may utilize more conservative values at their discretion.

5.6 Seismic Qualification Level

Based on the Institute of Electrical and Electronics Engineers (IEEE) Standard 693 [IEEE, 2005], "IEEE Recommended Practice for Seismic Design of Substations," we recommend the design of substation equipment use a seismic qualification level of "high". A calculation evaluating the seismic qualification level is presented in Table 4.

5.7 Shallow Foundations

Substation features including control shelters, transformers, and screen walls may be founded on shallow foundations bearing on engineered fill. Shallow foundations may include spread footings, continuous perimeter footings, and mat foundations.

5.7.1 Footing Dimensions and Embedment

The minimum recommended shallow foundation embedment depth is 18 inches below finished grade for spread or continuous foundations or 12 inches below finished grade for larger mat foundations. The minimum recommended shallow foundation width is 18 inches. The structural designer should determine the footing embedment, size, and reinforcement based on anticipated loads and estimated settlements. Adjacent footings founded at different elevations should be located such that the slope from bearing level to bearing level is flatter than 1:1 (horizontal:vertical).

Structures and equipment foundations should not bear on different soil strata (i.e., engineered fill and old paralic deposits). If differing bearing conditions are encountered, the soil should be excavated and recompacted to a depth of at least 3 feet below the bottom of the structure foundation within the perimeter of the structure and at least 5 feet horizontally beyond the structure perimeter.

5.7.2 Allowable Foundation Pressure

Shallow foundations consisting of spread footings, continuous footings, or mat foundations bearing on engineered fill may be designed for an allowable bearing pressure of 2,000 pounds per square foot (psf). The allowable bearing pressure may be increased by 1,000 psf for each additional foot of depth and 500 psf for each additional foot of width beyond the minimum specified foundation dimensions, up to a maximum bearing pressure of 4,000 psf. Allowable bearing pressures may be increased by one-third for short-term wind and seismic loading.

5.7.3 Allowable Lateral Bearing

Resistance to lateral loads on shallow foundations may be provided by passive resistance along the outside face of footings and frictional resistance along the bottom of footings. The allowable passive resistance may be taken as equivalent to a fluid weighing 250 pounds per cubic foot (pcf) for footings poured neat against engineered fill.

An allowable friction coefficient of 0.35 may be used with the dead load to compute the frictional resistance of footings. If frictional and passive resistances are combined, the allowable friction coefficient should be reduced to 0.25.

The upper 12 inches of soil should be neglected in passive pressure calculations in areas where there will be no hardscape that extends from the outside edge of the footing to a horizontal distance equal to three times the footing depth. The resistance from passive pressure should also be neglected where utilities or similar excavations may occur in the future.

5.7.4 Settlement

The settlement of a shallow foundation for a given allowable bearing pressure depends on the size, shape, and embedment depth of the foundation, the relative compaction and stiffness of the engineered fill, and the saturation and density of the soil materials below.

Total settlement from structural loads (excluding seismically-induced settlement) based on the remedial grading recommendations and maximum recommended allowable bearing pressures are summarized below. Differential settlements between adjacent footings are expected to be approximately half the estimated total settlements. The majority of settlement due to structural loads should occur during or shortly after construction.

Shallow Foundation Condition	Estimated Total Settlement (inches)
Continuous foundations less than three feet in width up to a maximum bearing pressure of 4,000 psf	1
Isolated spread or mat foundations less than 25 feet in width up to a maximum bearing pressure of 3,000 psf	1
Isolated spread or mat foundations less than 25 feet in width up to a maximum bearing pressure of 4,000 psf	1.5

Shallow foundations may also be subject to potential liquefaction-induced settlement on the order of 0 to 2.3 inches, with an average of less than 1 inch at the exploration locations evaluated as summarized in Section 4.3.2 and detailed in Appendix E of this report.

5.7.5 Modulus of Subgrade Reaction

Deflections of mat foundations may also be estimated using the subgrade reaction (beam on elastic foundation) method of analysis. We recommend a modulus of subgrade reaction of 200 pounds per cubic inch (pci) for engineered fill.

5.8 Deep Foundations

5.8.1 General

We anticipate that Cast-In-Drilled-Hole (CIDH) deep foundations, also referred to as drilled piers, will be used to support structures such as racks, firewalls, terminal arrestors, and/or other structures with high lateral loads. Preliminary structural foundation design information (Section 1.1) was provided by SDG&E to support development of the preliminary geotechnical foundation design recommendations presented in this section and in Appendix F. We understand that the final foundation sizes, both diameter and depth, will be determined by SDG&E, and will depend on the foundation recommendations provided in this report, the design loads, and construction considerations. We recommend that deep foundations bear within the Old Paralic Deposits. Based on the preliminary design information provided by SDG&E, we anticipate that deep foundations will bear above the design groundwater level.

We understand that the deep foundations at the site may be designed for lateral and axial loading using computer programs such as the Electric Power Research Institute (EPRI) Moment Foundation Analysis and Design (MFAD) or Compression/Uplift Foundation Analysis and Design (CUFAD) programs, or the Ensoft program LPILE, or other spreadsheet or manual calculation methods. Regardless of the design methodology, there are several important considerations for deep foundation design at this site, including soil stratigraphy and design parameters, groundwater level, potential for surficial erosion, and the impacts of potential soil liquefaction.

We recommend the following approach to deep foundation design: 1) SDG&E confirms the preferred extent of remedial grading, equipment layout, foundation type, loads, and size based on the preliminary geotechnical recommendations in this report; then 2) as needed, Geosyntec reevaluates or confirms the deep foundation design recommendations and estimated settlement, analyzing specific foundations identified by SDG&E with respect to potentially liquefiable layers, subsurface modeling conditions, and group effects. Lateral capacity, axial capacity, or settlement may control the design of deep foundations.

Simplified and preliminary subsurface stratigraphy and soil parameters for deep foundation design incorporating the remedial grading recommendations of this report are presented in the following sections. A discussion of the groundwater conditions observed and the design groundwater level are presented in Sections 3.5 and Section 5.2 of this report, respectively. Deep foundation design should incorporate the effects of groundwater by modeling the recommended design groundwater level or buoyant soil unit weights, as appropriate with the foundation length and design methodology utilized. Within a developed SDG&E substation, the potential for erosion is considered low due to the site drainage and surfacing improvements. Additionally, remedial grading is planned. Therefore, due to the anticipated design and construction procedures, no discount depth of surficial materials is recommended for deep foundation design. The potential impact of liquefaction on deep foundation design will require careful consideration at the site as presented in the following section.

5.8.2 Impacts of Liquefaction

Deep foundation design should also consider the potential effects of liquefaction, including drag loads and downdrag settlement. As previously noted, ground improvement to remediate the potentially liquefiable lenses is not considered economically feasible due to the thin and non-continuous lenses of material identified as potentially liquefiable at the site.

Liquefaction-induced drag loads should be incorporated into the axial design of deep foundations. Drag load refers to the downward-acting force transferred to a deep foundation by surrounding soil that undergoes settlement. Load transfer is by shearing stress that develops at the soil-foundation interface. Drag loads occur in response to relative downward deformation of the surrounding soil to that of the foundation. The magnitude of relative movement required to develop full side resistance, and therefore full drag load, is reportedly 0.4 to 0.5 inches. However, it is prudent to assume that full drag loads will occur if any relative downward movement of soil is anticipated. Full drag loads for deep foundations are presented in Appendix F.

Foundation design for lateral loading is typically governed by the subsurface conditions within the upper portion of the soil profile. Since the depth to design groundwater and thus the shallowest potential location of liquefiable lenses is 20 feet bgsliquefied soil layers are not incorporated in the model for the lateral design of deep foundations. However, deep foundations should bear at least 1.5 foundation diameters above the shallowest location of potentially liquefiable lenses (20 feet bgs). The axial soil resistance charts presented in Appendix F terminate above potentially liquefiable layers. The influence of potentially liquefiable soil lenses on axial and lateral design and on

estimated deep foundation settlement should be further evaluated during design development.

5.8.3 MFAD and CUFAD Design Parameters

The design soil parameters utilized in the MFAD and CUFAD computer programs include: subsurface stratigraphy; total unit weight; shear strength parameters; pressuremeter modulus; and various factors related to the soil stress conditions and soil/foundation interface conditions.

Estimates of these parameters were developed based on review of previous geotechnical information, site reconnaissance, field explorations, geotechnical laboratory testing, engineering analyses, empirical correlations, literature research, and professional judgment. Pressuremeter testing was not performed as part of this project. The recommended MFAD and CUFAD design parameters are presented in Table 5 and Table 6, respectively. These design parameters are intended for use in foundation design and may not reflect actual strengths. The ratio of operative to in-situ horizontal stress for CUFAD analysis is based on the specific construction method of the drilled shafts, and should be selected by SDG&E.

5.8.4 LPILE Design Parameters

We understand that SDG&E may perform deep foundation lateral pile analysis and design using the computer program LPILE. The design soil parameters used in lateral pile analysis using LPILE include: subsurface stratigraphy; soil type and p-y curve; effective unit weight; shear strength parameters; and modulus. The estimated LPILE soil design parameters are presented in Table 7. The results of preliminary LPILE modeling are presented in Appendix F.

5.8.5 Axial Resistance and Settlement

Deep foundation axial resistance, potential drag loads, and settlement are dependent on the size of the foundation, loading conditions, and the stratigraphy on the sides and base of the foundation (particularly with respect to the position of the potentially liquefiable layers).

The depth range estimated to have the potential for lenses of soil liquefaction is between the design groundwater level (20 feet bgs) and about 60 feet bgs. Currently, the deep foundations are anticipated to be founded above the design groundwater level, but some relative displacement is anticipated. Relative displacement between the surrounding soil and deep foundations can induce drag loads and downdrag settlement, which is the downward movement of the pile due to settlement of the surrounding ground.

Preliminary axial design information, including downward soil resistance, drag load, and uplift soil resistance for a range of foundation sizes is presented in Appendix F. The recommended drag load for a foundation should be added to the structural loads for foundation design.

Settlements for single foundations induced by the preliminary loads presented in Section 1.1 and by potential drag loads are anticipated to be less than 0.5 inches. This settlement does not include group effects or the potential liquefaction-induced settlement that may occur in soil layers below the foundations (See Section 4.3.2).

5.8.6 Group Effects

Construction of deep foundations in groups can reduce the available axial capacity of drilled piers due to the relaxation of the soil within the adjacent foundation excavations. Deep foundation groups can also demonstrate lower lateral capacity due to overlapping loads from adjacent piles within a group. Deep foundation groups can also demonstrate increased settlement due to the deeper zone of influence for the group than that of a single foundation.

We recommend a minimum center-to-center spacing of 2.5 foundation diameters for deep foundations. However, piers spaced closer than four foundation diameters (center to center) can have a total axial (downward and uplift) capacity less than the sum of the capacities of the individual piers. For preliminary design, we recommend a group efficiency factor for axial design of 0.65 and 1.0 for center-to-center spacing of 2.5 diameters and 4.0 diameters or more, respectively. Axial resistance group efficiency factors for intermediate spacing can be determined by linear interpolation between the noted values.

Group efficiencies for lateral design of deep foundations are presented in Table 8 as recommended for predominantly granular soils and for an individual foundation's location within a group. The lateral group efficiency can be incorporated by magnifying the loads on the piers by the reciprocal of the efficiency.

Additional geotechnical evaluation should be performed during design development to check the group foundation capacity evaluation and settlement.

5.9 Retaining Walls

The site is relatively level; however, recommendations for conventional retaining walls are provided in the event that retaining walls are utilized for grade separations within

the substation. Lateral earth pressures on retaining walls depend upon the type of wall, type of backfill material, and allowable wall movements.

Retaining walls should be backfilled with free draining granular material within a zone defined by a 1:1 (horizontal to vertical) slope up and away from the bottom of the foundation. Free draining granular material is not present in substantial quantities at the site and would require import to the site. Lateral loads on retaining wall foundations can be resisted by passive resistance and frictional resistance for soils adjacent to the foundations as outlined in Section 5.7.3 of this report.

Active lateral earth pressure conditions are applicable for walls which are not fixed at the top and where approximately ¼ inch of movement at the top of the wall per 5 feet of wall height is acceptable. An equivalent fluid pressure of 37 pcf may be used for the design of retaining walls for active earth pressure conditions. This recommended active earth pressure assumes a horizontal backfill surface, free-draining backfill, and does not include surcharge loads. For surcharge loads against the backfilled side of the wall, the resulting lateral load should be calculated based on a uniform lateral pressure equal to 0.5 times the vertical surcharge pressure acting on the backfilled side of the wall, applied over the full height of the wall in addition to the equivalent fluid pressure for walls up to 10 feet high.

5.10 Concrete Slabs and Hardscape

Concrete slabs and hardscape should be supported on select fill with low expansion potential, which may not be present in substantial quantities at the site. A modulus of subgrade reaction of 200 pci can be assumed for design of slabs and hardscape. The subgrade should be proof rolled prior to placing the concrete slabs and hardscape. The slab thickness and steel reinforcement should be designed by a California-registered civil engineer for the anticipated loads. Slab-on-grade concrete floors should have a minimum thickness of 4 inches.

We recommend that isolation joints be provided where slabs abut walls or columns. Isolation joints should be designed to separate the floor from the abutting element, to allow each part to move independently. Crack control or expansion/contraction joints should be provided at spacing appropriate for the slab thickness and the maximum concrete aggregate size, but should be provided at regular intervals not exceeding approximately 15 feet, each way.

Concrete slabs should be underlain by a minimum of 4 inches of clean (less than 5 percent passing the No. 200 sieve), coarse sand. Special care should be taken by the

contractor so that a uniform thickness of sand is maintained to achieve uniformity in the concrete slab thickness. We recommend that the subgrade be wetted prior to placement of the clean, coarse sand beneath the slab. In lieu of the recommended clean, coarse sand, two-sack sand-cement slurry may be used in accordance with SDG&E design practices.

5.11 Utility Trenches

We understand that SDG&E has standards for utility trenches and trench backfill within their substations and for all electric power and distribution trenches outside of the substation consisting of slurry backfill. The following recommendations are meant to be applicable to those utility trenches not covered by the SDG&E standards.

Utilities should be placed above and outside the envelope defined by 2:1 (horizontal to vertical) lines drawn outward and down from the bottom edge of foundations. Trench backfill is defined as material placed in a trench starting 6 inches above the pipe, and bedding is all material placed in a trench below the backfill. Pipe trench backfill should conform to the recommendations presented in this report and Section 306-1.3 of the "Greenbook." Unless concrete bedding is required around utility pipes, free-draining clean sand should be used as bedding. Pavement and subgrade requirements provided in Section 5.10 should be incorporated for trench backfill. Compaction of backfill by water jetting should not be permitted.

5.12 Pavements

We recommend that the paved access roads within the site be designed for a traffic index selected by the project civil engineer. We understand that SDG&E typically utilizes a traffic index of 5.0 for flexible pavement design for substation access roads.

The flexible pavement section should consist of asphalt concrete (as defined in Section 39 of the Caltrans Standard Specifications) over Class 2 aggregate base (as defined in Section 26 of the Caltrans Standard Specifications) over properly prepared subgrade. Properly prepared pavement subgrade consists of the uppermost 12 inches of subgrade that is moisture conditioned and compacted to a minimum relative compaction of 95 percent. Asphalt and aggregate base should be compacted to a minimum relative compaction of 95 percent.

The actual pavement section may be chosen based on the cost for asphalt versus Class 2 aggregate base. We understand that the typical pavement section within an SDG&E substation is 4 inches of asphalt over 8 inches of Class 2 aggregate base; this structural section meets the criteria for the minimum recommended pavement section assuming a

minimum resistance-value for pavement design (R-value) of 5 and a traffic index of 5.0. R-value testing should be performed during construction on samples representative of subgrade conditions to confirm the design assumptions.

Alternatively, portland cement concrete (PCC) can be used for pavements where heavy truck traffic is anticipated. A minimum of 7.5 inches of PCC should be used over properly prepared subgrade. We also recommend that concrete pavements be provided with expansion joints at regular intervals not exceeding 15 feet in each direction.

5.13 Corrosion Potential

The results of the corrosion testing performed for the current investigation are presented in Appendix D of this report. Corrosion testing was performed on two soil samples from this investigation. The results of the tests indicate the water soluble sulfate content and chloride content of the soil were 340 and 310 parts per million (ppm) and 160 and 1,110 ppm, respectively. The results of resistivity testing indicated minimum resistivity values of 1,215 and 265 ohms-centimeters (ohm-cm).

Sulfate contents in this range are generally considered to be negligible with respect to potential for sulfate attack of concrete in accordance with Table 4.2.1 of the 2011 American Concrete Institute Manual. Chloride contents in this range are generally considered to be negligible to high with respect to potential for chloride attack. Minimum resistivity values less than 500 ohm-cm are considered to be very corrosive, and a resistivity value of 1,215 is considered to be fairly corrosive. Metallic utility piping and conduits should be designed for a corrosive environment, and measures to enhance chloride resistance of concrete should be considered. An engineer specializing in corrosion resistance should be consulted if additional information is needed.

5.14 Low Impact Development and Hydromodification

The San Diego Regional Water Quality Control Board Order No. R9-20013-0001 was adopted on 8 May 2013 and became effective on 27 June 2013. This permit regulates discharges of urban runoff from municipal separate storm sewers (MS4s) in the San Diego Region. The MS4 permit requires that new developments and redevelopments implement source control, Low Impact Development (LID), treatment, and hydromodification management BMPs, depending on the type of development. The provisions of the new permit do not go into full effect until 27 June 2015, and until then, the provisions of the previous permit (Order No. R9-2007-0001) govern. The requirements of Order No. R9-2007-0001 and the additional requirements under Order No. R9-2013-0001 are discussed below.

5.14.1 LID and Treatment Control Requirements

Provision D.1.d of Order No. R9-2007-0001 requires each Co-permittee to implement a Standard Urban Storm Water Mitigation Plan designed to control the discharge of pollutants in storm water from the MS4 to the maximum extent practicable. Redevelopment projects that install and/or replace more than 5,000 square feet of impervious area are considered a Priority Development Project under the current City of San Diego Storm Water Standards Manual. The following LID BMPs are required for Priority Development Projects.

Site Design BMP Requirements:

- Drain impervious areas to pervious areas according to the infiltration ability of the pervious area prior to discharge from site;
- Landscape or pervious areas must be properly designed and constructed to function as areas for infiltration of storm water;
- Projects having areas with low traffic and appropriate soil conditions shall construct a portion of the area with permeable surfaces;

  and where applicable and feasible:

- Conserve natural areas, including existing trees, other vegetation, and soil;
- Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised;
- Minimize the impervious footprint of the project;
- Minimize soil compaction; and
- Minimize disturbances to natural drainages (e.g., natural swales, topographic depressions, etc.).

Source Control BMP Requirements:

- Minimize storm water pollutants of concern in urban runoff;
- Include storm drain system stenciling or signage;
- Include properly designed outdoor material storage areas;
- Include properly designed trash storage areas;
- Include efficient irrigation systems; and
- Include water quality requirements applicable to individual priority project categories.

Treatment Control BMP Requirements:

- Select treatment control BMPs to infiltrate, filter, or treat the volume of runoff produced from the runoff from the 85th percentile, 24-hour design storm.

5.14.2 Hydromodification Control Requirements

Priority Development Projects are also required to implement hydromodification control BMPs according to the Hydromodification Management Plan [County of San Diego, 2011]. However, if the project installs/replaces less than 5,000 square feet of impervious area, then the project would be considered a Standard Development Project and the following requirement would not apply.

Section D.1.g of Order No. R9-2007-0001 specifies that for applicable projects "post-project runoff flow rates and durations shall not exceed pre-project runoff flow rates and durations where the increased discharge flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in flow rates and durations." The order further establishes hydromodification control criteria as follows:

> *Priority Development Projects shall implement the following criteria by comparing the pre-development (naturally occurring) and post-project flow rates and durations using a continuous simulation hydrologic model.*
>
> *a) For flow rates from 10 percent of the 2-year storm event to the 10-year storm event, the post-project peak flows shall not exceed predevelopment (naturally occurring) peak flows. Less restrictive standards are possible for more erosion-resistant receiving channel sections if the results from the Southern California Coastal Water Research Project channel screening indicated either a Medium or Low susceptibility to channel erosion.*
>
> *b) For flow rates from the 5-year storm event to the 10-year storm event the post-project peak flows may exceed pre-development (naturally occurring) flows by up to 10 percent for a 1-year frequency interval.*

The MS4 permit also contains language to support exemptions for projects located in highly urbanized areas. This project discharges directly to a hardened conveyance and may qualify for potential exemptions from hydromodification criteria. To qualify for this exemption, the existing hardened conveyance system must continue uninterrupted to the exempt system. Additionally, the project proponent must demonstrate that the

hardened or rehabilitated conveyance system has capacity to convey the 10-year ultimate condition flow through the conveyance system.

5.14.3 Order No. R9-2013-0001 Requirements

Order No. R9-2013-0001 includes a new volume capture criteria which will go into effect in June 2015. This will require Priority Development Projects to implement treatment control BMPs designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) onsite the pollutants contained in the design capture volume (DCV). The DCV is equivalent to the volume of storm water produced from a 24-hour 85th percentile storm event. Or, at the discretion of the municipality, the project can incorporate:

- Properly sized biofiltration BMPs if it can demonstrate technical infeasibility of full DCV retention; or
- Properly sized flow-thru treatment control BMPs and offsite mitigation for the portion of the DCV not reliably retained onsite.

The above changes would increase the volume of storm water that would be required to be retained on-site and thus increase the footprint required to address long-term storm water treatment requirements for the project.

5.14.4 LID and Hydromodification Considerations

BMP selection and design is a function of site conditions, especially permeability rates of the underlying soil. The site is located within the hydrologic soil group designated "Undetermined" per the County of San Diego Hydrology Manual [County of San Diego, 2003]. However, a conservative approach is to assume "Group D" soils, which are characterized by a very slow infiltration rate when thoroughly wetted; chiefly clays that have a high shrink-swell potential; soils that have a high permanent water table; soils that have a clay layer at or near the surface; or soils that are shallow over nearly impervious material [County of San Diego, 2003]. The near-surface site materials are considered to have a very low infiltration rate due to the relatively high percentage of silt and clay sized particles.

The near surface site soils are assumed to have a low vertical and horizontal infiltration rate and a slow rate of water transmission. Due to the assumed low hydraulic conductivity of the near surface soils, the role of infiltration in LID and hydromodification control is limited. More specific recommendations can be provided

by Geosyntec, if design development indicates that such BMP features are needed (i.e., storage basin design).

5.15 Additional Geotechnical Investigation

We recommend that additional geotechnical investigation, including subsurface explorations, geophysical surveys, laboratory testing, and engineering and geologic evaluations, is performed prior to final design. Noninvasive geophysical survey exploration methods could potentially delineate underground storage tanks, former tank pits, retaining wall foundations, and utilities or pipelines that may exist in the shallow subsurface, providing information to optimize environmental site assessment and/or support project planning and earthworks construction.

This additional geotechnical investigation should be performed during design development and include additional explorations (potentially including geophysical surveys) to further evaluate subsurface conditions in the specific areas of proposed structures and revisit the preliminary recommendations of this report for completeness and applicability with new information obtained. We recommend installation of a temporary piezometer and groundwater level observation until stabilized in at least one boring. The supplemental investigation should also include additional geotechnical laboratory testing on near-surface materials across the site to further evaluate suitability for re-use as fill.

Geophysical surveys would require closing the site (or portions of the site) to vehicular parking. Multiple geophysical survey methods should be utilized, including electro-magnetic, ground penetrating radar, and liner tracer methodologies, because each instrument senses different properties of the soil and potential buried objects. Electro-magnetic methods highlight buried metallic objects such as pipelines and underground storage tanks. Ground penetrating radar is the primary method applied for the detection of backfilled excavations, trenches, and nonmetallic pipelines and utilities and is also used for detailing anomalies detected with other geophysical instruments. Passive and active line tracer methods delineate pipelines, and active electrical and communication lines.

6. CONSTRUCTION CONSIDERATIONS

6.1 Reuse of Existing Fill Soils and Colluvium

The silty fine sand to sandy silt fill and colluvium is estimated to have a low to medium potential for expansion, and is anticipated to predominantly meet the geotechnical requirements for Common Fill. Two tests performed for this investigation indicated expansion indices of 31 and 51 which would not meet one criterion for Select Fill of an expansion index less than 30. Import of Select Fill materials and/or blending of native material with imported material to meet the Select Fill criteria may be needed.

The existing fill soils and colluvial materials excavated and intended to be reused as engineered fill should also be screened for the presence of contamination and potential for reuse in accordance with SDG&E guidelines. No PID readings or visual or olfactory observations of potential contamination were observed in soil samples and cuttings from the geotechnical borings advanced by Geosyntec. However, this does not preclude the possibility that impacted soil or groundwater is present at the site. The site reportedly was occupied by a gas station and is in an older, developed area of San Diego, with multiple gas stations and vehicle repair/rental facilities in relatively close proximity that can be potential sources of impacts.

During remedial grading, we recommend maintaining separate stockpiles for materials potentially meeting and not meeting the various fill criteria presented in Section 5.3.3 (specifically expansion index) and for potentially impacted soils, if needed.

6.2 Previous Site Development

The site was reportedly occupied by a gas station, with underground storage tank/s and a perimeter retaining wall. As discussed in Section 5.3.1 and Section 5.3.2 of this report, remnants from this development are likely present within the fill, including concrete debris, foundations, utility lines, or other construction debris. As described in Section 3.4.1, minor concrete debris was encountered in the vicinity of CPT C-18 and reported in Benton Test Pit 14.

6.3 Excavation Conditions

The hollo-stem auger borings performed for this investigation were advanced with no unusual difficulty to the target depths up to 51.5 bgs. The CPT soundings met refusal conditions in a few localized instances at depths less than five feet bgs and in a few instances at depths greater than 40 feet bgs. We anticipate that deep foundations can be excavated with easy to moderate effort with conventional heavy-duty drilling equipment.

The borings and CPT soundings performed for this investigation that extended below the groundwater level generally caved upon withdrawal of the hollow-stem augers or the CPT rods. Excavations that extend below the groundwater level (measured during drilling at elevations between +11 feet NAVD 88 and +19 feet NAVD 88) should use casing or other means of excavation stabilization approved by SDG&E.

6.4 Temporary Slopes

The design and excavation of temporary slopes and their maintenance during construction is the responsibility of the contractor. The contractor should have their geotechnical or geological professional evaluate the soil conditions encountered during excavation to determine permissible temporary slope inclinations and other measures required by Cal OSHA. For planning purposes, based on the materials observed in the borings, the design of temporary slopes for planning purposes may assume Type C conditions. Existing infrastructure within a 2:1 (horizontal:vertical) line projected up from the toe of temporary slopes should be monitored for potential movement during construction.

6.5 Construction Observation and Testing

During construction, R-value testing should be performed on subgrade materials below proposed asphalt-paved areas to ensure that the actual subgrade R-value exceeds that assumed for design. Laboratory compaction tests, Atterberg limits tests, and expansion index tests are also recommended during construction to evaluate fill material suitability and compaction requirements. Soil analytical testing may also be required if impacted soils are suspected.

Variations in subsurface conditions will likely be encountered during construction at the site. To permit correlation between the investigation data, design, and the conditions encountered during construction, and to provide conformance with the plans and specifications as originally contemplated, we recommend that Geosyntec be retained to provide continuous observations of earthwork construction operations, including geologic observation and mapping of remedial grading excavations, and to provide quality control testing of soil fill and backfill placement and compaction.

7. LIMITATIONS

The geotechnical investigation for this project observed only a small portion of the pertinent subsurface conditions. The recommendations made herein are based on the assumption that soil conditions do not deviate appreciably from those found during the current field investigation and the referenced previous investigations by others. This geotechnical investigation report has been prepared in accordance with current practices and the standard of care exercised by scientists and engineers performing similar tasks in this area. The conclusions contained in this report are based solely on the analysis of the conditions observed by Geosyntec personnel. We cannot make any assurances concerning the completeness of the data presented to us. Environmental characterization of soil and groundwater was beyond the scope of this investigation.

No warranty, expressed or implied, is made regarding the professional opinions expressed in this report. Site grading and earthwork, subgrade preparation under concrete slabs and paved areas, utility trench backfill, and foundation excavations should be observed by a qualified engineer or geologist to verify that the site conditions are as anticipated. If actual conditions are found to differ from those described in the report, or if new information regarding the site is obtained, Geosyntec should be notified and additional recommendations, if required, will be provided. Geosyntec is not liable for any use of the information contained in this report by persons other than SDG&E or their subconsultants, or the use of information in this report for any purposes other than referenced in this report without the expressed, written consent of Geosyntec.

California, including San Diego County, is an area of high seismic risk. It is generally considered economically unfeasible to design structures to resist earthquake loadings without damage. Proposed structures designed in accordance with the recommendations presented in this report could experience limited distress/damage if subjected to strong earthquake shaking.

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TABLES

Table 1. Summary of Current Explorations
Vine Substation

Exploration No.	Ground Surface Elevation (feet)	Exploration Depth (feet)	Reached Target Depth	CPT Refusal Due to High Tip Stress	CPT Refusal Due to High Sleeve Stress	CPT Shear Wave Velocity Measured
B-1	44.0	41.5	X			
B-2	36.0	51.5	X			
B-3	43.0	51.5	X			
B-4	38.0	41.5	X			
B-5	40.0	41.5	X			
C-1	37.0	80.1	X		X	X
C-2	37.5	74.3	X			
C-3	37.8	75.1	X			
C-4	38.3	72.7	X			
C-5	38.5	69.6	X			
C-6	38.8	65.9	X			
C-7	39.3	63.7		X		
C-8	39.8	61.2		X	X	X
C-9	40.3	48.2		X		
C-10	40.5	93.5	X	X	X	
C-11	41.0	88.8	X		X	
C-12B	41.7	44.8		X	X	
C-12	41.5	45.1		X		
C-13	41.8	43.3		X		
C-13A	42.0	80.3	X			
C-14	42.3	90.3	X		X	
C-15	42.5	80.3	X	X	X	X
C-16	39.5	90.4	X			X
C-17	39.0	100.4	X			
C-18	38.5	4.0		X		
C-18A	38.5	3.1		X		
C-18C	38.8	80.4	X			
C-19	38.0	80.1	X			
C-20	37.5	58.1		X		
C-21	37.0	80.3	X			
C-22	36.5	100.3	X			X

Table 2. Nearby Faults
Vine Substation

Fault Name	Distance and Direction from Site [a]	Maximum Moment Magnitude [b]
Rose Canyon	0.1 miles (0.20 km) to northeast 0.7 miles (1.1 km) to west	7.2
Coronado Bank	13.7 miles (22 km) to west	7.6
Elsinore (Julian Segment)	41.3 miles (66 km) to northeast	7.1
San Jacinto (Coyote Creek Segment)	62.6 miles (100 km) to northeast	6.8

Notes:

a. Distances from site noted are the closest distance to the surface trace or inferred projection of the fault as measured from the United States Geologic Survey Quaternary fault database [USGS & CGS, 2010].

b. Maximum moment magnitude values reported by California Geological Survey OFR 96-08 Appendix A, revised 2002 [Petersen et al., 1996].

Table 3a. 2010 CBC Seismic Parameters
Vine Substation

Parameter	Value
Site Soil Class	C
Mapped Spectral Response Acceleration at 0.2s Period, S_S	1.60 g
Mapped Spectral Response Acceleration at 1.0s Period, S_1	0.63 g
Short Period Site Coefficient at 0.2s Period, F_a	1.00
Long Period Site Coefficient at 1.0s Period, F_v	1.30
Adjusted Spectral Response Acceleration at 0.2s Period, S_{MS}	1.60 g
Adjusted Spectral Response Acceleration at 1.0s Period, S_{M1}	0.81 g
Design Spectral Response Acceleration at 0.2s Period, S_{DS}	1.06 g
Design Spectral Response Acceleration at 1.0s Period, S_{D1}	0.54 g

Notes:

a. Parameters based on ASCE 7-05 Standard and the 2009 International Building Code which use the 2008 USGS hazard data.

Table 3b. 2013 CBC Seismic Parameters
Vine Substation

Parameter	Value
Site Soil Class	C
Mapped Spectral Response Acceleration at 0.2s Period, S_S	1.23 g
Mapped Spectral Response Acceleration at 1.0s Period, S_1	0.48 g
Short Period Site Coefficient at 0.2s Period, F_a	1.00
Long Period Site Coefficient at 1.0s Period, F_v	1.32
Adjusted Spectral Response Acceleration at 0.2s Period, S_{MS}	1.23 g
Adjusted Spectral Response Acceleration at 1.0s Period, S_{M1}	0.63 g
Design Spectral Response Acceleration at 0.2s Period, S_{DS}	0.82 g
Design Spectral Response Acceleration at 1.0s Period, S_{D1}	0.42 g

Notes:

b. Parameters based on ASCE 7-10 Standard and the 2012 International Building Code which use the 2008 USGS hazard data.

Table 4. IEEE 693 Seismic Qualification Level
Vine Substation

Parameter	2009 IBC Values	2012 IBC Values
Site Soil Class	C	C
Maximum Considered Earthquake Ground Motion 0.2s Spectral Response Acceleration S_s	1.60 g	1.23 g
Short Period Site Coefficient at 0.2s Period, F_a	1.00	1.00
Adjusted Spectral Response Acceleration at 0.2s Period, S_{ms} (S_s*F_a)	1.60 g	1.23 g
Peak Ground Acceleration for seismic qualification selection (S_{ms}/2.5)	0.64 g	0.49 g
Recommended IEEE 693 Seismic Qualification Level	High	High

Table 5. MFAD Design Parameters
Vine Substation

Material Type	Depth bgs [a] (feet)	Total Unit Weight (pcf)	Effective Friction Angle (degrees)	Effective Cohesion (psf)	Pressuremeter Modulus, E_{pmt} (ksi)	Shear Strength Reduction Factor, α
Class 2 Base	0 to 1	130	40	0	1.5	1.0
Engineered Fill [b]	1 to 6	120	32	0	1.0	0.9
Undocumented Fill or Colluvium [b]	6 to 13	115	30	0	0.8	0.9
Old Paralic Deposits	>13	130	34	0	3.0	0.8

Notes:

a. The final project grading plan and equipment layout is not available at the time of this report. Design material depths are simplified and preliminary and will require re-evaluation during design development.

b. Existing undocumented fill and colluvium are preliminarily recommended to be removed and replaced with engineered fill to a minimum depth of 5 feet bgs. The depths shown herein represent the deepest interpreted areas of undocumented fill and colluvium.

c. No discount depth is recommended for surficial materials within the substation.

d. The design should consider groundwater below the design depth of 20 feet bgs.

e. pcf = pounds per cubic foot, psf = pounds per square foot, ksi = kips per square inch.

f. The shear strength reduction factor provided is for uncased drilled pier foundation excavations. Other factors should be provided for alternate construction methods.

g. Drilled shafts should bear a distance of at least 1.5 times the shaft diameter above the design groundwater depth of 20 feet bgs.

Table 6. CUFAD Design Parameters
Vine Substation

Material Type	Depth bgs [a] (feet)	Total Unit Weight (pcf)	Effective Friction Angle (degrees)	Undrained Strength (psf)	Adhesion Factor, α	Ratio of Operative to Insitu Coefficient of Horizontal Stress	In-Situ Coefficient of Horizontal Stress
Class 2 Base	0 to 1	130	40	0	NA	See note f	0.5
Engineered Fill [b]	1 to 6	120	32	0	NA	See note f	0.5
Undocumented Fill or Colluvium [b]	6 to 13	115	30	0	NA	See note f	0.5
Old Paralic Deposits	>13	130	34	0	NA	See note f	1.0

Notes:

a. The final project grading plan and equipment layout is not available at the time of this report. Design material depths are simplified and preliminary and will require re-evaluation during design development.
b. Existing undocumented fill and colluvium are preliminarily recommended to be removed and replaced with engineered fill to a minimum depth of 5 feet bgs. The depths shown herein represent the deepest interpreted areas of undocumented fill and colluvium.
c. No discount depth is recommended for surficial materials within the substation.
d. The design should consider groundwater below the design depth of 20 feet bgs.
e. pcf = pounds per cubic foot, psf = pounds per square foot, , NA = not applicable.
f. A value of 0.9 is recommended for dry, uncased drilled pier foundation excavations above the design groundwater level. A value of 0.67 is recommended if slurry is used, or a value of 0.83 is recommended if casing is used for construction below the groundwater level.
g. Drilled shafts should bear a distance of at least 1.5 times the shaft diameter above the design groundwater depth of 20 feet bgs.

Table 7. LPILE Design Parameters
Vine Substation

Material Type	Depth bgs [a] (feet)	Effective Unit Weight (pcf)	p-y Curve Type - Sand		
			Friction Angle (degrees)	Cohesion (psf)	Soil Modulus, k (pci)
Class 2 Base	0 to 1	130	40	0	225
Engineered Fill [b]	1 to 6	120	32	0	60
Undocumented Fill or Colluvium [b]	6 to 13	115	30	0	40
Old Paralic Deposits (unsaturated)	13 to 21	130	34	0	225
Old Paralic Deposits (saturated)	>21	68	34	0	125

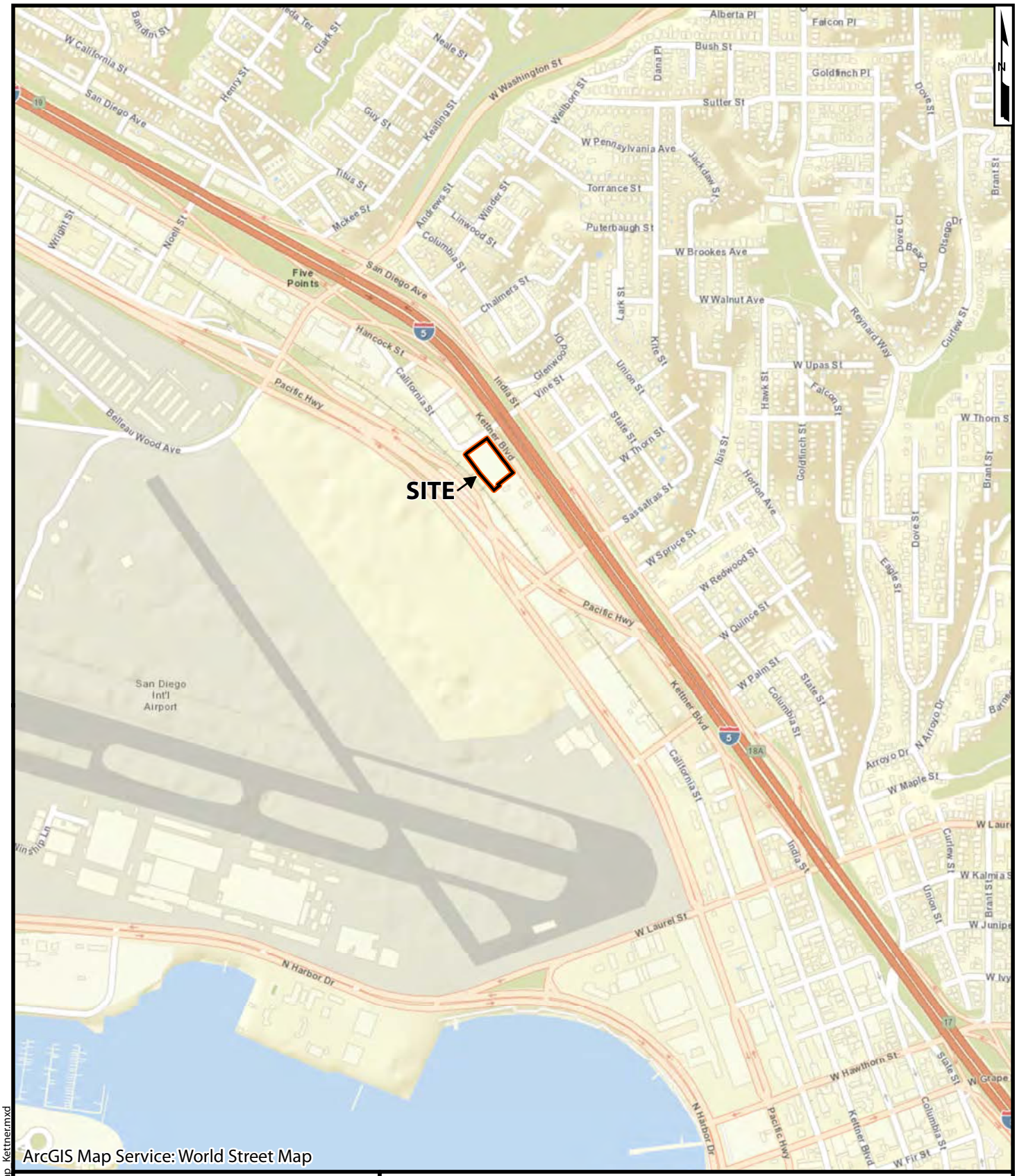
Notes:

a. The final project grading plan and equipment layout is not available at the time of this report. Design material depths are simplified and preliminary and will require re-evaluation during design development.
b. Existing undocumented fill and colluvium are recommended to be removed and replaced with engineered fill to a minimum depth of 5 feet bgs. The depths shown herein represent the deepest interpreted areas of undocumented fill and colluvium.
c. No discount depth is recommended for surficial materials within the substation.
d. The design should consider groundwater below the design depth of 20 feet bgs.
e. pcf = pounds per cubic foot, psf = pounds per square foot, pci = pounds per cubic inch.
f. Drilled shafts should bear a distance of at least 1.5 times the shaft diameter above the design groundwater depth of 20 feet bgs.

Table 8. Lateral Group Efficiencies for Deep Foundations
Vine Substation

Pile Spacing (in Diameters, D)	Lateral P-multiplier, Pm			
	3D	4D	5D	>6D
Lead Row	0.7	0.85	1.0	1.0
2nd Row	0.5	0.65	0.85	1.0
3rd and Higher Rows	0.35	0.5	0.7	1.0

FIGURES



SITE LOCATION MAP
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

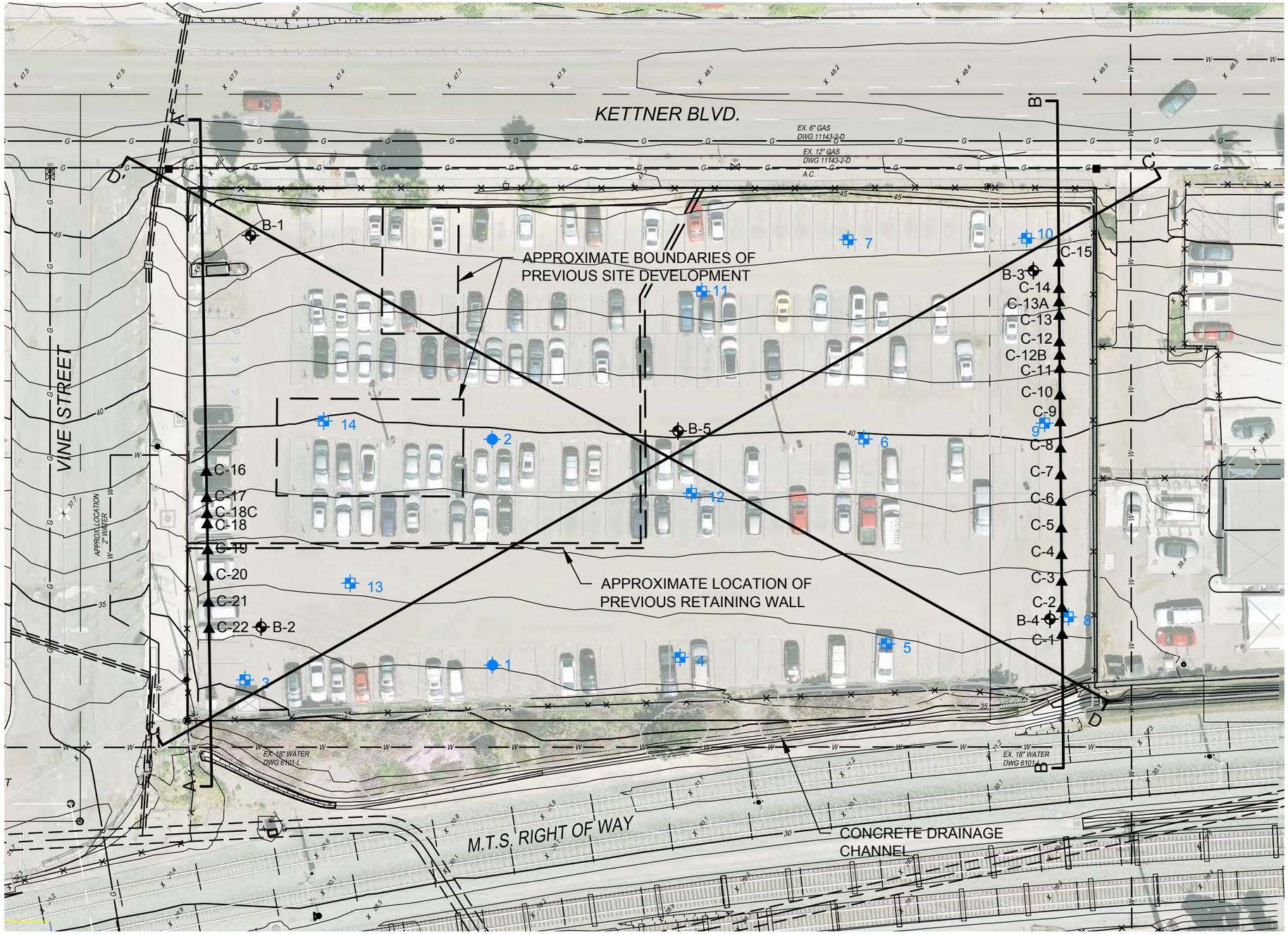
Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO: SC0368-30

FIGURE 1

P:\GIS\SC0638 SDGE\SC0638 30 Kettner\SiteMap Kettner.mxd



LEGEND

- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF CPT (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974)
- APPROXIMATE LOCATION OF TEST PIT (BENTON, 1977)
- A — A' APPROXIMATE LOCATION OF GEOLOGIC CROSS SECTION
- 40 EXISTING GROUND CONTOUR MAJOR (FEET)
- EXISTING GROUND CONTOUR MINOR (FEET)
- FENCELINE

0 40' 80'

SCALE IN FEET

REFERENCE:
SURVEY AND AERIAL PHOTOGRAPHY FROM PDC, DATED 24 APRIL 2013.

SITE AND EXPLORATION LOCATION PLAN
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO. SC0368-30

FIGURE 2

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\SC0368 F02.DWG - DRAWN BY: JAMOS

KETTNER BLVD.

VINE STREET

M.T.S. RIGHT OF WAY

APPROXIMATE BOUNDARIES OF PREVIOUS SITE DEVELOPMENT

PROPOSED CMU WALL

APPROXIMATE LOCATION OF PREVIOUS RETAINING WALL

PROPOSED SWALE

CONCRETE DRAINAGE CHANNEL

B-1 FS 41.07

B-2 FS 39.30

B-3 FS 42.64

B-4 FS 41.01

B-5 FS 41.55

FS 46.24

FS 47.09

FS 47.18

FS 47.25

FS 41.90

FS 40.00

FS 40.37

FS 35.56

FS 35.20

FS 34.09

FS 36.08

EX. 6" GAS DWG 11143-2-D

EX. 12" GAS DWG 11143-2-D

EX. 18" WATER DWG 6101-L

APPROX. LOCATION 2" WATER

FLOOD LIGHT YARD LIGHT STAND, TYP

2-15' SLIDE GATES

LEGEND

- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF CPT (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974)
- APPROXIMATE LOCATION OF TEST PIT (BENTON, 1977)
- 40 — EXISTING GROUND CONTOUR MAJOR (FEET)
- EXISTING GROUND CONTOUR MINOR (FEET)
- 45 — PROPOSED GROUND CONTOUR MAJOR (FEET)
- 42 — PROPOSED GROUND CONTOUR MINOR (FEET)
- FENCELINE
- PROPOSED CMU WALL

0 40' 80'

SCALE IN FEET

REFERENCES:

1. SURVEY AND AERIAL PHOTOGRAPHY FROM PDC, DATED 24 APRIL 2013.
2. SUBSTATION ARRANGEMENT FROM SDG&E, DATED JULY 25, 2013.

SITE AND POTENTIAL EQUIPMENT LAYOUT
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO. SC0368-30

FIGURE 3

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\SC0368 FUTURE SITE PLAN.DWG - DRAWN BY: JAMOS

NOT TO SCALE

AERIAL PHOTO SOURCE: USGS, 1972

1972 AERIAL PHOTOGRAPH
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

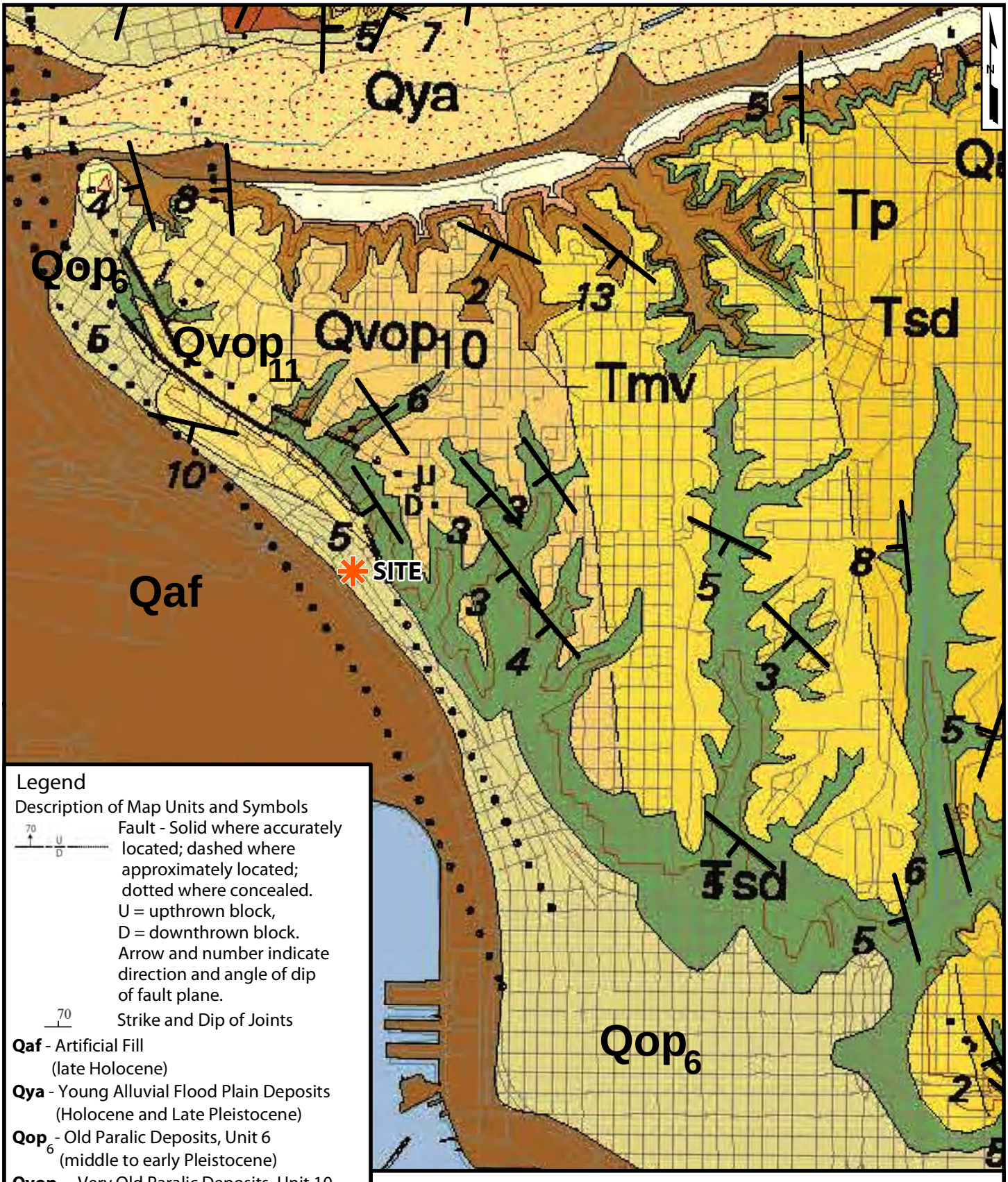
Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO. SC0368-30

FIGURE
4

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\SC0368 F03.DWG - DRAWN BY:JAMOS



Legend

Description of Map Units and Symbols

Fault - Solid where accurately located; dashed where approximately located; dotted where concealed. U = upthrown block, D = downthrown block. Arrow and number indicate direction and angle of dip of fault plane.

Strike and Dip of Joints

Qaf - Artificial Fill (late Holocene)

Qya - Young Alluvial Flood Plain Deposits (Holocene and Late Pleistocene)

Qop$_6$ - Old Paralic Deposits, Unit 6 (middle to early Pleistocene)

Qvop$_{10}$ - Very Old Paralic Deposits, Unit 10 (middle to early Pleistocene)

Qvop$_{11}$ - Very Old Paralic Deposits, Unit 11 (middle to early Pleistocene)

Tsd - San Diego Formation (early Pleistocene and late Pliocene)

Tmv - Mission Valley Formation (Middle Eocene)

Map Source:
Kennedy, M.P. and Tan, S.S. (2005)

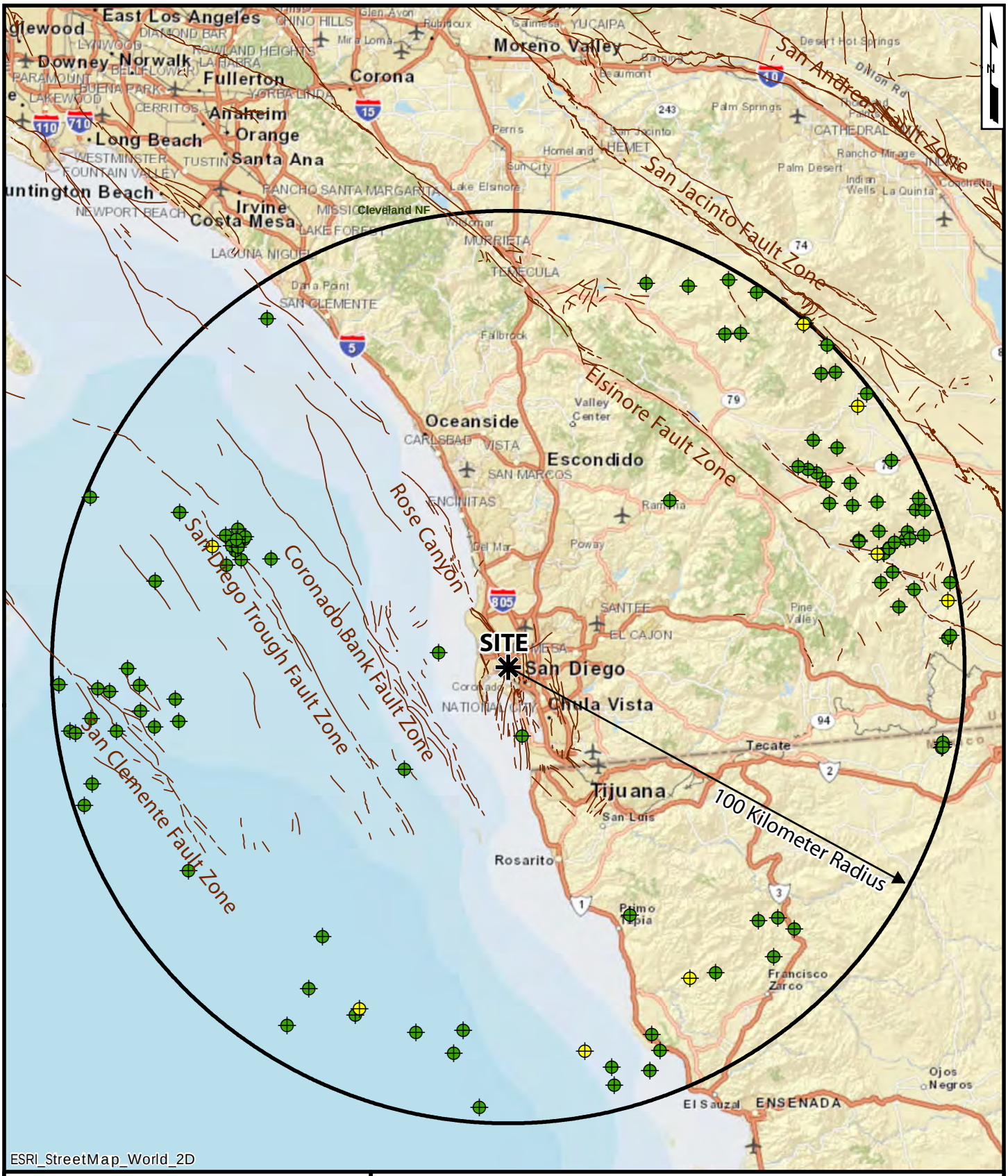
REGIONAL GEOLOGIC MAP
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO: SC0368-30

FIGURE 5



Legend

Reported Earthquake Magnitudes 1932 - 2013

- 4.0 - 4.99
- 5.0 - 5.66
- Fault

Data Source: Southern California Earthquake Data Center

Image Source: ArcOnline NGS_Topo_US_2D

25 12.5 0 25 50 Kilometers

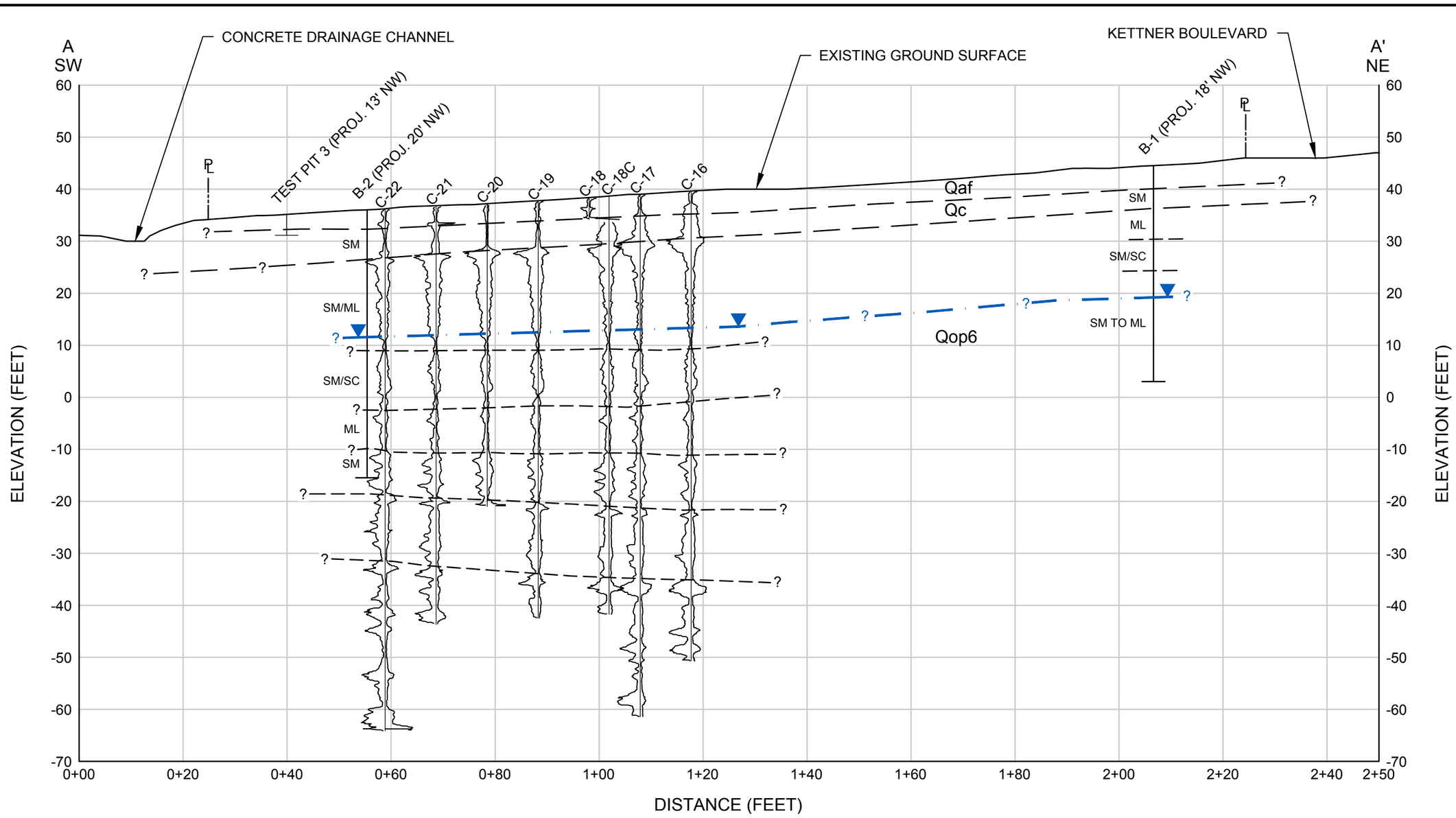
REGIONAL FAULT AND EPICENTER MAP
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO: SC0368-30

FIGURE 6



LEGEND

CPT DATA

14 0 800
Friction (tsf) Tip Resistance (tsf)

- EXISTING GROUND
- GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)
- LITHOLOGIC CONTACT (APPROXIMATE)
- INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM
- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)
- PL PROPERTY LINE

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

0 20' 40'

SCALE IN FEET
HORIZ: 1" = 20'
VERT: 1" = 20'

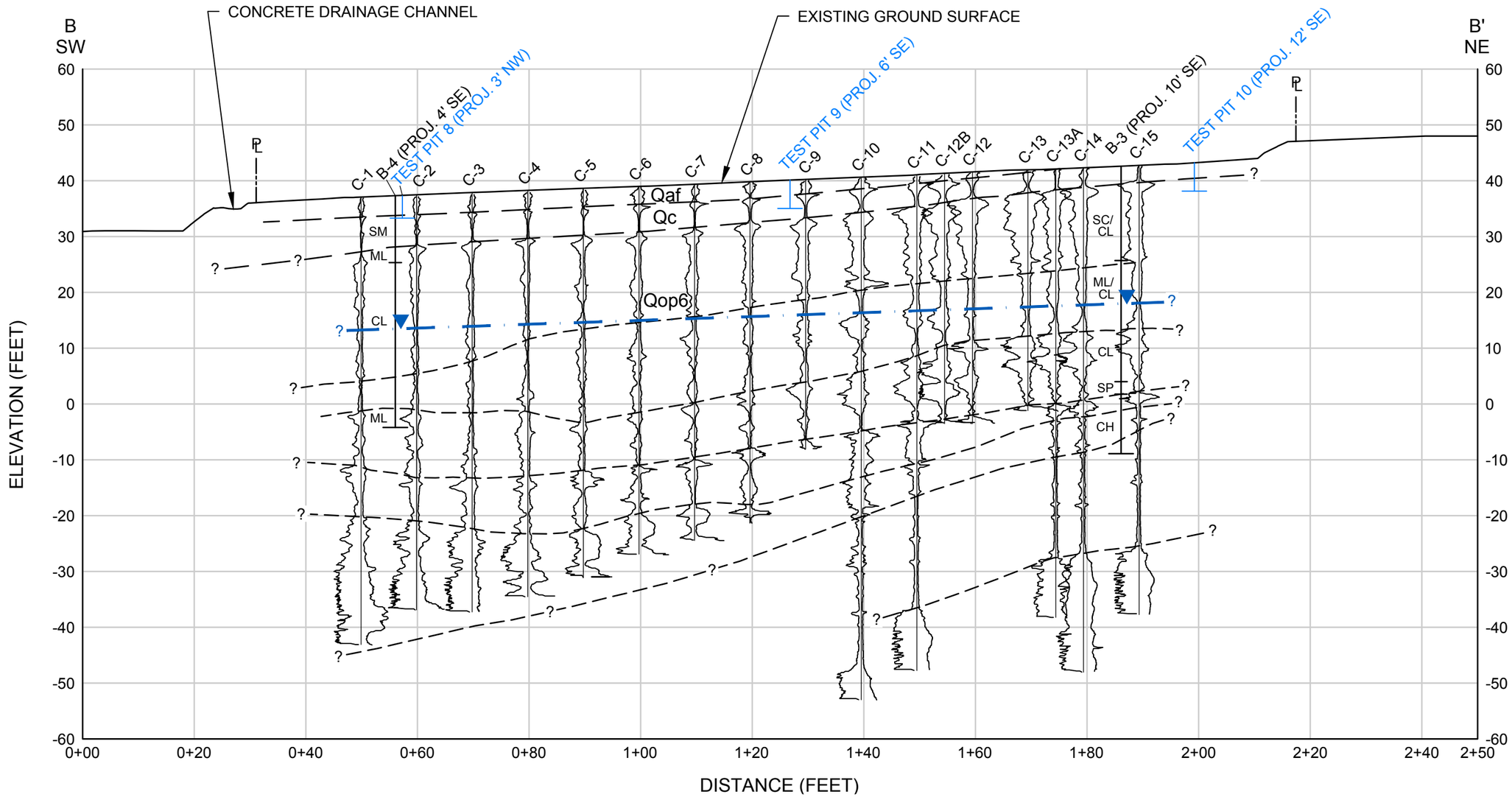
GEOLOGIC CROSS SECTION A-A'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013
PROJECT NO. SC0368-30

FIGURE 7

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\SC0368 F02.DWG - DRAWN BY: JAMOS



LEGEND

CPT DATA

14 0 800
Friction (tsf) Tip Resistance (tsf)

EXISTING GROUND

GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)

LITHOLOGIC CONTACT (APPROXIMATE)

INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM

APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)

APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)

℄ PROPERTY LINE

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

0 20' 40'

SCALE IN FEET
HORIZ: 1" = 20'
VERT: 1" = 20'

GEOLOGIC CROSS SECTION B-B'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO. SC0368-30

FIGURE 8

P:\CADS\C0368-30-04 - KETTNER SUBSTATION\FIGURES\SC0368 F02.DWG - DRAWN BY: JAMOS

C
NW

EXISTING GROUND SURFACE

TEST PIT 3 (PROJ. 6' S)
B-2 (PROJ. 20' S)
TEST PIT 13 (PROJ. 18' S)
BORING 2 (PROJ. 39' S)
TEST PIT 12 (PROJ. 16' N)
B-5 (PROJ. 7' S)
C-22 (PROJ. 29' N)

Qaf
Qc
Qop6

SM
SM/ML
SM/SC
ML
SM
SM
ML/SM
CL
CL/SC

C-22 TRUNCATED,
SEE SECTION A-A'
FOR FULL LENGTH

ELEVATION (FEET)
DISTANCE (FEET)
MATCHLINE, STA. 2+80, SEE ABOVE LEFT

C'
SE

EXISTING GROUND SURFACE

TEST PIT 6 (PROJ. 31' N)
B-3 (PROJ. 7' N)
TEST PIT 10 (PROJ. 5' S)
C-15 (PROJ. 9' N)

Qaf
Qc
Qop6

SC/CL
ML TO CL
CL
SP
CH

C-15 TRUNCATED,
SEE SECTION B-B'
FOR FULL LENGTH

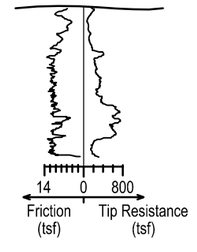
MATCHLINE, STA. 2+80, SEE ABOVE RIGHT
ELEVATION (FEET)
DISTANCE (FEET)

LEGEND

- EXISTING GROUND
- GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)
- LITHOLOGIC CONTACT (APPROXIMATE)
- INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM
- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)
- PROPERTY LINE

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

CPT DATA



SCALE IN FEET
HORIZ: 1" = 20'
VERT: 1" = 20'

GEOLOGIC CROSS SECTION C-C'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013
PROJECT NO. SC0368-30
FIGURE 9

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\C0368 F02.DWG - DRAWN BY: JAMOS

D
S

CONCRETE DRAINAGE CHANNEL

EXISTING GROUND SURFACE

℄

C-1 (PROJ. 13' W)

B-4 (PROJ. 16' W)

TEST PIT 12 (PROJ. 8' E)

B-5 (PROJ. 10' W)

BORING 2 (PROJ. 26' E)

Qaf

Qc

Qop6

SM

ML

CL

ML/SM

C-1 TRUNCATED, SEE SECTION B-B' FOR FULL LENGTH

ELEVATION (FEET)

60 50 40 30 20 10 0 -10 -20

0+00 0+20 0+40 0+60 0+80 1+00 1+20 1+40 1+60 1+80 2+00 2+20 2+40 2+60 2+80

DISTANCE (FEET)

MATCHLINE, STA. 2+80, SEE BELOW LEFT

D'
N

EXISTING GROUND SURFACE

B-1 (PROJ. 3' E)

Qaf

Qc

Qop6

SM

ML

SM/SC

SM/ML

MATCHLINE, STA. 2+80, SEE ABOVE RIGHT

ELEVATION (FEET)

60 50 40 30 20 10 0 -10 -20

2+80 3+00 3+20 3+40 3+60 3+80 4+00 4+20

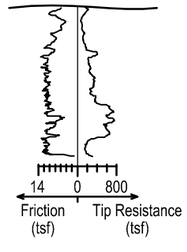
DISTANCE (FEET)

LEGEND

- EXISTING GROUND
- GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)
- LITHOLOGIC CONTACT (APPROXIMATE)
- INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM
- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)
- ℄ PROPERTY LINE

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

CPT DATA



0 20' 40'

SCALE IN FEET
HORIZ: 1" = 20'
VERT: 1" = 20'

GEOLOGIC CROSS SECTION D-D'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

Geosyntec consultants

DATE: DECEMBER 2013

PROJECT NO. SC0368-30

FIGURE 10

P:\CAD\SC0368-30-04 - KETTNER SUBSTATION\FIGURES\C0368 F02.DWG - DRAWN BY: JAMOS

APPENDIX A

Previous Investigations

Benton, 1974

G271

Geotechnical Report

BENTON ENGINEERING, INC.

APPLIED SOIL MECHANICS — FOUNDATIONS

6717 CONVOY COURT
SAN DIEGO, CALIFORNIA 92111

PHILIP HENKING BENTON
PRESIDENT - CIVIL ENGINEER

TELEPHONE (714) 565-1955

October 14, 1974

San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Attention: Mr. E. J. Brancheau

Gentlemen:

This is to transmit to you two copies of our report of Project No. 74-10-2A entitled, "Preliminary Soils Investigation, Proposed Site No. 1 of Laurel Substation, South of the Intersection of Vine Street and Kettner Boulevard, San Diego, California," dated October 14, 1974.

If you should have any questions concerning any of the data presented in this report, please contact us.

Very truly yours,

BENTON ENGINEERING, INC.

Philip H. Benton, Civil Engineer

PRELIMINARY SOILS INVESTIGATION

Proposed Site No. 1 of
Laurel Substation
San Diego Gas & Electric Company
South of the Intersection of
Vine Street and Kettner Boulevard
San Diego, California

for the
San Diego Gas & Electric Company

Project No. 74-10-2A
October 14, 1974

BENTON ENGINEERING, INC.

BENTON ENGINEERING, INC.
APPLIED SOIL MECHANICS — FOUNDATIONS
6717 CONVOY COURT
SAN DIEGO, CALIFORNIA 92111

PHILIP HENKING BENTON
PRESIDENT - CIVIL ENGINEER

TELEPHONE (714) 565-1955

PRELIMINARY SOILS INVESTIGATION

Introduction

This is to present the results of a preliminary soils investigation conducted at Site No. 1 for the possible Laurel Substation construction. The proposed site is located southwesterly of the intersection of Kettner Boulevard and Vine Street, in San Diego, California.

The objectives of this investigation were to determine the general subsurface conditions of the site and certain physical properties of the soils so that sufficient subsurface information could be developed for site evaluation and selection.

In order to accomplish these objectives, two borings were drilled at selected locations, and both undisturbed and loose soil samples were obtained for laboratory testing.

Field Investigation

The two borings were drilled 24 and 36 inches in diameter, with a truck-mounted rotary bucket-type drill rig at the approximate locations shown on the attached Drawing No. 1, entitled "Location of Test Borings." The borings were drilled to depths of 15 to 25 feet below the existing ground surface. A continuous log of the soils encountered in the borings was recorded at the time of drilling and is shown in detail on Drawing Nos. 2 to 4, inclusive, each entitled "Summary Sheet."

The soils were visually classified by field identification procedures in accordance with the Unified Soil Classification Chart. A simplified description of this classification system is presented in the attached Appendix A at the end of this report.

Undisturbed samples were obtained at frequent intervals in the soils ahead of the drilling. The drop weight used for driving the sampling tube into the soils was the "Kelly" bar of the drill rig which weighs 1623 pounds, and the average drop was 12 inches. The general procedures used in the field sampling are described under "Sampling" in Appendix B.

Laboratory Tests

Laboratory tests were performed on all undisturbed samples of the soils in order to determine the dry density and moisture content. The results of these tests are presented on Drawing Nos. 2 to 4, inclusive. Consolidation tests were performed on representative samples in order to determine the load-settlement characteristics of the soils and the results of these tests are presented graphically on Drawing Nos. 5 to 7, inclusive, each entitled "Consolidation Curves."

Compaction tests were performed on representative samples of the existing fill soil samples found at the site in order to establish compaction criteria. The soils were tested according to the A.S.T.M. D 1557-70 method of compaction which uses 25 blows of a 10 pound rammer dropping 18 inches on each of 5 layers in a 4 inch diameter 1/30 cubic foot compaction mold. The results of the tests are presented as follows:

Boring No.	Bag Sample	Depth in Feet	Soil Description	Maximum Dry Density lb/cu ft	Optimum Moisture Content % dry weight
1	1	1.0-2.0	Silty fine sand fill	119.9	11.4
2	1	1.0-2.0	Silty fine sand fill	108.2	17.4
2	3	9.0-10.0	Silty fine sand fill mottled with clayey fine sand	123.2	12.1

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Soil Strata

At Boring 1, an asphalt concrete paving was found in the upper 0.3 foot of the boring.

The asphalt concrete paving was underlain by loose silty fine sand fills to 3.2 feet. The fill soils were immediately underlain by a loose alluvial deposit consisting of porous silty fine sand and silt soils to 3.7 feet. Below 3.7 feet, a silty fine sand was encountered to the end of boring at 15.0 feet. The silty fine sand was medium firm between 3.7 and 8.0 feet in depth and very firm below.

No ground water was encountered in this boring.

At Boring 2, existing fill soils were found to a depth of 12.2 feet below existing ground surface. The fill soils consisted of loose silty fine sand and medium compact silty fine sand mottled with clayey fine sand. The fill soils were loose in the upper 0.5 foot, medium compact between 0.5 and 11.0 feet in depth and then merged to compact between 11.0 and 12.2 feet in depth. Below 12.2 feet, a medium firm silty fine sand was found to 18.0 feet and then merged to very firm silty fine to medium sand and silty fine sand to the end of boring at 25.0 feet.

No ground water was encountered in this boring.

Conclusions

It is concluded from the results of field explorations and loaboratory tests that the existing fill soils in the upper 3.2 and 12.2 feet, respectively, of Borings 1 and 2 have in-place densities varying from 78 to 89 percent of their maximum dry densities. The majority of the densities fall between 80.3 to 88.7 percent of maximum dry densities. The fill soils in the area of Boring 1 exhibited abrupt consolidation upon saturation with water indicating insufficient compaction at the time of fill placement. It is concluded that the fill soils in this area would have to be removed and recompacted under engineering inspection and testing to assure that these are uniformly compacted to at least 90 percent of maximum dry density and are then satisfactory for structural support.

The fill soils in the upper 12.2 feet of Boring 2 exhibited slight expansion upon saturation with water under a unit load of 1 kip per square foot in accordance with the results of consolidation tests. The fill soils encountered at Boring 2 are generally free of deleterious materials and have satisfactory load-settlement characteristics. However, it is not known whether these fill soils have been uniformly compacted throughout the entire fill area of the upper portion of the site.

Recommendations

In order to better determine the uniformity of the upper fill soils existing in the area of Boring 2, it would be desirable to drill additional borings and sample the soils in this portion of the site.

We were told that the site was an abandoned gas station site, and the fuel reservoir for the former gas station has been removed. The soil conditions around the former fuel reservoir are not known at this time. Additional borings in the former fuel reservoir be desirable to evaluate this area also. More definite conclusions can be drawn as to the suitability of the existing fill soils for load-supporting use once the evaluation of additional test results of the soil samples from additional borings is completed.

Specific recommendations regarding to pavement design, compaction specifications, and soil parameters for footing design will be presented in a supplemental report if the site is selected and we are authorized to complete the laboratory tests on the samples now stored in our laboratory.

Respectfully submitted,

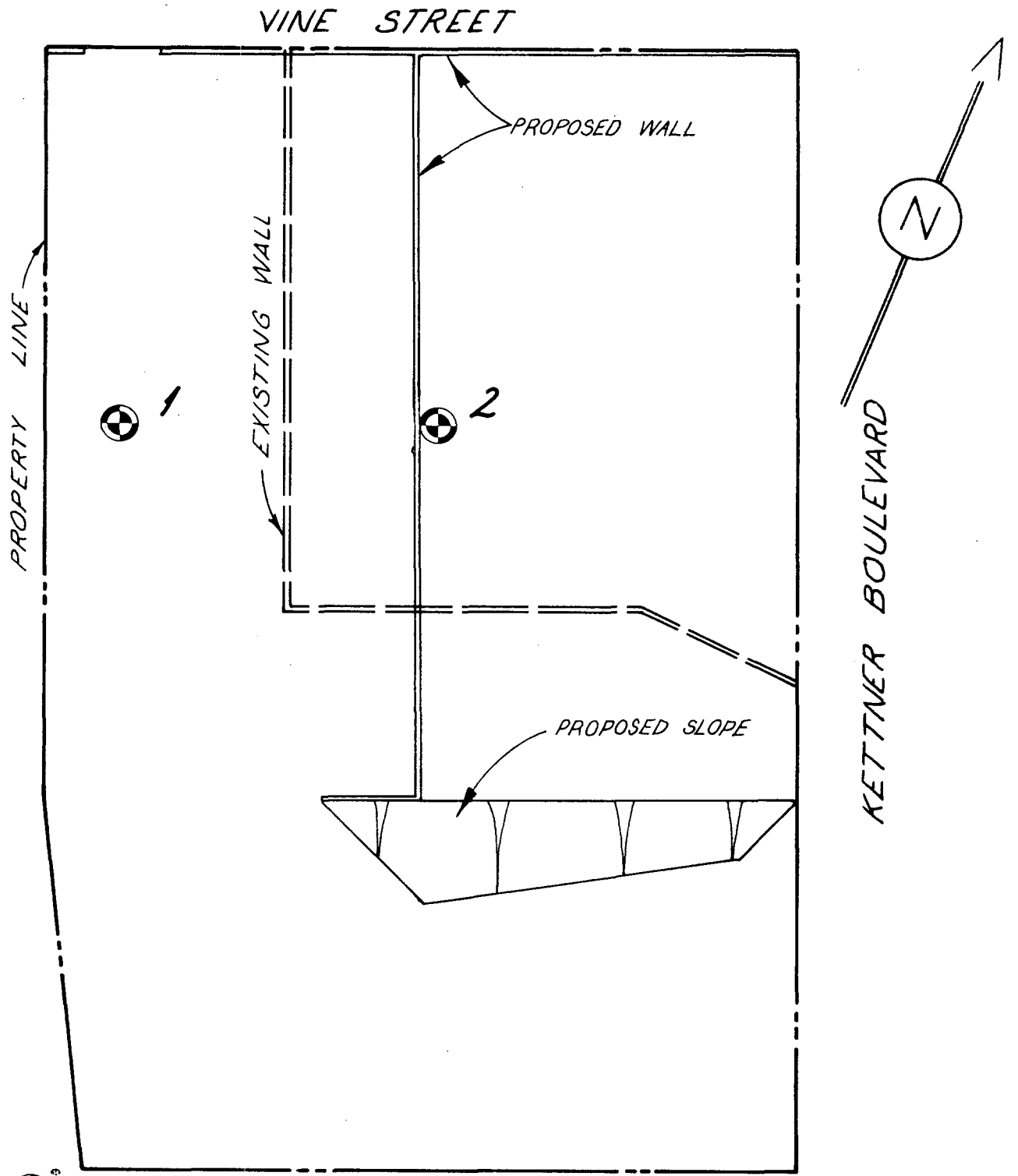
BENTON ENGINEERING, INC.

By _____
S. H. Shu, Civil Engineer

Reviewed by _____
Philip H. Benton, Civil Engineer

SHS/PHB/pk

Distr: (2) San Diego Gas & Electric Company
Attention: Mr. Ed Brancheau



Indicates Approximate Location of Test Boring

Date: 10-9-74 Drawn: M.R.C. Scale: 1"=40'

LOCATION OF TEST BORINGS

LAUREL SUBSTATION - SITE NO. 1
SAN DIEGO GAS & ELECTRIC COMPANY
VINE STREET AND KETTNER BOULEVARD
SAN DIEGO, CALIFORNIA

PROJECT NO.	BENTON ENGINEERING, INC.	DRAWING NO.
74-10-2A		1

JOB NAME: San Diego Gas & Electric Company, Laurel Substation

SUMMARY SHEET

BORING NO. 1

ELEVATION 37.3' *

DEPTH/FEET	SAMPLE NUMBER	SOIL CLASSIFICATION SYMBOL			DRIVE ENERGY FT. KIPS/FT.	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	SHEAR RESISTANCE KIPS/SQ. FT.	
0			3 INCHES THICK	A.C. PAVING					
1	[1]		Brown, Dry, Loose, Occasional Gravel						FILL
2	(1)		Moist	SILTY FINE SAND	1.6	5.5	93.6		
3									
4	(2)		Brown, Moist, Loose, Porous, Silty Clay Lenses, Alluvium	SILTY FINE SAND AND SILT	3.2	8.1	104.2		
5			Brown, Moist, Medium Firm, Slightly Porous						
6									
7	(3)				0.8	9.0	98.2		
8									
9			Very Firm						
10	(4)			SILTY FINE SAND	16.2	12.8	116.1		
11									
12									
13									
14			Very Moist						
15	(5)				4.9	18.7	108.4		

[ ] - Indicates Loose Bag Sample

( ) - Indicates Undisturbed Drive Sample

* - Elevations shown were obtained by interpolation between contour line on drawing furnished by San Diego Gas & Electric Company.

PROJECT NO.		DRAWING NO.
74-10-2A	BENTON ENGINEERING, INC.	2

JOB NAME San Diego Gas & Electric Company, Laurel Substation

SUMMARY SHEET

BORING NO. 2

ELEVATION 50.0'

DEPTH/FEET	SAMPLE NUMBER	SOIL CLASSIFICATION SYMBOL			DRIVE ENERGY FT. KIPS/FT.	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	SHEAR RESISTANCE KIPS/SQ. FT.	
0									
1	1		Yellow-brown, Moist, Loose Medium Compact	SILTY FINE SAND	3.2	16.9	96.0		FILL
2	(1)								
3									
4	(2)				4.9	20.4	101.4		
5			Gray and Dark Gray, Moist, Medium Compact, Occasional Roots	SILTY FINE SAND MOTTLED WITH CLAYEY FINE SAND					
6	2								
7	(3)				3.2	16.7	108.2		
8									
9	3								
10	(4)				2.4	16.5	99.1		
11			Brown, Moist, Compact, Occasional Chunks of Light Brown Silty Fine Sand	SILTY FINE SAND					
12	4								
13	(5)		Brown, Moist, Medium Firm		4.9	9.6	102.2		
14			Loose to Medium Firm, Slightly Porous	SILTY FINE SAND					
15									
16	(6)				1.6	6.0	98.8		
17									
18			Red-brown, Moist, Very Firm	SILTY FINE TO MEDIUM SAND					
19									
20	(7)				26.0	3.7	120.6		

Continued on Drawing No. 4

PROJECT NO.		DRAWING NO.
74-10-2A	BENTON ENGINEERING, INC.	3

JOB NAME San Diego Gas & Electric Company, Laurel Substation

SUMMARY SHEET

BORING NO. 2

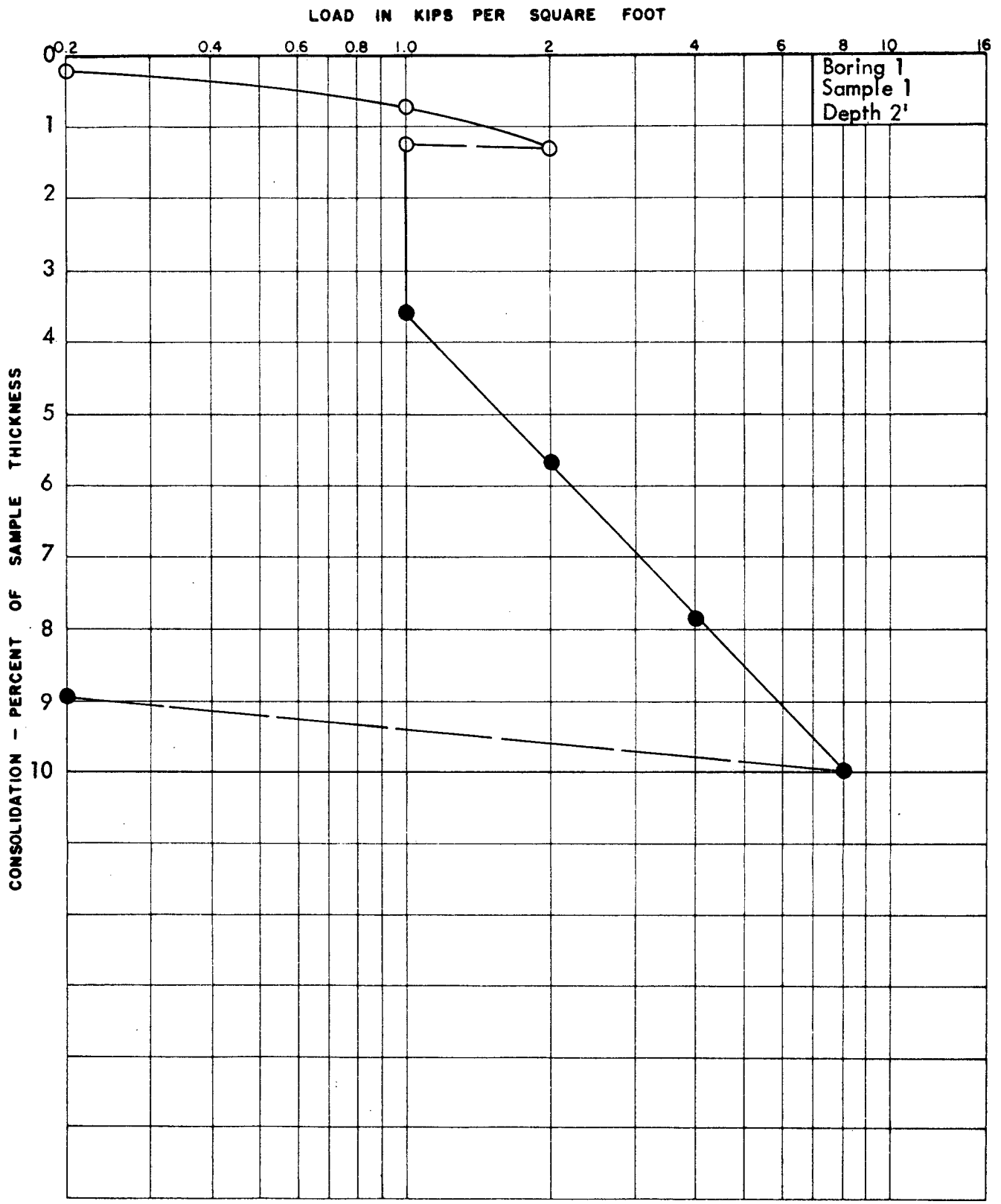
DEPTH/FEET	SAMPLE NUMBER	SOIL CLASSIFICATION SYMBOL			DRIVE ENERGY FT. KIPS/FT.	FIELD MOISTURE % DRY WT.	DRY DENSITY LBS./CU. FT.	SHEAR RESISTANCE KIPS/SQ. FT.	
20									
21			Red-brown, Moist, Very Firm	SILTY FINE TO MEDIUM SAND					
22			Dark Gray-brown, Moist, Very Firm	SILTY FINE SAND					
23									
24									
25	(8)				15.0	13.2	102.8		

PROJECT NO. 74-10-2A

BENTON ENGINEERING, INC.

DRAWING NO. 4

CONSOLIDATION CURVES



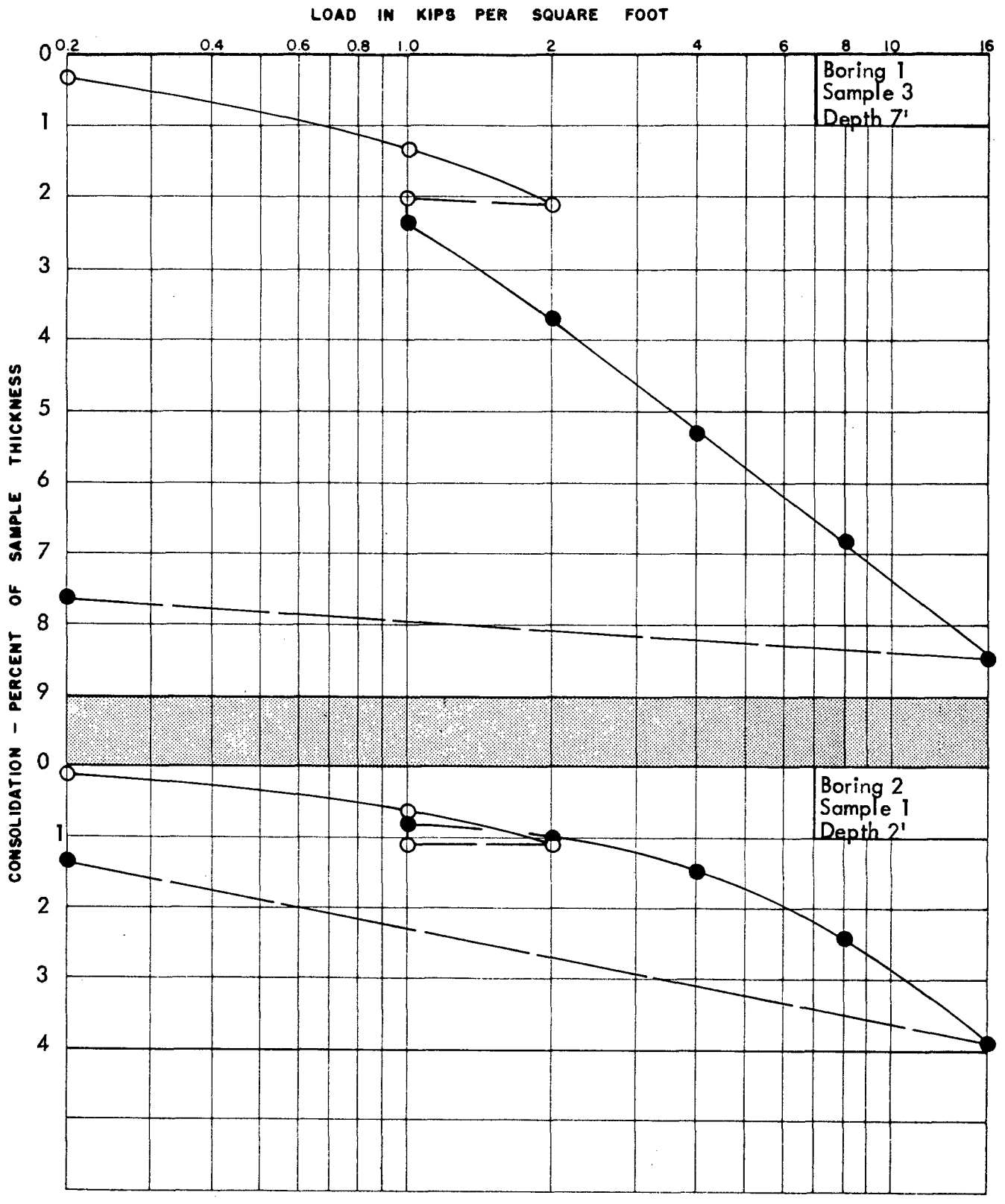
o Indicates percent consolidation at field moisture

● Indicates percent consolidation after saturation

JOB NAME S.D.G.&E. - Laurel Substation - Site 1

PROJECT NO.		DRAWING NO.
74-10-2A	BENTON ENGINEERING, INC.	5

CONSOLIDATION CURVES



o Indicates percent consolidation at field moisture

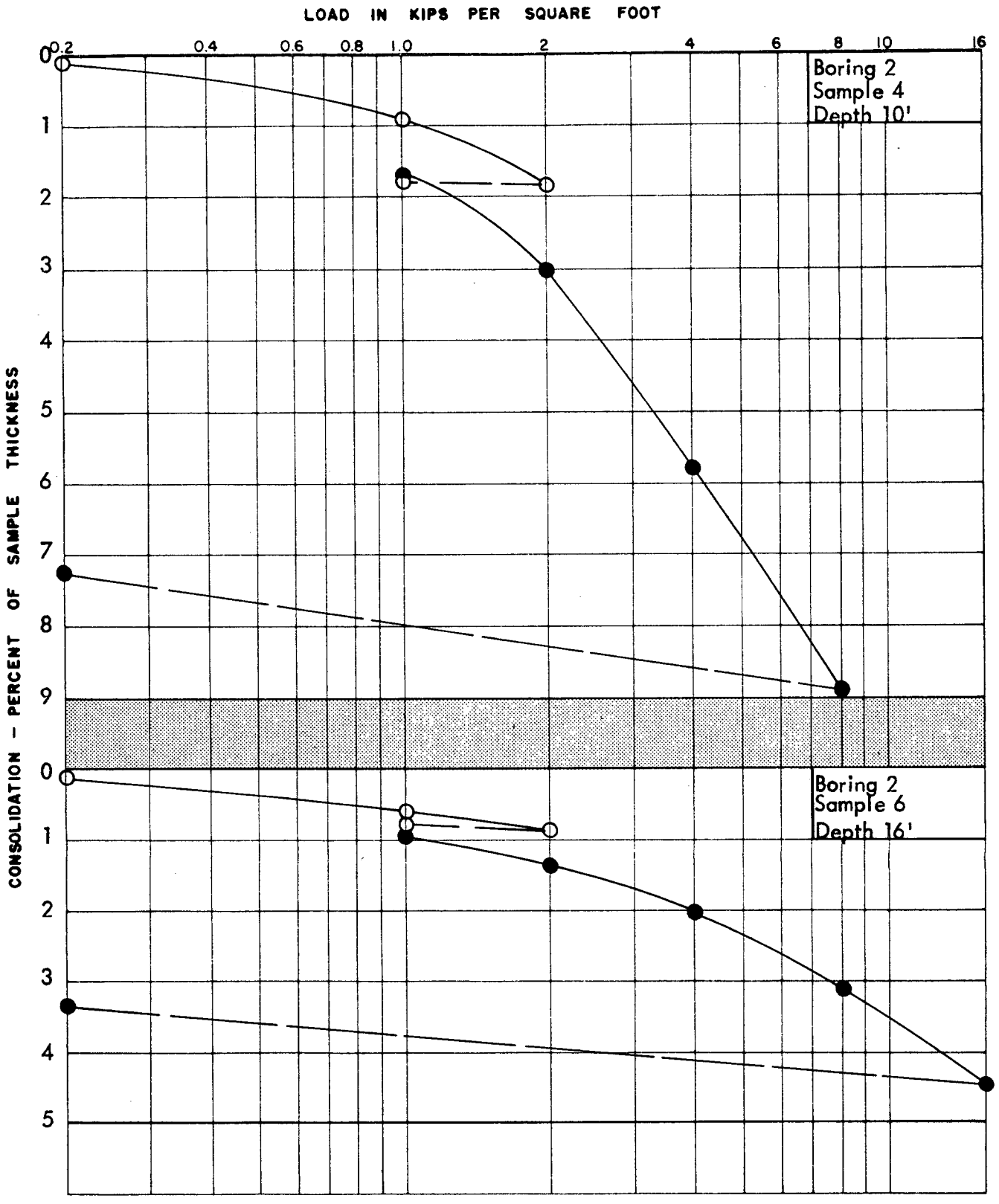
● Indicates percent consolidation after saturation

JOB NAME S.D.G.&E. - Laurel Substation - Site 1

PROJECT NO.		DRAWING NO.
74-10-2A	BENTON ENGINEERING, INC.	6

JOB NAME S.D.G.&E. - Laurel Substation - Site 1

CONSOLIDATION CURVES



o Indicates percent consolidation at field moisture

● Indicates percent consolidation after saturation

PROJECT NO.		DRAWING NO.
74-10-2A	BENTON ENGINEERING, INC.	7

Benton, 1977

G271

Geotechnical Report

BENTON ENGINEERING, INC.
APPLIED SOIL MECHANICS — FOUNDATIONS
6717 CONVOY COURT
SAN DIEGO, CALIFORNIA 92111

PHILIP HENKING BENTON
PRESIDENT - CIVIL ENGINEER

TELEPHONE (714) 565-1955

February 24, 1977

San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Attention: Mr. E. J. Brancheau

Subject: Project No. 77-2-17D
Report of Investigation to
Determine the Depths for
Removal of Unsuitable Soils
Proposed Site No. 1 of
Laurel Substation
South of the Intersection of
Vine Street and Kettner Boulevard
San Diego, California

Gentlemen:

This is to report the results of observations made on February 22, 1977 in order to determine the depths of unsuitable soils at the subject site.

The approximate locations of twelve additional exploration pits, Nos. 3 to 14, inclusive, excavated on February 22, 1977 are shown on the attached revised Drawing No. 1, entitled "Location of Exploration Pits."

The exploration pits were excavated using a backhoe supplied by the San Diego Gas & Electric Company. The pits were excavated to depths of 4 to 13 feet below the existing ground surface. A continuous log of the soils encountered in the pits was recorded and are described on pages 3 and 4, of this report.

The soils were visually classified by field identification procedures in accordance with the Unified Soil Classification Chart. A simplified description of this classification system is presented in the attached Appendix A at the end of this report.

It is concluded from the observations in the field exploration pits, that loose fill soils and/or porous alluvial soils exist from depths of 2.7 to 5.7 feet below existing grade in the lower area of the site, and to 0.5 foot in the upper area behind the existing retaining wall. Therefore, it is recommended that these unsuitable soils be removed and recompacted under engineering inspection and testing to assure that the recompacted soils are uniformly compacted to at least 90 percent of maximum dry density. The maximum dry density of the soils are to be determined

according to the A.S.T.M. D 1557-70 method of compaction which uses 25 blows of a 10 pound rammer dropping 18 inches on each of 5 layers in a 4 inch diameter 1/30 cubic foot compaction mold.

The recommended depths of removal of the unsuitable fill and porous natural soils are listed below:

Pit No.	Depth of Removal Below Existing Grade in Feet
3	2.7
4	5.7
5	4.3
6	3.5
7	4.5
8	3.2
9	3.5
10	3.5
11	3.0
12	3.0
13	4.0
14	0.5

It is understood that at this time only the unsuitable soils in the lower area of the site are to be removed and recompacted. At a later date the soils behind the existing retaining wall will be removed and the wall cut off at 2.0 feet below the proposed finished grade.

Our office was informed by Mr. George Wiegand that the footing for the existing retaining wall extends approximately 0.5 foot beyond the face of the wall. This would indicate that the footing extends a greater distance underneath the fill behind the wall, therefore, it is our opinion that the unsuitable soils to be excavated in the lower portion of the site can be safely removed outside a slope of one horizontal to one vertical from a point at the top outside edge of the wall footing. The excavation, adjacent to the retaining wall, should be inspected at the time of excavating to verify that the stability of the wall is maintained.

Respectfully submitted,

BENTON ENGINEERING, INC.

By _____
Carl R. Johnson, Civil Engineer
R.C.E. No. 27053

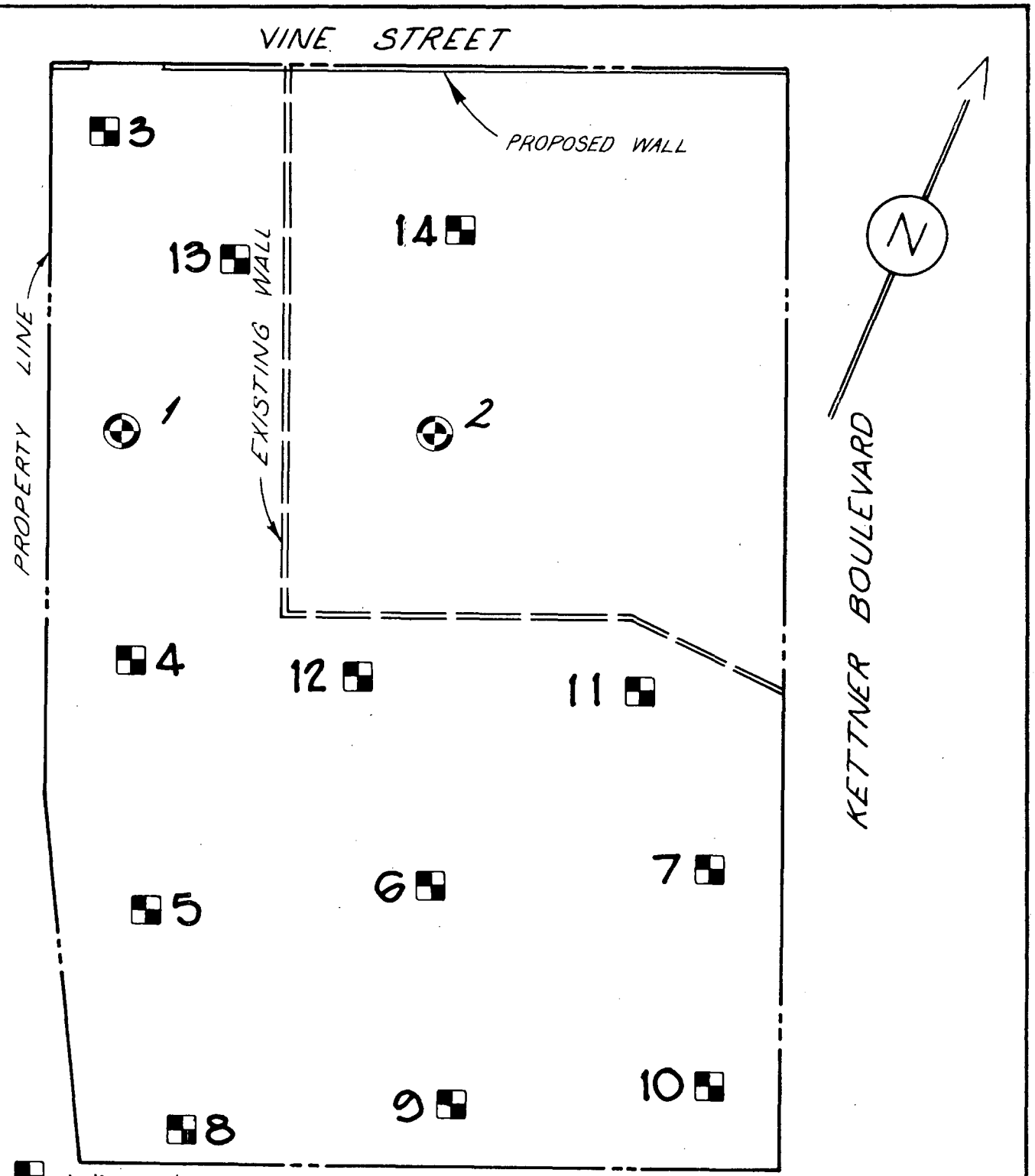
Distr: San Diego Gas & Electric Company
(2) Addressee
(1) Attention: Mr. William A. Davis
(1) Attention: Mr. J. F. Pendleton
(1) Attention: Mr. R. S. Peterson
(1) Attention: Mr. T. M. Nutt
(1) Attention: Ms. P. M. Stanfield

Reviewed by _____
Philip H. Benton, Civil Engineer
R.C.E. No. 10332

CRJ/PHB/ew

Pit No.	Depth in Feet	Soil Description
3	0 - 0.3	A. C. Paving
	0.3 - 2.7	Brown, moist, loose fill, silty fine to medium sand
	2.7 - 3.2	Light gray brown, moist, firm, silty fine sand, slightly porous, alluvium
	3.2 -- 4.0	Light gray, moist, firm, slightly silty fine sand
4	0 - 0.2	A. C. Paving
	0.2 - 4.5	Brown, moist, loose to medium compact, fill, silty fine to medium sand
	4.5 - 5.0	Gray brown, moist, loose to medium firm, silty fine sand, alluvium
	5.0 - 5.7	Brown, moist, firm, silty fine sand, very porous, alluvium
	5.7 - 6.5	Brown, moist, firm, silty fine sand, slightly porous, alluvium
5	0- - 0.13	A. C. Paving
	0.13— 3.3	Brown, moist, loose to medium compact fill, silty fine sand
	3.3 - 4.3	Gray brown, moist, medium firm, silty fine sand, porous alluvium
	4.3 - 5.0	Light gray brown, moist, medium firm, silty fine sand
6	0 - 0.25	A.C. Paving
	0.25 - 2.2	Light gray brown, moist, loose to medium compact fill, silty fine sand
	2.2 - 3.5	Light gray brown, moist, loose to medium firm, silty fine sand, very porous alluvium
	3.5 - 4.4	Light gray brown, moist, medium firm, silty fine sand Slightly porous alluvium
7	0 - 0.13	A.C. Paving
	0.13 - 4.5	Brown, moist, firm, silty fine to medium sand with clay binder, porous alluvium
	4.5 - 5.0	Medium brown, moist, firm, silty fine sand, slightly porous alluvium
8	0 - 0.17	A. C. Paving
	0.17 - 3.2	Brown, moist, loose to medium compact fill, silty fine sand
	3.2 - 4.3	Light gray brown, moist, firm silty fine sand, alluvium

Pit No.	Depth in Feet	Soil Description
9	0 - 0.17	A. C. Paving
	0.17 - 1.0	Brown, moist, compact fill, silty fine sand
	1.0 - 3.5	Brown, slightly moist, medium firm, silty fine to medium sand with clay binder, porous alluvium
	3.5 - 5.0	Brown, slightly moist, medium firm, silty fine to medium sand with clay binder, slightly porous alluvium
10	0 - 0.2	A. C. Paving
	0.2 3.5	Brown, slightly moist, medium firm, silty fine to medium sand with clay binder, porous alluvium
	3.5 - 5.5	Brown, moist, medium firm, silty fine to medium sand with clay binder, slightly porous alluvium
11	0 - 0.2	A. C. Paving
	0.2 - 3.0	Brown, slightly moist, medium firm to very firm, silty fine to medium sand with clay binder, porous alluvium
	3.0 - 4.5	Brown, moist, medium firm to very firm, silty fine to medium sand with clay binder, slightly porous alluvium
12	0 - 0.17	A. C. Paving
	0.17 - 3.0	Brown, moist, loose to medium compact fill, silty fine sand
	3.0 - 4.7	Brown, moist, medium firm, silty fine sand
13	0 - 0.17	A. C. Paving
	0.17 - 1.0	Brown, slightly moist, loose fill, silty fine sand
	1.0 - 1.5	Brown, slight moist, loose to medium firm, silty fine sand
	1.5 - 4.0	Brown, slightly moist, medium firm, silty fine to medium sand with clay binder, very porous alluvium
	4.0 - 4.5	Brown, moist, medium firm, silty fine to medium sand with clay binder, slightly porous alluvium
14	0 - 0.5	Yellow brown, moist, loose, fill, silty fine sand
	0.5 - 6.0	Yellow brown, moist, medium compact, fill, silty fine sand with concrete debris
	6.0 - 10.5	Gray and dark gray, moist, medium compact fill, silty fine sand mottled with clayey fine sand
	10.5 - 13.0	Brown, moist, compact, silty fine sand



Indicates Approximate Location of Exploration Pit.

Indicates Approximate Location of Test Boring, Our Report 74-10-2A - dated 10-9-74

Date: 2-23-1977 Drawn: K.L. Green Scale: 1"=40'

LOCATION OF EXPLORATION PITS

LAUREL SUBSTATION - SITE NO. 1

SAN DIEGO GAS & ELECTRIC COMPANY

VINE STREET AND KETTNER BOULEVARD
SAN DIEGO, CALIFORNIA

PROJECT NO.	BENTON ENGINEERING, INC.	DRAWING NO.
77-2-17D		1

APPENDIX B

Geotechnical Borings

Geosyntec consultants
10875 Rancho Bernardo Rd, Suite 200
San Diego, CA 92127
Tel: (858) 674-6559
Fax: (858) 674-6586

PROJECT Vine Substation
PROJECT LOCATION San Diego, California
PROJECT NUMBER SC0368-30

KEY SHEET - CLASSIFICATIONS AND SYMBOLS

GS FORM: KEY 09/99

EMPIRICAL CORRELATIONS WITH STANDARD PENETRATION RESISTANCE N VALUES *

	N VALUE * (BLOWS/FT)	CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (TONS/SQ FT)
FINE GRAINED SOILS	0 - 2	VERY SOFT	<0.25
	3 - 4	SOFT	0.25 - 0.50
	5 - 8	FIRM	0.50 - 1.00
	9 - 15	STIFF	1.00 - 2.00
	16 - 30	VERY STIFF	2.00 - 4.00
	31 - 50	HARD	>4.00
	>50	VERY HARD	

	N VALUE * (BLOWS/FT)	RELATIVE DENSITY
COARSE GRAINED SOILS	0 - 4	VERY LOOSE
	5 - 10	LOOSE
	11 - 30	MEDIUM DENSE
	31 - 50	DENSE
	>50	VERY DENSE

* ASTM D 1586; NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 IN. O.D., 1.4 IN. I.D. SAMPLER ONE FOOT.

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

MAJOR DIVISIONS			SYMBOLS	DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL COARSER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO.4 SIEVE	CLEAN GRAVELS — LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES — APPRECIABLE AMOUNT OF FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING NO.4 SIEVE	CLEAN SANDS — LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES — APPRECIABLE AMOUNT OF FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL FINER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS

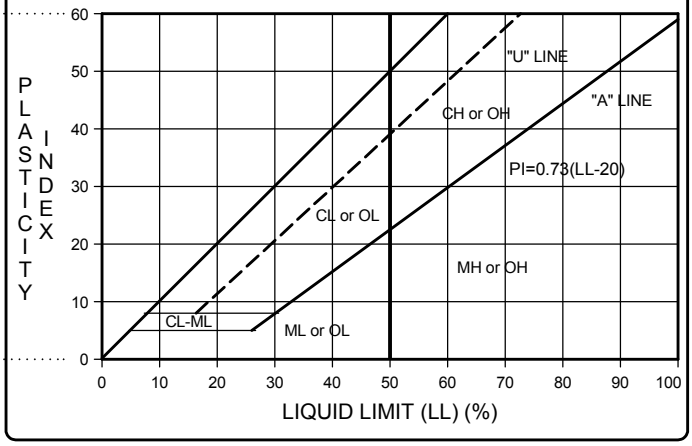
PARTICLE SIZE IDENTIFICATION

BOULDERS	>300 mm
COBBLES	75 - 300 mm
GRAVEL: COARSE	19.0 - 75 mm
GRAVEL: FINE	4.75 - 19 mm
SAND: COARSE	2.00 - 4.75 mm
SAND: MEDIUM	0.425 - 2.00 mm
SAND: FINE	0.075 - 0.425 mm
SILT	0.075 - 0.002 mm
CLAY	<0.002 mm

WELL GRADED - HAVING WIDE RANGE OF GRAIN SIZES AND APPRECIABLE AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES

POORLY GRADED - PREDOMINANTLY ONE GRAIN SIZE, OR HAVING A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING

PLASTICITY CHART



OTHER MATERIAL SYMBOLS

- Siltstone
- Sandstone
- Siltstone/Claystone
- Claystone
- Shale
- Siltstone/Sandstone
- Conglomerate
- Granitic
- Sand
- Silt
- Silty Sand
- Alluvium
- Artificial Fill
- Debris Fill
- Asphalt
- Cement

WELL SYMBOLS

- GRANULAR BENTONITE
- BENTONITE CEMENT GROUT
- FILTER PACK
- CONCRETE
- NATIVE/ SLOUGH
- CENTRAL-IZER

SAMPLER AND OTHER SYMBOLS

- GRAB SAMPLE
- SPLIT SPOON
- STANDARD PENETRATION TEST (SPT)
- SHELBY TUBE
- CALIFORNIA SAMPLER
- BULK SAMPLE

- Water Level at Time Drilling, or as Shown
- Static Water Level
- MSL: Mean Sea Level
- MC: Moisture Content
- FC: Fines Content
- DD: Dry Density
- EI: Expansion Index
- SA: Sieve Analysis
- PI: Plasticity Index
- LL: Liquid Limit
- c: Cohesion
- K: Hydraulic Conductivity
- Phi: Friction Angle

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-1 **SHEET** 1 OF 2
START DATE 7/10/2013 **ELEVATION** 44 FT MSL
FINISH DATE 7/10/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	ELEVATION (ft)	SAMPLES NUMBER	TYPE	BLOW COUNTS	% RECOVERY	N-VALUE	TIME	COMMENTS
	FILL 3" asphaltic concrete over moist, yellowish brown (10 YR 5/6) silty fine sand with trace clay.		B-1-1A						CORR
5	COLLUVIUM: (Qc) Medium dense, moist dark brown (10 YR 3/3) silty fine sand [SM] with angular to sub angular gravels	39	B-1-1			100	20		Cobble at 4.8 feet. MC (8) DD (108) EI (31)
10	OLD PARALIC DEPOSITS (Qop6) Very stiff, moist, brown (7.5 YR 4/3) fine sandy silt [ML] with some soil development	34	B-1-2		10/10/9	100	19		PID (0.0) SA (62)
15	Dense, moist, dark brown (10 YR 3/5) silty to clayey fine sand [SM/SC]	29	B-1-3		10/14/19	100	33		MC (15) DD (109)
20	Medium dense, moist, dark yellowish brown to light gray (10 YR 4/6 to 6/2) silty fine sand [SM]	24	B-1-4		6/7/8	100	15		PID (0.0) WA (63)
25	Increase in moisture, becomes wet, dark reddish brown (10 YR 3/2)	19	B-1-5		2/7/8	10	15		
30		14							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73917
LONGITUDE 117.17899
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-1 **SHEET** 2 OF 2
START DATE 7/10/2013 **ELEVATION** 44 FT MSL
FINISH DATE 7/10/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	Becomes dark yellowish brown (10 YR 3/6)			B-1-6		4/7/6	0	13		Description made from shoe.
35			9	B-1-7		6/13/11	0	24		Sample wet.
40			4	B-1-8		3/2/1	100	3		(Slough) Borehole caved to 24.3 feet after augers pulled.
	Bottom of boring at 41.5 feet. Boring backfilled with approximately 10.7 cubic feet of bentonite grout, 0.2 cubic feet of bentonite chips, and 0.2 cubic feet of concrete.									
45			-1							
50			-6							
55			-11							
60			-16							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73917
LONGITUDE 117.17899
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-2 **SHEET** 1 OF 2
START DATE 7/10/2013 **ELEVATION** 36 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	FILL: 1" asphaltic concrete over moist brownish yellow to dark yellowish brown (10 YR 6/6 to 4/4) fine sandy silt to silty sand with clay. Contains angular to sub angular gravels.									Hand auger to 5 feet.
				B-2-1A						COMP
	COLLUVIUM: (Qc) Loose, moist, dark brown (10 YR 3/3) silty fine sand [SM] with trace clay									
5			31	B-2-1		5/3/4	100	7		PID (0.0)
	OLD PARALIC DEPOSITS: (Qop6) Very dense to hard, moist, dark yellowish brown (10 YR 3/4) fine sandy silt to silty fine sand [SM/ML]									
10			26	B-2-2		26/50 for 5"	100	50		Hard drilling at 10 feet. MC (13) DD (103)
15	Decrease in density, becomes stiff to medium dense		21	B-2-3		5/6/9	100	15		PID (0.0)
20	Increase in moisture, becomes dark yellowish brown (10 YR 3/6) with increase in clay		16	B-2-4		4/9/11	100	20		DD (114) MC (16) WA (57)
25			11	B-2-5		4/4/5	0	9		
	Medium dense, wet, dark yellowish brown (10 YR 3/6) clayey to silty fine sand [SM/SC]									
30			6							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene **PRINTED** August 12, 2013

LATITUDE 32.73893
LONGITUDE 117.17937
ANGLE Vertical
BEARING ------

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-2 **SHEET** 2 OF 2
START DATE 7/10/2013 **ELEVATION** 36 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
				B-2-6		3/3/11	100	14		Slough? MC (20) DD (114) PI (NP) SA (48)
35			1	B-2-7		2/2/2	100	4		Slough?
	Hard, wet, strong brown (7.5 YR 4/6) fine sandy silt [ML]									
40			-4	B-2-8		12/19/14	100	33		MC (19) DD (115) WA (66)
45			-9	B-2-9		1/2/3	100	5		Slough?
	Dense, moist to wet, dark yellowish brown to brownish yellow (10 YR 5/6 to 4/6] silty fine to very fine sand [SM]									
50			-14	B-2-10		14/17/24	100	41		MC (23) DD (108)
	Bottom of boring at 51.5 feet. Boring backfilled with approximately 10.7 cubic feet of bentonite grout and 0.3 cubic feet of concrete.									
55			-19							
60			-24							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73893
LONGITUDE 117.17937
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-3 **SHEET** 1 OF 2
START DATE 7/10/2013 **ELEVATION** 43 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	FILL: 3" asphaltic concrete over moist, dark yellowish brown (10 YR 5/6) fine sandy silt									Hand auger to 5 feet.
				B-3-1A						WA (54) R-value
	OLD PARALIC DEPOSITS: (Qop6) Very dense, moist, dark yellowish brown (10 YR 4/6) clayey fine sand [SC/CL] with few angular to sub angular gravels. Contains localized carbonate cementation.									MC (13) DD (116)
5			38	B-3-1		12/23/34	100	57		
	Increase in clay becomes sandy lean clay									
10	Becomes dark yellowish brown (10 YR 3/6)		33	B-3-2		12/18/15	100	33		PID (0.0) MC (11) WA (61)
15	Increase in oxidation; contains angular to sub angular gravels		28	B-3-3		14/16/24	100	40		MC (11) DD (113)
	Medium dense, moist, mottled strong brown to pale brown (7.5 YR 4/6 to 10 YR 6/3) silty to clayey fine sand [SC/SM]									
20			23	B-3-4		10/11/13	100	24		PID (0.0) WA (56)
25			18	B-3-5		6/10/18	100	28		MC (15) DD (121) SG (2.7)
30			13							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene **PRINTED** August 12, 2013

LATITUDE 32.73851
LONGITUDE 117.17845
ANGLE Vertical
BEARING ------

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-3 **SHEET** 2 OF 2
START DATE 7/10/2013 **ELEVATION** 43 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	BLOW COUNTS	% RECOVERY	N-VALUE	TIME	COMMENTS
	Hard to medium stiff, wet, dark yellowish brown (10 YR 4/6) fine sandy lean clay [CL]			B-3-6		5/18/14	100	32		WA (53) LL (23) PL (17) PI (6)
	Decrease in sand content									Easy drilling @ 34'.
35			8	B-3-7		2/5/6	100	11		WA (62) LL (27) PL (18) PI (9)
	Dense, wet, yellowish brown (10 YR 5/6) poorly graded fine sand [SP]									
40			3	B-3-8		4/13/32	100	45		
	Very stiff, wet, mottled light grayish brown to brownish yellow (10 YR 6/2 to 6/8) and light yellowish brown (2.5 YR 6/4) fat clay [CH] with trace fine sand.									Hard drilling @ 44'.
45			-2	B-3-9		3/7/9	100	16		SA (95) LL (69) PL (24) PI (45)
50			-7	B-3-10		4/8/7	100	15		
	Bottom of boring at 51.5 feet. Boring backfilled with approximately 10.7 cubic feet of bentonite grout, 0.2 cubic feet of bentonite chips, and 0.3 cubic feet of concrete.									
55			-12							
60			-17							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73851
LONGITUDE 117.17845
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-4 **SHEET** 1 OF 2
START DATE 7/11/2013 **ELEVATION** 38 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	BLOW COUNTS	% RECOVERY	N-VALUE	TIME	COMMENTS
	FILL: 1" asphaltic concrete over moist, dark yellowish brown (10 YR 3/4 to 4/6) silty fine sand with sub rounded gravels.			B-4-1A						Hand auger to 5 feet. Gravels 2.5"x1.5"x1.0"
5	COLLUVIUM: (Qc) Very loose, moist, dark brown (10 YR 3/3) silty fine sand [SM] with trace clay		33	B-4-1		1/2/1	100	3		PID (0.0) CORR
10	OLD PARALIC DEPOSITS: (Qop6) Hard, moist, yellowish brown (10 YR 5/4) lean silt [ML] with trace sand. Contains carbonate cementation.		28	B-4-2		12/15/17	100	32		WA (66)
	Very stiff to hard, moist, dark yellowish brown (10 YR 3/4) fine sandy lean clay [CL]									
15			23	B-4-3		5/8/11	100	19		PID (0.0) WA (59)
20			18	B-4-4		9/17/22	100	39		MC (14) DD (118) WA (57) LL (29) PL (16) PI (13)
25	Stiff, wet, dark yellowish brown (10 YR 3/6) lean clay [CL] with fine sand.		13	B-4-5		3/6/8	100	14		MC (14) WA (63) LL (30) PL (14) PI (16)
30			8							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene **PRINTED** August 12, 2013

LATITUDE 32.73828
LONGITUDE 117.17879
ANGLE Vertical
BEARING ------

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-4 **SHEET** 2 OF 2
START DATE 7/11/2013 **ELEVATION** 38 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	Stiff to very stiff, wet, dark yellowish brown (10 Yr 4/6) to brown (7.5 YR 4/4) fine sandy lean clay [CL].			B-4-6		6/5/7	100	12		WA (58) LL (28) PL (14) PI (15)
35			3	B-4-7		6/11/11	100	22		WA (50) LL (23) PL (14) PI (9)
	Dense, moist, dark yellowish brown (10 Yr 4/6) to strong brown (7.5 YR 4/6) silty fine sandy silt [ML]									
40			-2	B-4-8		12/17/17	100	34		Harder drilling. WA (69)
	Bottom of boring at 41.5 feet. Boring backfilled with approximately 10.7 cubic feet of bentonite grout, 1.0 cubic feet of bentonite chips, and 0.3 cubic feet of concrete.									
45			-7							
50			-12							
55			-17							
60			-22							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73828
LONGITUDE 117.17879
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-5 **SHEET** 1 OF 2
START DATE 7/11/2013 **ELEVATION** 40 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	FILL: 1" asphaltic concrete over moist, light olive brown (25 YR 5/4) silty fine sand with angular to sub angular gravels.									Hand auger to 5 feet.
				B-5-1A						
	Decrease in gravels at 3.6 feet									
5	Becomes dark yellowish brown (10 YR 4/6) silt. Contains metal debris at 6.0 feet.		35	B-5-1		4/3/5	100	8		PID (0.0) MC (8) EI (51)
	COLLUVIUM: (Qc) Medium dense, moist, mottled dark brown (10 YR 3/3) silty fine sand [SM]. Porous.									
10			30	B-5-2		11/11/11	100	22		Porous soil. MC (12) DD (106)
	OLD PARALIC DEPOSITS: (Qop6) Medium dense, stiff, moist, dark yellowish brown (10 YR 3/4) fine sandy silt to silty fine sand [ML/SM] with localized manganese nodules.									
15			25	B-5-3		6/7/5	100	12		
20	Becomes hard to very dense		20	B-5-4		11/15/17	100	32		Difficult drilling @ 20'. MC (14) DD (119) WA (59)
	Stiff, moist to wet, dark yellowish brown (10 YR 3/4) lean clay [CL] with fine sand.									
25			15	B-5-5		7/5/9	100	14		WA (56) LL (27) PL (17) PI (10)
30			10							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene **PRINTED** August 12, 2013

LATITUDE 32.73874
LONGITUDE 117.17887
ANGLE Vertical
BEARING ------

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING B-5 **SHEET** 2 OF 2
START DATE 7/11/2013 **ELEVATION** 40 FT MSL
FINISH DATE 7/11/2013
PROJECT Vine Substation
LOCATION San Diego, California
PROJECT NUMBER SC0368-30

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOW COUNTS	SAMPLES % RECOVERY	SAMPLES N-VALUE	TIME	COMMENTS
	Very stiff, wet, dark yellowish brown (10 YR 3/4) fine to medium sandy lean clay [CL].			B-5-6		12/14/13	100	27		WA (53) LL (23) PL (16) PI (7)
35	Contains fine to coarse gravels		5	B-5-7		5/10/18	100	28		WA (56) LL (25) PL (16) PI (9)
	Hard to very dense, wet, light yellowish brown (2.5 YR 6/4) to light olive brown (2.5 YR 5/3) lean clay to clayey fine sand [CL/SC].									
40			0	B-5-8		4/9/42	100	51		Difficult drilling @ 39'. MC (22) DD (103) WA (57)
	Bottom of boring at 41.5 feet. Boring backfilled with approximately 13.4 cubic feet of bentonite grout and 0.3 cubic feet of concrete.									
45			-5							
50			-10							
55			-15							
60			-20							

CONTRACTOR Tri-County Drilling
EQUIPMENT CME-85
DRILL MTHD HSA
DIAMETER 8 inches
LOGGER J.Warner **REVIEWER** A.Greene

LATITUDE 32.73874
LONGITUDE 117.17887
ANGLE Vertical
BEARING ------
PRINTED August 12, 2013

REMARKS: Approximate lat/long estimated from Google Earth. Approximate elevation estimated from site survey data provided by SDG&E.

COORDINATE SYSTEM:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORING LOG GEOTECH (KEATON) SC0368-30.GPJ SAN DIEGO GINT LIBRARY.GLB 8/12/13

APPENDIX C

Cone Penetration Test Soundings

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

Kettner Substation Relocation
Kettner Blvd. & Vine Street
San Diego, CA
July 30, 2013 - August 2, 2013

Prepared for:

Ms. Jennifer Nevius
Geosyntec Consultants, Inc.
10875 Rancho Bernardo Road, Ste 200
San Diego, CA 92127
Office (858) 674-6559 / Fax (858) 674-6586

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

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3. **FIELD EQUIPMENT & PROCEDURES**

4. **CONE PENETRATION TEST DATA & INTERPRETATION**

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- CPT Classification/Soil Behavior Chart
- Interpretation Output (CPeT-IT)
- Summary of Shear Wave Velocities
- CPeT-IT Calculation Formulas

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the Kettner Substation Relocation project located at Kettner Blvd. & Vine Street in San Diego, California. The work was performed by Kehoe Testing & Engineering (KTE) on July 30, 2013-August 2, 2013. The scope of work was performed as directed by Geosyntec Consultants, Inc. personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at 26 locations to determine the soil lithology. Groundwater measurements and hole collapse depths provided in **TABLE 2.1** are for information only. The readings indicate the apparent depth to which the hole is open and the apparent water level (if encountered) in the CPT probe hole at the time of measurement upon completion of the CPT. KTE does not warranty the accuracy of the measurements and the reported water levels may not represent the true or stabilized groundwater levels.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
C-1	80	Refusal, groundwater @ 25.0 ft
C-2	74	Refusal, groundwater @ 25.0 ft
C-3	75	Groundwater @ 21.0 ft
C-4	73	Refusal, groundwater @ 24.0 ft
C-5	70	Refusal, groundwater @ 23.0 ft
C-6	66	Refusal, groundwater @ 23.0 ft
C-7	64	Refusal, groundwater @ 23.0 ft
C-8	61	Refusal, groundwater @ 23.0 ft
C-9	48	Refusal, groundwater @ 24.0 ft
C-10	93	Groundwater @ 24.0 ft
C-11	89	Refusal, groundwater @ 21.0 ft
C-12	45	Refusal, groundwater @ 21.0 ft
C-12B	45	Refusal, groundwater @ 22.0 ft
C-13	43	Refusal, groundwater @ 21.0 ft
C-13A	80	No cave depth taken
C-14	90	Groundwater @ 24.0 ft
C-15	80	Groundwater @ 24.0 ft

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
C-16	90	Groundwater @ 27.0 ft
C-17	100	Groundwater @ 27.0 ft
C-18	4	Refusal, hole open to 4.0 ft (dry)
C-18A	4	Refusal, hole open to 4.0 ft (dry)
C-18C	80	Groundwater @ 27.0 ft
C-19	80	Groundwater @ 26.0 ft
C-20	58	Refusal, groundwater @ 25.5 ft
C-21	80	Groundwater @ 25.0 ft
C-22	100	Groundwater @ 25.0 ft

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone and recorded the following parameters at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

At location C-1, C-8, C-10, C-15, C-16 & C-22, shear wave measurements were obtained at approximately 10-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil classification on the CPT plots is derived from the attached CPT Classification Chart (Robertson) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

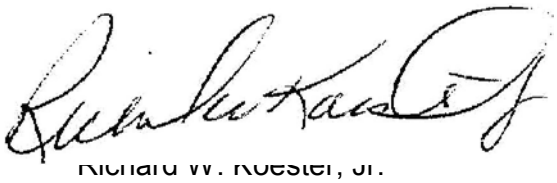
Tables of basic CPT output from the interpretation program CPeT-IT are provided for CPT data averaged over one foot intervals in the Appendix. Spreadsheet files of the averaged basic CPT output and averaged estimated geotechnical parameters are also included for use in further geotechnical analysis. We recommend a geotechnical engineer review the assumed input parameters and the calculated output from the CPeT-IT program. A summary of the equations used for the tabulated parameters is provided in the Appendix.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING



Richard W. Koester, Jr.
General Manager

08/15/13-ag-3997

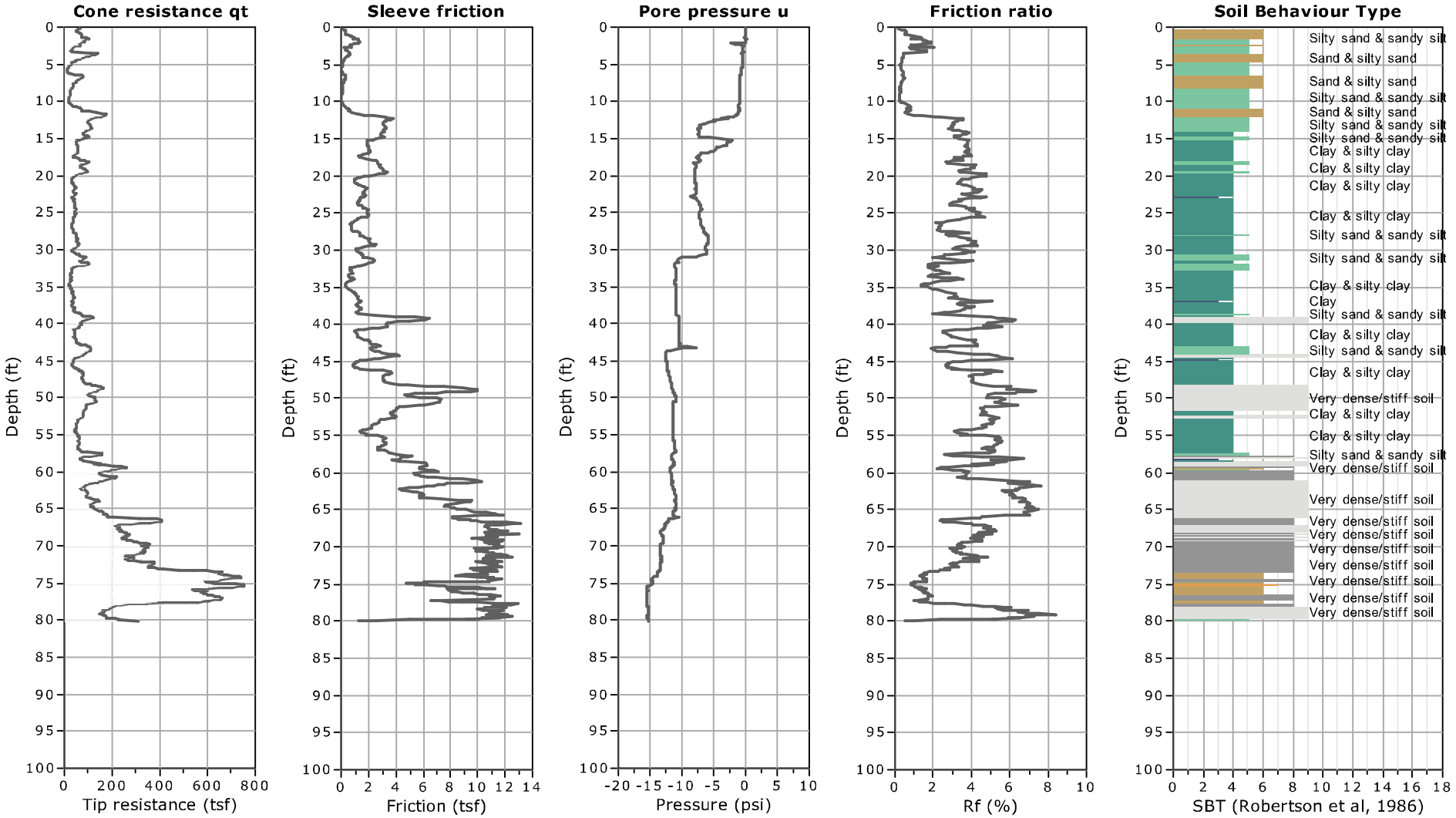
APPENDIX

Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-1

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.10 ft, Date: 7/30/2013
Cone Type: Vertek



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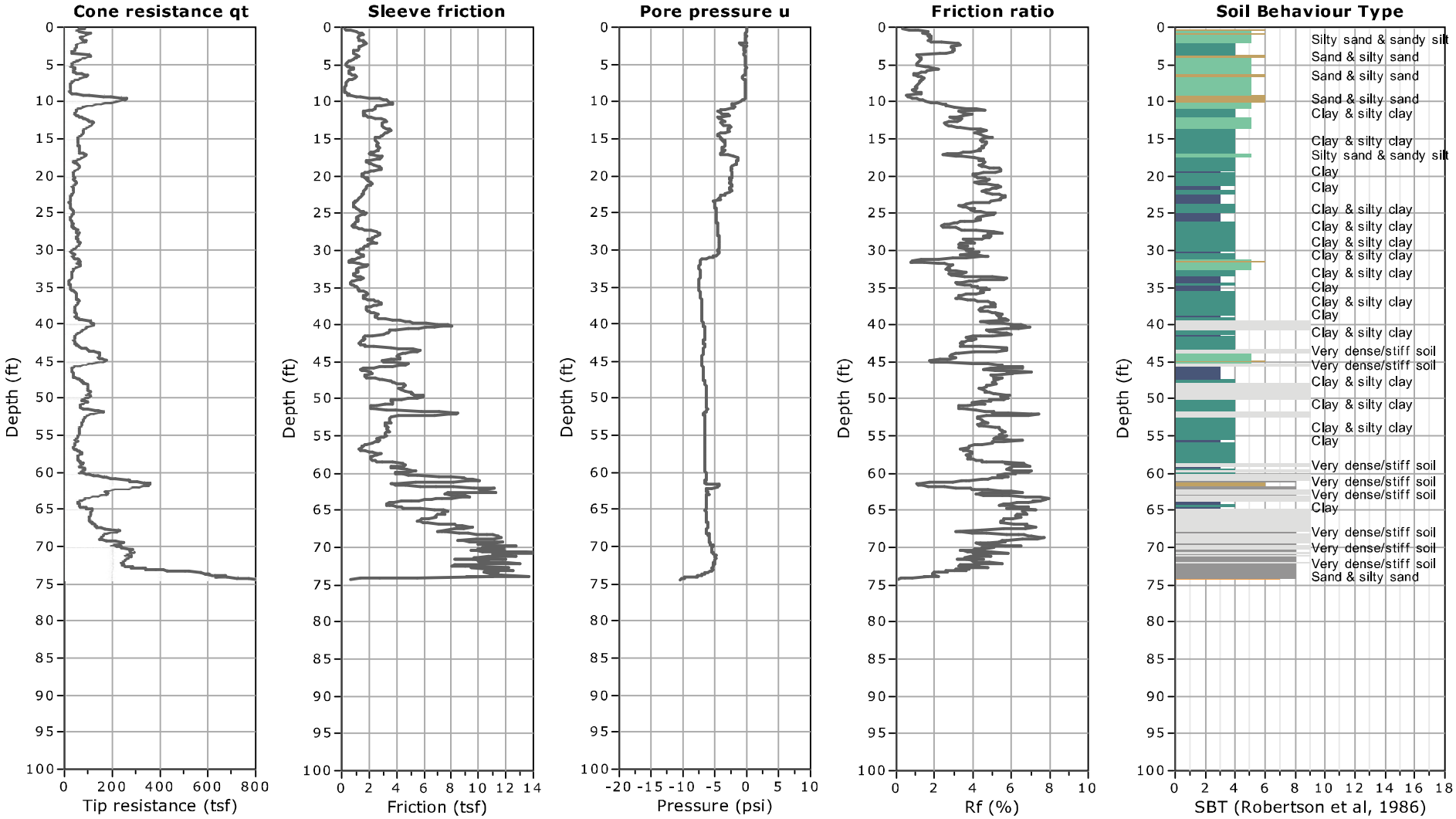
CPT: C-2

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 74.37 ft, Date: 7/30/2013
Cone Type: Vertek



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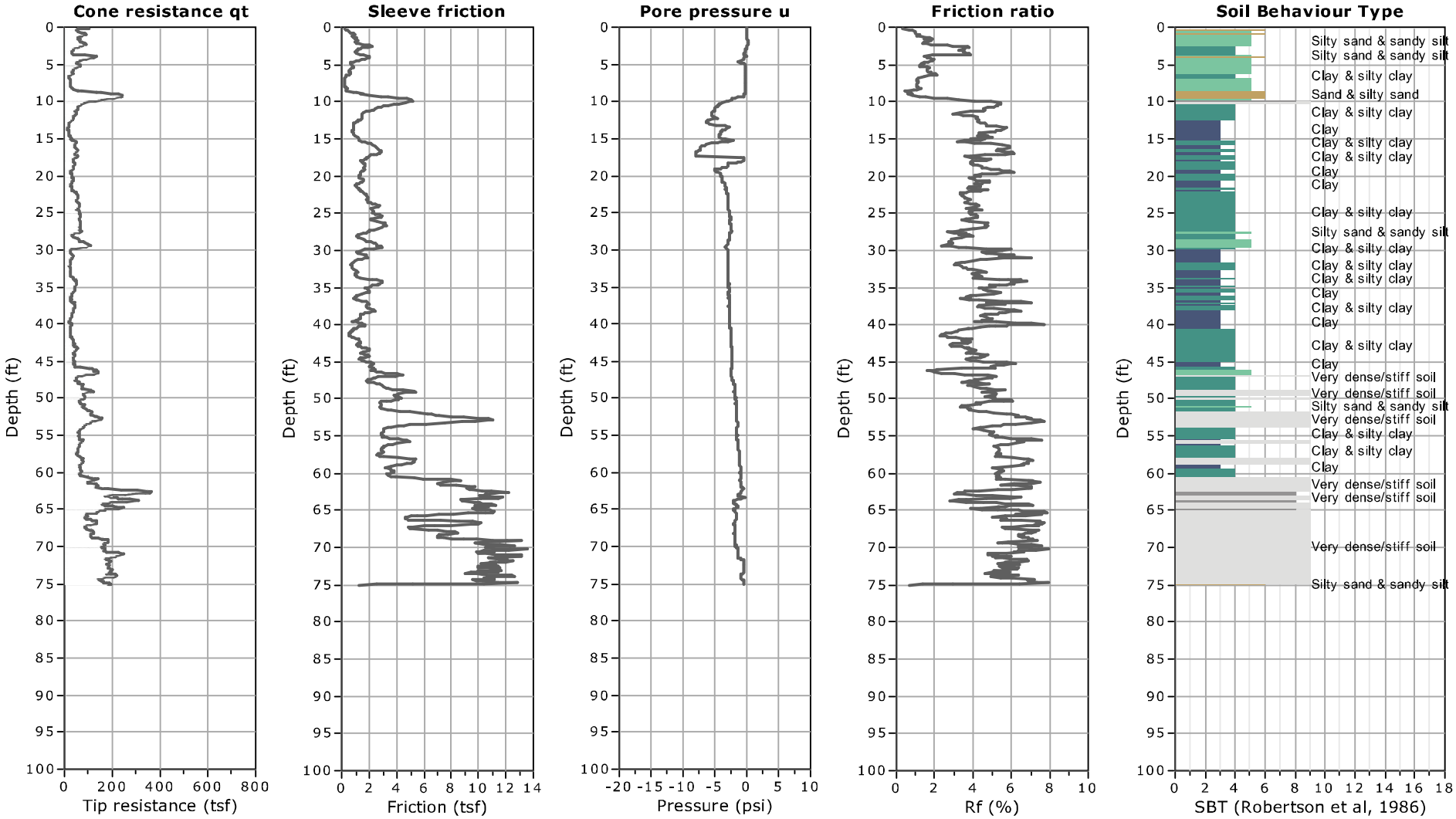
CPT: C-3

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 75.14 ft, Date: 7/30/2013
Cone Type: Vertek



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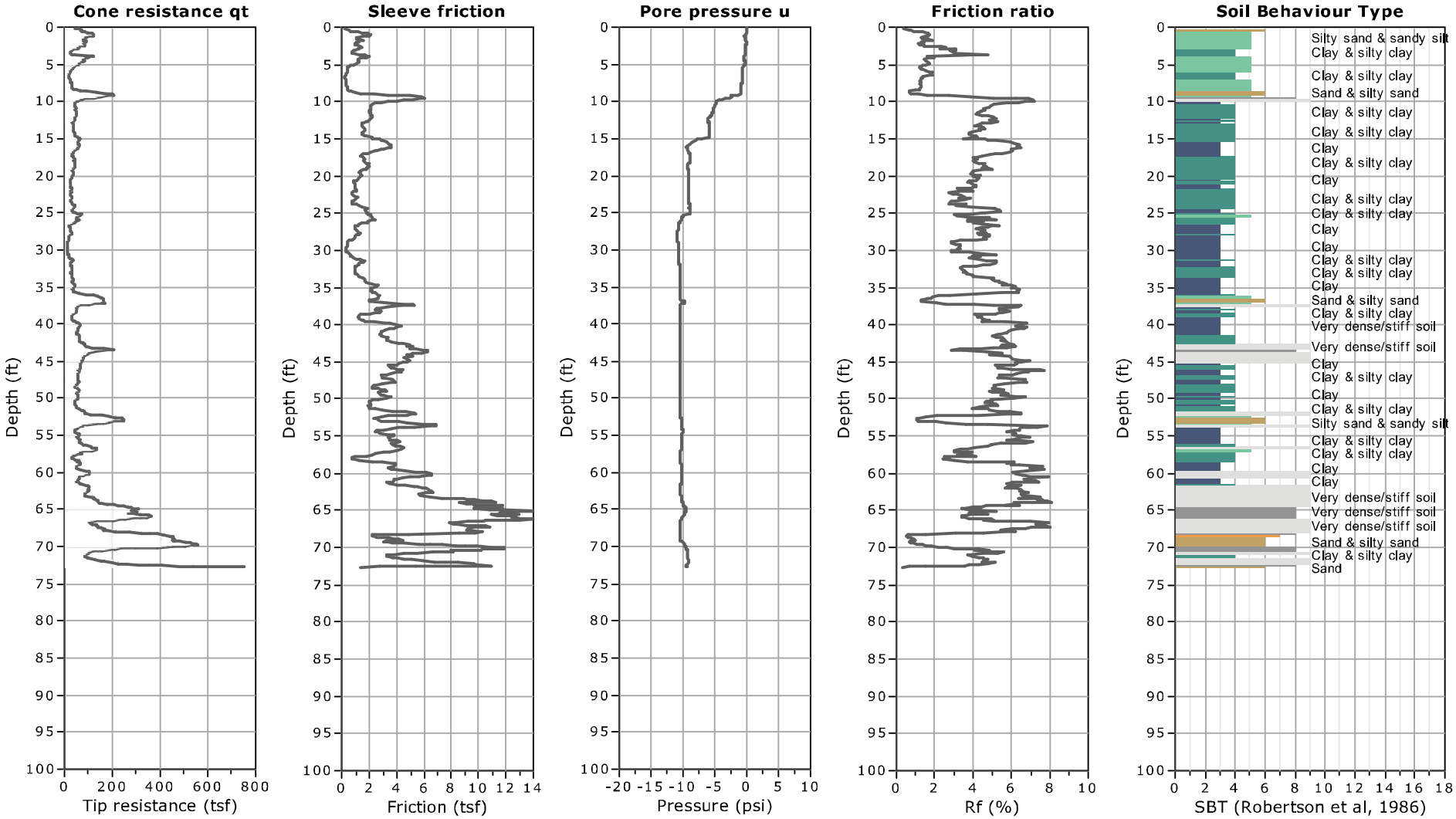
CPT: C-4

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 72.80 ft, Date: 7/30/2013
Cone Type: Vertek



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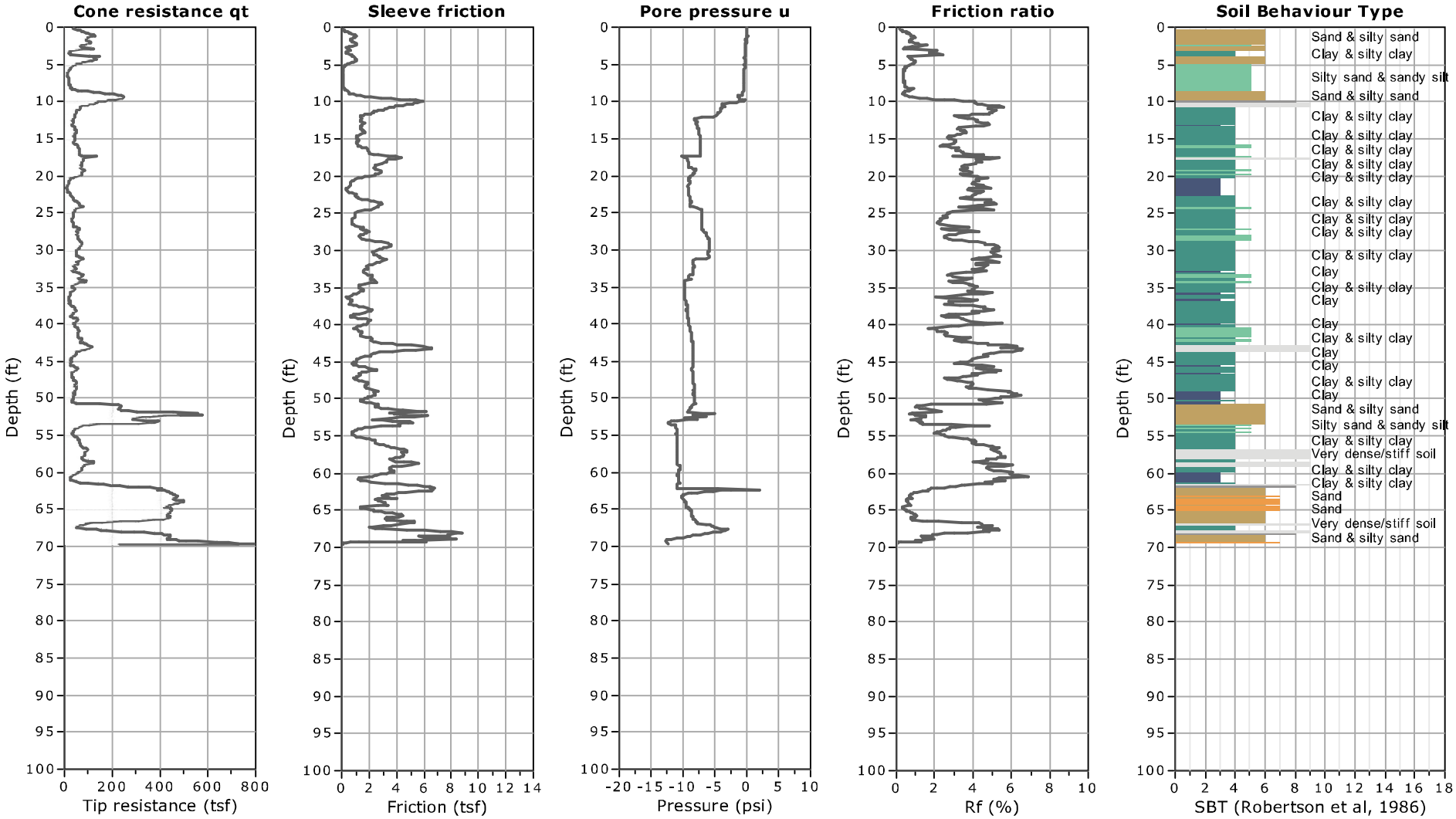
CPT: C-5

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 69.63 ft, Date: 7/30/2013
Cone Type: Vertek



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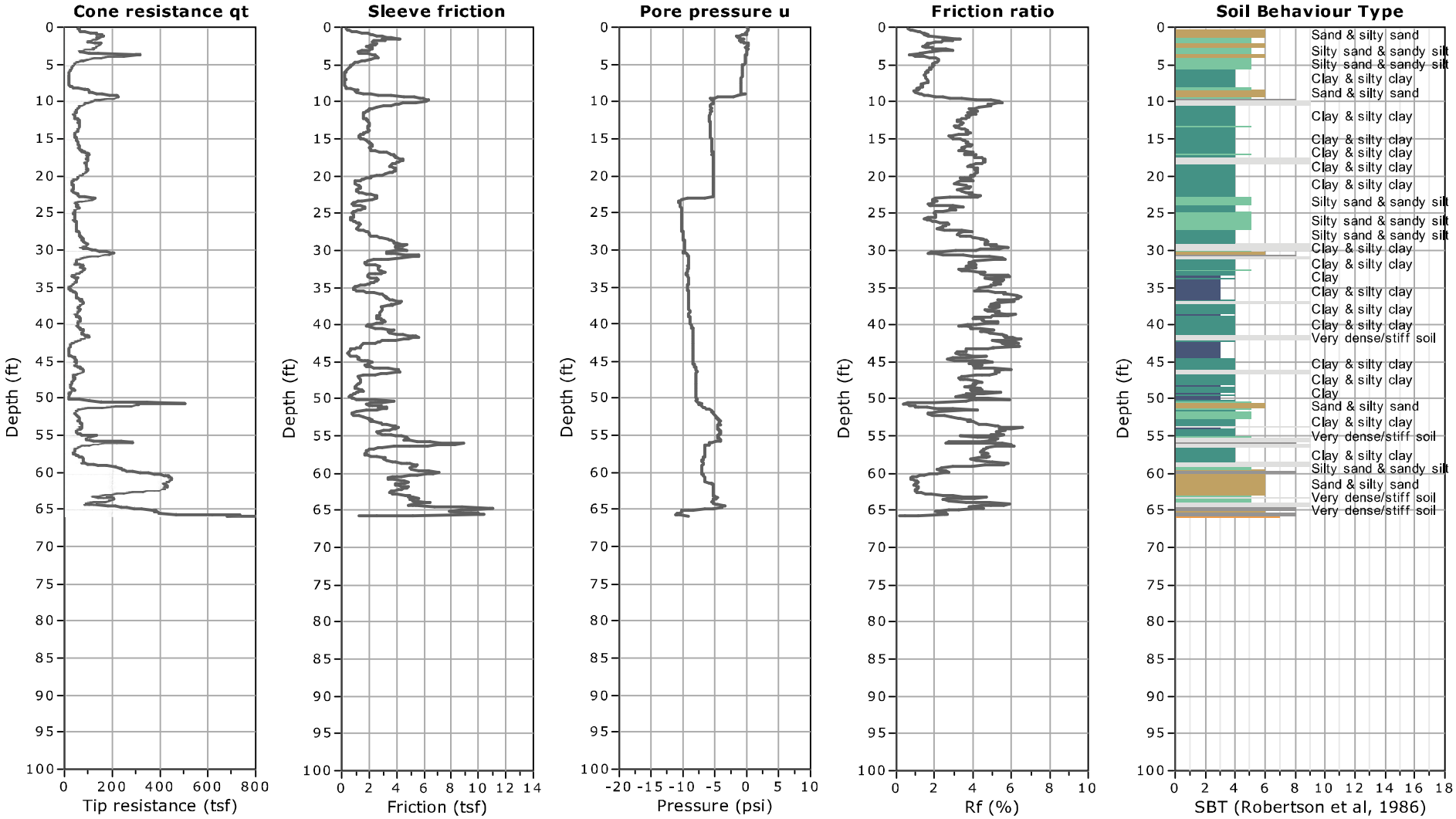
CPT: C-6

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 65.90 ft, Date: 7/30/2013
Cone Type: Vertek



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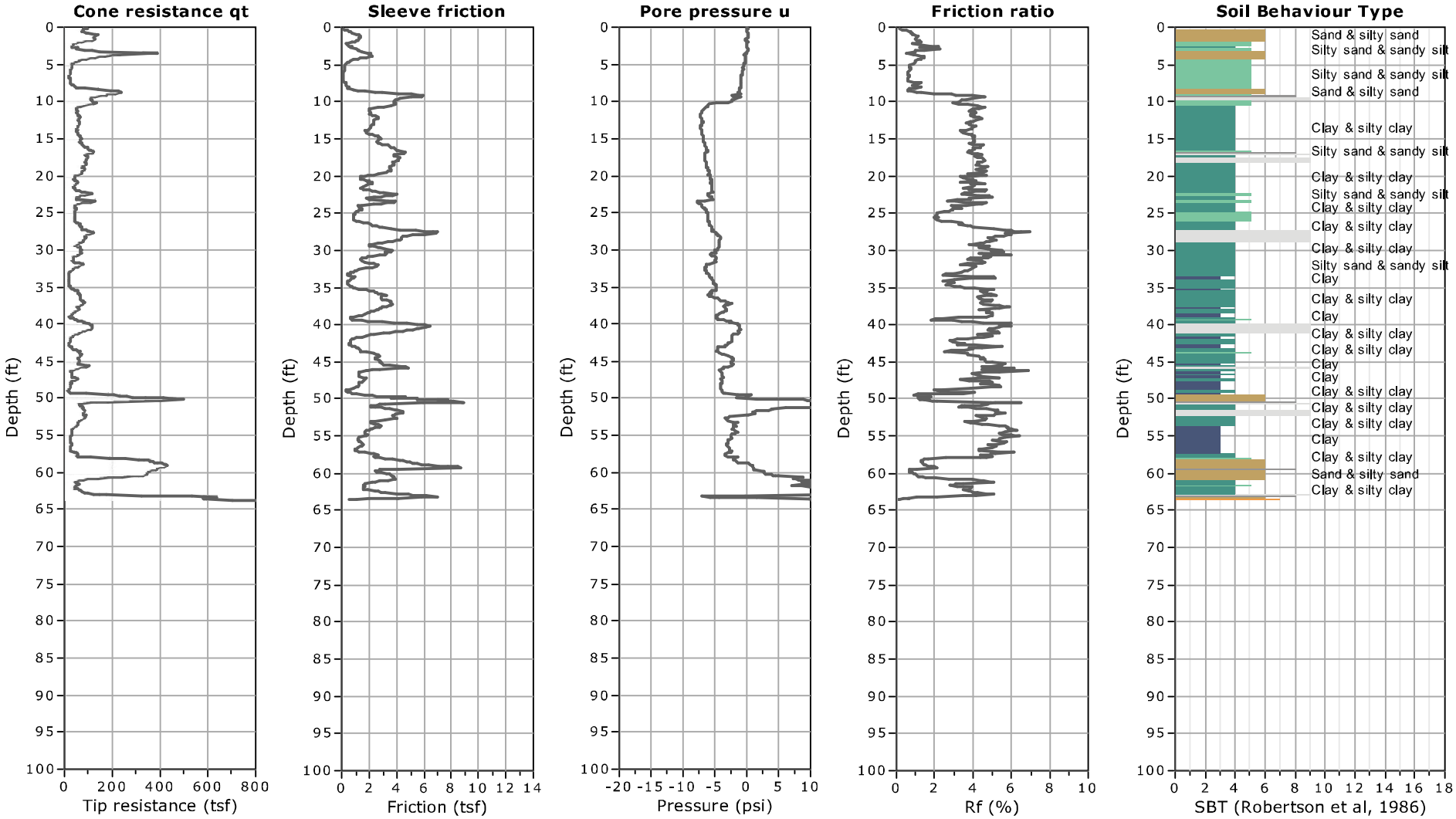
CPT: C-7

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 63.72 ft, Date: 7/31/2013
Cone Type: Vertek



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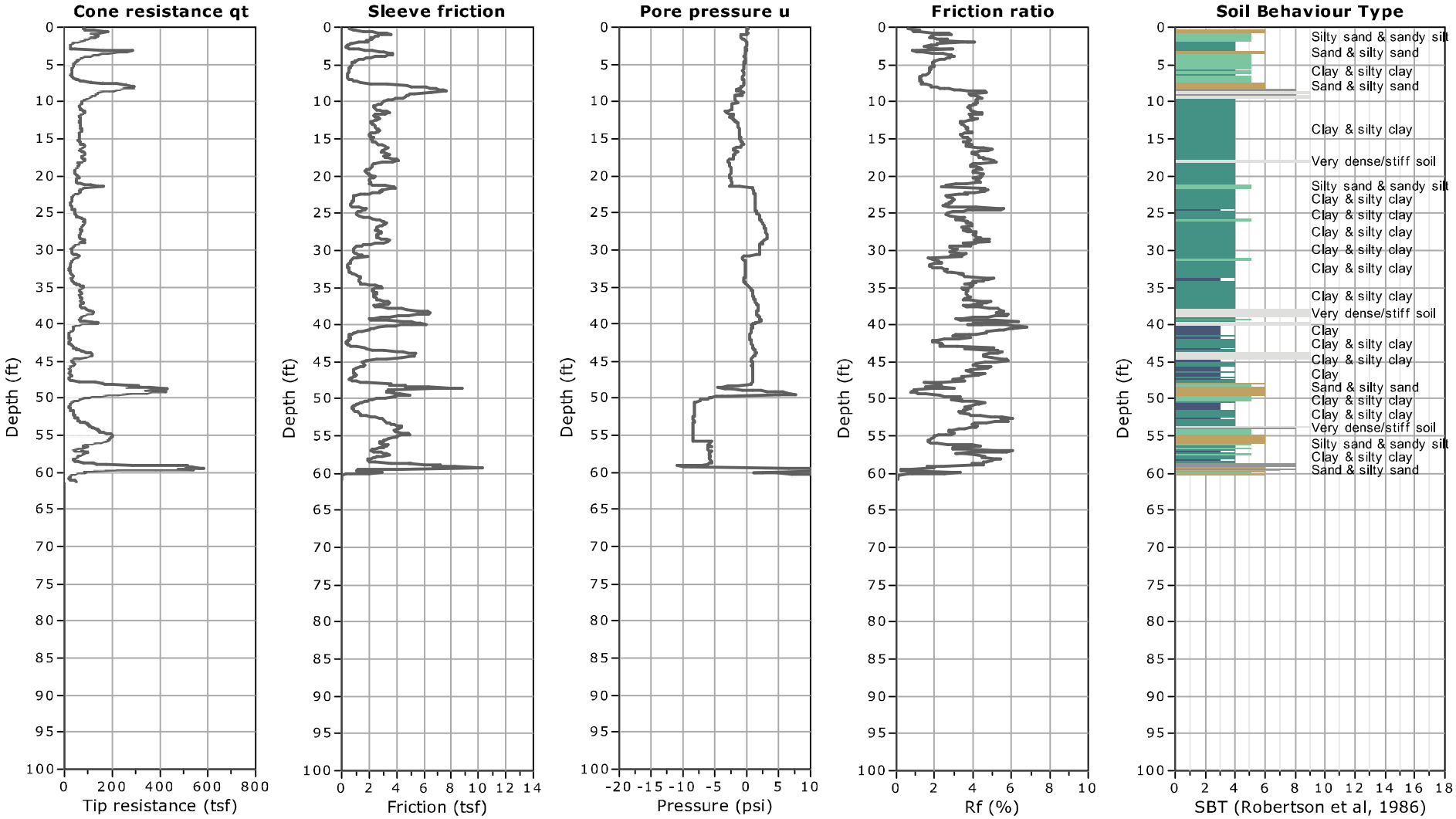
CPT: C-8

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 61.16 ft, Date: 7/31/2013
Cone Type: Vertek



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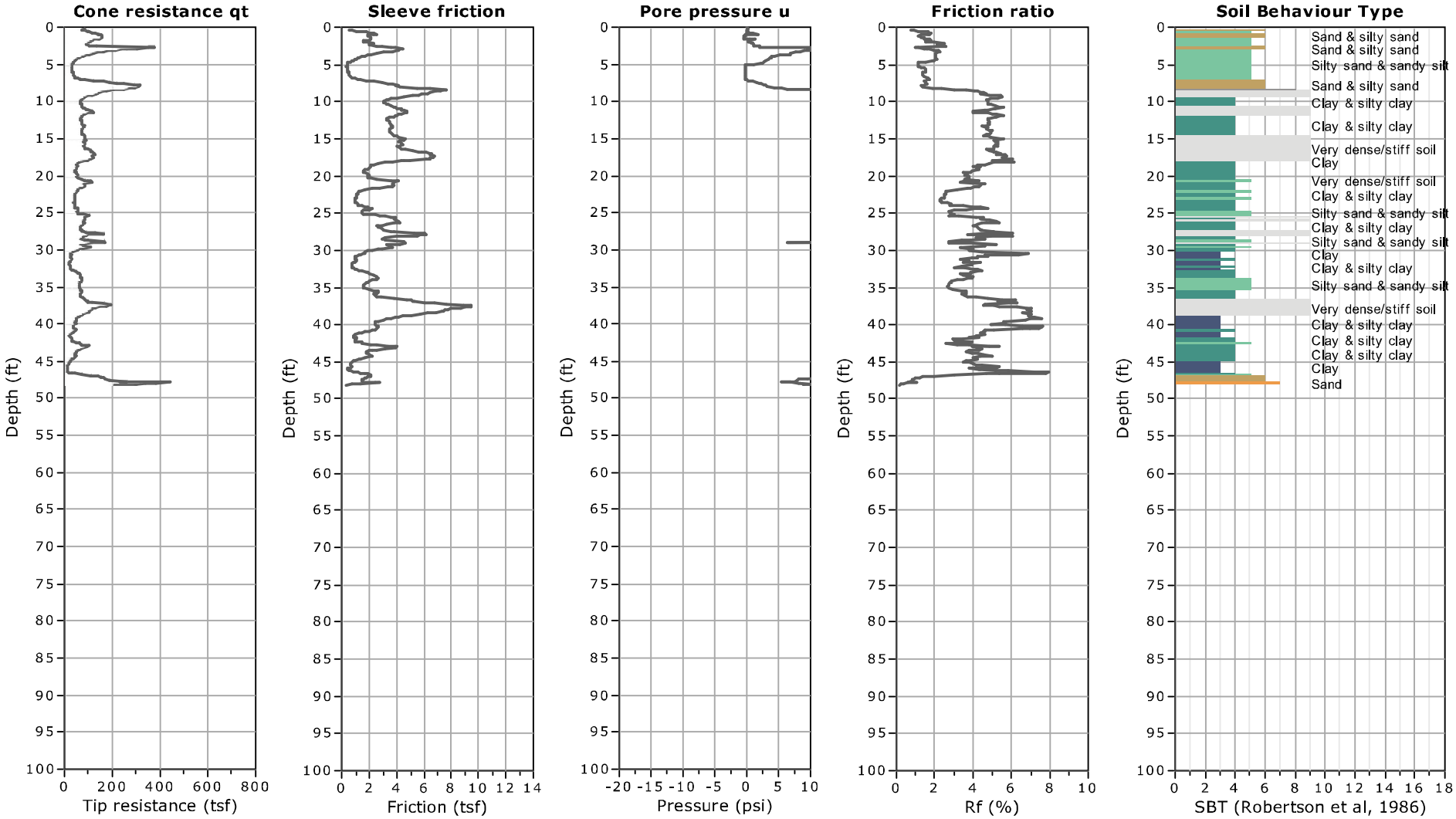
CPT: C-9

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 48.21 ft, Date: 7/31/2013
Cone Type: Vertek



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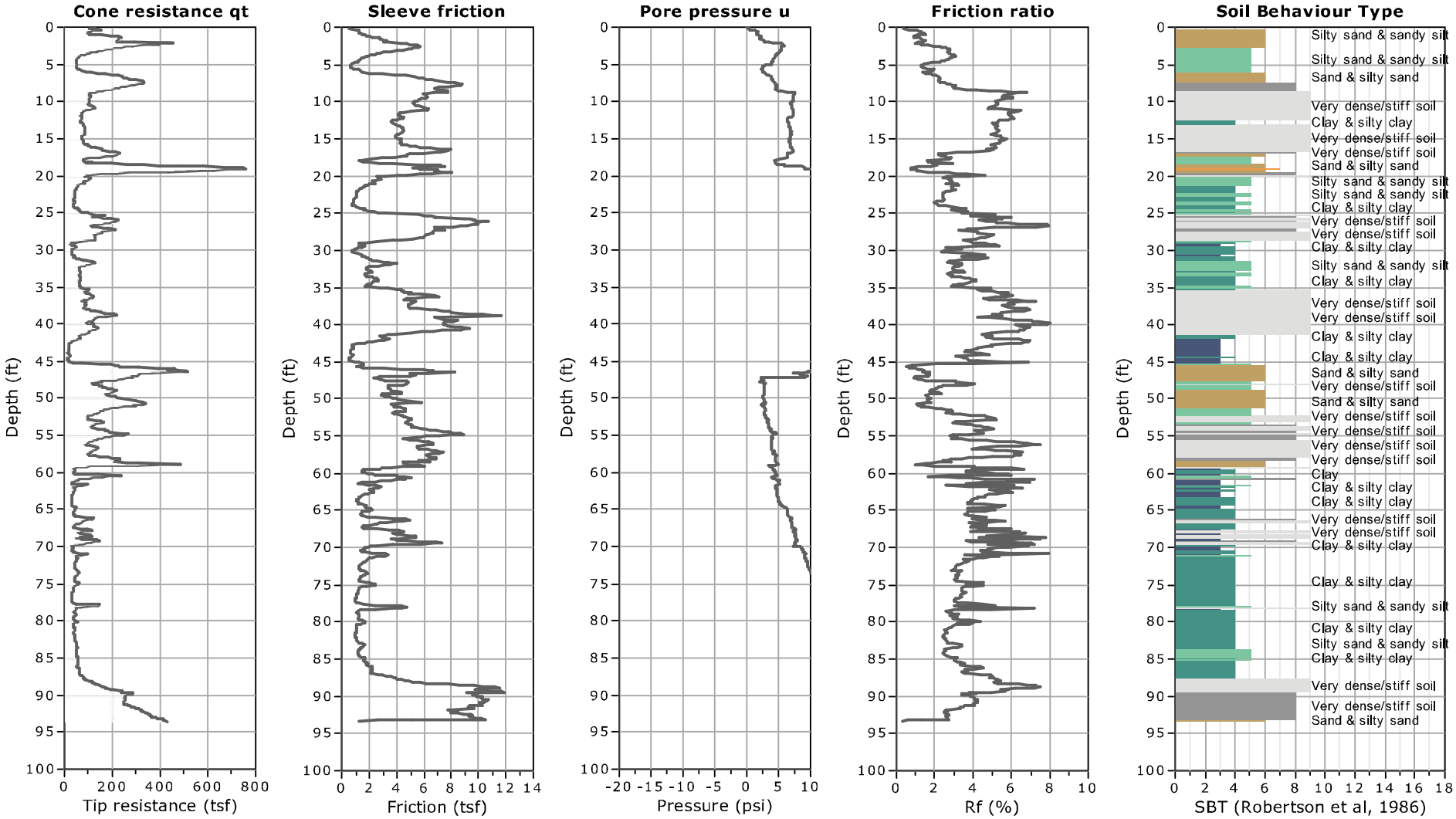
CPT: C-10

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 93.47 ft, Date: 7/31/2013
Cone Type: Vertek



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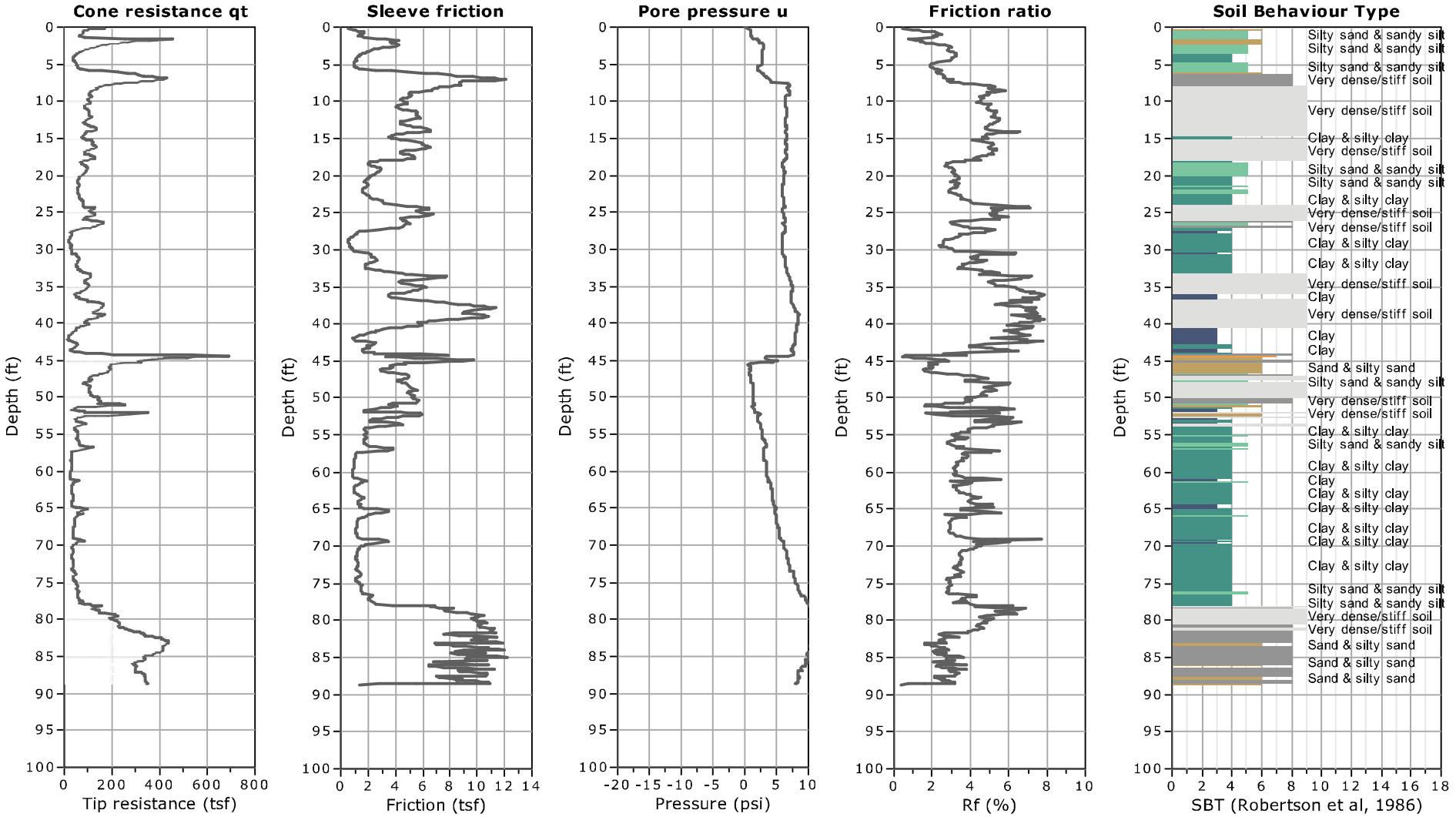
CPT: C-11

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 88.77 ft, Date: 7/31/2013
Cone Type: Vertek



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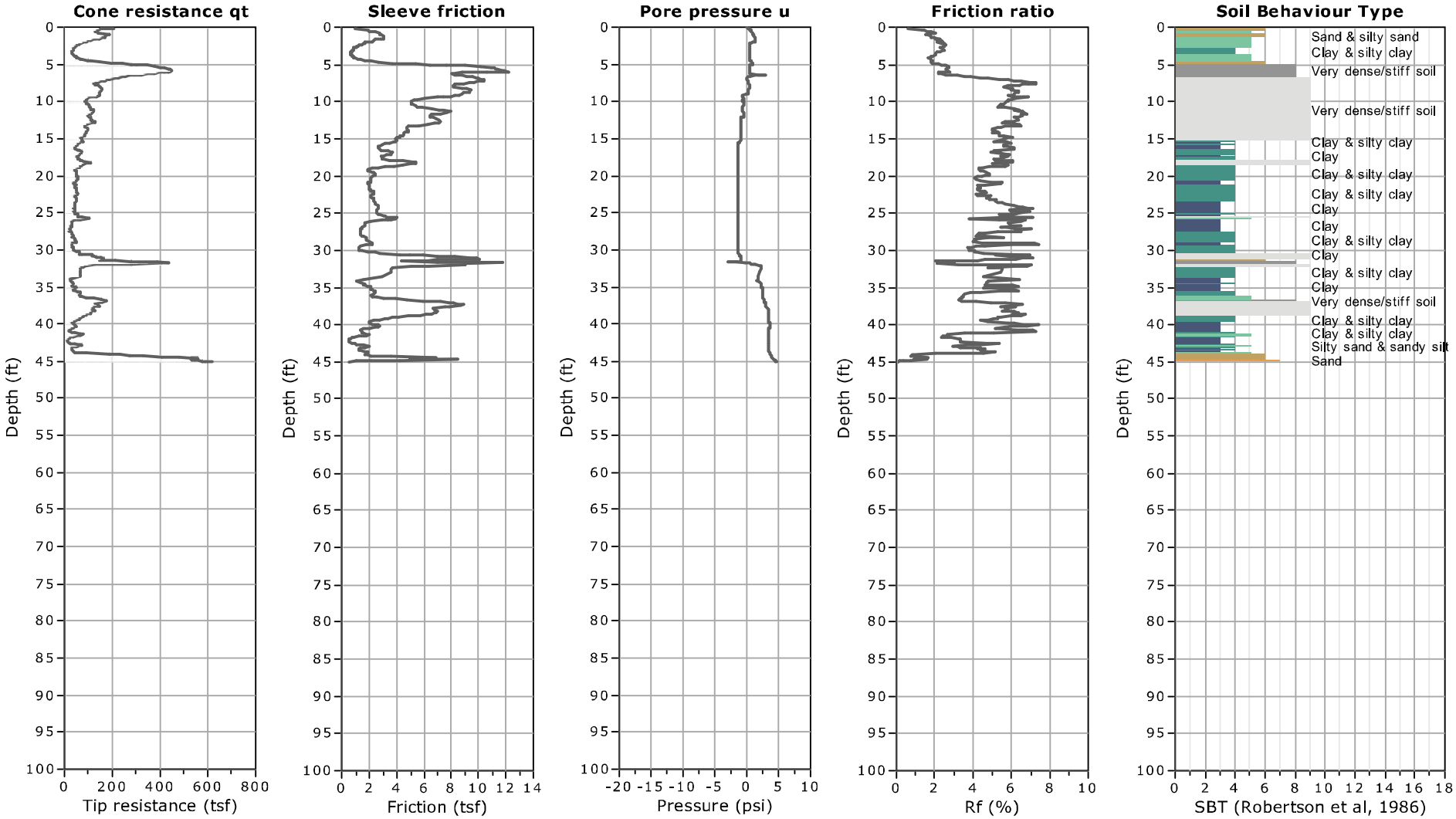
CPT: C-12

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 45.10 ft, Date: 7/31/2013
Cone Type: Vertek



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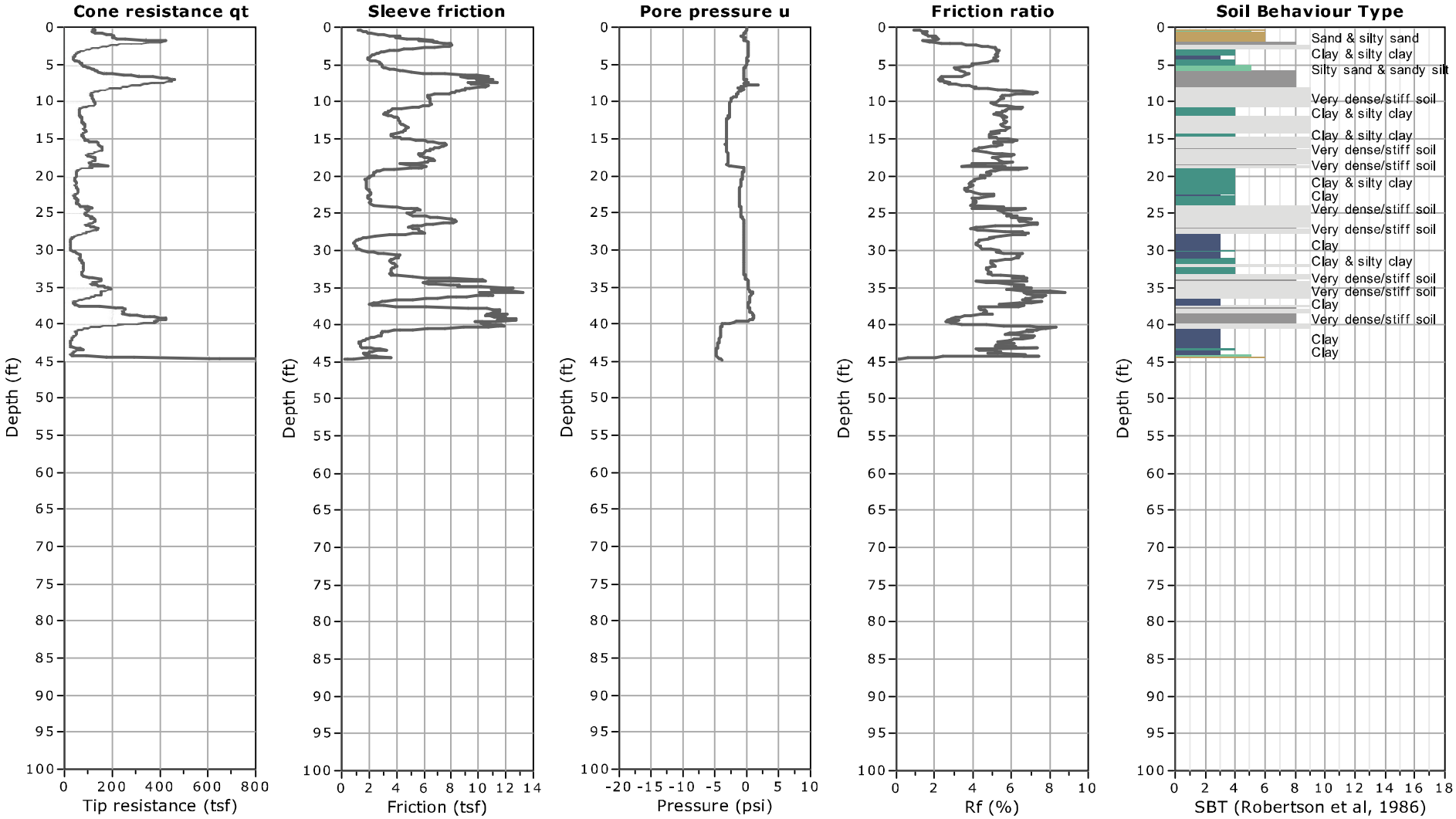
CPT: C-12B

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 44.82 ft, Date: 8/2/2013
Cone Type: Vertek



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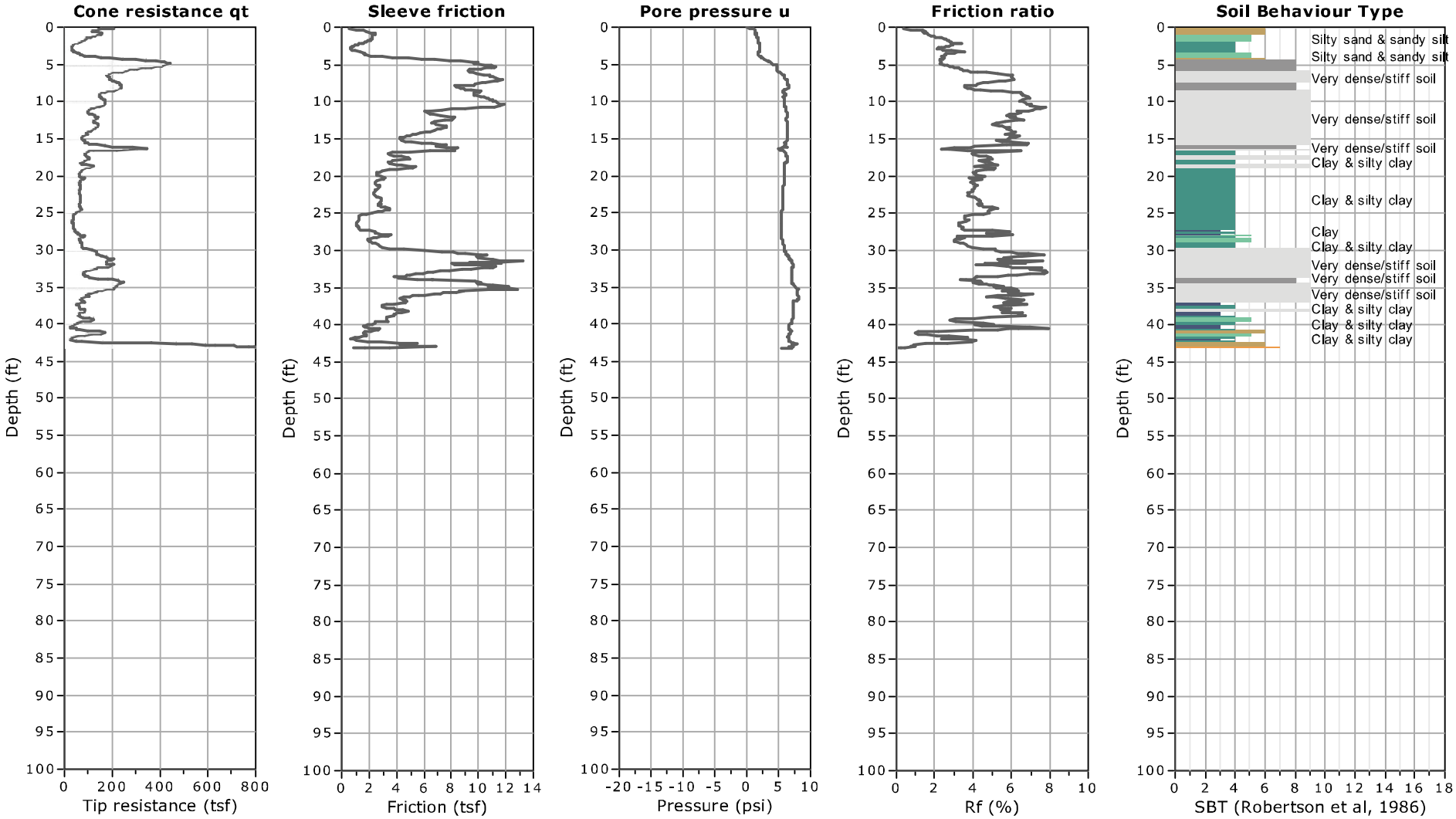
CPT: C-13

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 43.30 ft, Date: 7/31/2013
Cone Type: Vertek



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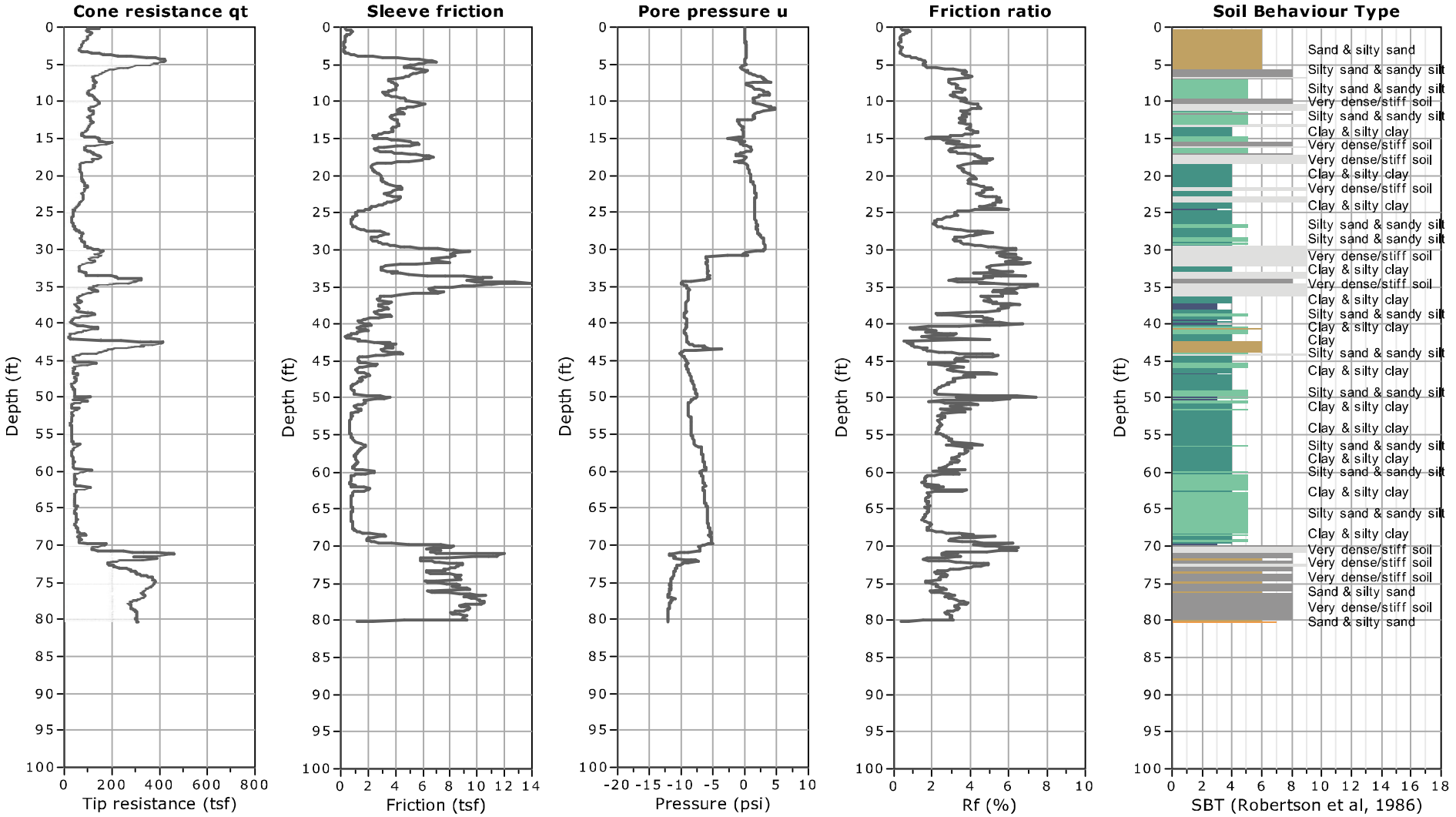
CPT: C-13A

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.29 ft, Date: 8/2/2013
Cone Type: Vertek



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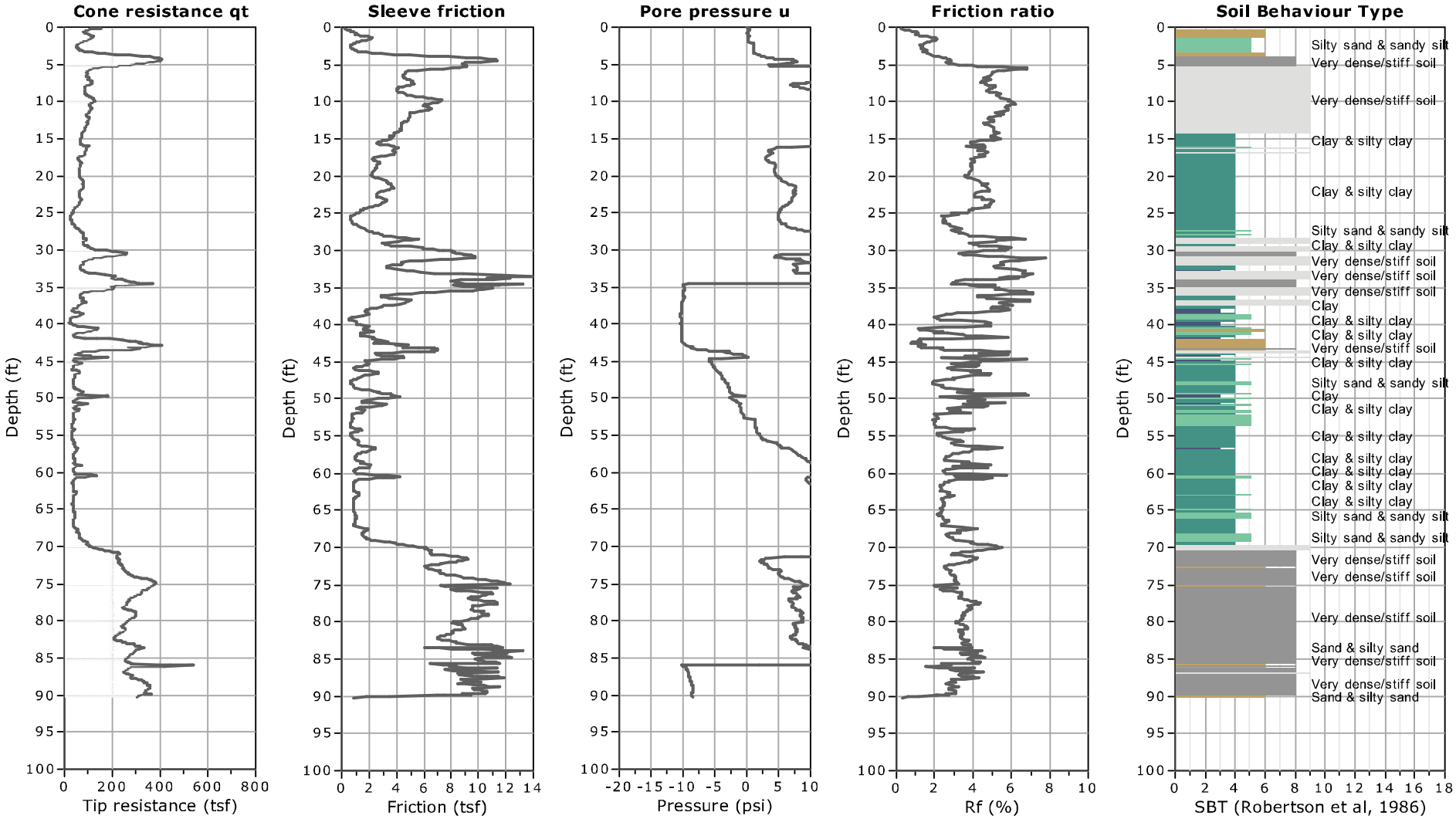
CPT: C-14

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 90.30 ft, Date: 8/1/2013
Cone Type: Vertek



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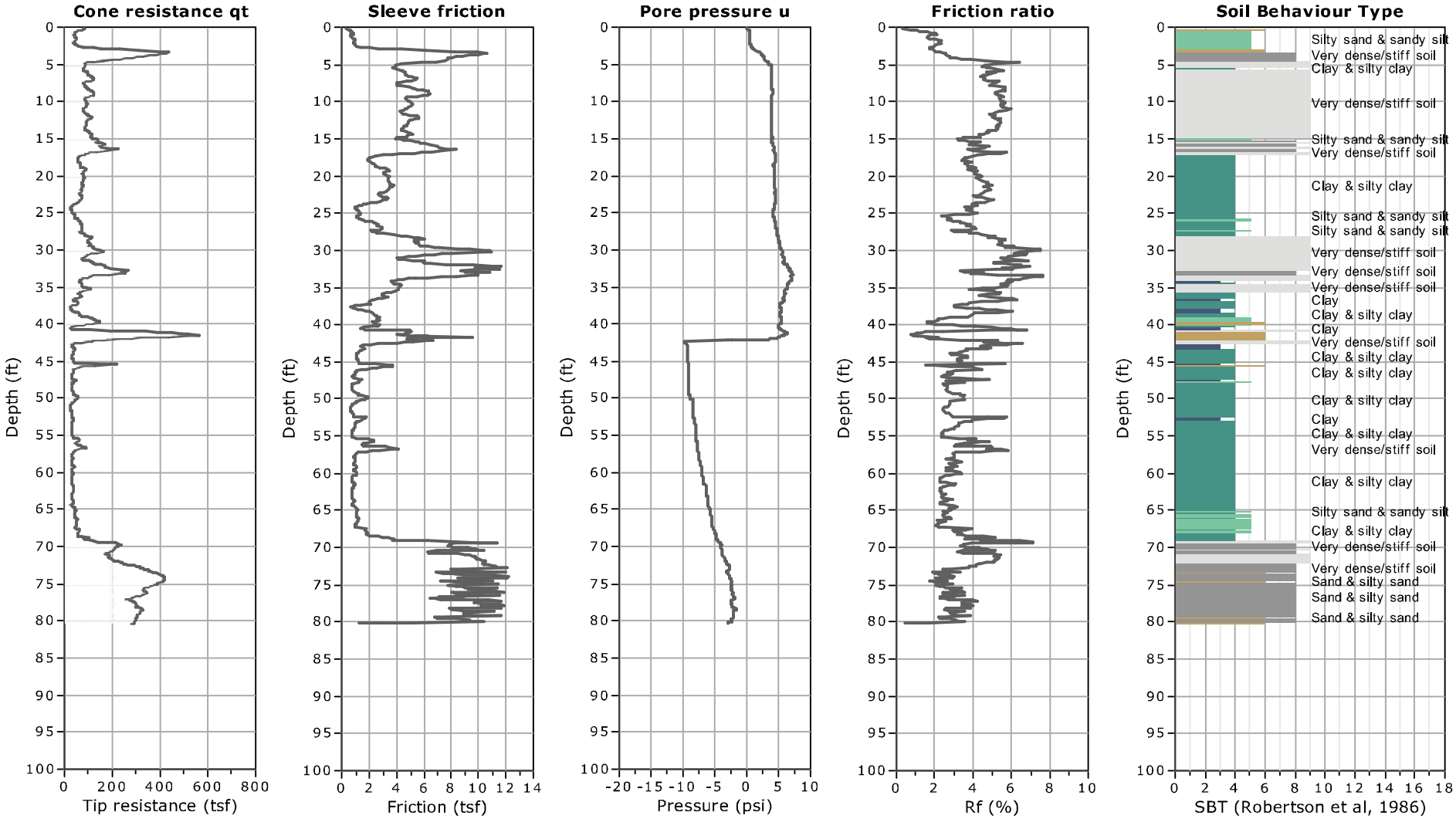
CPT: C-15

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.32 ft, Date: 8/1/2013
Cone Type: Vertek



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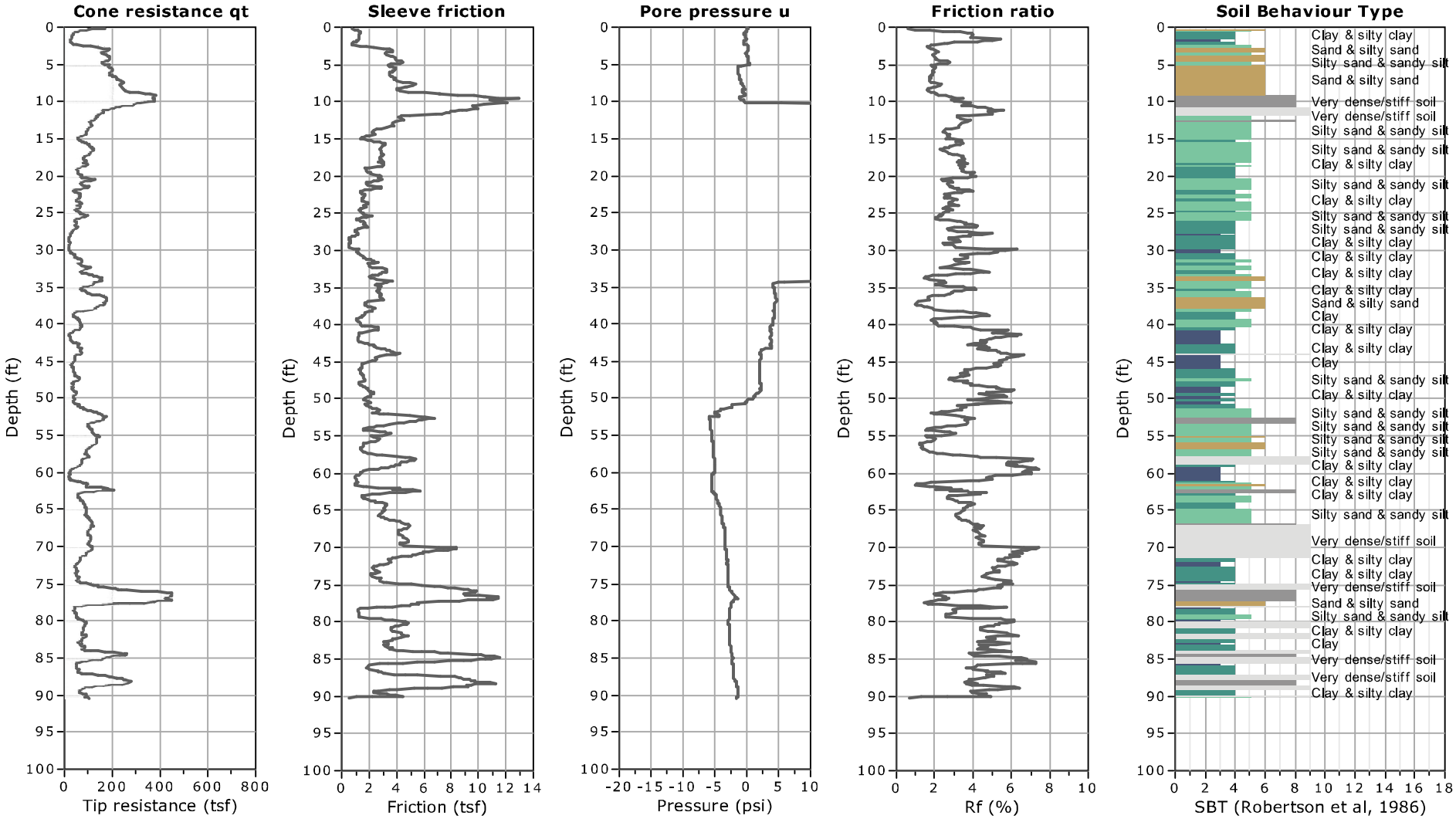
CPT: C-16

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 90.37 ft, Date: 8/1/2013
Cone Type: Vertek



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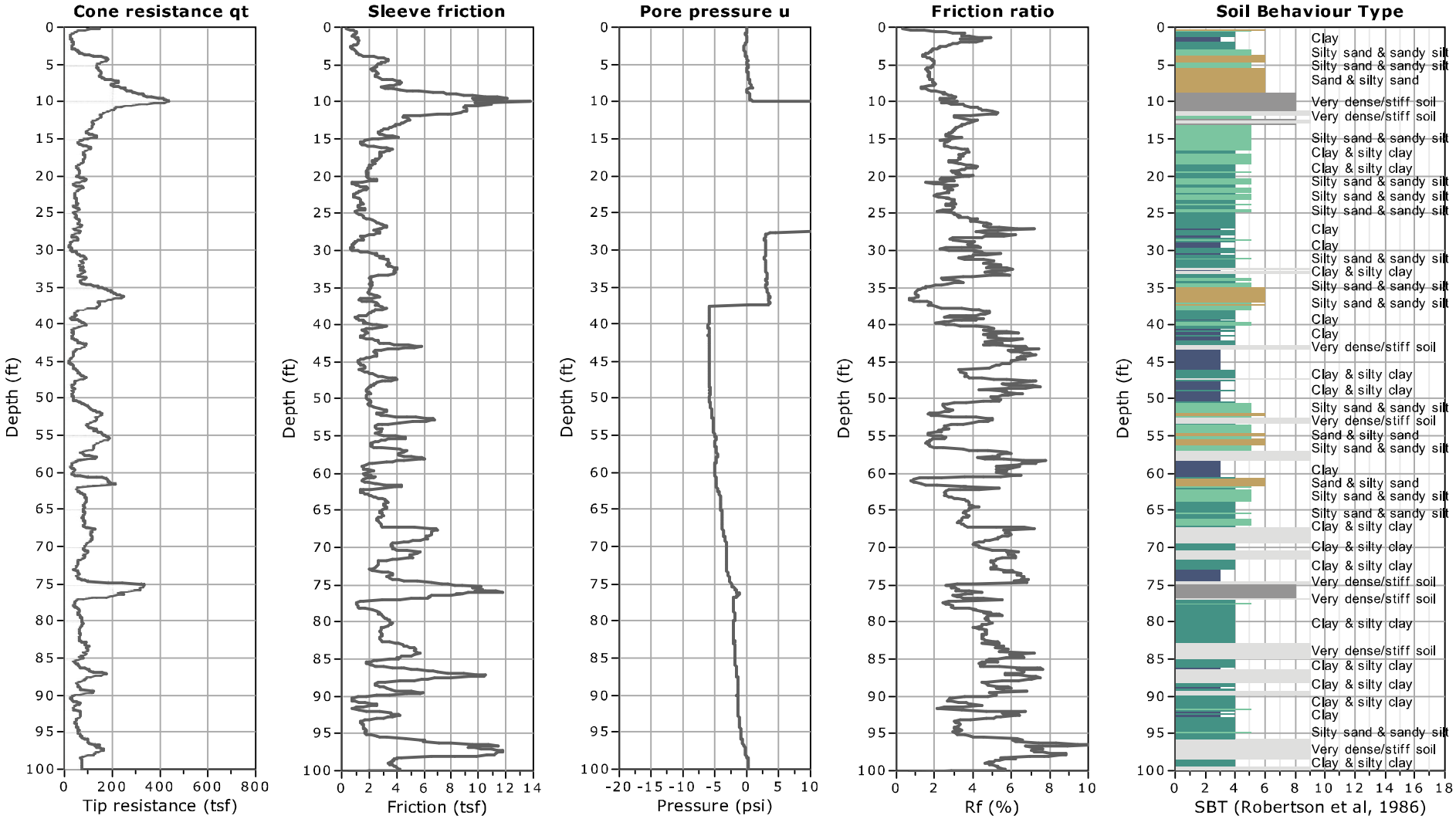
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-17

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 100.39 ft, Date: 8/1/2013
Cone Type: Vertek



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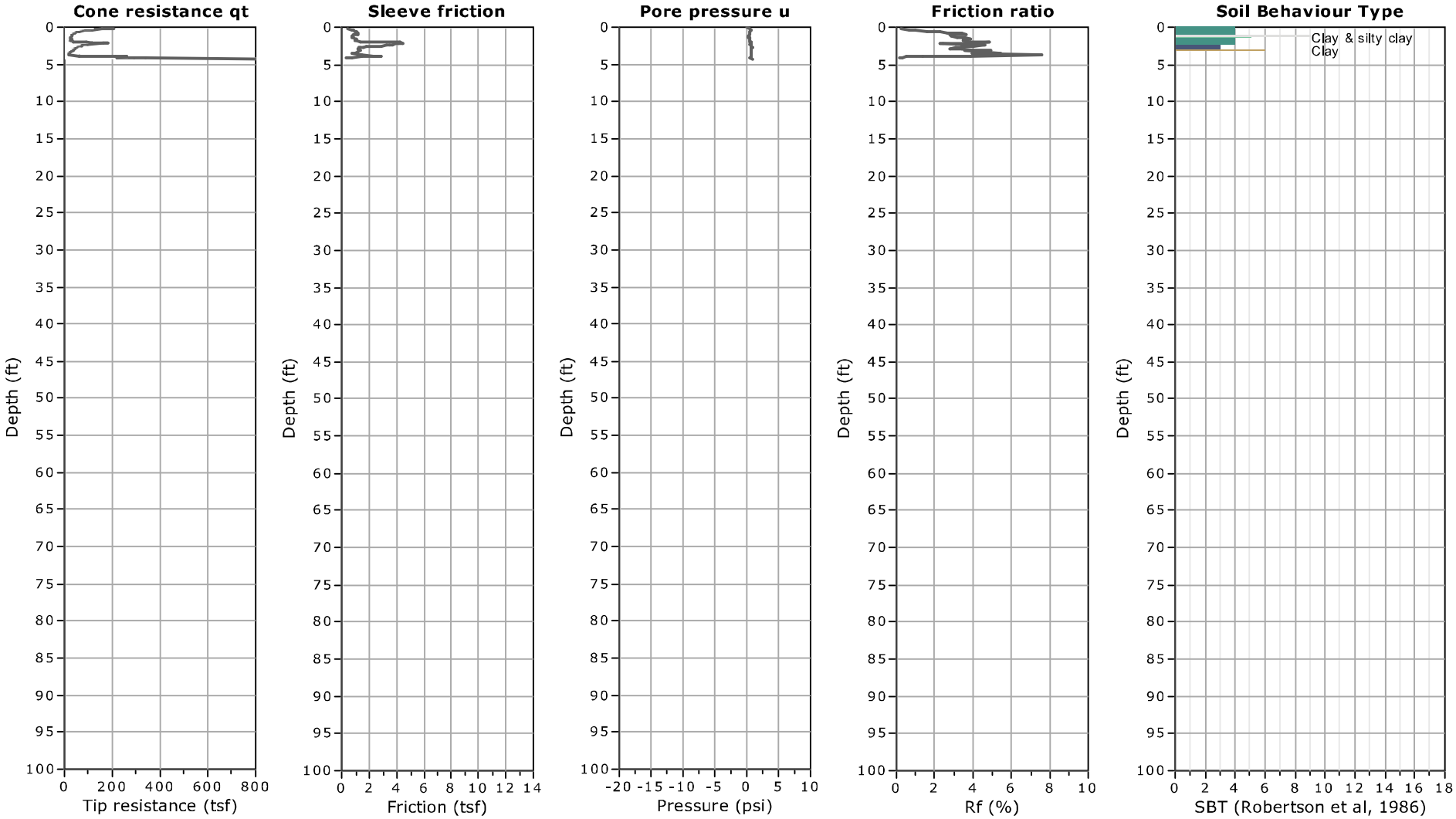
rich@kehoetesting.com
www.kehoetesting.com

CPT: C-18

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 4.25 ft, Date: 8/1/2013
Cone Type: Vertek



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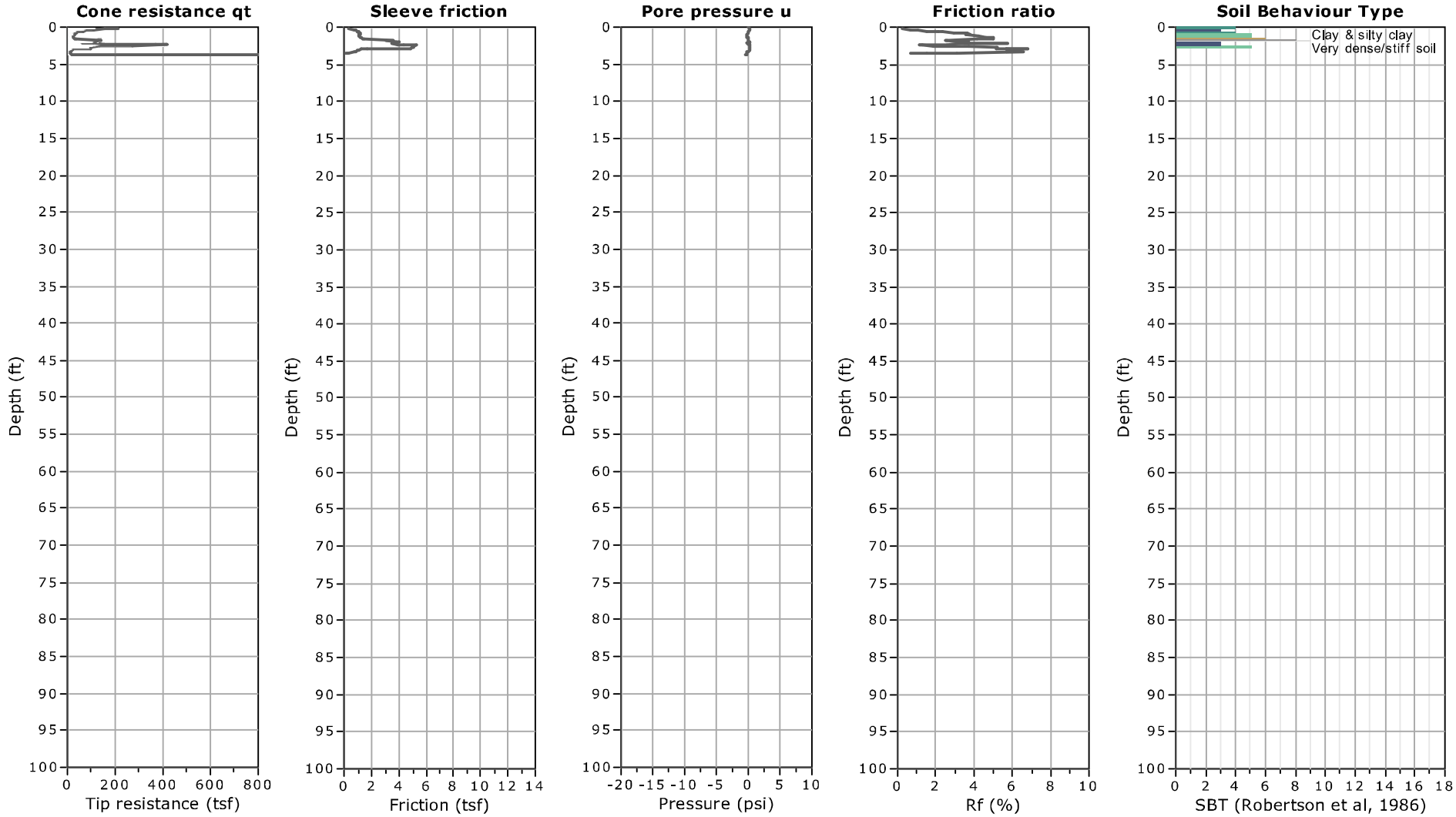
CPT: C-18A

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 3.74 ft, Date: 8/1/2013
Cone Type: Vertek



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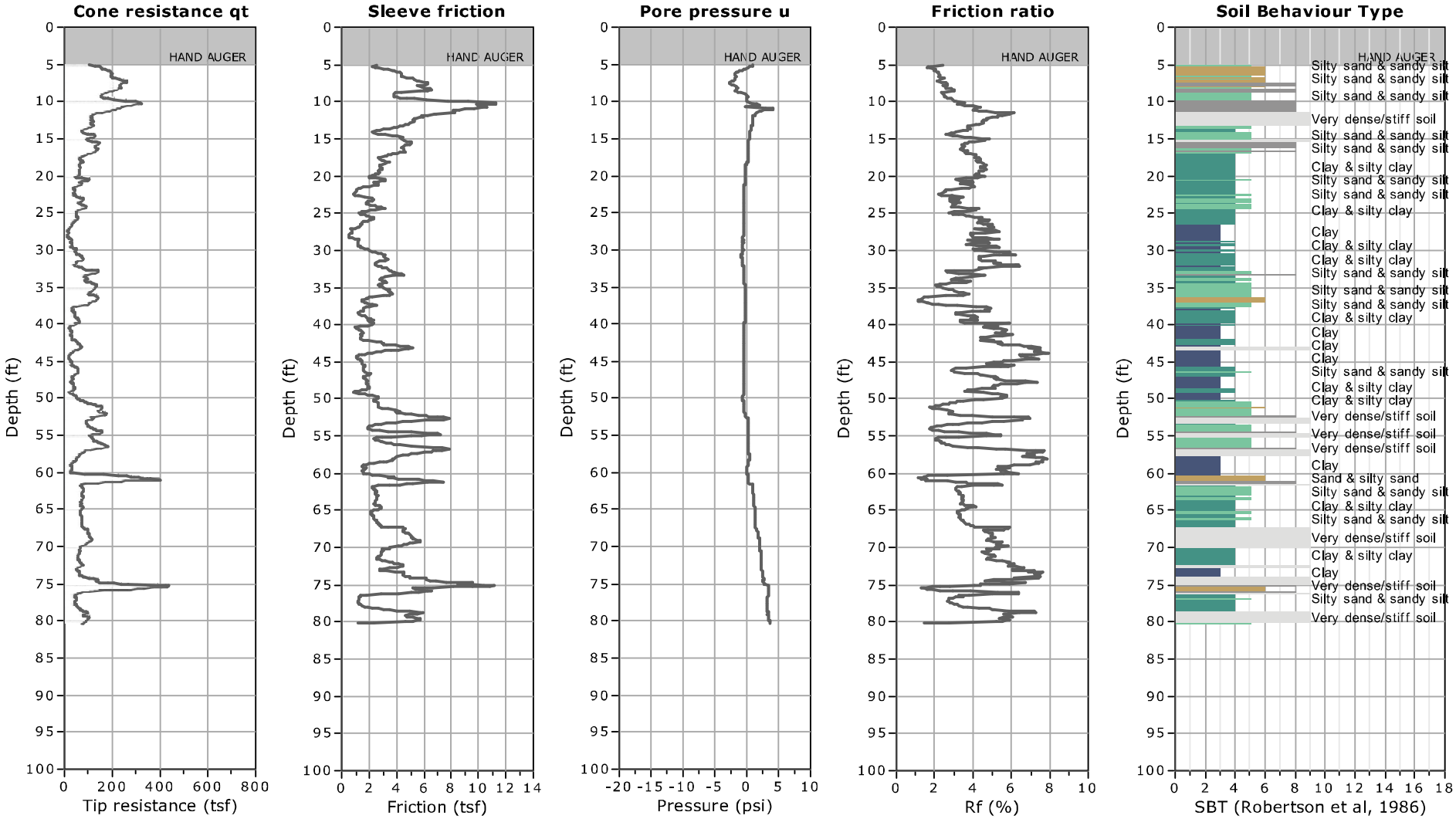
CPT: C-18C

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.35 ft, Date: 8/2/2013
Cone Type: Vertek



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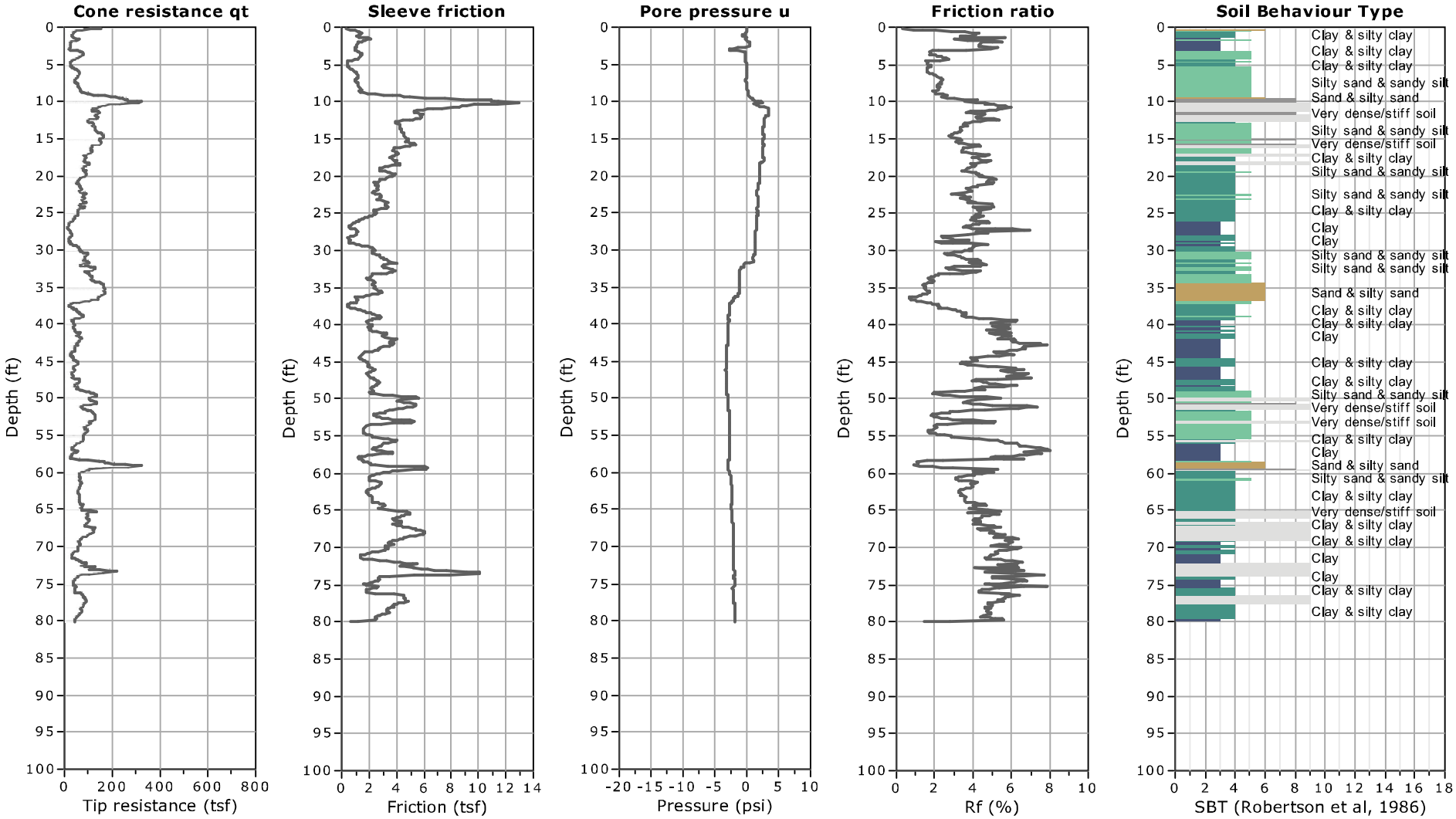
CPT: C-19

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.12 ft, Date: 8/1/2013
Cone Type: Vertek



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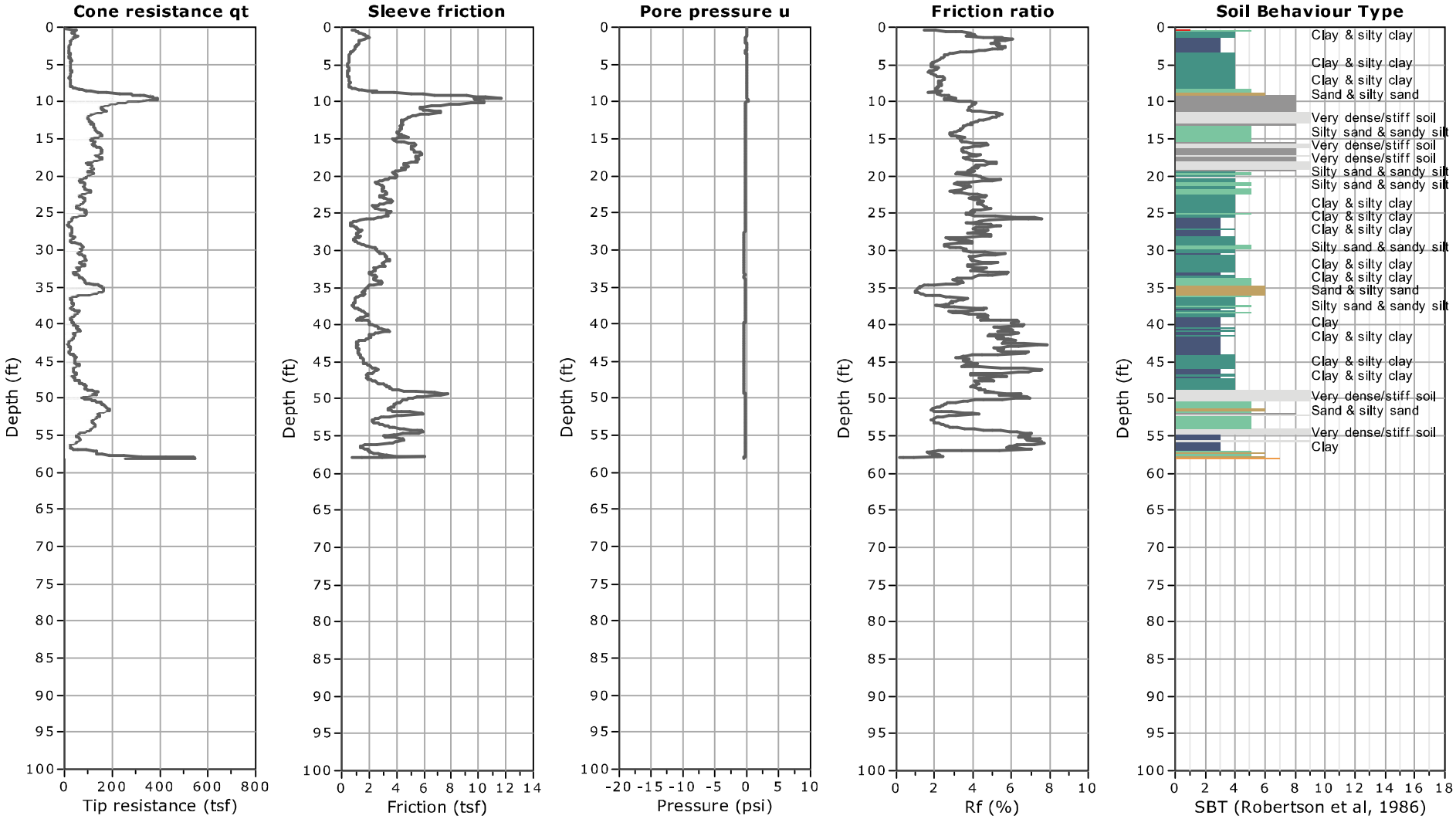
CPT: C-20

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 58.09 ft, Date: 8/1/2013
Cone Type: Vertek



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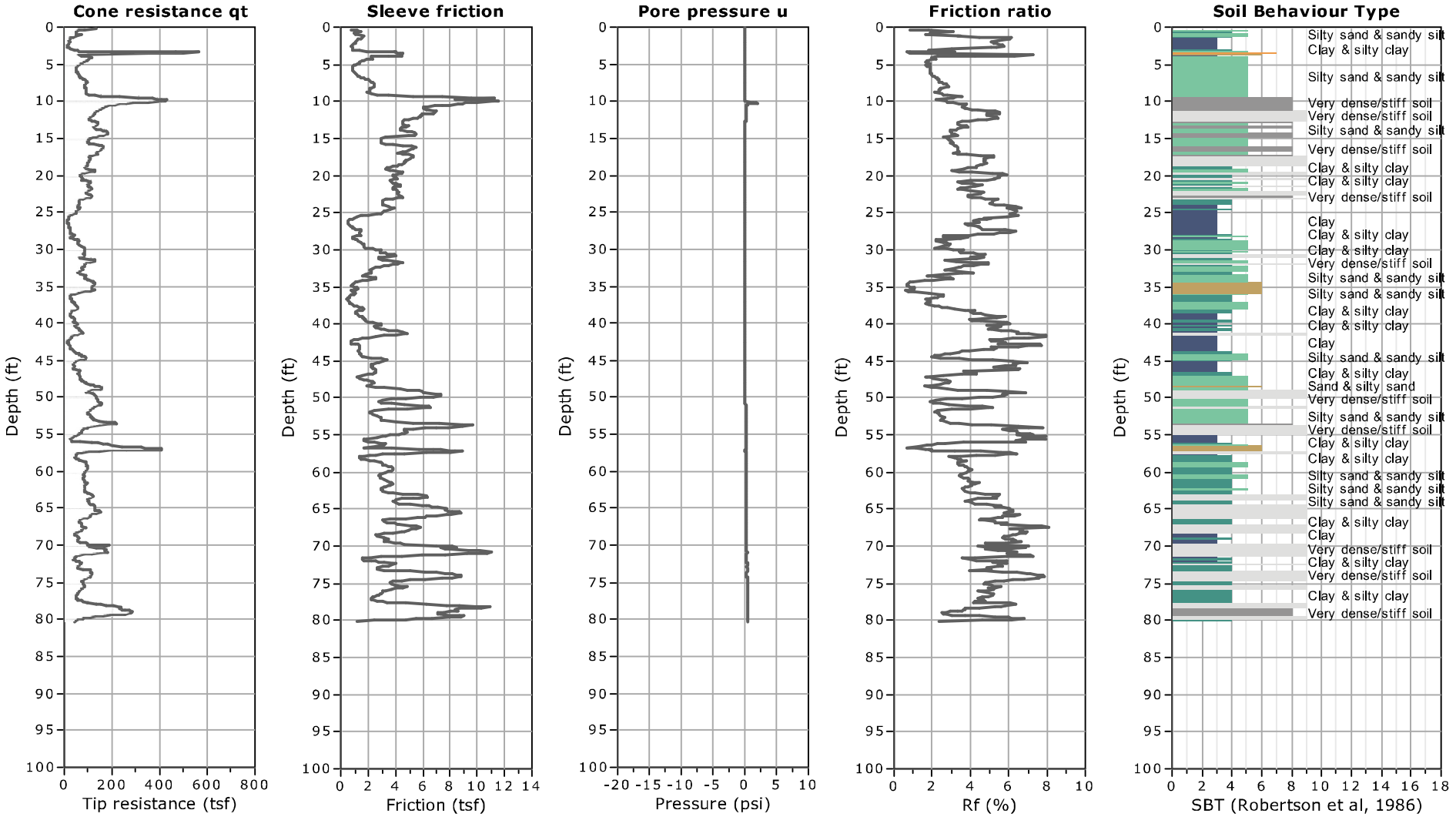
CPT: C-21

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 80.27 ft, Date: 8/1/2013
Cone Type: Vertek



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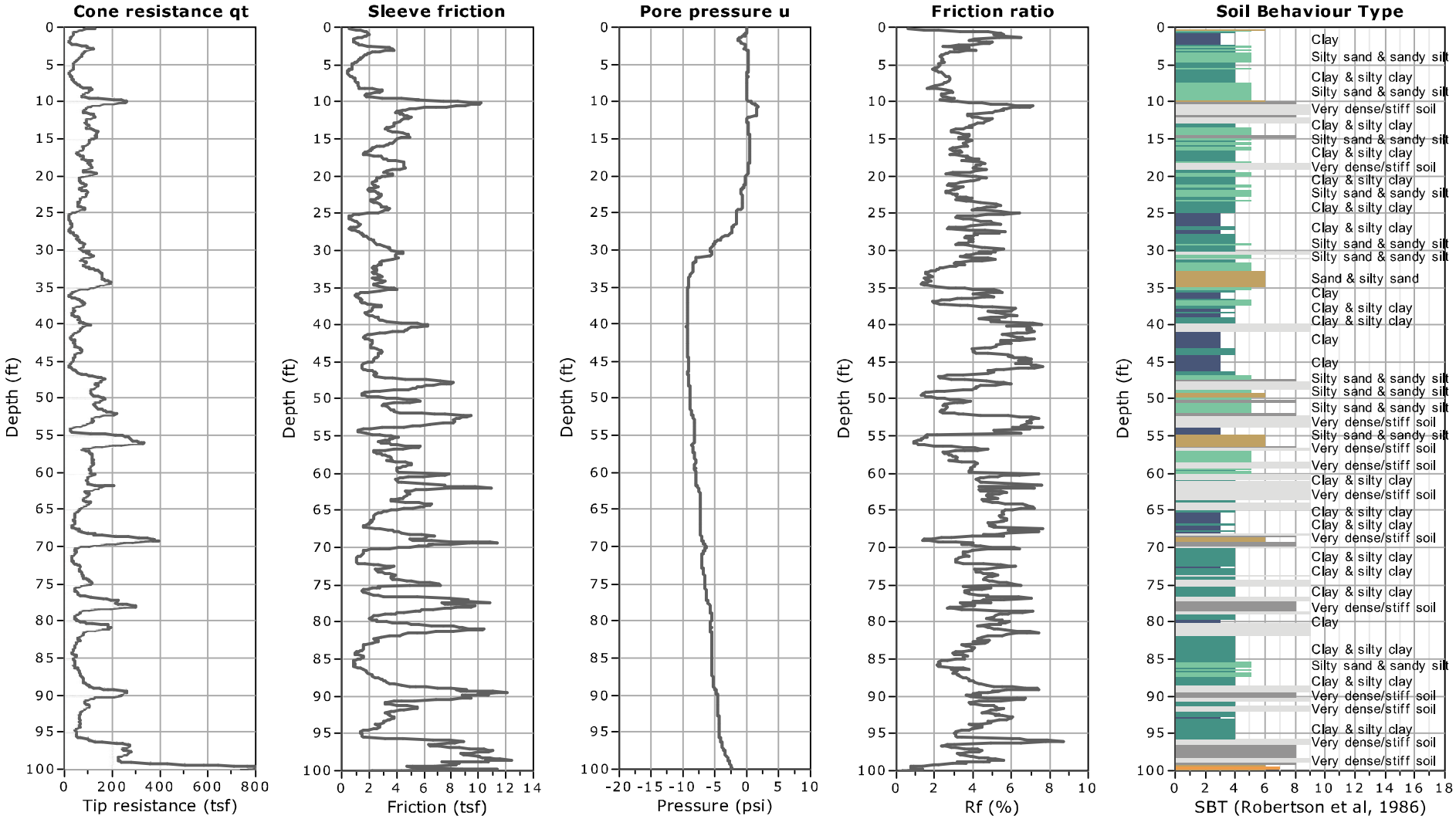
CPT: C-22

Project: **Geosyntec/Kettner Substation Relocation**
Location: **Kettner Blvd. & Vine St. San Diego, CA**

Total depth: 100.25 ft, Date: 8/2/2013
Cone Type: Vertek



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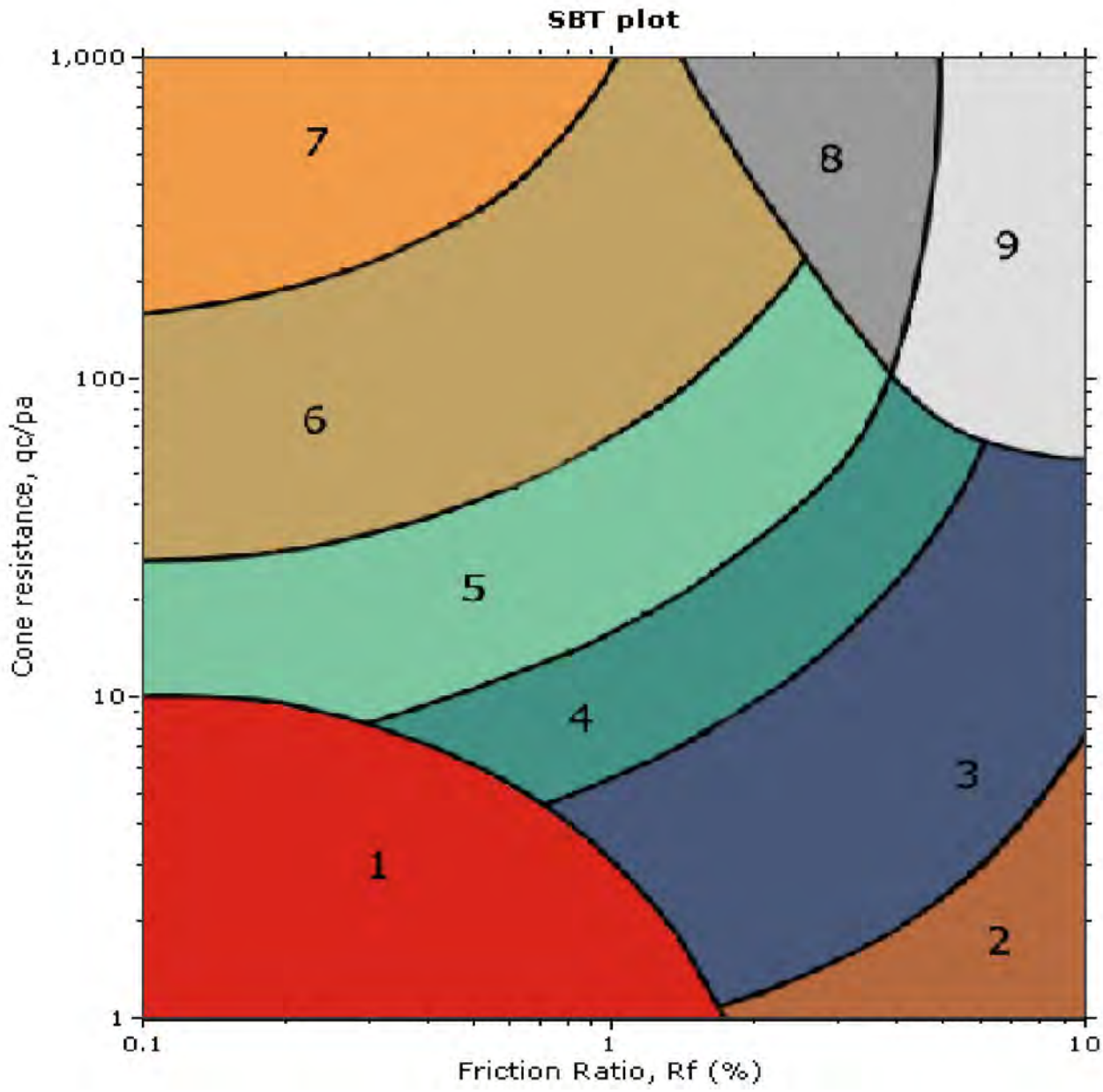


SBT legend

1. Sensitive fine grained	4. Clayey silt to silty clay	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to clayey sand
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

	C-1	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	70.5	0.42	-0.11	0.59	70.4987	0.5958	6	1.9237	114.3032	0.05715	0	0.0572	1232.5	0.5962	-1E-04	6	0.4904	2	1.6738	133.1462
2	67.3	1.39	-0.02	2.07	67.2998	2.0654	5	2.26572	122.947	0.11863	0	0.1186	566.33	2.069	-2E-05	5	0.6388	2	2.0555	126.9835
3	28.3	0.28	-0.36	1	28.2956	0.9896	5	2.37705	109.1099	0.17318	0	0.1732	162.39	0.9957	-9E-04	5	0.6688	2	2.1277	53.15604
4	81.2	0.38	-0.36	0.47	81.1956	0.468	6	1.8179	113.9155	0.23014	0	0.2301	351.81	0.4693	-3E-04	6	0.4568	2	1.5641	153.0382
5	24.7	0.06	-0.36	0.26	24.6956	0.243	5	2.1874	97.5066	0.27889	0	0.2789	87.549	0.2457	-0.001	6	0.5894	2	1.9062	46.15163
6	14.6	0.07	-0.7	0.47	14.5914	0.4797	5	2.49854	97.35114	0.32757	0	0.3276	43.545	0.4908	-0.004	5	0.7164	2	2.2334	26.96108
7	57.3	0.26	-0.82	0.46	57.29	0.4538	6	1.9453	110.2882	0.38271	0	0.3827	148.7	0.4569	-0.001	6	0.5316	1.7171	1.7429	92.34877
8	33.8	0.09	-0.82	0.27	33.79	0.2664	6	2.069	101.2381	0.43333	0	0.4333	76.977	0.2698	-0.002	6	0.58	1.6784	1.8639	52.90949
9	21.4	0.05	-0.82	0.25	21.39	0.2338	5	2.24297	95.82206	0.48124	0	0.4812	43.448	0.2391	-0.003	6	0.6501	1.6689	2.0415	32.9782
10	17.8	0.04	-0.93	0.25	17.7886	0.2249	5	2.31611	93.73966	0.52811	0	0.5281	32.684	0.2317	-0.004	5	0.6868	1.6117	2.132	26.29065
11	67.9	0.49	-1.03	0.72	67.8874	0.7218	6	1.98183	115.3391	0.58578	0	0.5858	114.89	0.7281	-0.001	6	0.587	1.415	1.8624	90.00043
12	148.2	3.18	-2.16	2.15	148.174	2.1461	5	2.0396	130.9273	0.65124	0	0.6512	226.52	2.1556	-0.001	6	0.6271	1.3558	1.9591	189.0251
13	98.6	2.92	-6.39	2.96	98.5218	2.9638	5	2.26171	129.3078	0.7159	0	0.7159	136.62	2.9855	-0.005	5	0.7172	1.3234	2.1873	122.3276
14	89.8	3.08	-7.34	3.43	89.7102	3.4333	5	2.33652	129.4696	0.78063	0	0.7806	113.92	3.4634	-0.006	5	0.7548	1.2581	2.2773	105.7335
15	82.7	2.75	-4.7	3.33	82.6425	3.3276	5	2.3501	128.4403	0.84485	0	0.8449	96.819	3.362	-0.004	5	0.7689	1.1889	2.3066	91.91123
16	53.7	1.99	-3.31	3.71	53.6595	3.7086	4	2.51318	125.0201	0.90736	0	0.9074	58.138	3.7724	-0.005	4	0.8396	1.1377	2.4846	56.72183
17	50.6	1.93	-6.4	3.82	50.5217	3.8201	4	2.54074	124.6492	0.96969	0	0.9697	51.101	3.8949	-0.009	4	0.8597	1.0779	2.5298	50.47908
18	86.6	2.14	-7.1	2.48	86.5131	2.4736	5	2.24243	126.7168	1.03305	0	1.0331	82.746	2.5035	-0.006	5	0.7539	1.0182	2.2444	82.25899
19	76.4	3.01	-7.8	3.95	76.3045	3.9447	4	2.42825	128.9067	1.0975	0	1.0975	68.526	4.0023	-0.007	4	0.8338	0.97	2.4459	68.94346
20	43.7	2.09	-7.97	4.79	43.6025	4.7933	4	2.65584	124.8727	1.15994	0	1.1599	36.59	4.9243	-0.014	4	0.933	0.9179	2.6985	36.81648
21	32.7	1.07	-7.84	3.29	32.604	3.2818	4	2.63429	119.265	1.21957	0	1.2196	25.734	3.4093	-0.018	4	0.9369	0.8754	2.7014	25.96586
22	37.4	1.72	-7.75	4.61	37.3051	4.6106	4	2.69176	123.0666	1.2811	0	1.2811	28.12	4.7746	-0.015	3	0.9664	0.8313	2.7711	28.30113
23	33	1.36	-7.94	4.15	32.9028	4.1334	4	2.69847	121.042	1.34162	0	1.3416	23.525	4.3091	-0.018	3	0.9798	0.7925	2.7989	23.63785
24	44.5	1.38	-7.11	3.11	44.413	3.1072	4	2.51867	121.8805	1.40256	0	1.4026	30.666	3.2085	-0.012	4	0.9152	0.7727	2.6216	31.40724
25	40.3	1.83	-7.29	4.55	40.2108	4.551	4	2.6646	123.7031	1.46441	0	1.4644	26.459	4.723	-0.014	3	0.9812	0.727	2.7873	26.62076
26	32.9	1.15	-7.09	3.5	32.8132	3.5047	4	2.65111	119.8081	1.52432	0.01872	1.5056	20.782	3.6754	-0.017	4	0.986	0.7063	2.7947	20.88482
27	30.6	0.72	-6.84	2.36	30.5163	2.3594	4	2.56459	116.2048	1.58242	0.04992	1.5325	18.88	2.4884	-0.019	4	0.9586	0.7011	2.7195	19.17163
28	49.9	1.34	-6.08	2.7	49.8256	2.6894	5	2.43943	121.9457	1.64339	0.08112	1.5623	30.841	2.7811	-0.011	4	0.9051	0.7028	2.5749	32.00315
29	47.4	2.11	-5.84	4.46	47.3285	4.4582	4	2.60845	125.1424	1.70596	0.11232	1.5936	28.628	4.6249	-0.012	3	0.9749	0.6708	2.7548	28.92328
30	28.2	1	-6.27	3.55	28.1233	3.5558	4	2.70557	118.4093	1.76517	0.14352	1.6217	16.254	3.7939	-0.023	3	1	0.6525	2.8879	16.25388
31	86.2	1.69	-8.9	1.97	86.0911	1.963	5	2.17284	124.9775	1.82766	0.17472	1.6529	50.978	2.0056	-0.01	5	0.8046	0.6984	2.3005	55.62048
32	96.6	1.69	-11.38	1.75	96.4607	1.752	5	2.10299	125.2549	1.89029	0.20592	1.6844	56.146	1.787	-0.011	5	0.7796	0.696	2.2309	62.20435
33	29.9	0.81	-11.04	2.73	29.7649	2.7213	4	2.6119	117.0058	1.94879	0.23712	1.7117	16.251	2.912	-0.037	4	1	0.6182	2.8178	16.25086
34	17	0.87	-11.04	5.17	16.8649	5.1587	3	2.97934	116.1431	2.00686	0.26832	1.7385	8.5463	5.8554	-0.072	3	1	0.6086	3.2238	8.54626
35	22.1	0.38	-11.04	1.72	21.9649	1.73	4	2.60009	110.7267	2.06222	0.29952	1.7627	11.291	1.9093	-0.055	4	1	0.6003	2.8453	11.29098
36	31.5	1.04	-10.93	3.33	31.3662	3.3157	4	2.64988	118.9625	2.1217	0.33072	1.791	16.329	3.5562	-0.038	3	1	0.5908	2.8689	16.32874
37	28.5	1.44	-10.81	5.09	28.3677	5.0762	3	2.80647	121.0985	2.18225	0.36192	1.8203	14.385	5.4992	-0.044	3	1	0.5813	3.0313	14.38496
38	41.5	1.5	-11.04	3.62	41.3649	3.6263	4	2.58708	122.3171	2.24341	0.39312	1.8503	21.143	3.8342	-0.03	3	1	0.5719	2.8024	21.14339
39	97.4	4.83	-10.59	4.96	97.2704	4.9655	9	2.43734	132.959	2.30989	0.42432	1.8856	50.362	5.0863	-0.013	4	0.9311	0.5839	2.603	52.40626
40	66.6	3.32	-10.47	4.99	66.4719	4.9946	4	2.54477	129.2874	2.37454	0.45552	1.919	33.401	5.1796	-0.019	3	0.9852	0.5563	2.7413	33.69745
41	39.3	0.96	-10.36	2.44	39.1732	2.4507	4	2.49111	118.9189	2.43399	0.48672	1.9473	18.867	2.613	-0.034	4	0.9839	0.5488	2.7343	19.05332
42	45.1	1.68	-10.36	3.73	44.9732	3.7356	4	2.56981	123.3504	2.49567	0.51792	1.9778	21.478	3.955	-0.03	3	1	0.535	2.8059	21.4777
43	91.1	2.6	-10.5	2.86	90.9715	2.858	5	2.27318	128.264	2.5598	0.54912	2.0107	43.971	2.9408	-0.015	4	0.8845	0.5668	2.4641	47.35648
44	83.4	3.61	-12.52	4.33	83.2468	4.3365	4	2.43453	130.449	2.62503	0.58032	2.0447	39.429	4.4777	-0.018	4	0.9522	0.534	2.6386	40.6909
45	34.6	1.22	-12.5	3.54	34.447	3.5417	4	2.63845	120.359	2.68521	0.61152	2.0737	15.317	3.8411	-0.048	3	1	0.5103	2.9115	15.31659
46	42.4	1.41	-12.29	3.33	42.2496	3.3373	4	2.55568	121.916	2.74616	0.64272	2.1034	18.78	3.5693	-0.039	3	1	0.503	2.8224	18.78035
47	79.1	3.1	-11.95	3.93	78.9537	3.9264	4	2.41691	129.2055	2.81077	0.67392	2.1369	35.633	4.0713	-0.02	4	0.9577	0.5101	2.6416	36.70909
48	87.8	3.82	-11.67	4.36	87.6572	4.3579	4	2.42174	130.9887	2.87626	0.70512	2.1711	39.049	4.5057	-0.018	4	0.9604	0.5014	2.6444	40.17692
49	133.2	9.75	-11.42	7.33	133.06	7.3275	9	2.49505	137.28	2.9449	0.73632	2.2086	58.914	7.4934	-0.012	9	0.9808	0.4859	2.6937	59.75296
50	118.9	7.08	-11.01	5.96	118.765	5.9613	9	2.44895	136.2442	3.01302	0.76752	2.2455	51.548	6.1165	-0.013	3	0.9702	0.4819	2.6612	52.7177
51	87.6	4.73	-11.27	5.4	87.4621	5.4081	9	2.49505	132.5467	3.0793	0.79872	2.2806	37.001	5.6054	-0.019	3	1	0.464	2.7372	37.00062
52	78.3	3.56	-11.27	4.55	78.1621	4.5546	4	2.4685	130.1933	3.14439	0.82992	2.3145	32.412	4.7456	-0.022	4	0.9982	0.4578	2.7262	32.45738
53	55.4	2.6	-11.38	4.71	55.2607	4.705	4	2.57908	127.0482	3.20792	0.86112	2.3468	22.18	4.9949	-0.032	3	1	0.4509	2.8622	22.18035
54	47.8	2.11	-11.35	4.43	47.6611	4.4271	4	2.60415	125.1594	3.2705	0.89232	2.3782	18.666	4.7533	-0.039	3	1	0.4449	2.9041	18.6658
55	54.2	2.46	-11.27	4.55	54.0621	4.5503	4	2.57496	126.5898	3.33379	0.92352	2.4103	21.047	4.8494	-0.034	3	1	0.439	2.8706	21.0467
56	61.5	3.3	-11.15	5.38	61.3635	5.3778	4	2.5918	129.0482	3.39832	0.95472	2.4436	23.721	5.6931	-0.03	3	1	0.433	2.8793	23.72127
57	54.3	3.08	-11.15	5.68	54.1635	5.6865	4	2.64585	128.239	3.46244	0.98592	2.4765	20.473	6.0748	-0.035	3	1	0.4273	2.9453	20.47275
58	73	4.26	-11.68	5.85	72.857	5.8471	9	2.57129	131.3353	3.5281	1.01712	2.511	27.61	6.1446	-0.027	3	1	0.4214	2.8549	27.61027
59	111.7	6.25	-11.28	5.61	111.562	5.6023	9	2.44301	135.1792	3.59569	1.04832	2.5474	42.383	5.7889	-0.017	3	1	0.4154	2.7068	42.38337
60	144.5	4.96	-11.95	3.44	144.354	3.436	8	2.20595	134.1162	3.66275	1.07952	2.5832	54.463	3.5255	-0.014	4	0.9066	0.4452	2.4506	59.19689
61	180.4	9.71	-11.51	5.39	180.259	5.3867	9	2.31125	137.28	3.73139	1.11072	2.6207	67.36	5.5006	-0.011	9	0.9431	0.4252	2.5426	70.93026
62	78.1	5.13	-11.41	6.58	77.9603	6.5803	9	2.59286	132.8602	3.79782	1.14192	2.6559	27.924	6.9172	-0.026	3	1	0.3984	2.8879	27.92368
63	96	5.82	-11.15	6.07	95.8635	6.0711	9	2.51036	134.2877	3.86496	1.17312	2.6918	34.177	6.3262	-0.021	3	1	0.3931	2.799	34.17677
64	135	9.21	-11.15	6.83	134.864	6.8291	9	2.4663	137.28	3.9336	1.20432	2.7293	47.972	7.0343	-0.015	3	1	0.3877	2.7339	47.97225
65	115.5	9.19	-11.14	7.97	115.364	7.9661	9	2.55962	137.28	4.00224	1.23552	2.7667	40.25	8.2524	-0.018	3	1	0.3824	2.8362	40.25026

66	180.6	7.5	-11.23	4.16	180.463	4.156	8	2.21669	137.28	4.07088	1.26672	2.8042	62.903	4.2519	-0.012	4	0.9247	0.4061	2.4708	67.69474
67	281	10.43	-12.63	3.72	280.845	3.7138	8	2.07309	137.28	4.13952	1.29792	2.8416	97.377	3.7694	-0.008	8	0.8568	0.4289	2.2898	112.1697
68	232.5	10.65	-13.31	4.58	232.337	4.5839	9	2.19371	137.28	4.20816	1.32912	2.879	79.238	4.6684	-0.01	9	0.914	0.4006	2.4333	86.36057
69	249.7	11.12	-12.86	4.45	249.543	4.4562	8	2.16732	137.28	4.2768	1.36032	2.9165	84.096	4.5339	-0.009	9	0.9049	0.3996	2.4044	92.61389
70	320.5	11.28	-13.43	3.52	320.336	3.5213	8	2.02465	137.28	4.34544	1.39152	2.9539	106.97	3.5697	-0.007	8	0.8435	0.4206	2.2409	125.6129
71	311.7	11.68	-13.43	3.75	311.536	3.7492	8	2.05432	137.28	4.41408	1.42272	2.9914	102.67	3.8031	-0.008	8	0.8592	0.4095	2.2774	118.8485
72	297.9	9.04	-13.2	3.04	297.738	3.0362	8	1.98488	137.28	4.48272	1.45392	3.0288	96.822	3.0826	-0.008	5	0.8374	0.4145	2.2154	114.8823
73	359.4	9.97	-13.31	2.77	359.237	2.7753	8	1.91013	137.28	4.55136	1.48512	3.0662	115.67	2.8109	-0.007	5	0.805	0.4246	2.1257	142.3415
74	709.2	10.1	-13.88	1.42	709.03	1.4245	6	1.51707	137.28	4.62	1.51632	3.1037	226.96	1.4338	-0.004	6	0.6326	0.5063	1.6682	337.0207
75	631	4.12	-14.56	0.65	630.822	0.6531	7	1.24648	136.3554	4.68818	1.54752	3.1407	199.36	0.658	-0.004	6	0.5356	0.5584	1.4079	330.4221
76	556.8	8.2	-15.24	1.47	556.613	1.4732	6	1.57741	137.28	4.75682	1.57872	3.1781	173.64	1.4859	-0.005	6	0.6702	0.4785	1.7574	249.5703
77	658.7	11.1	-15.36	1.69	658.512	1.6856	8	1.59689	137.28	4.82546	1.60992	3.2155	203.29	1.6981	-0.004	6	0.6744	0.4726	1.764	291.9385
78	218.1	10.99	-15.46	5.04	217.911	5.0434	9	2.24361	137.28	4.8941	1.64112	3.253	65.484	5.1592	-0.013	4	0.9696	0.3366	2.534	67.75974
79	149.3	11.7	-15.24	7.85	149.113	7.8464	9	2.49337	137.28	4.96274	1.67232	3.2904	43.809	8.1165	-0.019	3	1	0.3216	2.8067	43.80918
80	222.8	0	-15.24	0	222.613	0	0	0	769.6	5.34754	1.70352	3.644	59.623	0	-0.013	0	1	0.2904	0	0

	C-2	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	91.6	1.6	-0.34	1.75	91.5958	1.7468	5	2.1183	124.7283	0.06236	0	0.0624	1467.7	1.748	-3E-04	6	0.5815	2	1.9122	173.0135
2	76.2	1.7	-0.13	2.23	76.1984	2.231	5	2.24958	124.723	0.12473	0	0.1247	609.93	2.2347	-1E-04	5	0.6353	2	2.0456	143.7919
3	40.2	1.19	-0.74	2.95	40.1909	2.9609	4	2.53663	120.553	0.185	0	0.185	216.25	2.9746	-0.001	5	0.7441	2	2.3238	75.61788
4	90.5	1.09	-0.23	1.21	90.4972	1.2045	6	2.01424	121.8904	0.24595	0	0.246	366.95	1.2077	-2E-04	6	0.5461	2	1.7966	170.5898
5	27.9	0.28	-0.11	1	27.8987	1.0036	5	2.38546	109.0755	0.30049	0	0.3005	91.845	1.0146	-3E-04	5	0.6792	2	2.139	52.16513
6	32.9	0.48	-0.11	1.46	32.8987	1.459	5	2.41362	113.4214	0.3572	0	0.3572	91.103	1.475	-2E-04	5	0.6977	2	2.1805	61.50876
7	47.7	0.64	-0.5	1.34	47.6939	1.3419	5	2.26151	116.4321	0.41541	0	0.4154	113.81	1.3537	-8E-04	5	0.6542	1.8435	2.0597	82.37116
8	25.3	0.26	-0.32	1.02	25.2961	1.0278	5	2.42732	108.2944	0.46956	0	0.4696	52.872	1.0473	-9E-04	5	0.7192	1.7938	2.2237	42.0876
9	43.9	0.49	-0.26	1.12	43.8968	1.1163	5	2.24443	114.2757	0.5267	0	0.5267	82.344	1.1298	-4E-04	5	0.6699	1.5958	2.0875	65.40825
10	205.4	3.48	-1.1	1.69	205.387	1.6944	6	1.86993	132.3833	0.59289	0	0.5929	345.42	1.6993	-4E-04	6	0.5585	1.3819	1.7862	267.471
11	53	2.34	-3.01	4.42	52.9632	4.4182	4	2.57177	126.1737	0.65598	0	0.656	79.74	4.4736	-0.004	4	0.8207	1.4805	2.4652	73.18973
12	57.1	1.88	-3.61	3.3	57.0558	3.295	4	2.45797	124.7538	0.71835	0	0.7184	78.426	3.337	-0.005	5	0.7888	1.3573	2.3738	72.2658
13	115.3	2.9	-3.99	2.52	115.251	2.5162	5	2.16333	129.64	0.78317	0	0.7832	146.16	2.5335	-0.003	5	0.6905	1.2309	2.1088	133.1614
14	76.2	3.37	-3	4.43	76.1633	4.4247	4	2.46629	129.7288	0.84804	0	0.848	88.811	4.4745	-0.003	9	0.8132	1.1972	2.4228	85.21539
15	53.4	2.31	-4.02	4.33	53.3508	4.3298	4	2.56323	126.0971	0.91109	0	0.9111	57.557	4.4051	-0.006	4	0.8592	1.1372	2.5356	56.35746
16	57.4	2.59	-3.4	4.52	57.3584	4.5155	4	2.55499	127.1109	0.97464	0	0.9746	57.851	4.5935	-0.004	4	0.8656	1.0737	2.5446	57.21529
17	73	1.91	-3.95	2.61	72.9517	2.6182	5	2.31189	125.469	1.03738	0	1.0374	69.323	2.6559	-0.004	5	0.7814	1.0156	2.316	69.02407
18	39.5	1.76	-1.48	4.47	39.4819	4.4577	4	2.66392	123.3731	1.09906	0	1.0991	34.923	4.5854	-0.003	4	0.9277	0.9654	2.6922	35.01934
19	53.9	2.9	-2.5	5.38	53.8694	5.3834	4	2.62972	127.7851	1.16295	0	1.163	45.321	5.5022	-0.003	3	0.9217	0.9166	2.6686	45.65766
20	36.6	1.49	-2.27	4.09	36.5722	4.0741	4	2.66069	121.9679	1.22394	0	1.2239	28.881	4.2152	-0.005	4	0.9462	0.8713	2.7253	29.10789
21	50.1	2.2	-2.7	4.38	50.067	4.3941	4	2.58694	125.5852	1.28673	0	1.2867	37.91	4.51	-0.004	4	0.9235	0.8347	2.658	38.48157
22	36.5	1.64	-2.41	4.49	36.4705	4.4968	4	2.69122	122.6629	1.34806	0	1.3481	26.054	4.6694	-0.005	3	0.9763	0.7894	2.789	26.20381
23	22.3	1.22	-4.42	5.5	22.2459	5.4842	3	2.9067	119.2925	1.40771	0	1.4077	14.803	5.8546	-0.015	3	1	0.7517	3.0395	14.80292
24	25	0.8	-4.99	3.22	24.9389	3.2078	4	2.71661	116.4835	1.46595	0	1.466	16.012	3.4082	-0.015	3	1	0.7218	2.8643	16.01212
25	36	1.85	-4.77	5.16	35.9416	5.1472	3	2.73687	123.5089	1.5277	0	1.5277	22.527	5.3757	-0.01	3	1	0.6926	2.8788	22.52655
26	24.8	1.13	-4.77	4.57	24.7416	4.5672	3	2.81917	118.9911	1.5872	0.01248	1.5747	14.704	4.8803	-0.015	3	1	0.6719	2.9907	14.70383
27	36.7	1.15	-4.65	3.13	36.6431	3.1384	4	2.58342	120.0774	1.64724	0.04368	1.6036	21.824	3.2861	-0.011	4	0.9718	0.6677	2.7451	22.08169
28	54.3	2.48	-4.43	4.56	54.2458	4.5718	4	2.57544	126.6573	1.71057	0.07488	1.6357	32.118	4.7206	-0.008	4	0.9649	0.6569	2.7232	32.61289
29	60.4	2.46	-4.31	4.08	60.3473	4.0764	4	2.50744	126.858	1.774	0.10608	1.6679	35.118	4.1999	-0.007	4	0.9411	0.6516	2.6564	36.07222
30	31.4	1.13	-4.43	3.62	31.3458	3.605	4	2.67409	119.5682	1.83378	0.13728	1.6965	17.396	3.829	-0.015	3	1	0.6237	2.8674	17.39581
31	35.5	1.33	-5.31	3.77	35.435	3.7534	4	2.64638	121.0596	1.89431	0.16848	1.7258	19.435	3.9653	-0.016	3	1	0.6131	2.8399	19.43453
32	58.5	1.83	-7.38	3.12	58.4097	3.133	4	2.4353	124.6137	1.95662	0.19968	1.7569	32.132	3.2416	-0.013	4	0.9258	0.6254	2.6049	33.36444
33	29.9	1.07	-7.45	3.61	29.8088	3.5895	4	2.68922	119.0463	2.01614	0.23088	1.7853	15.568	3.8499	-0.028	3	1	0.5927	2.9065	15.56785
34	24.9	1.07	-7.52	4.33	24.808	4.3131	3	2.80179	118.5984	2.07544	0.26208	1.8134	12.536	4.7069	-0.035	3	1	0.5835	3.0345	12.53613
35	26	1.1	-7.49	4.23	25.9083	4.2457	3	2.78314	118.9066	2.13489	0.29328	1.8416	12.909	4.627	-0.035	3	1	0.5746	3.0199	12.90903
36	51.1	1.76	-7.36	3.44	51.0099	3.4503	4	2.50659	123.9979	2.19689	0.32448	1.8724	26.07	3.6056	-0.018	4	0.9713	0.5744	2.7105	26.49985
37	54.2	2.81	-7.15	5.2	54.1125	5.1929	4	2.61682	127.5654	2.26067	0.35568	1.905	27.219	5.4193	-0.017	3	1	0.5554	2.8213	27.21888
38	41.2	1.78	-7.1	4.34	41.1131	4.3295	4	2.64251	123.5545	2.32245	0.38688	1.9356	20.041	4.5887	-0.023	3	1	0.5467	2.8708	20.04092
39	45.7	2.43	-7.15	5.33	45.6125	5.3275	4	2.67541	126.0855	2.38549	0.41808	1.9674	21.971	5.6215	-0.022	3	1	0.5378	2.8999	21.97147
40	119.8	7.89	-6.86	6.6	119.716	6.5906	9	2.48261	137.0562	2.45402	0.44928	2.0047	58.492	6.7285	-0.008	3	0.9568	0.5426	2.6558	60.13087
41	70.1	3.53	-6.7	5.03	70.018	5.0416	4	2.53308	129.863	2.51895	0.48048	2.0385	33.113	5.2297	-0.014	3	0.9939	0.5211	2.7484	33.24484
42	38.9	1.64	-6.7	4.23	38.818	4.2249	4	2.65291	122.8151	2.58036	0.51168	2.0687	17.517	4.5257	-0.027	3	1	0.5115	2.9113	17.51726
43	55	2.57	-6.7	4.68	54.918	4.6797	4	2.57921	126.9482	2.64384	0.54288	2.101	24.881	4.9164	-0.02	3	1	0.5036	2.8207	24.88113
44	143.4	4.31	-6.92	3	143.315	3.0074	5	2.16211	133.0708	2.71037	0.57408	2.1363	65.817	3.0653	-0.008	5	0.8433	0.553	2.3419	73.47874
45	161.5	3.22	-6.92	1.99	161.415	1.9949	6	1.99134	131.2275	2.77598	0.60528	2.1707	73.082	2.0298	-0.007	5	0.7783	0.5716	2.1669	85.70381
46	30.3	1.24	-6.81	4.1	30.2167	4.1037	4	2.72358	120.1584	2.83606	0.63648	2.1996	12.448	4.5288	-0.041	3	1	0.4811	3.0265	12.44807
47	33.5	1.65	-6.83	4.94	33.4164	4.9377	3	2.74677	122.4941	2.89731	0.66768	2.2296	13.688	5.4065	-0.038	3	1	0.4746	3.043	13.68795
48	84.7	4.46	-6.61	5.27	84.6191	5.2707	9	2.4953	132.036	2.96333	0.69888	2.2645	36.06	5.462	-0.014	3	0.9998	0.4674	2.7369	36.06624
49	106	4.92	-6.33	4.64	105.923	4.6449	9	2.3917	133.3019	3.02998	0.73008	2.2999	44.738	4.7817	-0.012	4	0.9573	0.4756	2.6204	46.24439
50	79	4.44	-6.36	5.63	78.9222	5.6258	9	2.53635	131.8331	3.0959	0.76128	2.3346	32.479	5.8555	-0.016	3	1	0.4532	2.7903	32.4791
51	58.7	2.07	-6.24	3.52	58.6236	3.531	4	2.47106	125.5243	3.15866	0.79248	2.3662	23.441	3.7321	-0.022	4	1	0.4472	2.7607	23.44073
52	127.9	8.43	-6.77	6.59	127.817	6.5954	9	2.46675	137.28	3.2273	0.82368	2.4036	51.834	6.7662	-0.011	3	0.992	0.4431	2.6973	52.17785
53	77.2	3.23	-6.69	4.19	77.1181	4.1884	4	2.44475	129.4487	3.29202	0.85488	2.4371	30.292	4.3752	-0.018	4	1	0.4342	2.7236	30.29206
54	59.8	3.17	-6.7	5.31	59.718	5.3083	4	2.59535	128.6878	3.35637	0.88608	2.4703	22.816	5.6244	-0.024	3	1	0.4283	2.888	22.81582
55	56.6	3.22	-6.7	5.69	56.518	5.6973	4	2.6342	128.668	3.4207	0.91728	2.5034	21.21	6.0643	-0.026	3	1	0.4227	2.9335	21.20989
56	42.4	1.93	-6.7	4.55	42.318	4.5607	4	2.64957	124.217	3.48281	0.94848	2.5343	15.324	4.9697	-0.037	3	1	0.4175	2.9819	15.32365
57	47	1.76	-6.58	3.76	46.9195	3.7511	4	2.55793	123.7941	3.54471	0.97968	2.565	16.91	4.0577	-0.034	3	1	0.4125	2.8928	16.91006
58	55.6	2.09	-6.58	3.76	55.5195	3.7645	4	2.50746	125.462	3.60744	1.01088	2.5966	19.993	4.026	-0.029	3	1	0.4075	2.8347	19.99263
59	64.4	4.44	-6.58	6.89	64.3195	6.903	9	2.66137	131.3341	3.6731	1.04208	2.631	23.05	7.3211	-0.025	3	1	0.4022	2.9642	23.05047
60	61.1	3.88	-6.45	6.37	61.0211	6.3585	3	2.64855	130.2193	3.73821	1.07328	2.6649	21.495	6.7734	-0.027	3	1	0.3971	2.9623	21.49503
61	271.7	10.04	-6.57	3.69	271.62	3.6964	8	2.07869	137.28	3.80685	1.10448	2.7024	99.103	3.7489	-0.006	8	0.8476	0.4517	2.2829	114.3274
62	285.8	10.91	-4.72	3.82	285.742	3.8181	8	2.07973	137.28	3.87549	1.13568	2.7398	102.88	3.8706	-0.005	8	0.8497	0.4456	2.2838	118.6912
63	154.2	8.81	-6.13	5.72	154.125	5.7161	9	2.36987	137.28	3.94413	1.16688	2.7773	54.075	5.8663	-0.011	4	0.9858	0.3862	2.6363	54.82071
64	53.6	3.45	-6.24	6.45	53.5236	6.4458	3	2.6901	129.04	4.00865	1.19808	2.8106	17.617	6.9676	-0.033	3	1	0.3765	3.0336	17.61738
65	114.4	7.59	-6.58	6.64	114.319	6.6393	9	2.4967	136.6601	4.07698	1.22928	2.8477	38.713	6.8848	-0.015	3	1	0.3716	2.7888	38.71275
66	104.8	6.5	-6.27	6.21	104.723	6.2068	9	2.49515	135.3119	4.14464	1.26048	2.8842	34.873	6.4626	-0.017	3	1	0.3669	2.7996	34.87276
67	125.2	8.44	-6.24	6.75	125.124	6.7453	9	2.48003	137.28	4.21328	1.29168	2.9216	41.385	6.9804	-0.014	3	1	0.3622	2.7738	41.38497
68	213.5	8.61	-6.36	4.03	213.422	4.0343	8	2.16594	137.28	4.28192	1.32288	2.959	70.678	4.1169	-0.009	4	0.9138	0.3907	2.4226	77.22934
69	145.2	6.8	-5.82	4.68	145.129	4.6855	9	2.31328	136.4379	4.35014	1.35408	2.9961	46.988	4.8303	-0.013	4	0.9881	0.3576	2.6151	47.57516
70	226.8	10.06	-5.42	4.44	226.734	4.4369	8	2.18709	137.28	4.41878	1.38528	3.0335	73.287	4.5251	-0.008	4	0.9264	0.3769	2.4468	79.1914
71	247.4	10.15	-5.13	4.1	247.337	4.1037	8	2.13852	137.28	4.48742	1.41648	3.0709	79.08	4.1795	-0.007	4	0.9081	0.38	2.3935	87.21571
72	241.7	11.72	-5.11	4.85	241.637	4.8502	9	2.20614	137.28	4.55606	1.44768	3.1084	76.272	4.9435	-0.008	9	0.938	0.3639	2.4684	81.53775
73	339.1	11.68	-5.38	3.44	339.034	3.4451	8	2.00439	137.28	4.6247	1.47888	3.1458	106.3	3.4927	-0.006	8	0.8502	0.396	2.2344	125.1566
74	650.5	11.15	-7.65	1.71	650.406	1.7143	8	1.6058	137.28	4.69334	1.51008	3.1833	202.85	1.7268	-0.003	6	0.6758	0.4751	1.7718	289.898

	C-3	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	85.3	0.99	0.06	1.16	85.3007	1.1606	6	2.02366	121.0421	0.06052	0	0.0605	1408.4	1.1614	5E-01	6	0.5393	2	1.8017	161.1182
2	73.3	0.88	0.17	1.2	73.3021	1.2005	5	2.08407	119.8105	0.12043	0	0.1204	607.69	1.2025	0.0002	6	0.5641	2	1.8592	138.3255
3	34.3	1.15	-0.17	3.36	34.2979	3.353	4	2.62397	119.9161	0.18038	0	0.1804	189.14	3.3707	-4E-04	4	0.777	2	2.4108	64.48781
4	125.2	2.02	-0.4	1.61	125.195	1.6135	6	1.99749	127.196	0.24398	0	0.244	512.13	1.6166	-2E-04	6	0.5477	2	1.8011	236.1784
5	52.8	0.67	-0.34	1.26	52.7958	1.269	5	2.21163	117.0152	0.30249	0	0.3025	173.54	1.2764	-5E-04	6	0.6195	2	1.9822	99.22115
6	32.5	0.53	-0.25	1.64	32.4969	1.6309	5	2.446	114.1165	0.35955	0	0.3596	89.383	1.6492	-6E-04	5	0.7112	2	2.2159	60.74501
7	22.1	0.24	-0.28	1.07	22.0966	1.0861	5	2.49011	107.3789	0.41324	0	0.4132	52.472	1.1068	-9E-04	5	0.727	1.9809	2.2502	40.59432
8	24.8	0.27	-0.28	1.08	24.7966	1.0889	5	2.44756	108.5219	0.4675	0	0.4675	52.041	1.1098	-8E-04	5	0.7261	1.8096	2.242	41.60788
9	208.3	1.43	-0.33	0.69	208.296	0.6865	6	1.58087	125.9102	0.53045	0	0.5305	391.68	0.6883	-1E-04	6	0.4412	1.3561	1.4867	266.2852
10	100.9	4.99	-3.25	4.94	100.86	4.9474	9	2.42639	133.2858	0.5971	0	0.5971	167.92	4.9769	-0.002	9	0.7615	1.5461	2.3185	146.5015
11	52.2	2.36	-5.06	4.52	52.1381	4.5264	4	2.58409	126.1977	0.6602	0	0.6602	77.974	4.5845	-0.007	4	0.826	1.4764	2.4786	71.82951
12	37.1	1.5	-5.5	4.05	37.0327	4.0505	4	2.655	122.0473	0.72122	0	0.7212	50.347	4.1309	-0.011	4	0.8616	1.3913	2.565	47.7463
13	19	0.87	-6.05	4.58	18.926	4.5969	3	2.90875	116.4243	0.77943	0	0.7794	23.282	4.7943	-0.024	3	0.9681	1.3444	2.8378	23.0557
14	15.5	0.78	-4.1	5.05	15.4498	5.0486	3	3.0024	115.1304	0.837	0	0.837	17.459	5.3378	-0.02	3	1	1.2642	2.9591	17.45864
15	27.4	1.14	-3.55	4.17	27.3566	4.1672	4	2.76011	119.3006	0.89665	0	0.8967	29.51	4.3084	-0.01	4	0.9329	1.167	2.7309	29.1837
16	41	2.44	-7.11	5.97	40.913	5.9639	3	2.74346	125.8503	0.95957	0	0.9596	41.637	6.1071	-0.013	3	0.9358	1.0958	2.7309	41.37635
17	43.4	2.69	-7.89	6.22	43.3034	6.212	3	2.73958	126.7025	1.02292	0	1.0229	41.333	6.3623	-0.013	3	0.9441	1.0324	2.7449	41.255
18	36.2	1.32	-0.63	3.64	36.1923	3.6472	4	2.63119	121.056	1.08345	0	1.0835	32.405	3.7597	-0.001	4	0.9134	0.9786	2.6568	32.47111
19	34.1	1.62	-4.01	4.77	34.0509	4.7576	3	2.72967	122.4057	1.14465	0	1.1447	28.748	4.9231	-0.009	3	0.9611	0.9272	2.7744	28.83579
20	29.7	1.29	-4.03	4.34	29.6507	4.3507	4	2.74676	120.4015	1.20485	0	1.2049	23.609	4.5349	-0.01	3	0.9787	0.8806	2.8131	23.67464
21	27.4	1.21	-3.35	4.44	27.359	4.4227	3	2.77737	119.7369	1.26472	0.00312	1.2616	20.683	4.637	-0.009	3	1	0.8387	2.8634	20.68342
22	33.7	1.38	-3.26	4.08	33.6601	4.0998	4	2.68882	121.2043	1.32533	0.03432	1.291	25.046	4.2679	-0.008	3	0.9684	0.8248	2.7753	25.20415
23	52.2	1.88	-3.12	3.59	52.1618	3.6042	4	2.51305	124.535	1.38759	0.06552	1.3221	38.405	3.7027	-0.006	4	0.9001	0.8184	2.5919	39.26945
24	62.2	2.71	-3.01	4.35	62.1632	4.3595	4	2.5201	127.6385	1.45141	0.09672	1.3547	44.816	4.4637	-0.005	4	0.9051	0.7996	2.6012	45.87885
25	57.1	2.26	-2.67	3.97	57.0673	3.9602	4	2.515	126.1013	1.51446	0.12792	1.3865	40.066	4.0682	-0.006	4	0.9087	0.7822	2.6064	41.0675
26	62.7	2.12	-2.67	3.37	62.6673	3.3829	4	2.43752	125.8616	1.57739	0.15912	1.4183	43.073	3.4703	-0.006	4	0.8821	0.7723	2.5326	44.58737
27	59.4	2.94	-2.57	4.95	59.3685	4.9521	4	2.57452	128.1224	1.64145	0.19032	1.4511	39.781	5.0929	-0.007	4	0.9396	0.7432	2.6796	40.54705
28	28.6	1.02	-2.67	3.58	28.5673	3.5705	4	2.70161	118.5924	1.70075	0.22152	1.4792	18.163	3.7965	-0.015	3	1	0.7153	2.8505	18.16253
29	85	2.29	-3.23	2.7	84.9605	2.6954	5	2.27481	127.1684	1.76434	0.25272	1.5116	55.038	2.7525	-0.006	5	0.8277	0.7444	2.3778	58.52764
30	26.9	1.46	-3.11	5.44	26.8619	5.4352	3	2.84407	121.0664	1.82487	0.28392	1.541	16.248	5.8314	-0.02	3	1	0.6867	3.0079	16.24783
31	26.7	1.81	-3.12	6.79	26.6618	6.7887	3	2.91361	122.6205	1.88618	0.31512	1.5711	15.77	7.3056	-0.022	3	1	0.6735	3.0829	15.77003
32	21.7	0.65	-3.01	3	21.6632	3.0005	4	2.74607	114.6207	1.94349	0.34632	1.5972	12.347	3.2962	-0.029	3	1	0.6625	2.9458	12.34664
33	24.9	1.1	-3.12	4.41	24.8618	4.4245	3	2.80842	118.8061	2.00289	0.37752	1.6254	14.064	4.8121	-0.026	3	1	0.651	3.0017	14.06381
34	41.4	2.65	-3.01	6.4	41.3632	6.4067	3	2.76293	126.4811	2.06613	0.40872	1.6574	23.71	6.7435	-0.016	3	1	0.6384	2.9304	23.70986
35	39.5	1.9	-2.89	4.82	39.4646	4.8144	4	2.68762	123.9321	2.1281	0.43992	1.6882	22.116	5.0889	-0.017	3	1	0.6268	2.8686	22.11646
36	25.6	1.12	-2.86	4.37	25.565	4.381	3	2.79652	119.0059	2.1876	0.47112	1.7165	13.619	4.791	-0.029	3	1	0.6164	3.0113	13.61937
37	34.5	1.93	-2.84	5.6	34.4652	5.5999	3	2.77563	123.7164	2.24946	0.50232	1.7471	18.439	5.9909	-0.022	3	1	0.6056	2.9747	18.43916
38	38.4	2.27	-2.67	5.91	38.3673	5.9165	3	2.76018	125.1652	2.31204	0.53352	1.7785	20.273	6.2959	-0.02	3	1	0.5949	2.959	20.2726
39	29	1.36	-2.78	4.7	28.966	4.6952	3	2.77668	120.7312	2.37241	0.56472	1.8077	14.711	5.114	-0.029	3	1	0.5853	3.0035	14.71137
40	28.7	1.68	-2.78	5.84	28.666	5.8606	3	2.84639	122.2519	2.43353	0.59592	1.8376	14.275	6.4043	-0.03	3	1	0.5758	3.077	14.27527
41	22	0.68	-2.67	3.12	21.9673	3.0955	4	2.74972	114.9849	2.49103	0.62712	1.8639	10.449	3.4914	-0.042	3	1	0.5677	3.0191	10.44918
42	31.7	1.24	-2.55	3.93	31.6688	3.9155	4	2.69478	120.2729	2.55116	0.65832	1.8928	15.383	4.2586	-0.029	3	1	0.559	2.938	15.38301
43	41.8	1.49	-2.43	3.58	41.7703	3.5671	4	2.57909	122.292	2.61231	0.68952	1.9228	20.365	3.8051	-0.022	3	1	0.5503	2.8128	20.36519
44	37.7	1.67	-2.38	4.43	37.6709	4.4331	4	2.67682	122.8745	2.67375	0.72072	1.953	17.919	4.7718	-0.025	3	1	0.5418	2.9187	17.91944
45	39	1.97	-2.43	5.06	38.9703	5.0551	3	2.70651	124.1661	2.73583	0.75192	1.9839	18.264	5.4368	-0.026	3	1	0.5334	2.9496	18.26416
46	105.4	2.2	-2.35	2.09	105.371	2.0879	5	2.13	127.4001	2.79953	0.78312	2.0164	50.869	2.1448	-0.009	5	0.8264	0.5869	2.3126	56.89226
47	65.8	3.29	-2.5	5.01	65.7694	5.0023	4	2.54831	129.1951	2.86413	0.81432	2.0498	30.688	5.2301	-0.016	3	1	0.5162	2.7731	30.68839
48	62	2.83	-2.06	4.56	61.9748	4.5664	4	2.53588	127.9481	2.9281	0.84552	2.0826	28.353	4.7928	-0.017	3	1	0.5081	2.7717	28.35265
49	117.1	5.65	-2.01	4.83	117.075	4.826	9	2.37851	134.5584	2.99538	0.87672	2.1187	53.845	4.9527	-0.009	4	0.9306	0.5241	2.5725	56.50224
50	81.2	4.14	-1.82	5.1	81.1777	5.0999	9	2.4956	131.39	3.06107	0.90792	2.1532	36.28	5.2998	-0.013	3	0.9902	0.4948	2.7236	36.53249
51	79.8	2.69	-1.55	3.37	79.781	3.3717	5	2.36463	128.1929	3.12517	0.93912	2.1861	35.066	3.5092	-0.014	4	0.9439	0.5041	2.5989	36.52332
52	109.2	6.25	-1.75	5.73	109.179	5.7246	9	2.45612	135.1265	3.19273	0.97032	2.2224	47.69	5.897	-0.01	3	0.9734	0.4856	2.6724	48.64151
53	126.9	9.76	-1.65	7.69	126.88	7.6923	9	2.52403	137.28	3.26137	1.00152	2.2599	54.702	7.8953	-0.009	3	0.999	0.4686	2.7353	54.74265
54	73.8	2.97	-1.53	4.02	73.7813	4.0254	4	2.44453	128.7267	3.32574	1.03272	2.293	30.726	4.2154	-0.016	4	0.9901	0.465	2.7057	30.96145
55	57.2	3.02	-1.42	5.28	57.1826	5.2813	4	2.60621	128.2273	3.38985	1.06392	2.3259	23.127	5.6141	-0.022	3	1	0.4549	2.8832	23.12741
56	63.4	3.86	-1.3	6.09	63.3841	6.0899	3	2.62358	130.2741	3.45499	1.09512	2.3599	25.395	6.4409	-0.02	3	1	0.4484	2.8952	25.3951
57	55	2.97	-1.19	5.4	54.9854	5.4014	4	2.62484	128.0096	3.51899	1.12632	2.3927	21.51	5.7708	-0.024	3	1	0.4422	2.9144	21.51002
58	74	4.9	-1.08	6.62	73.9868	6.6228	9	2.60916	132.397	3.58519	1.15752	2.4277	29	6.9601	-0.018	3	1	0.4359	2.8783	28.99963
59	58.8	3.78	-1.08	6.43	58.7868	6.43	3	2.66273	129.9372	3.65016	1.18872	2.4614	22.4	6.8557	-0.023	3	1	0.4299	2.9531	22.40014
60	67.9	3.53	-1.06	5.2	67.887	5.1998	4	2.55201	129.7876	3.71505	1.21992	2.4951	25.719	5.5008	-0.02	3	1	0.4241	2.8436	25.71884
61	120.8	8.62	-1.19	7.13	120.785	7.1366	9	2.5089	137.28	3.78369	1.25112	2.5326	46.199	7.3674	-0.011	3	1	0.4178	2.7598	46.19874
62	124.4	9.18	-0.9	7.38	124.389	7.3801	9	2.51382	137.28	3.85233	1.28232	2.57	46.901	7.6159	-0.011	3	1	0.4117	2.7664	46.90116
63	197	9.92	-1.7	5.04	196.979	5.0361	9	2.26599	137.28	3.92097	1.31352	2.6075	74.041	5.1384	-0.007	9	0.922	0.4354	2.4886	79.43797
64	191.5	10.12	-2.1	5.29	191.474	5.2853	9	2.2903	137.28	3.98961	1.34472	2.6449	70.886	5.3978	-0.008	9	0.9357	0.4243	2.5202	75.18447
65	171.8	10.83	-1.99	6.3	171.776	6.3047	9	2.38025	137.28	4.05825	1.37592	2.6823	62.527	6.4573	-0.009	9	0.9772	0.4029	2.6253	63.86665
66	84.7	4.58	-1.65	5.4	84.6798	5.4086	9	2.50385	132.232	4.12437	1.40712	2.7173	29.646	5.6855	-0.019	3	1	0.3894	2.8093	29.64594
67	106.6	7.63	-1.99	7.15	106.576	7.1592	9	2.54102	136.5275	4.19263	1.43832	2.7543	37.172	7.4524	-0.015	3	1	0.3842	2.8261	37.17187
68	122.3	8.48	-1.99	6.94	122.276	6.9352	9	2.49562	137.28	4.26127	1.46952	2.7918	42.272	7.1856	-0.014	3	1	0.379	2.777	42.27248
69	165.2	11.7	-1.76	7.08	165.178	7.0833	9	2.43218	137.28	4.32991	1.50072	2.8292	56.853	7.2739	-0.01	3	1	0.374	2.6974	56.85313
70	156.3	9.9	-1.76	6.34	156.278	6.3349	9	2.40397	137.28	4.39855	1.53192	2.8666	52.982	6.5183	-0.011	3	1	0.3691	2.6806	52.98197
71	247.7	13.87	-1.37	5.6	247.683	5.5999	9	2.25502	137.28	4.46719	1.56312	2.9041	83.75	5.7028	-0.007	9	0.9376	0.3881	2.4928	89.19671
72	189.9	10.22	-0.51	5.38	189.894	5.382	9	2.29888	137.28	4.53583	1.59432	2.9415	63.014	5.5137	-0.009	4	0.9674	0.3719	2.5671	65.14991
73	193.4	10.38	-0.42	5.37	193.395	5.3673	9	2.29369	137.28	4.60447	1.62552	2.979	63.375	5.4982	-0.009	4	0.9683	0.3671	2.5647	65.49149
74	209	11.63	-0.85	5.56	208.99	5.5649	9	2.28959	137.28	4.67311	1.65672	3.0164	67.735	5.6922	-0.008	9	0.9672	0.363	2.5573	70.09999
75	189.4	0	-0.4	0	189.395	0	0	0	769.6	5.05791	1.68792	3.37	54.7	0	-0.009	0	1	0.314	0	0

	C-4	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	121.1	2.07	-0.17	1.71	121.098	1.7094	5	2.02553	127.2937	0.06365	0	0.0637	1901.7	1.7103	-1E-04	6	0.5498	2	1.8289	228.7749
2	80.8	1.1	-0.06	1.37	80.7993	1.3614	5	2.0862	121.6807	0.12449	0	0.1245	648.06	1.3635	-5E-05	6	0.5677	2	1.8684	152.4887
3	35	1.09	-0.23	3.12	34.9972	3.1145	4	2.59618	119.5732	0.18427	0	0.1843	188.92	3.131	-5E-04	5	0.7661	2	2.3816	65.80219
4	98.8	1.92	-0.51	1.95	98.7938	1.9434	5	2.12725	126.2468	0.2474	0	0.2474	398.33	1.9483	-4E-04	6	0.5964	2	1.9284	186.269
5	51.6	0.77	-0.35	1.49	51.5957	1.4924	5	2.26233	117.977	0.30639	0	0.3064	167.4	1.5013	-5E-04	5	0.6407	2	2.0374	96.94536
6	22.8	0.4	-0.74	1.77	22.7909	1.7551	4	2.59036	111.1921	0.36198	0	0.362	61.962	1.7834	-0.002	5	0.7655	2	2.358	42.39446
7	22	0.29	-0.74	1.3	21.9909	1.3187	5	2.53542	108.7519	0.41636	0	0.4164	51.817	1.3442	-0.002	5	0.7448	2	2.297	40.77955
8	29.8	0.38	-0.85	1.29	29.7896	1.2756	5	2.41657	111.4699	0.47209	0	0.4721	62.101	1.2962	-0.002	5	0.718	1.7851	2.2202	49.46084
9	201.7	2.51	-1.01	1.25	201.688	1.2445	6	1.7734	129.9481	0.53707	0	0.5371	374.54	1.2478	-4E-04	6	0.5142	1.4172	1.6772	269.4201
10	51.8	3.55	-4.8	6.87	51.7413	6.8611	3	2.72022	129.1665	0.60165	0	0.6017	84.999	6.9418	-0.007	9	0.8669	1.6314	2.5932	78.84549
11	44.5	2.07	-5.17	4.66	44.4367	4.6583	4	2.64122	124.8485	0.66407	0	0.6641	65.915	4.729	-0.009	4	0.8471	1.4838	2.5336	61.38358
12	45.1	2.27	-5.74	5.04	45.0297	5.0411	4	2.66186	125.5557	0.72685	0	0.7269	60.952	5.1238	-0.009	4	0.8661	1.3844	2.5762	57.96286
13	31.7	1.36	-5.98	4.29	31.6268	4.3002	4	2.72274	120.9455	0.78732	0	0.7873	39.17	4.4099	-0.014	4	0.8988	1.3043	2.6549	38.01597
14	37.6	1.6	-5.85	4.27	37.5284	4.2634	4	2.66621	122.552	0.8486	0	0.8486	43.224	4.3621	-0.011	4	0.8883	1.2165	2.6196	42.17111
15	62.1	2.53	-7.37	4.08	62.0098	4.08	4	2.49967	127.1296	0.91217	0	0.9122	66.981	4.1409	-0.009	4	0.8351	1.132	2.4724	65.36187
16	58	3.65	-9.27	6.31	57.8865	6.3054	3	2.66062	129.6435	0.97699	0	0.977	58.25	6.4137	-0.012	3	0.9061	1.075	2.6507	57.81536
17	31.6	1.65	-8.94	5.23	31.4906	5.2397	3	2.78322	122.3493	1.03816	0	1.0382	29.333	5.4183	-0.021	3	0.9651	1.0185	2.7981	29.31355
18	39.3	1.63	-8.8	4.17	39.1923	4.159	4	2.64517	122.7937	1.09956	0	1.0996	34.644	4.279	-0.017	4	0.9206	0.9652	2.6737	34.74945
19	37.2	1.78	-9.26	4.81	37.0867	4.7996	4	2.70581	123.3032	1.16121	0	1.1612	30.938	4.9547	-0.019	3	0.9537	0.9151	2.7529	31.07133
20	33.4	1.43	-9.14	4.3	33.2881	4.2958	4	2.7062	121.4376	1.22193	0	1.2219	26.242	4.4595	-0.021	3	0.9644	0.8704	2.7734	26.37704
21	23.7	0.88	-9.14	3.73	23.5881	3.7307	4	2.77717	117.0451	1.28045	0	1.2805	17.422	3.9448	-0.03	3	1	0.8264	2.8751	17.42172
22	25.1	1	-9.14	3.99	24.9881	4.0019	3	2.77799	118.121	1.33951	0	1.3395	17.655	4.2286	-0.028	3	1	0.7899	2.8898	17.65464
23	30.4	1.02	-9.03	3.36	30.2895	3.3675	4	2.66575	118.7352	1.39888	0	1.3989	20.653	3.5306	-0.023	4	0.9773	0.7612	2.7852	20.78393
24	39.6	1.27	-8.91	3.22	39.4909	3.2159	4	2.56634	120.9862	1.45937	0.00312	1.4563	26.116	3.3393	-0.017	4	0.9429	0.74	2.6876	26.59695
25	44.2	1.93	-8.91	4.38	44.0909	4.3773	4	2.62436	124.3171	1.52153	0.03432	1.4872	28.624	4.5338	-0.016	3	0.9676	0.7194	2.7487	28.94143
26	56.4	2.09	-10.32	3.71	56.2737	3.714	4	2.49917	125.4949	1.58428	0.06552	1.5188	36.009	3.8216	-0.015	4	0.92	0.7171	2.6195	37.0662
27	20	0.91	-10.73	4.59	19.8687	4.5801	3	2.89166	116.8718	1.64271	0.09672	1.546	11.789	4.9929	-0.048	3	1	0.6844	3.0713	11.78914
28	21	1.05	-10.85	5.04	20.8672	5.0318	3	2.9024	118.0385	1.70173	0.12792	1.5738	12.178	5.4786	-0.047	3	1	0.6723	3.0858	12.17772
29	14.4	0.4	-10.85	2.82	14.2672	2.8036	3	2.87364	110.0496	1.75676	0.15912	1.5976	7.8306	3.1973	-0.075	3	1	0.6623	3.1003	7.83058
30	11	0.33	-10.73	3.04	10.8687	3.0363	3	2.99023	107.9784	1.81075	0.19032	1.6204	5.5898	3.6432	-0.106	3	1	0.653	3.2537	5.58983
31	16.8	0.81	-10.73	4.88	16.6687	4.8594	3	2.96646	115.5917	1.86854	0.22152	1.647	8.986	5.4729	-0.067	3	1	0.6424	3.1886	8.98598
32	25.1	1.18	-10.65	4.71	24.9696	4.7257	3	2.82611	119.3303	1.92821	0.25272	1.6755	13.752	5.1212	-0.044	3	1	0.6315	3.0264	13.75206
33	26.6	0.98	-10.62	3.71	26.47	3.7023	4	2.73695	118.1137	1.98727	0.28392	1.7034	14.373	4.0028	-0.043	3	1	0.6212	2.9442	14.37332
34	33.5	1.69	-10.62	5.06	33.37	5.0644	3	2.75488	122.666	2.0486	0.31512	1.7335	18.069	5.3957	-0.034	3	1	0.6104	2.951	18.06853
35	38	2.26	-10.51	5.97	37.8714	5.9676	3	2.76679	125.1012	2.11115	0.34632	1.7648	20.263	6.3199	-0.031	3	1	0.5996	2.9603	20.2627
36	95.6	2.65	-10.51	2.78	95.4714	2.7757	5	2.24967	128.5212	2.17541	0.37752	1.7979	51.892	2.8404	-0.012	5	0.8499	0.6373	2.4	56.18975
37	157.7	2.92	-9.82	1.85	157.58	1.853	6	1.97385	130.4533	2.24064	0.40872	1.8319	84.796	1.8798	-0.007	5	0.7376	0.6671	2.1024	97.92994
38	45.8	2.37	-10.47	5.19	45.6719	5.1892	4	2.66672	125.9057	2.30359	0.43992	1.8637	23.27	5.4648	-0.028	3	1	0.5678	2.8733	23.27036
39	26.4	1.13	-10.39	4.29	26.2728	4.301	3	2.78235	119.1376	2.36316	0.47112	1.892	12.637	4.7261	-0.051	3	1	0.5592	3.0329	12.63699
40	61.2	4.02	-10.52	6.58	61.0712	6.5825	3	2.65982	130.4806	2.4284	0.50232	1.9261	30.447	6.8551	-0.021	3	1	0.5494	2.8589	30.44675
41	49.6	2.86	-10.5	5.79	49.4715	5.7811	3	2.6775	127.4757	2.49214	0.53352	1.9586	23.986	6.0878	-0.027	3	1	0.5402	2.8959	23.98598
42	58.3	3.3	-10.5	5.67	58.1715	5.6729	4	2.62453	128.9179	2.5566	0.56472	1.9919	27.921	5.9337	-0.024	3	1	0.5312	2.8408	27.92086
43	72.4	5.3	-10.53	7.34	72.2711	7.3335	9	2.65021	132.9139	2.62305	0.59592	2.0271	34.358	7.6097	-0.019	3	1	0.522	2.8559	34.35792
44	96.7	4.61	-10.5	4.77	96.5715	4.7737	9	2.42586	132.6003	2.68935	0.62712	2.0622	45.525	4.9104	-0.015	4	0.9471	0.5315	2.6229	47.16197
45	73.1	4.71	-10.4	6.45	72.9727	6.4545	9	2.60417	132.0739	2.75539	0.65832	2.0971	33.484	6.7078	-0.02	3	1	0.5046	2.8235	33.48354
46	63	4.36	-10.5	6.93	62.8715	6.9348	3	2.66918	131.1455	2.82096	0.68952	2.1314	28.174	7.2606	-0.024	3	1	0.4964	2.9003	28.17365
47	54.7	2.79	-10.5	5.12	54.5715	5.1126	4	2.60934	127.5337	2.88473	0.72072	2.164	23.885	5.3979	-0.029	3	1	0.489	2.8613	23.88472
48	50.4	2.72	-10.5	5.41	50.2715	5.4106	4	2.65156	127.1476	2.9483	0.75192	2.1964	21.546	5.7477	-0.032	3	1	0.4818	2.9127	21.54596
49	60.3	2.89	-10.5	4.8	60.1715	4.8029	4	2.56075	128.0296	3.01232	0.78312	2.2292	25.641	5.0561	-0.027	3	1	0.4747	2.8194	25.64113
50	53.3	2.7	-10.5	5.08	53.1715	5.0779	4	2.61478	127.2304	3.07593	0.81432	2.2616	22.15	5.3897	-0.031	3	1	0.4679	2.8849	22.15036
51	40.1	1.85	-10.5	4.64	39.9715	4.6283	4	2.6716	123.7681	3.13782	0.84552	2.2923	16.068	5.0226	-0.043	3	1	0.4616	2.9691	16.06845
52	85.1	5.33	-10.5	6.27	84.9715	6.2727	9	2.55346	133.3501	3.20449	0.87672	2.3278	35.127	6.5185	-0.02	3	1	0.4546	2.8002	35.12671
53	229.6	3.1	-10.28	1.35	229.474	1.3509	6	1.76343	131.8077	3.2704	0.90792	2.3625	95.749	1.3705	-0.007	6	0.7004	0.5697	1.9384	121.7974
54	55.2	3.54	-10.16	6.43	55.0756	6.4275	3	2.68104	129.2982	3.33505	0.93912	2.3959	21.595	6.8418	-0.032	3	1	0.4416	2.9639	21.59525
55	59.2	3.81	-10.16	6.46	59.0756	6.4494	3	2.66235	130.007	3.40005	0.97032	2.4297	22.914	6.8432	-0.031	3	1	0.4355	2.9455	22.91433
56	59	3.65	-10.28	6.19	58.8742	6.1997	3	2.65026	129.6848	3.46489	1.00152	2.4634	22.493	6.5873	-0.031	3	1	0.4295	2.9397	22.49328
57	121.5	3.69	-10.35	3.04	121.373	3.0402	5	2.21114	131.5291	3.53066	1.03272	2.4979	47.176	3.1313	-0.015	4	0.9057	0.4593	2.4587	51.15678
58	28.4	0.68	-10.39	2.4	28.2728	2.4051	4	2.5958	115.6004	3.58846	1.06392	2.5245	9.7778	2.7548	-0.073	3	1	0.4191	2.9841	9.77779
59	54.1	3.85	-10.28	7.15	53.9742	7.133	3	2.72109	129.8632	3.65339	1.09512	2.5583	19.67	7.6509	-0.036	3	1	0.4136	3.0268	19.66987
60	104.6	6.51	-10.28	6.23	104.474	6.2312	9	2.49713	135.3173	3.72105	1.12632	2.5947	38.83	6.4613	-0.019	3	1	0.4078	2.7676	38.82997
61	52.8	3.84	-10.28	7.29	52.6742	7.2901	3	2.73515	129.7847	3.78594	1.15752	2.6284	18.6	7.8547	-0.039	3	1	0.4026	3.0522	18.59987
62	99.5	6.14	-10.39	6.18	99.3728	6.1788	9	2.50709	134.7671	3.85332	1.18872	2.6646	35.848	6.428	-0.02	3	1	0.3971	2.7897	35.84757
63	86.2	5.74	-10.39	6.67	86.0728	6.6688	9	2.57112	133.9237	3.92028	1.21992	2.7004	30.423	6.987	-0.024	3	1	0.3918	2.8651	30.42277
64	138.5	6.58	-10.16	4.75	138.376	4.7552	9	2.33048	136.081	3.98832	1.25112	2.7372	49.097	4.8963	-0.015	4	0.971	0.3974	2.6019	50.47066
65	287	13.75	-9.71	4.79	286.881	4.7929	9	2.16502	137.28	4.05696	1.28232	2.7746	101.93	4.8617	-0.007	9	0.8866	0.4254	2.374	113.713
66	347.7	13.05	-10.16	3.76	347.576	3.7546	8	2.03214	137.28	4.1256	1.31352	2.8121	122.13	3.7997	-0.006	8	0.8315	0.4436	2.227	144.0003
67	119.1	9.32	-10.39	7.84	118.973	7.8337	9	2.54611	137.28	4.19424	1.34472	2.8495	40.28	8.12	-0.018	3	1	0.3713	2.8307	40.27991
68	215.6	9.69	-10.5	4.5	215.471	4.4971	9	2.20366	137.28	4.26288	1.37592	2.887	73.159	4.5879	-0.01	4	0.9213	0.3967	2.4515	79.17701
69	450.8	2.56	-10.39	0.57	450.673	0.568	7	1.28691	132.0535	4.32891	1.40712	2.9218	152.76	0.5736	-0.005	6	0.5457	0.5745	1.4615	242.3321
70	461.6	11.78	-9.71	2.55	461.481	2.5527	8	1.82664	137.28	4.39755	1.43832	2.9592	154.46	2.5772	-0.005	5	0.7553	0.4599	2.0085	198.6633
71	91.4	3.35	-9.26	3.67	91.2867	3.6698	5	2.35339	130.127	4.46261	1.46952	2.9931	29.008	3.8584	-0.025	4	1	0.3535	2.7006	29.00812
72	163.4	8.26	-9.14	5.06	163.288	5.0585	9	2.31178	137.28	4.53125	1.50072	3.0305	52.386	5.2029	-0.014	4	0.9864	0.3542	2.6062	53.14361

	C-5	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	123.5	0.94	0	0.76	123.5	0.7611	6	1.7836	121.5654	0.06078	0	0.0608	2030.8	0.7615	0	6	0.4466	2	1.5583	233.3206
2	99.8	0.93	0	0.93	99.8	0.9319	6	1.9107	120.9675	0.12127	0	0.1213	821.98	0.933	0	6	0.4982	2	1.6863	188.4094
3	81	0.55	-0.11	0.68	80.9987	0.679	6	1.90316	116.615	0.17957	0	0.1796	450.06	0.6805	-1E-04	6	0.4917	2	1.662	152.7615
4	122	0.91	-1.02	0.75	121.988	0.746	6	1.78245	121.298	0.24022	0	0.2402	506.81	0.7475	-6E-04	6	0.4568	1.9684	1.5617	226.4917
5	45.5	0.34	-0.23	0.75	45.4972	0.7473	5	2.13744	111.689	0.29607	0	0.2961	152.67	0.7522	-4E-04	6	0.5837	2	1.889	85.43763
6	15.1	0.05	-0.45	0.36	15.0945	0.3313	5	2.43112	94.97185	0.34355	0	0.3436	42.936	0.339	-0.002	5	0.6889	2	2.1592	27.88173
7	17.4	0.07	-0.46	0.39	17.3944	0.4024	5	2.40024	97.7797	0.39244	0	0.3924	43.323	0.4117	-0.002	5	0.6839	1.9706	2.139	31.66357
8	24.9	0.1	-0.57	0.4	24.893	0.4017	5	2.25441	101.2637	0.44308	0	0.4431	55.182	0.409	-0.002	6	0.6474	1.7569	2.0389	40.59628
9	197	0.7	-0.68	0.35	196.992	0.3553	6	1.42622	120.5472	0.50335	0	0.5034	390.36	0.3563	-3E-04	6	0.3786	1.3249	1.3266	246.0239
10	146.2	5.88	-1.05	4.02	146.187	4.0222	8	2.25756	135.392	0.57104	0	0.571	255	4.038	-5E-04	8	0.698	1.5381	2.1551	211.6666
11	63.3	3.13	-4.13	4.95	63.2495	4.9487	4	2.556	128.735	0.63541	0	0.6354	98.541	4.9989	-0.005	9	0.8122	1.5131	2.4467	89.54081
12	41.6	1.3	-5.08	3.12	41.5378	3.1297	4	2.54217	121.2803	0.69605	0	0.6961	58.676	3.183	-0.009	4	0.815	1.4068	2.4452	54.30135
13	34.5	1.66	-8.32	4.84	34.3982	4.8258	3	2.73081	122.6089	0.75736	0	0.7574	44.419	4.9345	-0.018	4	0.8966	1.3496	2.6527	42.90932
14	45.6	1.67	-7.5	3.67	45.5082	3.6697	4	2.56074	123.3355	0.81902	0	0.819	54.564	3.7369	-0.012	4	0.8434	1.2411	2.5055	52.4191
15	39.9	1.12	-7.38	2.82	39.8097	2.8134	4	2.525	120.0861	0.87907	0	0.8791	44.286	2.8769	-0.014	4	0.8397	1.1684	2.4884	42.98957
16	52.7	1.27	-7.27	2.42	52.611	2.4139	5	2.39037	121.6858	0.93991	0	0.9399	54.975	2.4579	-0.01	5	0.7979	1.0991	2.3711	53.67383
17	58.1	1.9	-7.16	3.28	58.0124	3.2752	4	2.45101	124.8717	1.00235	0	1.0024	56.877	3.3328	-0.009	4	0.8301	1.046	2.448	56.35564
18	75.2	3.22	-9.25	4.29	75.0868	4.2884	4	2.46009	129.3609	1.06703	0	1.067	69.37	4.3502	-0.009	4	0.8418	0.993	2.4709	69.46226
19	63.3	2.38	-8.72	3.76	63.1933	3.7662	4	2.46869	126.7285	1.13039	0	1.1304	54.904	3.8348	-0.01	4	0.8547	0.9451	2.4967	55.43377
20	56.2	2.25	-8.62	4	56.0945	4.0111	4	2.52417	126.0269	1.1934	0	1.1934	46.004	4.0983	-0.011	4	0.8854	0.8989	2.5696	46.64235
21	15.9	0.6	-8.81	3.79	15.7922	3.7994	3	2.91736	113.2641	1.25004	0	1.25	11.633	4.1259	-0.044	3	1	0.8465	3.0249	11.63336
22	10.2	0.37	-9.15	3.69	10.088	3.6677	3	3.06395	108.6338	1.30435	0	1.3044	6.7341	4.2124	-0.075	3	1	0.8112	3.222	6.7341
23	36.4	1.22	-8.85	3.37	36.2917	3.3617	4	2.60645	120.4862	1.3646	0	1.3646	25.595	3.493	-0.018	4	0.9465	0.786	2.7085	25.94617
24	58.1	2.57	-8.86	4.43	57.9916	4.4317	4	2.54578	127.081	1.42814	0.02808	1.4001	40.401	4.5436	-0.012	4	0.9215	0.7726	2.6386	41.29822
25	35	0.92	-7.05	2.63	34.9137	2.6351	4	2.54964	118.3267	1.4873	0.05928	1.428	23.408	2.7523	-0.017	4	0.9351	0.7555	2.6706	23.86775
26	30.8	0.7	-7.04	2.28	30.7138	2.2791	4	2.55307	116.0144	1.54531	0.09048	1.4548	20.049	2.3999	-0.02	4	0.943	0.7406	2.6882	20.41642
27	55.2	1.58	-6.93	2.87	55.1152	2.8667	5	2.42643	123.3973	1.60701	0.12168	1.4853	36.025	2.9528	-0.012	4	0.8884	0.7399	2.5407	37.41417
28	50.7	1.33	-6.25	2.63	50.6235	2.6272	5	2.42749	121.9297	1.66797	0.15288	1.5151	32.312	2.7168	-0.012	4	0.8943	0.7254	2.5526	33.56119
29	70.3	3.12	-6.02	4.44	70.2263	4.4428	4	2.49081	128.9668	1.73245	0.18408	1.5484	44.236	4.5552	-0.009	4	0.9174	0.7052	2.609	45.6501
30	49.2	2.63	-6.06	5.36	49.1258	5.3536	4	2.65496	126.8452	1.79588	0.21528	1.5806	29.944	5.5567	-0.014	3	0.9912	0.6718	2.7981	30.05065
31	65.4	2.87	-6.02	4.4	65.3263	4.3933	4	2.50809	128.1793	1.85997	0.24648	1.6135	39.335	4.5221	-0.011	4	0.9336	0.6744	2.6435	40.45327
32	43.8	2.03	-8.39	4.65	43.6973	4.6456	4	2.64547	124.6648	1.9223	0.27768	1.6446	25.401	4.8594	-0.021	3	0.9986	0.6438	2.8105	25.41692
33	40.6	1.53	-8.31	3.79	40.4983	3.7779	4	2.606	122.4104	1.9835	0.30888	1.6746	22.999	3.9725	-0.024	3	0.9901	0.6347	2.7831	23.10428
34	78	2.43	-9.43	3.12	77.8846	3.12	5	2.34695	127.3904	2.0472	0.34008	1.7071	44.424	3.2042	-0.013	4	0.8804	0.6563	2.4918	47.039
35	28.9	1.27	-9.66	4.43	28.7818	4.4125	3	2.76043	120.2146	2.10731	0.37128	1.736	15.365	4.7611	-0.04	3	1	0.6095	2.9691	15.36523
36	23.2	0.83	-9.77	3.62	23.0804	3.5961	4	2.77416	116.564	2.16559	0.40248	1.7631	11.862	3.9685	-0.053	3	1	0.6001	3.0079	11.86247
37	21.6	0.62	-9.54	2.89	21.4832	2.886	4	2.73852	114.2546	2.22272	0.43368	1.789	10.766	3.219	-0.058	3	1	0.5914	2.9881	10.76586
38	43.1	2.15	-9.43	4.99	42.9846	5.0018	4	2.67342	125.045	2.28524	0.46488	1.8204	22.358	5.2826	-0.028	3	1	0.5813	2.876	22.35787
39	27.1	0.8	-9.31	2.97	26.9861	2.9645	4	2.66839	116.6759	2.34358	0.49608	1.8475	13.338	3.2464	-0.047	3	1	0.5727	2.9148	13.3383
40	37.1	1.67	-9.13	4.5	36.9883	4.515	4	2.68805	122.8299	2.40499	0.52728	1.8777	18.418	4.8289	-0.034	3	1	0.5635	2.913	18.41777
41	56.9	1.44	-8.75	2.54	56.7929	2.5355	5	2.38034	122.7916	2.46639	0.55848	1.9079	28.474	2.6506	-0.022	4	0.9258	0.5794	2.5859	29.74813
42	70.2	2.12	-8.63	3.02	70.0944	3.0245	5	2.36874	126.1348	2.52945	0.58968	1.9398	34.831	3.1377	-0.018	4	0.9196	0.5727	2.5657	36.57025
43	111.6	6.25	-8.5	5.6	111.496	5.6056	9	2.44337	135.1778	2.59704	0.62088	1.9762	55.106	5.7393	-0.011	4	0.9408	0.5556	2.6171	57.18372
44	47.4	2.21	-8.35	4.67	47.2978	4.6725	4	2.62329	125.4796	2.65978	0.65208	2.0077	22.233	4.9509	-0.028	3	1	0.527	2.8589	22.23337
45	27.2	0.96	-8.45	3.56	27.0966	3.5429	4	2.71678	118.0199	2.71879	0.68328	2.0355	11.976	3.938	-0.053	3	1	0.5198	3.0026	11.97623
46	51.5	2.42	-8.63	4.7	51.3944	4.7087	4	2.60084	126.3464	2.78197	0.71448	2.0675	23.513	4.9782	-0.027	3	1	0.5118	2.8425	23.5128
47	31.3	1.11	-8.41	3.56	31.1971	3.558	4	2.67186	119.4259	2.84168	0.74568	2.096	13.528	3.9146	-0.048	3	1	0.5048	2.959	13.52833
48	43.9	1.77	-8.29	4.05	43.7985	4.0412	4	2.60193	123.6677	2.90351	0.77688	2.1266	19.23	4.3282	-0.034	3	1	0.4976	2.8679	19.22993
49	41.9	2.49	-8.29	5.96	41.7985	5.9572	3	2.73673	126.051	2.96654	0.80808	2.1585	17.991	6.4122	-0.036	3	1	0.4902	3.0025	17.99061
50	34	1.58	-8.18	4.68	33.8999	4.6608	4	2.72486	122.2119	3.02764	0.83928	2.1884	14.107	5.1179	-0.046	3	1	0.4835	3.0177	14.10744
51	238.1	2.29	-8.63	0.96	237.994	0.9622	6	1.64247	129.6807	3.09249	0.87048	2.222	105.72	0.9749	-0.006	6	0.64	0.622	1.7972	138.0826
52	534.9	3.54	-9.4	0.66	534.785	0.662	7	1.29252	134.8424	3.15991	0.90168	2.2582	235.42	0.6659	-0.003	6	0.4896	0.69	1.3978	346.6553
53	386.6	5.1	-11.44	1.32	386.46	1.3197	6	1.61872	136.7217	3.22827	0.93288	2.2954	166.96	1.3308	-0.005	6	0.6256	0.616	1.7505	223.1111
54	48.2	1.32	-11.13	2.74	48.0638	2.7464	4	2.45711	121.7479	3.28914	0.96408	2.3251	19.257	2.9481	-0.039	4	1	0.4551	2.7623	19.2574
55	39	1.02	-11.08	2.63	38.8644	2.6245	4	2.51305	119.3432	3.34881	0.99528	2.3535	15.09	2.872	-0.05	4	1	0.4496	2.8401	15.09032
56	62.8	2.48	-11.02	3.95	62.6651	3.9575	4	2.48688	127.0092	3.41232	1.02648	2.3858	24.835	4.1855	-0.031	3	1	0.4435	2.7744	24.83522
57	91.5	4.88	-11.02	5.34	91.3651	5.3412	9	2.47905	132.8816	3.47876	1.05768	2.4211	36.301	5.5526	-0.021	3	1	0.437	2.74	36.30051
58	70.7	3.69	-11.01	5.23	70.5652	5.2292	4	2.54296	130.2063	3.54386	1.08888	2.455	27.3	5.5057	-0.028	3	1	0.431	2.8251	27.30016
59	71.6	4.46	-10.69	6.25	71.4692	6.2405	9	2.59847	131.6241	3.60967	1.12008	2.4896	27.257	6.5724	-0.028	3	1	0.425	2.8795	27.25726
60	52.9	3.16	-10.68	5.98	52.7693	5.9883	3	2.67016	128.363	3.67385	1.15128	2.5226	19.462	6.4365	-0.039	3	1	0.4195	2.9785	19.46243
61	26.9	1.52	-10.68	5.69	26.7693	5.6782	3	2.85824	121.3527	3.73453	1.18248	2.5521	9.026	6.5987	-0.085	3	1	0.4146	3.2376	9.02597
62	318	5.65	-10.9	1.78	317.867	1.7775	6	1.7734	136.9945	3.80303	1.21368	2.5894	121.29	1.799	-0.006	6	0.7156	0.5271	1.9501	156.4462
63	459.4	2.97	-10.01	0.65	459.277	0.6467	7	1.32487	133.1866	3.86962	1.24488	2.6247	173.51	0.6522	-0.004	6	0.5354	0.6148	1.472	264.6197
64	490.6	3.16	-9.59	0.64	490.483	0.6443	7	1.30585	133.8006	3.93652	1.27608	2.6604	182.88	0.6495	-0.004	6	0.5291	0.614	1.4509	282.3264
65	450.4	2.34	-8.75	0.52	450.293	0.5197	7	1.25814	131.3939	4.00222	1.30728	2.6949	165.6	0.5243	-0.004	6	0.5162	0.6172	1.4124	260.3293
66	443.5	3.24	-8.52	0.73	443.396	0.7307	6	1.37593	133.7374	4.06909	1.33848	2.7306	160.89	0.7375	-0.004	6	0.5647	0.5854	1.5359	243.0731
67	74.9	3.49	-6.09	4.67	74.8255	4.6642	4	2.48866	129.9415	4.13406	1.36968	2.7644	25.572	4.937	-0.026	3	1	0.3828	2.8132	25.57226
68	280.7	8.9	-4.74	3.17	280.642	3.1713	8	2.01434	137.28	4.2027	1.40088	2.8018	98.664	3.2195	-0.006	5	0.8309	0.4453	2.2265	116.3298
69	444	4.61	-12.12	1.04	443.852	1.0386	6	1.49891	136.3203	4.27086	1.43208	2.8388	154.85	1.0487	-0.005	6	0.6208	0.5419	1.6698	225.1311

	C-6	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	152.1	2.21	-0.52	1.45	152.094	1.4531	6	1.90608	128.3284	0.06416	0	0.0642	2369.4	1.4537	-3E-04	6	0.5057	2	1.713	287.361
2	83.2	2.21	-0.48	2.65	83.1941	2.6564	5	2.27653	126.8569	0.12759	0	0.1276	651.03	2.6605	-4E-04	5	0.6488	2	2.0807	157.0096
3	76.8	2.17	0.06	2.83	76.8007	2.8255	5	2.31991	126.5282	0.19086	0	0.1909	401.4	2.8325	6E-05	5	0.6682	2	2.1237	144.8054
4	173.2	2.59	-0.34	1.49	173.196	1.4954	6	1.87693	129.8063	0.25576	0	0.2558	676.18	1.4976	-1E-04	6	0.5065	2	1.6913	326.8855
5	38.1	0.73	-0.59	1.92	38.0928	1.9164	5	2.43303	116.8466	0.31418	0	0.3142	120.24	1.9323	-0.001	5	0.7066	2	2.2092	71.40782
6	17.2	0.28	-0.68	1.65	17.1917	1.6287	4	2.67473	107.8946	0.36813	0	0.3681	45.7	1.6643	-0.003	5	0.7966	2	2.439	31.7993
7	16.9	0.27	-0.8	1.6	16.8902	1.5986	4	2.6769	107.5854	0.42192	0	0.4219	39.031	1.6395	-0.004	5	0.8006	2	2.4426	31.1278
8	25.9	0.35	-0.8	1.34	25.8902	1.3519	5	2.48138	110.526	0.47719	0	0.4772	53.256	1.3773	-0.002	5	0.7418	1.8052	2.2818	43.35643
9	69.2	2.2	-0.41	3.19	69.195	3.1794	5	2.38824	126.3744	0.54037	0	0.5404	127.05	3.2045	-4E-04	5	0.7328	1.6362	2.2502	106.1659
10	109.1	6	-5.27	5.5	109.036	5.5028	9	2.44267	134.8246	0.60779	0	0.6078	178.4	5.5336	-0.004	9	0.7703	1.5327	2.3402	157.065
11	52.3	1.91	-5.62	3.65	52.2312	3.6568	4	2.51709	124.6541	0.67011	0	0.6701	76.944	3.7043	-0.008	4	0.8019	1.4424	2.4154	70.28682
12	41.7	1.54	-5.84	3.7	41.6285	3.6994	4	2.59105	122.5252	0.73138	0	0.7314	55.918	3.7655	-0.01	4	0.8397	1.3636	2.5062	52.70433
13	58.7	1.94	-5.68	3.3	58.6305	3.3089	4	2.45091	125.05	0.7939	0	0.7939	72.851	3.3543	-0.007	5	0.7984	1.2578	2.3902	68.75154
14	51.2	1.87	-5.68	3.66	51.1305	3.6573	4	2.52367	124.4473	0.85612	0	0.8561	58.723	3.7196	-0.008	4	0.8355	1.1936	2.4803	56.7126
15	46.8	1.44	-5.57	3.07	46.7318	3.0814	4	2.50003	122.316	0.91728	0	0.9173	49.946	3.1431	-0.009	4	0.8362	1.1269	2.4746	48.79118
16	57.3	2.13	-5.57	3.73	57.2318	3.7217	4	2.4947	125.6748	0.98012	0	0.9801	57.393	3.7866	-0.007	4	0.8434	1.0667	2.4859	56.70887
17	99	3.55	-5.34	3.59	98.9346	3.5882	5	2.3233	130.7475	1.04549	0	1.0455	93.63	3.6266	-0.004	5	0.7861	1.0095	2.3272	93.38969
18	95.3	4.31	-5.34	4.52	95.2346	4.5257	9	2.41156	132.0739	1.11153	0	1.1115	84.679	4.5791	-0.004	9	0.8283	0.96	2.4299	85.39793
19	92.4	3.95	-5.22	4.28	92.3361	4.2779	9	2.40112	131.3604	1.17721	0	1.1772	77.436	4.3331	-0.004	4	0.8329	0.915	2.4337	78.82896
20	58.7	2.33	-5.22	3.97	58.6361	3.9737	4	2.50795	126.3906	1.24041	0	1.2404	46.272	4.0595	-0.007	4	0.8854	0.8687	2.5635	47.12265
21	31.6	0.96	-5.21	3.04	31.5362	3.0441	4	2.62387	118.39	1.2996	0	1.2996	23.266	3.175	-0.012	4	0.9456	0.8233	2.7144	23.52765
22	31.8	1.08	-5.22	3.4	31.7361	3.4031	4	2.65349	119.2672	1.35923	0	1.3592	22.349	3.5553	-0.012	4	0.9658	0.7852	2.7601	22.54053
23	122.5	2.46	-6.69	2.01	122.418	2.0095	5	2.0733	128.5832	1.42353	0	1.4235	84.996	2.0332	-0.004	5	0.7352	0.8041	2.1459	91.94381
24	51.6	0.93	-10.56	1.8	51.4708	1.8069	5	2.31523	119.3525	1.4832	0.02496	1.4582	34.279	1.8605	-0.016	5	0.843	0.7631	2.4246	36.05019
25	38.5	0.76	-10.22	1.97	38.3749	1.9805	5	2.43937	117.1593	1.54178	0.05616	1.4856	24.793	2.0634	-0.022	4	0.8994	0.737	2.5694	25.65453
26	38.2	0.7	-10.22	1.85	38.0749	1.8385	5	2.42211	116.5384	1.60005	0.08736	1.5127	24.113	1.9191	-0.023	4	0.8969	0.7257	2.5596	25.01757
27	51.4	1.13	-10.11	2.21	51.2763	2.2038	5	2.37241	120.7685	1.66044	0.11856	1.5419	32.179	2.2775	-0.017	4	0.8764	0.7189	2.5021	33.71123
28	62.2	2.09	-9.99	3.36	62.0777	3.3668	4	2.43889	125.7343	1.7233	0.14976	1.5735	38.356	3.4629	-0.014	4	0.9027	0.6989	2.5672	39.86652
29	84.9	3.94	-9.88	4.65	84.7791	4.6474	9	2.45248	131.1335	1.78887	0.18096	1.6079	51.614	4.7476	-0.011	4	0.9069	0.6842	2.574	53.66521
30	117	4.83	-9.88	4.13	116.879	4.1325	9	2.32538	133.4069	1.85557	0.21216	1.6434	69.991	4.1991	-0.008	4	0.8573	0.6856	2.4392	74.52877
31	79.7	4.35	-9.2	5.46	79.5874	5.4657	9	2.52432	131.7038	1.92142	0.24336	1.6781	46.283	5.6009	-0.012	3	0.9439	0.6471	2.6627	47.49525
32	55.8	2.22	-9.03	3.99	55.6895	3.9864	4	2.52441	125.911	1.98438	0.27456	1.7098	31.41	4.1337	-0.017	4	0.9553	0.6323	2.6885	32.09169
33	68.3	3.01	-9.32	4.42	68.1859	4.4144	4	2.49722	128.6323	2.0487	0.30576	1.7429	37.946	4.5511	-0.015	4	0.9447	0.6241	2.6566	39.00783
34	46.9	2.65	-9.2	5.67	46.7874	5.6639	3	2.68731	126.7817	2.11209	0.33696	1.7751	25.167	5.9317	-0.022	3	1	0.5961	2.873	25.16739
35	20.1	0.95	-9.31	4.74	19.9861	4.7533	3	2.90024	117.2009	2.17069	0.36816	1.8025	9.8835	5.3325	-0.058	3	1	0.587	3.1491	9.88354
36	50.3	3.04	-9.2	6.06	50.1874	6.0573	3	2.68837	127.9574	2.23467	0.39936	1.8353	26.128	6.3396	-0.022	3	1	0.5765	2.8815	26.12792
37	78.4	4.38	-9.09	5.59	78.2887	5.5947	9	2.53669	131.7139	2.30052	0.43056	1.87	40.636	5.7641	-0.014	3	0.9722	0.5749	2.7132	41.28471
38	61.5	3	-8.97	4.88	61.3902	4.8868	4	2.56052	128.3519	2.3647	0.46176	1.9029	31.018	5.0826	-0.019	3	0.9919	0.5587	2.7597	31.16572
39	55.8	2.49	-8.95	4.48	55.6905	4.4711	4	2.56058	126.7508	2.42807	0.49296	1.9351	27.524	4.675	-0.021	3	0.9982	0.5474	2.7733	27.55381
40	53	1.97	-8.74	3.72	52.893	3.7245	4	2.51889	124.9111	2.49053	0.52416	1.9664	25.632	3.9085	-0.023	4	0.9877	0.5422	2.742	25.82882
41	74.9	3.39	-8.52	4.53	74.7957	4.5324	4	2.47934	129.7279	2.55539	0.55536	2	36.12	4.6927	-0.016	4	0.967	0.5403	2.6832	36.88727
42	66.9	4.1	-8.32	6.15	66.7982	6.1379	4	2.61156	130.8434	2.62082	0.58656	2.0343	31.548	6.3886	-0.018	3	1	0.5202	2.8262	31.54832
43	26.6	1.33	-8.4	5.02	26.4972	5.0194	3	2.82477	120.3507	2.68099	0.61776	2.0632	11.543	5.5844	-0.051	3	1	0.5128	3.109	11.54316
44	15.4	0.51	-8.4	3.32	15.2972	3.334	3	2.89372	111.9973	2.73699	0.64896	2.088	6.0153	4.0605	-0.1	3	1	0.5068	3.2533	6.01533
45	43.6	2.29	-8.34	5.27	43.4979	5.2646	4	2.68586	125.5355	2.79976	0.68016	2.1196	19.201	5.6268	-0.031	3	1	0.4992	2.9434	19.20089
46	65.5	4.08	-8.06	6.23	65.4014	6.2384	3	2.62286	130.7561	2.86514	0.71136	2.1538	29.036	6.5242	-0.021	3	1	0.4913	2.8579	29.03562
47	30	1.19	-7.95	3.98	29.9027	3.9796	4	2.71798	119.8318	2.92505	0.74256	2.1825	12.361	4.4111	-0.049	3	1	0.4848	3.0218	12.36094
48	28.8	1.18	-7.95	4.11	28.7027	4.1111	4	2.74065	119.6701	2.98489	0.77376	2.2111	11.631	4.5883	-0.052	3	1	0.4785	3.0531	11.63109
49	31	1.3	-8.06	4.21	30.9014	4.2069	4	2.72368	120.5588	3.04517	0.80496	2.2402	12.435	4.6668	-0.05	3	1	0.4723	3.0349	12.43465
50	17.5	0.99	-7.86	5.66	17.4038	5.6884	3	2.99676	117.1653	3.10375	0.83616	2.2676	6.3063	6.9231	-0.098	3	1	0.4666	3.3727	6.30628
51	283.7	2.67	-7.07	0.94	283.613	0.9414	6	1.58445	131.2317	3.16936	0.86736	2.302	121.83	0.9521	-0.005	6	0.6206	0.6173	1.7363	163.6125
52	42.2	0.67	-5.2	1.58	42.1364	1.5901	5	2.3488	116.4651	3.2276	0.89856	2.329	16.706	1.722	-0.033	4	0.9781	0.4622	2.6713	16.99762
53	54.7	2.07	-4.32	3.78	54.6471	3.7879	4	2.51419	125.353	3.29027	0.92976	2.3605	21.757	4.0306	-0.024	3	1	0.4483	2.807	21.75665
54	65.3	3.84	-4.54	5.9	65.2444	5.8856	4	2.60415	130.3066	3.35543	0.96096	2.3945	25.847	6.2047	-0.021	3	1	0.4419	2.8783	25.84668
55	104.4	4.27	-4.44	4.09	104.346	4.0922	9	2.35261	132.2286	3.42154	0.99216	2.4294	41.543	4.2309	-0.013	4	0.9573	0.4513	2.6039	43.04524
56	175.8	8.88	-6.02	5.05	175.726	5.0533	9	2.29388	137.28	3.49018	1.02336	2.4668	69.821	5.1557	-0.008	9	0.9224	0.4581	2.5071	74.56432
57	40.4	1.78	-6.59	4.41	40.3193	4.4148	4	2.65448	123.507	3.55193	1.05456	2.4974	14.722	4.8412	-0.042	3	1	0.4237	2.988	14.72242
58	75.2	3.21	-6.81	4.27	75.1167	4.2734	4	2.45883	129.3391	3.6166	1.08576	2.5308	28.251	4.4895	-0.022	3	1	0.4181	2.7534	28.25146
59	131.1	5.45	-6.89	4.16	131.016	4.1598	9	2.29758	134.5691	3.68389	1.11696	2.5669	49.605	4.2802	-0.013	4	0.9432	0.4335	2.5494	52.16792
60	311.3	6.73	-6.94	2.16	311.215	2.1625	6	1.84955	137.28	3.75253	1.14816	2.6044	118.06	2.1889	-0.005	5	0.7467	0.5104	2.0301	148.3062
61	442.9	4.56	-6.64	1.03	442.819	1.0298	6	1.49642	136.2348	3.82065	1.17936	2.6413	166.21	1.0387	-0.004	6	0.6037	0.5757	1.6496	238.8348
62	427.4	4.73	-5.22	1.11	427.336	1.1069	6	1.53102	136.4158	3.88885	1.21056	2.6783	158.1	1.117	-0.004	6	0.6211	0.5617	1.6907	224.7856
63	156.6	4.8	-5.22	3.07	156.536	3.0664	5	2.14531	134.0739	3.95589	1.24176	2.7141	56.217	3.1459	-0.011	5	0.8928	0.4313	2.4001	62.18895
64	135.8	6.36	-5.36	4.68	135.734	4.6856	9	2.33015	135.7852	4.02378	1.27296	2.7508	47.88	4.8288	-0.013	4	0.9729	0.3947	2.6054	49.13515
65	359.2	7.95	-7.87	2.21	359.104	2.2139	8	1.82537	137.28	4.09242	1.30416	2.7883	127.32	2.2394	-0.005	5	0.7489	0.484	2.0128	162.3989

	C-7	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	134.6	1.26	0.04	0.94	134.6	0.9361	6	1.81213	123.9191	0.06196	0	0.062	2171.4	0.9365	2E-05	6	0.4617	2	1.5979	254.3002
2	58.2	0.77	-0.02	1.32	58.1998	1.323	5	2.18892	118.2708	0.12109	0	0.1211	479.61	1.3258	-2E-05	6	0.6029	2	1.961	109.7783
3	61.4	1.15	0.04	1.87	61.4005	1.873	5	2.267	121.3364	0.18176	0	0.1818	336.8	1.8785	5E-05	5	0.6403	2	2.0518	115.7136
4	136.9	1.98	-0.15	1.45	136.898	1.4463	6	1.9364	127.2676	0.2454	0	0.2454	556.86	1.4489	-8E-05	6	0.5244	2	1.7397	258.2964
5	32	0.22	-0.6	0.7	31.9927	0.6877	5	2.25301	107.6449	0.29922	0	0.2992	105.92	0.6942	-0.001	6	0.6253	2	1.9978	59.90586
6	22.7	0.14	-0.72	0.63	22.6912	0.617	5	2.36528	103.4998	0.35097	0	0.351	63.653	0.6267	-0.002	5	0.6691	2	2.1062	42.22673
7	22.6	0.13	-0.83	0.56	22.5898	0.5755	5	2.35429	102.9467	0.40244	0	0.4024	55.132	0.5859	-0.003	5	0.6742	1.9189	2.1108	40.23763
8	42.3	0.51	-0.94	1.21	42.2885	1.206	5	2.27686	114.4774	0.45968	0	0.4597	90.995	1.2193	-0.002	5	0.6677	1.7448	2.0897	68.97601
9	192.2	4.68	-1.15	2.43	192.186	2.4351	5	2.01171	134.389	0.52688	0	0.5269	363.77	2.4418	-4E-04	8	0.6022	1.5218	1.9092	275.6491
10	119.3	3.76	-2.79	3.15	119.266	3.1526	5	2.22814	131.6238	0.59269	0	0.5927	200.23	3.1684	-0.002	8	0.6877	1.4897	2.1252	167.0736
11	47.4	1.89	-6.51	3.98	47.3203	3.9941	4	2.5745	124.3363	0.65486	0	0.6549	71.261	4.0501	-0.01	4	0.8202	1.4822	2.4652	65.36973
12	64.5	2.6	-7.66	4.04	64.4062	4.0369	4	2.48509	127.4218	0.71857	0	0.7186	88.632	4.0824	-0.009	4	0.7998	1.3628	2.4028	82.02389
13	60.6	2.32	-6.96	3.84	60.5148	3.8338	4	2.48723	126.436	0.78178	0	0.7818	76.406	3.884	-0.008	4	0.8104	1.278	2.4231	72.14398
14	51.4	1.73	-7.07	3.37	51.3135	3.3714	4	2.49771	123.8866	0.84373	0	0.8437	59.818	3.4278	-0.01	4	0.8237	1.205	2.4507	57.47701
15	68.4	2.81	-6.75	4.11	68.3174	4.1132	4	2.47382	128.1339	0.90779	0	0.9078	74.256	4.1686	-0.007	4	0.8247	1.1347	2.4455	72.28842
16	80.1	3.51	-6.51	4.39	80.0203	4.3864	4	2.44944	130.1471	0.97287	0	0.9729	81.252	4.4404	-0.006	4	0.8247	1.0717	2.4375	80.06421
17	99.8	4.32	-6.79	4.33	99.7169	4.3323	9	2.38426	132.2031	1.03897	0	1.039	94.977	4.3779	-0.005	9	0.8084	1.0149	2.3866	94.64512
18	82.9	3.9	-6.55	4.71	82.8198	4.709	9	2.46337	131.0019	1.10447	0	1.1045	73.986	4.7727	-0.006	4	0.8477	0.9643	2.4817	74.47068
19	79.4	3.54	-6.21	4.46	79.324	4.4627	4	2.45761	130.188	1.16956	0	1.1696	66.824	4.5295	-0.006	4	0.8544	0.918	2.491	67.80538
20	41.8	1.74	-5.71	4.17	41.7301	4.1697	4	2.62643	123.4246	1.23128	0	1.2313	32.892	4.2964	-0.01	4	0.9327	0.8682	2.689	33.22893
21	51.3	2.2	-5.71	4.29	51.2301	4.2944	4	2.57283	125.6412	1.2941	0	1.2941	38.588	4.4056	-0.008	4	0.9189	0.8311	2.6449	39.22263
22	51.1	2.28	-5.37	4.46	51.0343	4.4676	4	2.58638	125.8932	1.35704	0	1.357	36.607	4.5896	-0.008	4	0.9328	0.7929	2.6736	37.22409
23	43	1.85	-5.49	4.3	42.9328	4.3091	4	2.6277	123.9424	1.41902	0	1.419	29.255	4.4564	-0.01	4	0.9597	0.7545	2.7364	29.60376
24	40.7	1.14	-7.06	2.81	40.6136	2.8069	4	2.51783	120.2644	1.47915	0.02184	1.4573	26.854	2.913	-0.014	4	0.9241	0.7439	2.6381	27.51426
25	42.6	0.9	-6.22	2.11	42.5239	2.1165	5	2.42291	118.6468	1.53847	0.05304	1.4854	27.592	2.1959	-0.012	4	0.8911	0.7391	2.5479	28.62962
26	42.1	0.92	-6.06	2.2	42.0258	2.1891	5	2.43621	118.7789	1.59786	0.08424	1.5136	26.709	2.2757	-0.013	4	0.9005	0.7244	2.569	27.67804
27	71.9	3.01	-5.59	4.19	71.8316	4.1904	4	2.46529	128.7593	1.66224	0.11544	1.5468	45.364	4.2896	-0.007	4	0.9068	0.7087	2.5815	46.99826
28	85.4	4.78	-4.57	5.6	85.3441	5.6009	9	2.51359	132.5638	1.72852	0.14664	1.5819	52.858	5.7166	-0.006	4	0.9269	0.6889	2.6299	54.43584
29	62.8	2.83	-4.35	4.51	62.7468	4.5102	4	2.52828	127.9783	1.79251	0.17784	1.6147	37.75	4.6428	-0.008	4	0.9419	0.6716	2.6652	38.68894
30	72.2	3.7	-4.7	5.13	72.1425	5.1287	4	2.53033	130.28	1.85765	0.20904	1.6486	42.633	5.2643	-0.008	4	0.9444	0.6578	2.6676	43.69714
31	37.9	1.65	-4.87	4.37	37.8404	4.3604	4	2.67041	122.7973	1.91905	0.24024	1.6788	21.397	4.5934	-0.016	3	1	0.6303	2.8497	21.39691
32	73.8	2.6	-6.11	3.52	73.7252	3.5266	4	2.40217	127.7514	1.98293	0.27144	1.7115	41.918	3.6241	-0.01	4	0.9029	0.6478	2.5504	43.9222
33	20.7	0.7	-6.4	3.37	20.6217	3.3945	4	2.79616	115.0428	2.04045	0.30264	1.7378	10.692	3.7673	-0.041	3	1	0.6089	3.0305	10.69234
34	19.8	0.5	-5.28	2.54	19.7354	2.5335	4	2.73374	112.4737	2.09668	0.33384	1.7628	10.006	2.8347	-0.04	3	1	0.6002	2.9828	10.00581
35	22.9	0.8	-4.81	3.49	22.8411	3.5025	4	2.77033	116.2692	2.15482	0.36504	1.7898	11.558	3.8673	-0.034	3	1	0.5912	3.0101	11.55803
36	62.8	3.26	-6.08	5.2	62.7256	5.1972	4	2.57436	129.0125	2.21932	0.39624	1.8231	33.189	5.3879	-0.014	3	0.9861	0.5848	2.7557	33.44046
37	80.8	3.66	-3.13	4.53	80.7617	4.5319	4	2.45764	130.4758	2.28456	0.42744	1.8571	42.257	4.6638	-0.008	4	0.9398	0.5894	2.6295	43.71256
38	59.6	2.67	-3.3	4.48	59.5596	4.4829	4	2.54159	127.4254	2.34828	0.45864	1.8896	30.276	4.6669	-0.012	3	0.9833	0.5654	2.74	30.57108
39	18.8	0.76	-5	4.04	18.7388	4.0558	3	2.87718	115.411	2.40598	0.48984	1.9161	8.5238	4.6532	-0.052	3	1	0.5522	3.1642	8.52381
40	104.5	5.82	-1.41	5.57	104.483	5.5703	9	2.45799	134.4977	2.47323	0.52104	1.9522	52.254	5.7054	-0.006	4	0.945	0.5606	2.6313	54.0439
41	73.9	3.92	-1.4	5.31	73.8829	5.3057	9	2.53493	130.7608	2.53861	0.55224	1.9864	35.917	5.4945	-0.009	3	0.9869	0.5371	2.7375	36.21444
42	22.3	0.7	-2.31	3.15	22.2717	3.143	4	2.74917	115.2306	2.59623	0.58344	2.0128	9.7753	3.5577	-0.038	3	1	0.5257	3.0474	9.77526
43	15.3	1	-3.41	6.56	15.2583	6.5538	3	3.08028	116.9179	2.65468	0.61464	2.04	6.1781	7.9343	-0.068	3	1	0.5187	3.4162	6.17809
44	69.5	2.61	-3.76	3.75	69.454	3.7579	4	2.44002	127.6339	2.7185	0.64584	2.0727	32.198	3.911	-0.014	4	0.9628	0.5234	2.6631	33.01336
45	58.5	2.84	-2.33	4.85	58.4715	4.8571	4	2.57271	127.832	2.78242	0.67704	2.1054	26.451	5.0997	-0.015	3	1	0.5026	2.8121	26.45087
46	56.5	2.84	-3.67	5.04	56.4551	5.0306	4	2.59423	127.7464	2.84629	0.70824	2.1381	25.074	5.2976	-0.018	3	1	0.4949	2.8404	25.07368
47	28.6	1.32	-3.77	4.64	28.5539	4.6228	3	2.77666	120.4778	2.90653	0.73944	2.1671	11.835	5.1467	-0.039	3	1	0.4883	3.0783	11.83492
48	26.6	1.19	-3.98	4.47	26.5513	4.4819	3	2.7909	119.5418	2.9663	0.77064	2.1957	10.742	5.0456	-0.045	3	1	0.4819	3.1058	10.74164
49	14.2	0.33	-3.9	2.36	14.1523	2.3318	4	2.83085	108.6223	3.02061	0.80184	2.2188	5.017	2.9645	-0.097	3	1	0.4769	3.2455	5.01703
50	441	5.72	-2.38	1.3	440.971	1.2971	6	1.581	137.28	3.08925	0.83304	2.2562	194.08	1.3063	-0.002	6	0.6047	0.6326	1.7005	261.8031
51	64.9	2.1	32	3.21	65.2917	3.2163	5	2.40937	125.8924	3.1522	0.86424	2.288	27.159	3.3795	0.0232	4	0.9789	0.4701	2.6787	27.60547
52	75.7	4.16	1.05	5.49	75.7129	5.4944	9	2.53982	131.2553	3.21783	0.89544	2.3224	31.216	5.7383	-0.011	3	1	0.4556	2.7962	31.21576
53	59.3	2.14	-2.87	3.62	59.2649	3.6109	4	2.47473	125.7942	3.28072	0.92664	2.3541	23.782	3.8225	-0.02	4	1	0.4495	2.7627	23.78173
54	37.2	2.17	-2.19	5.84	37.1732	5.8375	3	2.76551	124.7584	3.3431	0.95784	2.3853	14.183	6.4144	-0.033	3	1	0.4436	3.0795	14.18297
55	27.7	1.74	-2.53	6.31	27.669	6.2886	3	2.8788	122.4224	3.40431	0.98904	2.4153	10.046	7.1709	-0.048	3	1	0.4381	3.2248	10.04637
56	28.4	1.55	-3.04	5.48	28.3628	5.4649	3	2.8286	121.6367	3.46513	1.02024	2.4449	10.184	6.2255	-0.05	3	1	0.4328	3.181	10.18354
57	23.4	1.03	-2.65	4.43	23.3676	4.4078	3	2.82752	118.1738	3.52422	1.05144	2.4728	8.0247	5.1907	-0.063	3	1	0.4279	3.2136	8.02472
58	133.3	2.85	-1.55	2.13	133.281	2.1383	5	2.06857	129.8673	3.58915	1.08264	2.5065	51.742	2.1975	-0.009	5	0.848	0.4813	2.308	58.99144
59	431.8	7.46	0.7	1.73	431.809	1.7276	6	1.69188	137.28	3.65779	1.11384	2.544	168.3	1.7424	-0.002	6	0.6716	0.5548	1.8403	224.4978
60	348.5	3.16	2.58	0.91	348.532	0.9067	6	1.51434	132.9673	3.72428	1.14504	2.5792	133.69	0.9165	-0.003	6	0.6124	0.5795	1.6801	188.8259
61	65.9	2.95	11.81	4.47	66.0446	4.4667	4	2.51027	128.4071	3.78848	1.17624	2.6122	23.832	4.7385	-0.005	3	1	0.4051	2.8237	23.83246
62	37.4	1.54	11.74	4.09	37.5437	4.1019	4	2.65447	122.2733	3.84962	1.20744	2.6422	12.752	4.5705	-0.011	3	1	0.4005	3.0207	12.7524
63	158.5	5.12	18.75	3.23	158.73	3.2256	8	2.15921	134.58	3.91691	1.23864	2.6783	57.803	3.3072	0.0007	4	0.8942	0.4359	2.4082	63.77243

	C-8	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	132.1	2.75	-0.47	2.08	132.094	2.0819	5	2.06246	129.5841	0.06479	0	0.0648	2037.7	2.0829	-3E-04	6	0.5677	2	1.8758	249.5576
2	38.1	1.42	-0.01	3.72	38.0999	3.7271	4	2.62124	121.7156	0.12565	0	0.1257	302.22	3.7394	-2E-05	4	0.775	2	2.4123	71.7776
3	47.9	1.26	-0.05	2.62	47.8994	2.6305	5	2.44562	121.3991	0.18635	0	0.1864	256.04	2.6408	-8E-05	5	0.7099	2	2.2339	90.18557
4	83.8	2.44	-0.39	2.91	83.7952	2.9119	5	2.30336	127.5989	0.25015	0	0.2502	333.98	2.9206	-3E-04	5	0.6662	2	2.1113	157.9141
5	37.7	0.74	-0.39	1.96	37.6952	1.9631	5	2.44308	116.9206	0.30861	0	0.3086	121.15	1.9793	-8E-04	5	0.7103	2	2.2196	70.66692
6	27.8	0.48	-0.66	1.73	27.7919	1.7271	4	2.51571	113.01	0.36511	0	0.3651	75.118	1.7501	-0.002	5	0.7379	2	2.2851	51.84123
7	53.5	0.67	-0.66	1.26	53.4919	1.2525	5	2.20367	117.0471	0.42364	0	0.4236	125.27	1.2625	-9E-04	6	0.6362	1.7903	2.0115	89.78901
8	287.5	5.96	-0.81	2.07	287.49	2.0731	6	1.85319	137.1403	0.49221	0	0.4922	583.08	2.0767	-2E-04	8	0.5436	1.5159	1.7596	411.1734
9	129.2	4.87	-1.13	3.77	129.186	3.7698	8	2.26722	133.7114	0.55906	0	0.5591	230.08	3.7861	-6E-04	8	0.6983	1.5612	2.1573	189.789
10	71.3	3	-1.58	4.2	71.2807	4.2087	4	2.46893	128.7162	0.62342	0	0.6234	113.34	4.2459	-0.002	9	0.7783	1.5094	2.3592	100.7938
11	66.2	2.53	-2.43	3.82	66.1703	3.8235	4	2.45981	127.288	0.68707	0	0.6871	95.308	3.8636	-0.003	4	0.7849	1.4034	2.3685	86.85275
12	59.7	2.42	-2.7	4.05	59.667	4.0559	4	2.50921	126.7104	0.75042	0	0.7504	78.511	4.1075	-0.003	4	0.8136	1.3226	2.4354	73.64106
13	65.9	2.24	-1.42	3.41	65.8826	3.4	4	2.42401	126.3866	0.81361	0	0.8136	79.975	3.4425	-0.002	5	0.7916	1.2312	2.3701	75.71441
14	68.9	2.64	-1.18	3.83	68.8856	3.8324	4	2.44871	127.6975	0.87746	0	0.8775	77.505	3.8819	-0.001	4	0.8107	1.1639	2.4125	74.80685
15	59.2	2.22	-1.07	3.75	59.1869	3.7508	4	2.48701	126.0595	0.94049	0	0.9405	61.932	3.8114	-0.001	4	0.8346	1.1033	2.4675	60.73628
16	86.3	3.19	-0.85	3.7	86.2896	3.6969	4	2.37181	129.6316	1.00531	0	1.0053	84.834	3.7404	-7E-04	4	0.7995	1.0418	2.3674	83.96761
17	84.5	3.41	-1.78	4.03	84.4782	4.0365	4	2.40671	130.0678	1.07034	0	1.0703	77.926	4.0883	-0.002	4	0.8215	0.9906	2.4172	78.0864
18	78.9	4	-2.88	5.07	78.8648	5.072	9	2.50176	131.0678	1.13588	0	1.1359	68.431	5.1461	-0.003	4	0.8668	0.9404	2.5278	69.08046
19	44.9	2.01	-2.55	4.47	44.8688	4.4797	4	2.62616	124.6569	1.1982	0	1.1982	36.447	4.6026	-0.004	4	0.927	0.8911	2.6781	36.77897
20	52.4	2.31	-2.65	4.42	52.3676	4.4111	4	2.57465	126.0517	1.26123	0	1.2612	40.521	4.52	-0.004	4	0.9148	0.8516	2.6382	41.13186
21	56	2.02	-2.43	3.62	55.9703	3.6091	4	2.49192	125.2324	1.32385	0	1.3239	41.279	3.6965	-0.003	4	0.8911	0.819	2.5681	42.29815
22	56.7	2.83	1.09	4.99	56.7133	4.99	4	2.5903	127.7318	1.38771	0	1.3877	39.868	5.1152	0.0014	4	0.9371	0.7756	2.6809	40.55441
23	27.8	0.82	1.2	2.95	27.8147	2.9481	4	2.65671	116.9303	1.44618	0	1.4462	18.233	3.1098	0.0033	4	0.9827	0.7356	2.7935	18.33225
24	26.1	0.65	1.2	2.5	26.1147	2.489	4	2.63214	115.0765	1.50372	0.01872	1.485	16.573	2.6411	0.0028	4	0.9807	0.7172	2.7835	16.68172
25	40.6	1.03	1.66	2.55	40.6203	2.5357	4	2.48875	119.5223	1.56348	0.04992	1.5136	25.805	2.6372	0.0018	4	0.921	0.7191	2.6229	26.54482
26	80.9	2.91	2.21	3.6	80.9271	3.5958	4	2.38123	128.8029	1.62788	0.08112	1.5468	51.268	3.6697	0.001	4	0.8727	0.718	2.4919	53.80591
27	69.1	2.44	2.76	3.52	69.1338	3.5294	4	2.42142	127.1298	1.69144	0.11232	1.5791	42.709	3.6179	0.0013	4	0.8947	0.6989	2.5455	44.54816
28	62.1	2.48	3.05	3.99	62.1373	3.9912	4	2.49207	126.9886	1.75494	0.14352	1.6114	37.472	4.1072	0.0013	4	0.9277	0.6769	2.6283	38.62874
29	81	3.13	2.4	3.86	81.0294	3.8628	4	2.40415	129.3392	1.81961	0.17472	1.6449	48.155	3.9515	-2E-05	4	0.8936	0.6742	2.5343	50.47025
30	27.2	0.85	1.93	3.12	27.2236	3.1223	4	2.6798	117.1409	1.87818	0.20592	1.6723	15.156	3.3537	-0.003	3	1	0.6327	2.8789	15.15642
31	54	1	-1.06	1.86	53.987	1.8523	5	2.30625	119.9999	1.93818	0.23712	1.7011	30.598	1.9213	-0.006	5	0.8714	0.6612	2.4685	32.52479
32	25.4	0.45	-0.27	1.78	25.3967	1.7719	4	2.55409	112.3179	1.99434	0.26832	1.726	13.559	1.9229	-0.012	4	0.9907	0.6158	2.7781	13.62075
33	21.2	0.64	-0.25	3.03	21.1969	3.0193	4	2.75518	114.4542	2.05156	0.29952	1.752	10.927	3.3428	-0.017	3	1	0.6039	2.9923	10.92745
34	28.9	1.29	-0.57	4.47	28.893	4.4648	3	2.76265	120.3384	2.11173	0.33072	1.781	15.037	4.8168	-0.014	3	1	0.5941	2.9795	15.03711
35	77	2.98	0.38	3.87	77.0047	3.8699	4	2.4194	128.8556	2.17616	0.36192	1.8142	41.245	3.9824	-0.004	4	0.9211	0.6086	2.5854	43.03819
36	63.3	2.19	0.98	3.46	63.312	3.4591	4	2.44138	126.1243	2.23922	0.39312	1.8461	33.082	3.5859	-0.005	4	0.938	0.5933	2.6258	34.24456
37	54.4	3.54	1.43	6.49	54.4175	6.5053	3	2.6884	129.2689	2.30386	0.42432	1.8795	27.727	6.7929	-0.006	3	1	0.563	2.8845	27.72685
38	90.5	4.89	1.77	5.4	90.5217	5.402	9	2.4854	132.874	2.37029	0.45552	1.9148	46.037	5.5473	-0.004	4	0.9545	0.5677	2.6609	47.29797
39	72.7	3.12	1.84	4.29	72.7225	4.2903	4	2.4694	129.052	2.43482	0.48672	1.9481	36.08	4.4389	-0.005	4	0.9576	0.5574	2.665	37.02512
40	119.8	4.78	1.14	3.99	119.814	3.9895	9	2.3067	133.3913	2.50152	0.51792	1.9836	59.141	4.0746	-0.004	4	0.8875	0.5725	2.4758	63.47294
41	23.6	1.11	0.52	4.71	23.6064	4.7021	3	2.84281	118.7459	2.56089	0.54912	2.0118	10.461	5.2743	-0.024	3	1	0.526	3.1268	10.46118
42	22.9	0.5	0.52	2.19	22.9064	2.1828	4	2.64328	112.8371	2.61731	0.58032	2.037	9.9603	2.4644	-0.027	3	1	0.5195	2.9508	9.96032
43	33.3	1.46	0.86	4.39	33.3105	4.383	4	2.71197	121.5912	2.6781	0.61152	2.0666	14.823	4.7662	-0.018	3	1	0.512	2.9814	14.82274
44	113.8	5.32	1.47	4.67	113.818	4.6741	9	2.37481	134.0492	2.74513	0.64272	2.1024	52.831	4.7897	-0.005	4	0.9277	0.5289	2.5668	55.51975
45	25.1	1.48	0.73	5.87	25.1089	5.8943	3	2.88957	121.0014	2.80563	0.67392	2.1317	10.463	6.6358	-0.028	3	1	0.4964	3.1896	10.46264
46	19.7	0.79	0.93	3.99	19.7114	4.0078	3	2.85695	115.8177	2.86354	0.70512	2.1584	7.8057	4.689	-0.038	3	1	0.4902	3.1969	7.80565
47	25	0.88	0.79	3.49	25.0097	3.5186	4	2.74136	117.1878	2.92213	0.73632	2.1858	10.105	3.9842	-0.031	3	1	0.4841	3.0647	10.10496
48	158.1	3.5	0.75	2.21	158.109	2.2137	5	2.03177	131.7872	2.98802	0.76752	2.2205	69.859	2.2563	-0.005	5	0.7996	0.5529	2.2166	81.04901
49	411	3.08	2.47	0.75	411.03	0.7493	6	1.40495	133.182	3.05462	0.79872	2.2559	180.85	0.755	-0.002	6	0.5386	0.6651	1.5268	256.4597
50	81.1	2.46	-5.87	3.04	81.0282	3.036	5	2.32656	127.5767	3.1184	0.82992	2.2885	34.044	3.1575	-0.016	4	0.94	0.4843	2.5757	35.65749
51	20.3	0.76	-8.21	3.77	20.1995	3.7625	3	2.8313	115.5941	3.1762	0.86112	2.3151	7.3532	4.4645	-0.085	3	1	0.4571	3.2054	7.35322
52	36.4	1.33	-8.31	3.65	36.2983	3.6641	4	2.63161	121.1183	3.23676	0.89232	2.3444	14.102	4.0228	-0.045	3	1	0.4513	2.9521	14.1021
53	58.5	3.22	-8.27	5.51	58.3988	5.5138	4	2.61414	128.7478	3.30113	0.92352	2.3776	23.174	5.8442	-0.028	3	1	0.445	2.8945	23.1735
54	122.7	4.02	-8.44	3.28	122.597	3.279	5	2.23379	132.1803	3.36722	0.95472	2.4125	49.421	3.3717	-0.013	4	0.905	0.4743	2.4678	53.4455
55	202.1	4.03	-8.44	2	201.997	1.9951	6	1.92988	133.4164	3.43393	0.98592	2.448	81.112	2.0296	-0.008	5	0.776	0.5216	2.1264	97.87751
56	125.3	2.82	-5.83	2.25	125.229	2.2519	5	2.10334	129.6379	3.49875	1.01712	2.4816	49.052	2.3166	-0.012	5	0.8607	0.4801	2.3446	55.23776
57	34.8	2	-5.96	5.77	34.7271	5.7592	3	2.78198	123.9955	3.56075	1.04832	2.5124	12.405	6.4172	-0.047	3	1	0.4212	3.1237	12.40485
58	45.2	2.22	-5.98	4.91	45.1268	4.9195	4	2.65356	125.398	3.62345	1.07952	2.5439	16.315	5.349	-0.036	3	1	0.4159	2.9819	16.31467
59	321.7	3.01	-8.23	0.94	321.599	0.936	6	1.54715	132.4153	3.68966	1.11072	2.5789	123.27	0.9468	-0.005	6	0.6273	0.5718	1.7194	171.8096
60	76.6	0.86	2.01	1.12	76.6246	1.1224	5	2.05082	119.7504	3.74953	1.14192	2.6076	27.947	1.1801	-0.014	5	0.8722	0.4554	2.3588	31.36279
61	29.1	0	69.3	0	29.9482	0	0	0	769.6	4.13433	1.17312	2.9612	8.7174	0	0.1479	0	1	0.3573	0	0

	C-9	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	142.6	2.04	0.96	1.43	142.612	1.4305	6	1.92056	127.5857	0.06379	0	0.0638	2234.5	1.4311	0.0005	6	0.51	2	1.7243	269.4393
2	97.7	1.78	0.26	1.82	97.7032	1.8218	5	2.11088	125.6658	0.12663	0	0.1266	770.59	1.8242	0.0002	6	0.5832	2	1.9088	184.4359
3	243.3	4.19	10.14	1.72	243.424	1.7213	6	1.82963	134.1562	0.1937	0	0.1937	1255.7	1.7227	0.003	6	0.4936	2	1.6651	459.7459
4	63.6	1.32	3.76	2.07	63.646	2.074	5	2.28483	122.4328	0.25492	0	0.2549	248.67	2.0823	0.0043	5	0.6524	2	2.0744	119.8197
5	31.3	0.37	-0.15	1.17	31.2982	1.1822	5	2.38056	111.3953	0.31062	0	0.3106	99.761	1.194	-4E-04	5	0.6801	2	2.1401	58.57161
6	33	0.48	-0.19	1.45	32.9977	1.4547	5	2.4118	113.4287	0.36733	0	0.3673	88.831	1.471	-4E-04	5	0.6975	2	2.1789	61.67677
7	74.8	1.25	-0.23	1.67	74.7972	1.6712	5	2.16998	122.4278	0.42855	0	0.4286	173.54	1.6808	-2E-04	6	0.6304	1.7678	1.9955	124.252
8	308.7	4.15	3.19	1.34	308.739	1.3442	6	1.68174	134.6658	0.49588	0	0.4959	621.61	1.3463	0.0008	6	0.4803	1.4392	1.5933	419.2468
9	133.4	5.95	54.02	4.44	134.061	4.4383	9	2.31426	135.2674	0.56351	0	0.5635	236.9	4.457	0.0291	9	0.7173	1.5713	2.2065	198.247
10	63	3.03	87.35	4.73	64.0692	4.7293	4	2.53755	128.5288	0.62778	0	0.6278	101.06	4.7761	0.0991	9	0.804	1.5216	2.4262	91.22796
11	87.2	4.35	62.55	4.94	87.9656	4.9451	9	2.46318	131.9479	0.69375	0	0.6938	125.8	4.9844	0.0516	9	0.7898	1.3957	2.3795	115.1138
12	70.4	3.77	44.52	5.31	70.9449	5.314	4	2.54678	130.3763	0.75894	0	0.7589	92.479	5.3714	0.0457	9	0.8301	1.3177	2.4777	87.40163
13	72.6	3.54	61.67	4.81	73.3548	4.8259	4	2.50551	129.9972	0.82394	0	0.8239	88.03	4.8807	0.0612	9	0.8245	1.229	2.4551	84.24774
14	71.1	3.54	69.31	4.92	71.9484	4.9202	4	2.51736	129.95	0.88891	0	0.8889	79.94	4.9817	0.0702	9	0.8385	1.1573	2.4842	77.72193
15	82.6	4.69	86.59	5.6	83.6599	5.606	9	2.51929	132.3761	0.9551	0	0.9551	86.593	5.6708	0.0754	9	0.8488	1.0908	2.5029	85.26167
16	78.8	4.21	100.58	5.26	80.0311	5.2605	9	2.50992	131.478	1.02084	0	1.0208	77.397	5.3284	0.0917	9	0.8543	1.0311	2.5094	76.99403
17	120.5	6.58	118.83	5.38	121.954	5.3955	9	2.40703	135.7729	1.08873	0	1.0887	111.02	5.4441	0.0708	9	0.8229	0.9768	2.4185	111.5781
18	80.5	4.29	68.75	5.26	81.3415	5.2741	9	2.50633	131.6553	1.15455	0	1.1546	69.453	5.35	0.0617	9	0.8708	0.9269	2.5361	70.2399
19	46.1	1.97	51.14	4.21	46.726	4.2161	4	2.59504	124.6088	1.21686	0	1.2169	37.399	4.3288	0.0809	4	0.9174	0.8796	2.6507	37.83295
20	51.4	1.76	60.32	3.37	52.1383	3.3756	4	2.49315	124.0513	1.27888	0	1.2789	39.769	3.4605	0.0854	4	0.8862	0.8454	2.5609	40.63559
21	81.9	3.65	83.74	4.39	82.925	4.4016	4	2.44056	130.5202	1.34414	0	1.3441	60.694	4.4741	0.0739	4	0.8699	0.8121	2.5099	62.61296
22	51.6	1.37	94.22	2.59	52.7533	2.597	5	2.41091	122.247	1.40527	0	1.4053	36.54	2.6681	0.1321	4	0.8719	0.7808	2.5075	37.89203
23	41.4	0.99	81.31	2.33	42.3952	2.3352	5	2.45137	119.3368	1.46494	0	1.4649	27.94	2.4188	0.143	4	0.8989	0.7464	2.5709	28.87413
24	41.8	1.38	80.43	3.22	42.7845	3.2255	4	2.5416	121.7893	1.52583	0.00312	1.5227	27.096	3.3448	0.1403	4	0.9412	0.7099	2.6749	27.68183
25	52	1.45	87.3	2.72	53.0686	2.7323	5	2.42403	122.6768	1.58717	0.03432	1.5529	33.153	2.8166	0.1214	4	0.8966	0.709	2.5537	34.49459
26	76.4	3.98	146.58	5.08	78.1941	5.0899	9	2.5053	131.0103	1.65267	0.06552	1.5872	48.226	5.1998	0.137	4	0.9255	0.6871	2.6256	49.70466
27	62.4	2.73	146.06	4.24	64.1878	4.2532	4	2.50279	127.7705	1.71656	0.09672	1.6198	38.566	4.37	0.1668	4	0.9321	0.6724	2.6387	39.69837
28	92.5	5.6	28.01	6.03	92.8428	6.0317	9	2.51651	133.9277	1.78352	0.12792	1.6556	55.001	6.1498	0.0207	3	0.9352	0.6579	2.6427	56.61863
29	147.8	4.65	5.55	3.14	147.868	3.1447	5	2.16905	133.7026	1.85037	0.15912	1.6913	86.337	3.1846	0.0017	5	0.799	0.6875	2.2798	94.8703
30	56.7	2.26	20.89	3.97	56.9557	3.968	4	2.51621	126.0965	1.91342	0.19032	1.7231	31.944	4.1059	0.0239	4	0.9529	0.6283	2.6807	32.68572
31	22.1	0.89	14.06	3.99	22.2721	3.996	3	2.81548	116.9877	1.97192	0.22152	1.7504	11.597	4.3842	0.039	3	1	0.6045	3.042	11.59747
32	18.2	0.7	13.98	3.78	18.3711	3.8103	3	2.86673	114.761	2.0293	0.25272	1.7766	9.1985	4.2835	0.0461	3	1	0.5956	3.1162	9.19848
33	48.6	1.9	18.05	3.88	48.8209	3.8918	4	2.55695	124.451	2.09152	0.28392	1.8076	25.852	4.066	0.0217	4	0.9833	0.5906	2.7501	26.08404
34	70.4	2.18	46.75	3.07	70.9722	3.0716	5	2.36981	126.3694	2.15471	0.31512	1.8396	37.409	3.1678	0.0443	4	0.9068	0.6056	2.5447	39.38712
35	56.9	1.51	57.62	2.62	57.6053	2.6213	5	2.38573	123.1735	2.21629	0.34632	1.87	29.62	2.7262	0.0687	4	0.9218	0.5916	2.5802	30.96873
36	67.4	2.3	69.12	3.36	68.246	3.3702	4	2.41068	126.6659	2.27963	0.37752	1.9021	34.681	3.4866	0.0697	4	0.931	0.5792	2.6006	36.11203
37	93.8	5.98	144.74	6.25	95.5716	6.2571	9	2.52162	134.4787	2.34687	0.40872	1.9382	48.1	6.4146	0.1074	3	0.9695	0.5561	2.6976	48.99581
38	107.3	7.51	88.44	6.92	108.383	6.9292	9	2.52522	136.4525	2.41509	0.43992	1.9752	53.65	7.0871	0.0559	3	0.9721	0.5451	2.6999	54.59117
39	54.9	4	74.45	7.15	55.8113	7.167	3	2.71328	130.2245	2.4802	0.47112	2.0091	26.545	7.5003	0.0917	3	1	0.5267	2.9284	26.54495
40	33.4	2.38	26.72	7.05	33.7271	7.0567	3	2.85419	125.1971	2.5428	0.50232	2.0405	15.283	7.6321	0.0456	3	1	0.5186	3.1058	15.28277
41	35.7	1.63	16.84	4.53	35.9061	4.5396	4	2.69895	122.5801	2.60409	0.53352	2.0706	16.083	4.8946	0.0204	3	1	0.511	2.9616	16.08348
42	31.2	0.94	20.3	2.98	31.4485	2.989	4	2.61965	118.2291	2.66321	0.56472	2.0985	13.717	3.2656	0.0312	3	1	0.5042	2.9066	13.71714
43	99.5	4.03	55.16	4.02	100.175	4.023	4	2.35803	131.7058	2.72906	0.59592	2.1331	45.682	4.1356	0.0346	4	0.9279	0.5218	2.5634	48.05112
44	43.3	1.95	50.49	4.43	43.918	4.4401	4	2.62995	124.3829	2.79125	0.62712	2.1641	19.004	4.7414	0.0731	3	1	0.4889	2.8975	19.0038
45	19.9	0.69	38.91	3.38	20.3763	3.3863	4	2.79956	114.9083	2.84871	0.65832	2.1904	8.002	3.9367	0.1223	3	1	0.4831	3.1438	8.00204
46	10	0.45	28.98	4.32	10.3547	4.3459	3	3.09836	110.1297	2.90377	0.68952	2.2143	3.365	6.0395	0.1875	3	1	0.4779	3.5588	3.36499
47	135.9	1.96	17.19	1.44	136.11	1.44	6	1.93681	127.1792	2.96736	0.72072	2.2466	59.263	1.4721	0.0039	5	0.7697	0.5602	2.1347	70.48667
48	265.8	0	8.6	0	265.905	0	0	0	769.6	3.35216	0.75192	2.6002	100.97	0	-5E-04	0	1	0.4069	0	0

	C-10	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	136.7	1.43	1.67	1.05	136.72	1.0459	6	1.83914	124.8833	0.06244	0	0.0624	2188.6	1.0464	0.0009	6	0.4739	2	1.6297	258.3063
2	269.8	3.04	3.2	1.13	269.839	1.1266	6	1.65779	132.0599	0.12847	0	0.1285	2099.4	1.1271	0.0009	6	0.4211	2	1.4831	509.7981
3	172.4	4.81	5.51	2.79	172.467	2.7889	5	2.08706	134.3255	0.19563	0	0.1956	880.58	2.7921	0.0023	8	0.5913	2	1.9214	325.6224
4	56.7	1.68	4.4	2.95	56.7539	2.9602	5	2.42693	123.9178	0.25759	0	0.2576	219.32	2.9737	0.0056	5	0.7094	2	2.2238	106.7873
5	48.2	0.65	3.77	1.36	48.2461	1.3473	5	2.25854	116.5737	0.31588	0	0.3159	151.74	1.3561	0.0057	6	0.638	2	2.0292	90.59617
6	99.1	1.48	2.56	1.5	99.1313	1.493	5	2.04654	124.3507	0.37806	0	0.3781	261.21	1.4987	0.0019	6	0.5793	1.8152	1.8677	169.4154
7	274.4	6.22	3.93	2.26	274.448	2.2664	6	1.89656	137.28	0.4467	0	0.4467	613.4	2.2701	0.001	8	0.5532	1.6113	1.7905	417.2561
8	244.7	7.25	4.7	2.96	244.758	2.9621	8	2.02096	137.28	0.51534	0	0.5153	473.95	2.9684	0.0014	8	0.6077	1.5483	1.9249	357.3977
9	101.3	5.99	7.49	5.91	101.392	5.9078	9	2.48626	134.6352	0.58265	0	0.5827	173.02	5.9419	0.0054	9	0.782	1.5945	2.374	151.9134
10	103.2	5.34	7.1	5.17	103.287	5.1701	9	2.43521	133.8399	0.64957	0	0.6496	158.01	5.2028	0.005	9	0.7734	1.4584	2.343	141.4659
11	111.6	6.35	7.02	5.69	111.686	5.6856	9	2.4479	135.2981	0.71722	0	0.7172	154.72	5.7223	0.0046	9	0.7892	1.3592	2.3755	142.5445
12	72.2	4.37	6.97	6.04	72.2853	6.0455	9	2.58467	131.5026	0.78297	0	0.783	91.322	6.1117	0.007	9	0.8482	1.291	2.5226	87.24203
13	76.1	3.87	6.54	5.08	76.1801	5.0801	9	2.51192	130.7415	0.84834	0	0.8483	88.799	5.1373	0.0063	9	0.8306	1.2015	2.4683	85.5366
14	84.4	4.48	6.82	5.3	84.4835	5.3028	9	2.49779	132.0648	0.91438	0	0.9144	91.395	5.3608	0.0059	9	0.8349	1.1296	2.4715	89.21806
15	73	4.19	6.66	5.74	73.0815	5.7333	9	2.56385	131.2216	0.97999	0	0.98	73.574	5.8113	0.0067	9	0.8693	1.069	2.5538	72.84014
16	102	5.22	6.74	5.11	102.083	5.1135	9	2.43452	133.6449	1.04681	0	1.0468	96.518	5.1665	0.0048	9	0.8285	1.0089	2.4384	96.34021
17	227.8	5.24	6.54	2.3	227.88	2.2995	6	1.9478	135.6315	1.11463	0	1.1146	203.45	2.3108	0.0021	6	0.6492	0.9668	1.9594	207.1933
18	84.3	1.19	4.26	1.42	84.3521	1.4108	5	2.08216	122.3611	1.17581	0	1.1758	70.74	1.4307	0.0037	5	0.7116	0.9277	2.1154	72.92479
19	749.4	4.47	9.16	0.6	749.512	0.5964	7	1.17268	137.28	1.24445	0	1.2445	601.29	0.5974	0.0009	7	0.3613	0.9431	1.1873	666.9203
20	84.4	3.03	16.91	3.58	84.607	3.5813	5	2.36708	129.207	1.30905	0	1.3091	63.632	3.6376	0.0146	4	0.8372	0.8368	2.4286	65.87514
21	86.7	2.32	16.16	2.67	86.8978	2.6698	5	2.26507	127.3186	1.37271	0	1.3727	62.304	2.7127	0.0136	5	0.806	0.8108	2.3384	65.53169
22	39.7	1.11	14.48	2.79	39.8772	2.7835	4	2.52139	120.0246	1.43272	0	1.4327	26.833	2.8873	0.0271	4	0.9222	0.7562	2.6362	27.47355
23	38.9	0.95	14.39	2.43	39.0761	2.4312	4	2.4897	118.8362	1.49214	0	1.4921	25.188	2.5277	0.0276	4	0.9188	0.7292	2.6198	25.90095
24	35.2	0.77	14.25	2.17	35.3744	2.1767	4	2.4926	117.0564	1.55067	0	1.5507	21.812	2.2765	0.0303	4	0.9301	0.7008	2.6421	22.40297
25	88.5	3.13	15.24	3.53	88.6865	3.5293	5	2.34881	129.5595	1.61545	0.02808	1.5874	54.853	3.5948	0.0123	4	0.8637	0.7045	2.463	57.97082
26	218.3	9.57	15.57	4.38	218.491	4.3801	8	2.19074	137.28	1.68409	0.05928	1.6248	133.44	4.4141	0.0049	9	0.7946	0.7112	2.277	145.7222
27	148.5	6.68	19.29	4.49	148.736	4.4912	9	2.2921	136.3675	1.75227	0.09048	1.6618	88.449	4.5447	0.0088	9	0.8427	0.6836	2.3984	94.95985
28	107.9	5.79	20.29	5.35	108.148	5.3538	9	2.43523	134.544	1.81954	0.12168	1.6979	62.625	5.4454	0.0126	4	0.9064	0.6514	2.5616	65.45819
29	36.2	1.51	19.23	4.14	36.4354	4.1443	4	2.66697	122.0563	1.88057	0.15288	1.7277	20.001	4.3699	0.0356	3	1	0.6124	2.8576	20.00057
30	30	0.83	18.75	2.76	30.2295	2.7457	4	2.60916	117.2221	1.93918	0.18408	1.7551	16.119	2.9339	0.0412	4	1	0.6029	2.8226	16.1189
31	38.2	1.85	18.02	4.8	38.4206	4.8151	4	2.6959	123.6716	2.00102	0.21528	1.7857	20.395	5.0797	0.0297	3	1	0.5925	2.8942	20.39468
32	90.1	3.08	18.59	3.41	90.3275	3.4098	5	2.33231	129.4863	2.06576	0.24648	1.8193	48.515	3.4896	0.0124	4	0.8847	0.6191	2.4889	51.64418
33	67.9	2	19.61	2.94	68.14	2.9351	5	2.368	125.6395	2.12858	0.27768	1.8509	35.665	3.0298	0.0172	4	0.9083	0.6018	2.5471	37.54067
34	62.8	2.71	19.98	4.29	63.0446	4.2986	4	2.51146	127.6728	2.19242	0.30888	1.8835	32.307	4.4534	0.0186	4	0.969	0.5719	2.703	32.89075
35	64.5	2.12	20.6	3.27	64.7521	3.274	4	2.41742	125.9415	2.25539	0.34008	1.9153	32.63	3.3922	0.0183	4	0.9364	0.5737	2.613	33.88572
36	91.4	6.04	20.89	6.58	91.6557	6.5899	9	2.55053	134.4498	2.32261	0.37128	1.9513	45.781	6.7612	0.0127	3	0.9829	0.548	2.7313	46.26242
37	83.8	5.26	22.01	6.25	84.0694	6.2567	9	2.55543	133.2273	2.38923	0.40248	1.9868	41.113	6.4398	0.0145	3	0.9915	0.5354	2.7482	41.3323
38	91.2	6.38	22.39	6.97	91.4741	6.9747	9	2.57078	134.8456	2.45665	0.43368	2.023	44.003	7.1671	0.0132	3	0.9989	0.5234	2.7644	44.03415
39	168.7	4.73	23.5	2.8	168.988	2.799	5	2.09365	134.1531	2.52373	0.46488	2.0589	80.853	2.8415	0.0074	5	0.8051	0.5851	2.2514	92.05141
40	117.7	7.5	23.63	6.36	117.989	6.3565	9	2.47335	136.6499	2.59205	0.49608	2.096	55.057	6.4993	0.0104	3	0.9634	0.5176	2.6618	56.45259
41	100.3	5.89	24.68	5.86	100.602	5.8548	9	2.48516	134.4929	2.6593	0.52728	2.132	45.939	6.0137	0.0128	3	0.9759	0.5047	2.6904	46.72024
42	53.9	3.47	23.12	6.4	54.183	6.4042	3	2.6845	129.1122	2.72385	0.55848	2.1654	23.765	6.7432	0.0215	3	1	0.4887	2.9297	23.76456
43	18.9	0.83	21.91	4.32	19.1682	4.3301	3	2.88778	116.111	2.78191	0.58968	2.1922	7.4747	5.0652	0.0603	3	1	0.4827	3.2319	7.47471
44	15.4	0.75	20.75	4.78	15.654	4.7911	3	2.98349	114.8754	2.83935	0.62088	2.2185	5.7764	5.8527	0.0681	3	1	0.477	3.3593	5.77635
45	17.6	1.17	20.45	6.53	17.8503	6.5545	3	3.02953	118.4494	2.89857	0.65208	2.2465	6.6556	7.8252	0.0549	3	1	0.471	3.3871	6.6556
46	434.7	5.38	20.2	1.24	434.947	1.2369	6	1.56689	137.28	2.96721	0.68328	2.2839	189.14	1.2454	0.0018	6	0.6018	0.6294	1.6894	256.9509
47	287.4	2.87	9.23	1	287.513	0.9982	6	1.59986	131.7936	3.03311	0.71448	2.3186	122.69	1.0089	-2E-04	6	0.6275	0.6112	1.7524	164.3339
48	110.6	4.68	2.86	4.23	110.635	4.2301	9	2.34806	133.0422	3.09963	0.74568	2.354	45.683	4.3521	-0.005	4	0.9451	0.4697	2.5813	47.73174
49	215.6	3.9	2.74	1.81	215.634	1.8086	6	1.87884	133.3358	3.1663	0.77688	2.3894	88.92	1.8356	-0.003	5	0.7488	0.5434	2.0622	109.111
50	220.6	4	2.53	1.81	220.631	1.813	6	1.87354	133.5769	3.23309	0.80808	2.425	89.648	1.8399	-0.003	5	0.7495	0.5371	2.0595	110.3522
51	293.1	3.8	2.32	1.3	293.128	1.2964	6	1.68281	133.8946	3.30003	0.83928	2.4608	117.78	1.3111	-0.002	6	0.6716	0.5674	1.8504	155.4035
52	134.9	3.71	2.72	2.75	134.933	2.7495	5	2.1482	131.8269	3.36595	0.87048	2.4955	52.723	2.8199	-0.005	5	0.8766	0.4714	2.3846	58.61155
53	134.7	4.92	3.5	3.65	134.743	3.6514	8	2.2451	133.8889	3.43289	0.90168	2.5312	51.876	3.7469	-0.005	4	0.9183	0.4489	2.4879	55.71056
54	116.4	5.95	3.5	5.11	116.443	5.1098	9	2.39982	134.9237	3.50035	0.93288	2.5675	43.99	5.2682	-0.006	4	0.9857	0.4174	2.6621	44.55082
55	231.8	6.66	4.04	2.87	231.849	2.8726	8	2.02286	137.28	3.56899	0.96408	2.6049	87.635	2.9175	-0.003	5	0.8221	0.4768	2.2281	102.8652
56	94.9	6.75	3.87	7.1	94.9474	7.1092	9	2.56785	135.349	3.63667	0.99528	2.6414	34.569	7.3923	-0.008	3	1	0.4006	2.8448	34.56923
57	113.4	7.06	3.99	6.22	113.449	6.2231	9	2.47569	136.1118	3.70472	1.02648	2.6782	40.976	6.4332	-0.007	3	1	0.3951	2.7504	40.97616
58	192.4	6.92	4.49	3.6	192.455	3.5957	8	2.14895	137.2543	3.77335	1.05768	2.7157	69.479	3.6676	-0.004	4	0.887	0.4334	2.3846	77.28924
59	250.2	5.83	4.24	2.33	250.252	2.3297	6	1.929	136.6406	3.84167	1.08888	2.7528	89.513	2.366	-0.003	5	0.7972	0.4666	2.144	108.6689
60	36.1	1.92	4.52	5.3	36.1553	5.3104	3	2.74463	123.7951	3.90357	1.12008	2.7835	11.587	5.9532	-0.025	3	1	0.3801	3.1254	11.58681
61	52.9	3.5	4.86	6.6	52.9595	6.6088	3	2.70131	129.1195	3.96813	1.15128	2.8169	17.392	7.1441	-0.016	3	1	0.3756	3.0451	17.39227
62	35	2.45	4.43	7	35.0542	6.9892	3	2.83964	125.5033	4.03088	1.18248	2.8484	10.892	7.8973	-0.028	3	1	0.3715	3.2253	10.8915
63	31.6	1.47	4.9	4.64	31.66	4.6431	3	2.74521	121.5172	4.09164	1.21368	2.878	9.5791	5.3322	-0.031	3	1	0.3677	3.1597	9.57913
64	32.9	1.22	5.12	3.7	32.9627	3.7012	4	2.66547	120.2516	4.15176	1.24488	2.9069	9.9113	4.2345	-0.03	3	1	0.364	3.0872	9.91127
65	42.5	2	6.36	4.71	42.5779	4.6973	4	2.6568	124.4926	4.21401	1.27608	2.9379	13.058	5.2132	-0.021	3	1	0.3602	3.0487	13.05812
66	77.1	3.13	6.68	4.05	77.1818	4.0554	4	2.43397	129.2206	4.27862	1.30728	2.9713	24.535	4.2934	-0.011	3	1	0.3561	2.7857	24.53544
67	42.2	1.88	7.05	4.45	42.2863	4.4459	4	2.64196	124.0231	4.34063	1.33848	3.0022	12.639	4.9545	-0.022	3	1	0.3525	3.0456	12.63949
68	65.3	4.12	7.26	6.3	65.3889	6.3008	3	2.62623	130.827	4.40605	1.36968	3.0364	20.084	6.756	-0.014	3	1	0.3485	2.9829	20.08415
69	73	4.11	7.82	5.62	73.0957	5.6228	9	2.55728	131.081	4.47159	1.40088	3.0707	22.348	5.9892	-0.012	3	1	0.3446	2.9133	22.348
70	31.3	1.77	7.84	5.64	31.396	5.6377	3	2.8064	122.8557	4.53301	1.43208	3.1009	8.6629	6.589	-0.032	3	1	0.3412	3.2511	8.66286
71	93	3.38	9.12	3.63	93.1116	3.6301	5	2.34421	130.2405	4.59813	1.46328	3.1349	28.235	3.8186	-0.009	4	1	0.3375	2.7063	28.23529
72	43.8	1.55	9.42	3.53	43.9153	3.5295	4	2.56016	122.703	4.65949	1.49448	3.165	12.403	3.9485	-0.021	3	1	0.3343	2.9912	12.40308
73	45.4	1.35	9.73	2.97	45.5191	2.9658	4	2.49709	121.7796	4.72037	1.52568	3.1947	12.771	3.3089	-0.02	3	1	0.3312	2.935	12.77077
74	43.5	1.39	10.65	3.2	43.6304	3.1859	4	2.53171	121.8899	4.78132	1.55688	3.2244	12.048	3.578	-0.02	3	1	0.3282	2.9755	12.04831
75	52.8	2.41	10.75	4.54	52.9316	4.5531	4	2.58143	126.388	4.84451	1.58808	3.2564	14.767	5.0117	-0.017	3	1	0.3249	2.9966	14.76679
76	33.4	1.19	10.95	3.55	33.534	3.5486	4	2.64769	120.1113	4.90457	1.61928	3.2853	8.7144	4.1566	-0.029	3	1	0.3221	3.1274	8.71444
77	31.9	0.98	11.48	3.05	32.0405	3.0586	4	2.61997	118.5795	4.96386	1.65048	3.3134	8.1719	3.6194	-0.03	3	1	0.3193	3.1153	8.17192
78	113.9	4.74	11.29	4.15	114.038	4.1565	9	2.33394	133.2093	5.03046	1.68168	3.3488	32.551	4.3483	-0.008	4	1	0.316	2.6991	32.55144
79	41.8	1.31	11.57	3.12	41.9416	3.1234	4	2.53848	121.3599	5.09114	1.71288	3.3783	10.908	3.5549	-0.024	3	1	0.3132	3.0086	10.90811
80	44.6	1.72	11.74	3.84	44.7437	3.8441	4	2.58009	123.5101	5.1529	1.74408	3.4088	11.614	4.3444	-0.023	3	1	0.3104	3.0391	11.61423
81	40.1	1.05	12.26	2.6	40.2501	2.6087	4	2.49982	119.6407	5.21272	1.77528	3.4374	10.193	2.9968	-0.025	3	1	0.3078	2.9898	10.19286
82	40.7	0.99	12.56	2.43	40.8537	2.4233	4	2.47405	119.2465	5.27234	1.80648	3.4659	10.266	2.7824	-0.025	3	1	0.3053	2.969	10.26624
83	49.3	1.67	12.87	3.37	49.4575	3.3766	4	2.50964	123.5385	5.33411	1.83768	3.4964	12.62	3.7848	-0.021	3	1	0.3026	2.974	12.61956
84	46	1.15	14	2.5	46.1714	2.4907	5	2.44172	120.6411	5.39443	1.86888	3.5256	11.566	2.8202	-0.021	3	1	0.3001	2.9296	11.56611
85	55.3	1.7	14.5	3.07	55.4775	3.0643	4	2.44449	123.9489	5.45641	1.90008	3.5563	14.065	3.3986	-0.017	3	1	0.2975	2.9083	14.06538
86	50.3	2.21	15.08	4.38	50.4846	4.3776	4	2.58325	125.6386	5.51923	1.93128	3.588	12.532	4.9149	-0.019	3	1	0.2949	3.0463	12.53234

87	58.9	2.23	16.32	3.78	59.0998	3.7733	4	2.48932	126.0888	5.58227	1.96248	3.6198	14.785	4.1669	-0.015	3	1	0.2923	2.9455	14.78469
88	94.4	5.01	17.04	5.3	94.6086	5.2955	9	2.46676	133.1591	5.64885	1.99368	3.6552	24.338	5.6318	-0.009	3	1	0.2895	2.868	24.33805
89	176.8	7.88	18.61	4.45	177.028	4.4513	9	2.2461	137.28	5.71749	2.02488	3.6926	46.393	4.5998	-0.004	4	1	0.2866	2.6072	46.39274
90	256.3	9.88	18.63	3.85	256.528	3.8514	8	2.10674	137.28	5.78613	2.05608	3.7301	67.222	3.9403	-0.003	4	0.9533	0.3009	2.4312	71.29289
91	246.8	10.08	18.57	4.08	247.027	4.0805	8	2.13669	137.28	5.85477	2.08728	3.7675	64.014	4.1796	-0.003	4	0.9698	0.2919	2.4703	66.52143
92	320.1	8.41	18.61	2.63	320.328	2.6254	8	1.91441	137.28	5.92341	2.11848	3.8049	82.631	2.6749	-0.002	5	0.8747	0.3265	2.2166	97.00968
93	376.4	10.02	16.66	2.66	376.604	2.6606	8	1.88411	137.28	5.99205	2.14968	3.8424	96.454	2.7036	-0.003	5	0.8585	0.3305	2.1696	115.7632

	C-11	In situ data						Basic output data												
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	64.1	1.61	0.94	2.51	64.1115	2.5113	5	2.33923	123.9037	0.06195	0	0.062	1033.9	2.5137	0.0011	5	0.6656	2	2.1329	121.0643
2	242.8	3.51	2.3	1.45	242.828	1.4455	6	1.77054	132.8545	0.12838	0	0.1284	1890.5	1.4462	0.0007	6	0.4655	2	1.5996	458.7429
3	84.8	2.41	2.83	2.84	84.8346	2.8408	5	2.29186	127.5385	0.19215	0	0.1922	440.51	2.8473	0.0024	5	0.6588	2	2.0991	159.9884
4	38.2	1.21	2.76	3.17	38.2338	3.1647	4	2.57209	120.5532	0.25242	0	0.2524	150.47	3.1858	0.0052	5	0.7615	2	2.361	71.79108
5	41.5	0.91	2.76	2.18	41.5338	2.191	5	2.44038	118.6702	0.31176	0	0.3118	132.22	2.2076	0.0048	5	0.7113	2	2.222	77.91647
6	208.1	4.67	2.42	2.24	208.13	2.2438	6	1.9625	134.5678	0.37904	0	0.379	548.09	2.2479	0.0008	8	0.5629	1.7822	1.8243	349.9208
7	401.4	11.88	3.79	2.96	401.446	2.9593	8	1.9115	137.28	0.44768	0	0.4477	895.72	2.9626	0.0007	8	0.5658	1.6269	1.8232	616.5421
8	141.1	7.27	6.85	5.15	141.184	5.1493	9	2.35372	136.8597	0.51611	0	0.5161	272.55	5.1682	0.0035	9	0.7256	1.6836	2.2344	223.8233
9	100.4	4.96	7.04	4.94	100.486	4.936	9	2.42659	133.2327	0.58273	0	0.5827	171.44	4.9648	0.0051	9	0.7593	1.5729	2.3143	148.5064
10	103.7	4.63	6.3	4.46	103.777	4.4615	9	2.38342	132.8075	0.64913	0	0.6491	158.87	4.4896	0.0044	9	0.7537	1.4452	2.2915	140.8566
11	91.8	4.47	6.51	4.86	91.8797	4.8651	9	2.44579	132.2532	0.71526	0	0.7153	127.46	4.9032	0.0051	9	0.7867	1.3608	2.3691	117.2445
12	105.1	5.61	6.66	5.34	105.182	5.3336	9	2.44119	134.2451	0.78238	0	0.7824	133.44	5.3736	0.0046	9	0.7955	1.2715	2.3843	125.45
13	83.2	4.29	6.33	5.15	83.2775	5.1515	9	2.49195	131.7127	0.84824	0	0.8482	97.177	5.2045	0.0055	9	0.8233	1.1996	2.449	93.45303
14	104.6	6.43	6.4	6.14	104.678	6.1426	9	2.49162	135.2316	0.91586	0	0.9159	113.3	6.1968	0.0044	9	0.833	1.1278	2.4664	110.5967
15	78.6	3.57	6.51	4.53	78.6797	4.5374	4	2.46539	130.2299	0.98097	0	0.981	79.206	4.5947	0.006	4	0.8319	1.065	2.4554	78.20441
16	121.4	6.16	6.45	5.07	121.479	5.0708	9	2.38623	135.2808	1.04861	0	1.0486	114.85	5.115	0.0039	9	0.81	1.0073	2.3896	114.651
17	86.1	4.36	6.5	5.06	86.1796	5.0592	9	2.47648	131.9147	1.11457	0	1.1146	76.321	5.1255	0.0055	9	0.8539	0.9566	2.4966	76.90298
18	78.1	2.87	5.9	3.68	78.1722	3.6714	4	2.39799	128.6171	1.17888	0	1.1789	65.311	3.7276	0.0055	4	0.8329	0.9139	2.4336	66.50079
19	94.4	2.87	5.97	3.04	94.4731	3.0379	5	2.28184	129.0791	1.24342	0	1.2434	74.979	3.0784	0.0046	5	0.7956	0.8795	2.3275	77.4933
20	70.3	2.28	6.13	3.24	70.375	3.2398	5	2.38907	126.6769	1.30675	0	1.3068	52.855	3.3011	0.0064	4	0.8471	0.8363	2.4548	54.5883
21	57.4	1.79	6.13	3.11	57.475	3.1144	4	2.43845	124.4127	1.36896	0	1.369	40.984	3.1904	0.0079	4	0.8764	0.7979	2.524	42.30983
22	53.9	1.56	5.92	2.89	53.9725	2.8904	5	2.43547	123.253	1.43059	0.02184	1.4088	37.297	2.9691	0.0077	4	0.8816	0.777	2.5324	38.58306
23	61.9	2.19	5.99	3.53	61.9733	3.5338	4	2.4545	126.0722	1.49362	0.05304	1.4406	41.983	3.6211	0.0063	4	0.8912	0.7596	2.5538	43.41612
24	75.6	3.1	6.13	4.09	75.675	4.0965	4	2.44291	129.102	1.55817	0.08424	1.4739	50.285	4.1826	0.0048	4	0.8883	0.745	2.5421	52.18109
25	115.8	5.68	6.01	4.9	115.874	4.9019	9	2.38662	134.572	1.62546	0.11544	1.51	75.66	4.9716	0.0028	9	0.8655	0.7351	2.4777	79.36587
26	83.7	4.49	6.21	5.36	83.776	5.3595	9	2.50368	132.0606	1.69149	0.14664	1.5449	53.134	5.47	0.0037	4	0.9189	0.7063	2.6136	54.7897
27	110.2	4.33	6.31	3.93	110.277	3.9265	9	2.32358	132.4655	1.75772	0.17784	1.5799	68.688	3.9901	0.0026	4	0.8503	0.7112	2.4287	72.93743
28	30.7	1.06	5.82	3.46	30.7712	3.4448	4	2.66706	119.0551	1.81725	0.20904	1.6082	18.004	3.661	0.0073	3	1	0.6579	2.8436	18.00385
29	20.5	0.52	5.82	2.54	20.5712	2.5278	4	2.71868	112.8619	1.87368	0.24024	1.6334	11.447	2.7811	0.0096	3	1	0.6478	2.9299	11.44672
30	28.3	0.88	5.9	3.11	28.3722	3.1016	4	2.66417	117.4955	1.93243	0.27144	1.661	15.918	3.3283	0.0058	3	1	0.637	2.86	15.91809
31	54.2	2.34	6.11	4.31	54.2748	4.3114	4	2.55675	126.2334	1.99555	0.30264	1.6929	30.881	4.476	0.0026	4	0.9662	0.6351	2.7193	31.37662
32	49.6	1.79	6.28	3.61	49.6769	3.6033	4	2.52801	124.057	2.05757	0.33384	1.7237	27.626	3.759	0.0025	4	0.9613	0.6255	2.7027	28.15207
33	71	3.69	6.6	5.2	71.0808	5.1913	4	2.5385	130.2241	2.12269	0.36504	1.7577	39.233	5.3511	0.0016	3	0.9616	0.6139	2.6991	40.00623
34	91.1	5.66	7.12	6.21	91.1872	6.207	9	2.53114	133.9618	2.18967	0.39624	1.7934	49.624	6.3597	0.0013	3	0.9578	0.6033	2.6848	50.74177
35	100.8	6.16	7.48	6.11	100.892	6.1056	9	2.49901	134.8279	2.25708	0.42744	1.8296	53.909	6.2453	0.0011	3	0.9476	0.5951	2.6535	55.47806
36	47.6	3.48	7.27	7.28	47.689	7.2973	3	2.76366	128.8219	2.32149	0.45864	1.8629	24.354	7.6707	0.0014	3	1	0.568	2.9616	24.35378
37	100.3	7.13	7.37	7.1	100.39	7.1023	9	2.55328	135.8857	2.38944	0.48984	1.8996	51.59	7.2755	0.0004	3	0.9764	0.5648	2.7206	52.30778
38	148.5	11.06	7.81	7.44	148.596	7.443	9	2.47477	137.28	2.45808	0.52104	1.937	75.444	7.5682	0.0003	9	0.942	0.5657	2.6255	78.13476
39	149.2	10.82	8.31	7.24	149.302	7.2471	9	2.46388	137.28	2.52672	0.55224	1.9745	74.336	7.3718	0.0003	9	0.9417	0.5557	2.6199	77.08957
40	93.6	6	8.37	6.4	93.7025	6.4033	9	2.53479	134.455	2.59394	0.58344	2.0105	45.316	6.5856	0.0002	3	0.9835	0.5319	2.7256	45.79775
41	42.4	2.54	8.12	5.98	42.4994	5.9766	3	2.73282	126.237	2.65706	0.61464	2.0424	19.507	6.3751	-8E-04	3	1	0.5181	2.9749	19.5074
42	15.6	0.78	7.94	4.97	15.6972	4.969	3	2.99268	115.1691	2.71465	0.64584	2.0688	6.2754	6.0081	-0.006	3	1	0.5115	3.3371	6.27538
43	48.9	1.79	7.76	3.66	48.995	3.6534	4	2.53649	124.0233	2.77666	0.67704	2.0996	22.013	3.8729	-0.003	3	1	0.504	2.7919	22.01273
44	82.2	2.58	7.58	3.13	82.2928	3.1352	5	2.33223	127.963	2.84064	0.70824	2.1324	37.26	3.2472	-0.002	4	0.9238	0.5234	2.5526	39.30236
45	293.8	8.45	5.07	2.87	293.862	2.8755	8	1.96762	137.28	2.90928	0.73944	2.1698	134.09	2.9043	-0.001	5	0.7551	0.5814	2.1062	159.8785
46	187.8	2.45	0.77	1.31	187.809	1.3045	6	1.80937	129.5972	2.97408	0.77064	2.2034	83.885	1.3255	-0.004	6	0.7081	0.5949	1.9784	103.915
47	128.4	4.96	0.73	3.86	128.409	3.8627	8	2.2772	133.8307	3.04099	0.80184	2.2392	55.989	3.9564	-0.006	4	0.902	0.5086	2.4817	60.25839
48	79.7	4.71	0.98	5.92	79.712	5.9088	9	2.55024	132.2894	3.10714	0.83304	2.2741	33.686	6.1484	-0.01	3	1	0.4653	2.7944	33.68582
49	102.4	5.45	1.23	5.32	102.415	5.3215	9	2.44741	133.9684	3.17412	0.86424	2.3099	42.964	5.4917	-0.008	3	0.981	0.4649	2.6816	43.60644
50	141.6	5.25	1.23	3.71	141.615	3.7072	8	2.23729	134.4852	3.24136	0.89544	2.3459	58.985	3.7941	-0.006	4	0.8951	0.4904	2.45	64.12472
51	243.8	4.08	1.63	1.67	243.82	1.6734	6	1.81946	133.9655	3.30835	0.92664	2.3817	100.98	1.6964	-0.003	6	0.7221	0.5566	1.993	126.5245
52	86.8	4.62	1.61	5.32	86.8197	5.3214	9	2.49156	132.3565	3.37453	0.95784	2.4167	34.529	5.5366	-0.01	3	1	0.4378	2.7543	34.52877
53	47.3	2.07	1.99	4.38	47.3244	4.3741	4	2.60255	125.0021	3.43703	0.98904	2.448	17.928	4.7166	-0.019	3	1	0.4322	2.9152	17.92793
54	42.6	2	2.53	4.7	42.631	4.6914	4	2.65604	124.4957	3.49927	1.02024	2.479	15.785	5.111	-0.021	3	1	0.4268	2.9799	15.78505
55	55.4	1.71	2.76	3.09	55.4338	3.0848	4	2.44675	123.9899	3.56127	1.05144	2.5098	20.668	3.2965	-0.016	4	1	0.4216	2.7683	20.66774
56	59.8	1.65	3.14	2.75	59.8384	2.7574	5	2.38899	123.9151	3.62323	1.08264	2.5406	22.127	2.9352	-0.015	4	1	0.4165	2.7137	22.12686
57	67.3	3.52	2.88	5.22	67.3353	5.2276	4	2.55608	129.7469	3.6881	1.11384	2.5743	24.724	5.5305	-0.014	3	1	0.411	2.8576	24.72444
58	27.5	1.04	3.06	3.79	27.5375	3.7767	4	2.72965	118.645	3.74742	1.14504	2.6024	9.1416	4.3716	-0.039	3	1	0.4066	3.1236	9.14163
59	29.1	0.97	3.37	3.31	29.1413	3.3286	4	2.67516	118.2732	3.80656	1.17624	2.6303	9.6318	3.8287	-0.037	3	1	0.4023	3.0713	9.63179
60	26.7	0.86	3.52	3.22	26.7431	3.2158	4	2.69394	117.183	3.86515	1.20744	2.6577	8.6081	3.7591	-0.042	3	1	0.3981	3.1063	8.60813
61	26.5	1.42	3.6	5.35	26.5441	5.3496	3	2.84309	120.8341	3.92557	1.23864	2.6869	8.418	6.2781	-0.043	3	1	0.3938	3.2477	8.41798
62	30.9	0.97	4.17	3.14	30.951	3.134	4	2.63826	118.4201	3.98478	1.26984	2.7149	9.9326	3.5971	-0.036	3	1	0.3897	3.0446	9.93255
63	31.8	1.26	4.29	3.96	31.8525	3.9557	4	2.69591	120.4041	4.04498	1.30104	2.7439	10.134	4.5312	-0.036	3	1	0.3856	3.0972	10.13416
64	31.8	1.22	4.44	3.84	31.8544	3.8299	4	2.68645	120.1681	4.10506	1.33224	2.7728	10.008	4.3965	-0.036	3	1	0.3816	3.0936	10.00759
65	66.4	2.64	4.98	3.97	66.461	3.9723	4	2.4707	127.6101	4.16887	1.36344	2.8054	22.204	4.2381	-0.016	3	1	0.3772	2.8145	22.20412
66	47.4	1.81	4.96	3.82	47.4607	3.8137	4	2.55943	124.027	4.23088	1.39464	2.8362	15.242	4.1869	-0.024	3	1	0.3731	2.9365	15.24194
67	40.4	1.19	5.05	2.95	40.4618	2.941	4	2.53252	120.5693	4.29117	1.42584	2.8653	12.624	3.29	-0.029	3	1	0.3693	2.9375	12.62356
68	36.2	1.04	5.41	2.86	36.2662	2.8677	4	2.56095	119.3165	4.35083	1.45704	2.8938	11.029	3.2586	-0.033	3	1	0.3657	2.9826	11.02894
69	35	1.66	5.59	4.73	35.0684	4.7336	4	2.71896	122.656	4.41215	1.48824	2.9239	10.485	5.4149	-0.035	3	1	0.3619	3.1331	10.48467
70	34.8	1.53	6.1	4.38	34.8747	4.3871	4	2.6978	122.0458	4.47318	1.51944	2.9537	10.293	5.0327	-0.036	3	1	0.3582	3.1197	10.29255
71	33.7	1.15	6.57	3.4	33.7804	3.4043	4	2.6333	119.879	4.53312	1.55064	2.9825	9.8064	3.932	-0.037	3	1	0.3548	3.0718	9.80638
72	34.4	1.19	6.74	3.45	34.4825	3.451	4	2.63058	120.1793	4.59321	1.58184	3.0114	9.9255	3.9814	-0.037	3	1	0.3514	3.0707	9.92549
73	33.8	1.11	6.91	3.28	33.8846	3.2758	4	2.6212	119.6275	4.65302	1.61304	3.04	9.6157	3.7973	-0.038	3	1	0.3481	3.0698	9.61571
74	38.3	1.32	7.73	3.45	38.3946	3.438	4	2.59494	121.2001	4.71362	1.64424	3.0694	10.973	3.9191	-0.032	3	1	0.3447	3.0317	10.97323
75	47.2	1.37	8.07	2.9	47.2988	2.8965	4	2.47789	121.9808	4.77461	1.67544	3.0992	13.721	3.2217	-0.026	3	1	0.3414	2.903	13.72115
76	52.1	1.49	8.46	2.85	52.2036	2.8542	5	2.44221	122.8358	4.83603	1.70664	3.1294	15.136	3.1456	-0.023	3	1	0.3381	2.8626	15.13635
77	56.1	1.98	9.48	3.52	56.216	3.5221	4	2.48304	125.0968	4.89858	1.73784	3.1607	16.236	3.8583	-0.021	3	1	0.3348	2.8928	16.23592
78	101.3	6.49	9.94	6.4	101.422	6.399	9	2.51405	135.2225	4.96619	1.76904	3.1972	30.169	6.7285	-0.011	3	1	0.331	2.8558	30.16923
79	142.3	9.28	11.63	6.52	142.442	6.5149	9	2.43614	137.28	5.03483	1.80024	3.2346	42.481	6.7536	-0.007	3	1	0.3271	2.7555	42.4807
80	207.8	10	12.83	4.81	207.957	4.8087	9	2.23651	137.28	5.10347	1.83144	3.272	61.996	4.9297	-0.004	4	0.9708	0.3342	2.5349	64.07493
81	225.1	10.85	13.86	4.82	225.27	4.8165	9	2.21904	137.28	5.17211	1.86264	3.3095	66.505	4.9296	-0.004	4	0.9642	0.333	2.5127	69.27494
82	335.1	8.28	14.78	2.47	335.281	2.4696	8	1.88142	137.28	5.24075	1.89384	3.3469	98.61	2.5088	-0.003	5	0.8207	0.3887	2.1319	121.226
83	425.7	10.85	10.89	2.55	425.833	2.548	8	1.84207	137.28	5.30939	1.92504	3.3844	124.26	2.5801	-0.003	5	0.799	0.395	2.0702	156.9715
84	411.4	11.17	10.45	2.71	411.528	2.7143	8	1.87329	137.28	5.37803	1.95624	3.4218	118.7	2.7502	-0.003	5	0.8155	0.384	2.1089	147.3987
85	327.2	7.72	10.11	2.36	327.324	2.3585	8	1.86977	137.28	5.44667	1.98744	3.4592	93.049	2.3984	-0.004	5	0.8269	0.3755	2.134	114.2294
86	280	10.93	9.53	3.9	280.117	3.902	8	2.09221	137.28	5.51531	2.01864	3.4967	78.532	3.9803	-0.005	4	0.9235	0.3316	2.381	86.05238

87	283.7	9.44	8.52	3.33	283.804	3.3262	8	2.02957	137.28	5.58395	2.04984	3.5341	78.724	3.393	-0.005	5	0.901	0.3374	2.3197	88.70579
88	334.4	8.39	8.14	2.51	334.5	2.5082	8	1.88773	137.28	5.65259	2.08104	3.5716	92.074	2.5513	-0.005	5	0.8425	0.3588	2.1611	111.5237

	C-12	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	181.6	2.93	1.09	1.61	181.613	1.6133	6	1.888	130.8245	0.06541	0	0.0654	2775.4	1.6139	0.0004	6	0.5033	2	1.7065	343.1558
2	77.4	1.7	0.73	2.2	77.4089	2.1961	5	2.2399	124.7614	0.12779	0	0.1278	604.74	2.1998	0.0007	5	0.6317	2	2.036	146.0742
3	33.8	0.85	0.46	2.51	33.8056	2.5144	4	2.54738	117.669	0.18663	0	0.1866	180.14	2.5283	0.001	5	0.7452	2	2.3264	63.5455
4	46.7	0.84	0.46	1.79	46.7056	1.7985	5	2.34661	118.3708	0.24581	0	0.2458	189	1.808	0.0007	5	0.6709	2	2.1242	87.81678
5	283.2	6.73	0.77	2.38	283.209	2.3763	6	1.90619	137.28	0.31445	0	0.3145	899.64	2.379	0.0002	8	0.5386	1.9223	1.7677	513.9561
6	429.3	12.31	0.54	2.87	429.307	2.8674	8	1.8859	137.28	0.38309	0	0.3831	1119.6	2.87	9E-05	8	0.55	1.7486	1.7886	708.8073
7	184.5	10.27	-0.04	5.57	184.5	5.5664	9	2.31793	137.28	0.45173	0	0.4517	407.43	5.5801	-2E-05	9	0.707	1.8253	2.1921	317.4894
8	146.1	8.2	0.38	5.61	146.105	5.6124	9	2.37615	137.28	0.52037	0	0.5204	279.77	5.6325	0.0002	9	0.7353	1.6851	2.2593	231.8569
9	143	8.8	0.06	6.15	143.001	6.1538	9	2.41456	137.28	0.58901	0	0.589	241.78	6.1793	3E-05	9	0.76	1.5608	2.3154	210.0654
10	86.9	4.99	-0.63	5.75	86.8923	5.7427	9	2.51727	132.9223	0.65547	0	0.6555	131.56	5.7864	-5E-04	9	0.8042	1.4698	2.4221	119.789
11	108.6	6.99	-0.69	6.43	108.592	6.437	9	2.49869	135.9321	0.72344	0	0.7234	149.1	6.4801	-5E-04	9	0.8092	1.3602	2.4271	138.6682
12	96.2	6.19	-0.61	6.44	96.1925	6.435	9	2.52969	134.7471	0.79081	0	0.7908	120.64	6.4884	-5E-04	9	0.8299	1.2733	2.4734	114.8069
13	108.3	6.53	-0.92	6.04	108.289	6.0302	9	2.47644	135.4272	0.85853	0	0.8585	125.13	6.0784	-6E-04	9	0.8196	1.1869	2.4381	120.5018
14	91.6	4.86	-0.84	5.31	91.5897	5.3063	9	2.47615	132.8575	0.92496	0	0.925	98.021	5.3604	-7E-04	9	0.8282	1.1178	2.4527	95.78191
15	68.8	3.82	-0.92	5.55	68.7887	5.5532	4	2.57005	130.3975	0.99015	0	0.9902	68.473	5.6343	-1E-03	9	0.8732	1.0597	2.5628	67.89886
16	46.8	2.67	-1.31	5.72	46.784	5.7071	3	2.68975	126.8365	1.05357	0	1.0536	43.405	5.8386	-0.002	3	0.9295	1.004	2.7026	43.39191
17	63.6	3.63	-1.3	5.72	63.5841	5.709	4	2.60132	129.8323	1.11849	0	1.1185	55.848	5.8112	-0.002	4	0.9035	0.9511	2.6264	56.14804
18	74.5	4.54	-1.23	6.1	74.4849	6.0952	9	2.57922	131.855	1.18442	0.00936	1.1751	62.38	6.1937	-0.001	3	0.9019	0.9098	2.615	63.02547
19	50.2	2.16	-1.23	4.3	50.1849	4.3041	4	2.57976	125.4567	1.24714	0.04056	1.2066	40.559	4.4138	-0.003	4	0.9097	0.8874	2.6316	41.04294
20	50.8	2.27	-1.23	4.47	50.7849	4.4698	4	2.58801	125.8491	1.31007	0.07176	1.2383	39.954	4.5882	-0.003	4	0.9173	0.8657	2.6478	40.47636
21	35.4	1.94	-1.23	5.49	35.3849	5.4826	3	2.76105	123.8184	1.37198	0.10296	1.269	26.803	5.7037	-0.006	3	0.9926	0.8349	2.8411	26.83872
22	48.3	2.17	-1.38	4.49	48.2831	4.4943	4	2.60492	125.3962	1.43468	0.13416	1.3005	36.023	4.632	-0.005	4	0.9334	0.8249	2.6823	36.52099
23	47.3	2.26	-1.33	4.78	47.2837	4.7797	4	2.63048	125.6426	1.4975	0.16536	1.3321	34.37	4.936	-0.006	3	0.9481	0.8039	2.7167	34.78411
24	42.8	2.68	-1.38	6.27	42.7831	6.2642	3	2.74581	126.6458	1.56082	0.19656	1.3643	30.216	6.5013	-0.007	3	0.9983	0.7759	2.8446	30.22894
25	39.8	2.62	-1.42	6.59	39.7826	6.5858	3	2.78322	126.3028	1.62397	0.22776	1.3962	27.33	6.8661	-0.009	3	1	0.7578	2.8922	27.33012
26	46	3.05	-1.38	6.63	45.9831	6.6329	3	2.74309	127.768	1.68786	0.25896	1.4289	31	6.8856	-0.008	3	1	0.7405	2.8549	30.99963
27	24.3	1.45	-1.46	5.98	24.2821	5.9715	3	2.90401	120.7699	1.74824	0.29016	1.4581	15.454	6.4348	-0.018	3	1	0.7257	3.0525	15.45448
28	34.6	1.29	-1.46	3.72	34.5821	3.7303	4	2.65236	120.7768	1.80863	0.32136	1.4873	22.036	3.9361	-0.013	3	0.985	0.7151	2.7944	22.1491
29	44.1	2.31	-1.35	5.24	44.0835	5.2401	4	2.68039	125.6317	1.87145	0.35256	1.5189	27.791	5.4724	-0.011	3	0.9953	0.6978	2.8172	27.8385
30	34.7	1.38	-1.3	3.99	34.6841	3.9788	4	2.67042	121.2774	1.93208	0.38376	1.5483	21.153	4.2135	-0.015	3	1	0.6834	2.8288	21.15319
31	145	9.9	-0.92	6.83	144.989	6.8281	9	2.44899	137.28	2.00072	0.41496	1.5858	90.17	6.9237	-0.003	9	0.8953	0.6961	2.5465	94.07127
32	127.5	9.14	1.3	7.17	127.516	7.1677	9	2.49729	137.28	2.06936	0.44616	1.6232	77.283	7.286	-0.003	9	0.9198	0.6746	2.6062	79.98144
33	64.8	3.56	1.61	5.49	64.8197	5.4922	4	2.58312	129.7367	2.13423	0.47736	1.6569	37.834	5.6792	-0.006	3	0.9686	0.6477	2.7304	38.36947
34	22.3	1.31	1.61	5.86	22.3197	5.8693	3	2.92559	119.8214	2.19414	0.50856	1.6856	11.94	6.5091	-0.02	3	1	0.6277	3.1403	11.93982
35	39.1	2.1	2.36	5.37	39.1289	5.3669	3	2.72381	124.6436	2.25647	0.53976	1.7167	21.479	5.6953	-0.01	3	1	0.6164	2.911	21.4786
36	61.4	2.13	2.48	3.46	61.4304	3.4673	4	2.45123	125.8475	2.31939	0.57096	1.7484	33.808	3.6034	-0.007	4	0.9312	0.6265	2.6203	34.99657
37	157.9	7.91	2.79	5.01	157.934	5.0084	9	2.31625	137.28	2.38803	0.60216	1.7859	87.098	5.0853	-0.003	9	0.8648	0.636	2.441	93.48655
38	116.3	6.7	3.36	5.76	116.341	5.7589	9	2.44197	135.7902	2.45592	0.63336	1.8226	62.486	5.8831	-0.003	9	0.9226	0.6055	2.5886	65.17188
39	73.6	3.92	3.47	5.33	73.6425	5.323	9	2.53692	130.7528	2.5213	0.66456	1.8567	38.304	5.5117	-0.006	3	0.973	0.5786	2.7169	38.89058
40	35.3	2.62	3.55	7.41	35.3435	7.413	3	2.85584	126.0142	2.58431	0.69576	1.8886	17.346	7.9978	-0.013	3	1	0.5603	3.0795	17.34621
41	19.6	1.49	3.47	7.61	19.6425	7.5856	3	3.04234	120.4518	2.64453	0.72696	1.9176	8.8643	8.7658	-0.028	3	1	0.5518	3.3226	8.8643
42	16.1	0.53	3.4	3.29	16.1416	3.2834	3	2.87111	112.4098	2.70074	0.75816	1.9426	6.9191	3.9432	-0.038	3	1	0.5447	3.1959	6.91909
43	55	1.85	3.34	3.35	55.0409	3.3611	4	2.47511	124.5484	2.76301	0.78936	1.9737	26.488	3.5388	-0.011	4	0.972	0.5456	2.6996	26.95481
44	165.3	1.76	3.61	1.06	165.344	1.0645	6	1.78434	126.8662	2.82645	0.82056	2.0059	81.02	1.083	-0.003	6	0.6822	0.6464	1.935	99.28441
45	562.2	0	4.55	0	562.256	0	0	0	769.6	3.21125	0.85176	2.3595	236.93	0	-9E-04	0	1	0.4485	0	0

	C-12B	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	190.9	3.14	-0.47	1.64	190.894	1.6449	6	1.88033	131.4526	0.06573	0	0.0657	2903.4	1.6455	-2E-04	6	0.5015	2	1.7018	360.6976
2	346.3	6.85	0.17	1.98	346.302	1.978	6	1.79196	137.28	0.13437	0	0.1344	2576.3	1.9788	4E-05	8	0.4856	2	1.6515	654.3145
3	82.6	4.27	0.08	5.17	82.601	5.1694	9	2.49537	131.6586	0.2002	0	0.2002	411.6	5.182	7E-05	9	0.7427	2	2.3183	155.7512
4	39.1	2.04	0.03	5.22	39.1004	5.2173	3	2.71526	124.4297	0.26241	0	0.2624	148	5.2526	6E-05	9	0.8216	2	2.5177	73.41019
5	72.2	2.93	0	4.05	72.2	4.0582	4	2.45342	128.5747	0.3267	0	0.3267	220	4.0766	0	8	0.729	2	2.2666	135.8525
6	137.8	4.76	-0.38	3.46	137.795	3.4544	8	2.22007	133.7016	0.39355	0	0.3936	349.14	3.4643	-2E-04	8	0.6547	1.9107	2.0622	248.1174
7	458.9	10.14	-0.45	2.21	458.894	2.2097	8	1.7722	137.28	0.46219	0	0.4622	991.87	2.2119	-7E-05	8	0.517	1.5345	1.6934	664.8193
8	246.9	10.45	-0.72	4.23	246.891	4.2326	8	2.15045	137.28	0.53083	0	0.5308	464.11	4.2418	-2E-04	8	0.659	1.5755	2.0575	366.8171
9	109.4	6.72	-1.53	6.15	109.381	6.1437	9	2.48043	135.6616	0.59866	0	0.5987	181.71	6.1775	-0.001	9	0.7832	1.5622	2.3752	160.6049
10	123.5	6.43	-2.64	5.21	123.468	5.2078	9	2.39144	135.6343	0.66648	0	0.6665	184.25	5.2361	-0.002	9	0.761	1.4216	2.3084	164.9812
11	63.5	3.68	-2.83	5.8	63.4654	5.7984	4	2.60698	129.9278	0.73144	0	0.7314	85.768	5.866	-0.003	9	0.8479	1.3676	2.5279	81.08466
12	66.7	3.84	-2.91	5.76	66.6644	5.7602	4	2.59098	130.3592	0.79662	0	0.7966	82.684	5.8299	-0.003	9	0.8524	1.2738	2.5318	79.29134
13	78.4	4.32	-3.22	5.51	78.3606	5.513	9	2.53149	131.6152	0.86243	0	0.8624	89.86	5.5743	-0.003	9	0.8402	1.1875	2.4917	86.9711
14	89.3	4.43	-3.22	4.96	89.2606	4.963	9	2.46041	132.1169	0.92849	0	0.9285	95.136	5.0152	-0.003	9	0.8227	1.1135	2.4378	92.95658
15	84.2	4.58	-3.14	5.44	84.1616	5.4419	9	2.50759	132.2171	0.99459	0	0.9946	83.619	5.507	-0.003	9	0.8497	1.054	2.5006	82.84479
16	149.4	7.3	-3.2	4.89	149.361	4.8875	9	2.32116	137.0271	1.06311	0	1.0631	139.49	4.9225	-0.002	9	0.7866	0.9963	2.3264	139.6349
17	105.9	5.74	-3.04	5.42	105.863	5.4221	9	2.44521	134.4285	1.13032	0	1.1303	92.657	5.4806	-0.002	9	0.8431	0.9459	2.4664	93.62196
18	114.7	5.68	-3.06	4.96	114.663	4.9537	9	2.39301	134.5463	1.1976	0	1.1976	94.744	5.006	-0.002	9	0.8311	0.9022	2.4265	96.74641
19	70.2	4.6	-0.54	6.55	70.1934	6.5533	9	2.6199	131.8063	1.2635	0	1.2635	54.555	6.6735	-6E-04	3	0.9295	0.848	2.6767	55.24105
20	49.9	2.2	-0.69	4.4	49.8916	4.4096	4	2.58909	125.5766	1.32629	0	1.3263	36.617	4.53	-0.001	4	0.9299	0.8105	2.6698	37.20196
21	46.8	1.8	-0.77	3.85	46.7906	3.8469	4	2.56647	123.9518	1.38826	0	1.3883	32.704	3.9646	-0.001	4	0.9307	0.7767	2.6641	33.32572
22	54.7	2.02	-1.07	3.69	54.6869	3.6938	4	2.50616	125.1759	1.45085	0.00624	1.4446	36.851	3.7944	-0.002	4	0.9131	0.7526	2.6107	37.86266
23	46.8	1.86	-1.15	3.99	46.7859	3.9756	4	2.57657	124.1915	1.51295	0.03744	1.4755	30.683	4.1084	-0.003	4	0.9467	0.7299	2.6953	31.23152
24	59.6	2.18	-1.07	3.66	59.5869	3.6585	4	2.47718	125.9429	1.57592	0.06864	1.5073	38.487	3.7579	-0.003	4	0.9092	0.7249	2.5926	39.74449
25	86.2	4.81	-0.77	5.58	86.1906	5.5807	9	2.50969	132.6337	1.64223	0.09984	1.5424	54.816	5.6891	-0.002	4	0.9204	0.7069	2.6177	56.48623
26	129.7	8.29	-0.61	6.4	129.693	6.392	9	2.45195	137.28	1.71087	0.13104	1.5798	81.01	6.4775	-0.001	9	0.8969	0.698	2.5513	84.42912
27	131.1	5.11	-0.4	3.9	131.095	3.8979	8	2.27488	134.0992	1.77792	0.16224	1.6157	80.039	3.9515	-0.001	4	0.8331	0.7028	2.3791	85.89734
28	49.8	2.77	-0.38	5.55	49.7954	5.5628	3	2.66323	127.2577	1.84155	0.19344	1.6481	29.096	5.7764	-0.005	3	1	0.642	2.8199	29.09618
29	20.5	0.89	-0.38	4.34	20.4954	4.3425	3	2.86638	116.7849	1.89995	0.22464	1.6753	11.1	4.7861	-0.014	3	1	0.6316	3.0804	11.09971
30	26.7	1.4	-0.46	5.27	26.6944	5.2446	3	2.83541	120.7441	1.96032	0.25584	1.7045	14.511	5.6602	-0.012	3	1	0.6208	3.0365	14.51122
31	63.7	3.99	-0.61	6.28	63.6925	6.2645	3	2.63162	130.5283	2.02558	0.28704	1.7385	35.471	6.4702	-0.005	3	0.997	0.6095	2.7945	35.5231
32	77.4	3.96	-0.54	5.12	77.3934	5.1167	9	2.50992	130.9483	2.09106	0.31824	1.7728	42.476	5.2588	-0.005	4	0.9505	0.6123	2.6681	43.57573
33	73.9	3.67	-0.38	4.96	73.8954	4.9665	4	2.51293	130.279	2.1562	0.34944	1.8068	39.706	5.1158	-0.005	4	0.9568	0.5994	2.6804	40.63561
34	121.1	10.32	-0.2	8.53	121.098	8.5221	9	2.57233	137.28	2.22484	0.38064	1.8442	64.458	8.6816	-0.003	9	0.9734	0.5823	2.7196	65.41754
35	126.2	10.93	0.18	8.66	126.202	8.6607	9	2.56842	137.28	2.29348	0.41184	1.8816	65.852	8.821	-0.003	9	0.9752	0.5704	2.7196	66.79996
36	149.2	10.97	0.64	7.35	149.208	7.3522	9	2.46931	137.28	2.36212	0.44304	1.9191	76.519	7.4704	-0.003	9	0.9379	0.5721	2.6168	79.40182
37	35.4	2.63	0.37	7.42	35.4045	7.4284	3	2.856	126.0463	2.42514	0.47424	1.9509	16.905	7.9747	-0.014	3	1	0.5424	3.0868	16.90472
38	251.8	7.64	0.38	3.03	251.805	3.0341	8	2.02301	137.28	2.49378	0.50544	1.9883	125.39	3.0645	-0.002	5	0.7629	0.618	2.1493	145.6167
39	367.4	10.6	1.11	2.89	367.414	2.885	8	1.92006	137.28	2.56242	0.53664	2.0258	180.1	2.9053	-0.001	8	0.7193	0.6268	2.0303	216.1185
40	239.1	11.38	-3.6	4.76	239.056	4.7604	9	2.20149	137.28	2.63106	0.56784	2.0632	114.59	4.8134	-0.004	9	0.8401	0.5706	2.3412	127.5019
41	44.1	3.05	-4.06	6.93	44.0503	6.9239	3	2.76942	127.6633	2.69489	0.59904	2.0959	19.732	7.3751	-0.022	3	1	0.5049	3.0147	19.73205
42	29.1	1.76	-4.35	6.06	29.0468	6.0592	3	2.85243	122.6245	2.7562	0.63024	2.126	12.366	6.6944	-0.036	3	1	0.4977	3.1367	12.36642
43	21.3	1.52	-4.59	7.15	21.2438	7.155	3	3.0002	120.7888	2.8166	0.66144	2.1552	8.5503	8.2487	-0.054	3	1	0.491	3.3175	8.55029
44	25.7	1.51	-4.82	5.88	25.641	5.889	3	2.8827	121.1993	2.8772	0.69264	2.1846	10.42	6.6333	-0.046	3	1	0.4844	3.1909	10.42033

	C-13	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	138.6	2.28	1.3	1.65	138.616	1.6448	6	1.97289	128.3303	0.06417	0	0.0642	2159.3	1.6456	0.0007	6	0.5313	2	1.7803	261.8858
2	57.6	1.67	1.76	2.9	57.6215	2.8982	5	2.41581	123.9111	0.12612	0	0.1261	455.88	2.9046	0.0022	5	0.6984	2	2.2111	108.6759
3	29.5	0.6	1.91	2.01	29.5234	2.0323	4	2.53629	114.7901	0.18352	0	0.1835	159.88	2.045	0.0047	5	0.7376	2	2.307	55.45722
4	130.6	3.11	2.25	2.38	130.628	2.3808	5	2.10945	130.457	0.24874	0	0.2487	524.15	2.3854	0.0012	6	0.5961	2	1.9274	246.4376
5	423.6	10.2	3.96	2.41	423.648	2.4077	8	1.82146	137.28	0.31738	0	0.3174	1333.8	2.4095	0.0007	8	0.5167	1.863	1.7098	745.3608
6	235	9.38	4.95	3.99	235.061	3.9905	8	2.13964	137.28	0.38602	0	0.386	607.93	3.997	0.0015	8	0.6339	1.8949	2.0088	420.2609
7	190.4	11.73	6.2	6.16	190.476	6.1583	9	2.34806	137.28	0.45466	0	0.4547	417.94	6.173	0.0024	9	0.7194	1.8361	2.2244	329.7355
8	238.4	8.51	6.56	3.57	238.48	3.5684	8	2.09512	137.28	0.5233	0	0.5233	454.72	3.5763	0.002	8	0.6365	1.5654	1.9994	352.0323
9	145.5	9.53	5.99	6.55	145.573	6.5465	9	2.43271	137.28	0.59194	0	0.5919	244.92	6.5733	0.003	9	0.7675	1.5617	2.3348	213.9856
10	169.4	11.14	5.82	6.57	169.471	6.5734	9	2.39873	137.28	0.66058	0	0.6606	255.55	6.5991	0.0025	9	0.7663	1.4348	2.3222	228.9039
11	111.8	8.08	6.05	7.23	111.874	7.2224	9	2.53205	137.0651	0.72912	0	0.7291	152.44	7.2698	0.0039	9	0.8228	1.3586	2.4624	142.7046
12	127.3	7.84	6.36	6.16	127.378	6.1549	9	2.44285	137.161	0.7977	0	0.7977	158.68	6.1937	0.0036	9	0.7993	1.2533	2.3922	149.9332
13	133.6	6.6	6.39	4.93	133.678	4.9372	9	2.35247	136.019	0.86571	0	0.8657	153.42	4.9694	0.0035	9	0.7741	1.1681	2.3178	146.6142
14	106.3	6.43	6.28	6.05	106.377	6.0446	9	2.48184	135.2709	0.93334	0	0.9333	112.97	6.0981	0.0043	9	0.8316	1.11	2.4607	110.6127
15	71.4	4.25	6.2	5.95	71.4759	5.9461	9	2.5822	131.2714	0.99898	0	0.999	70.549	6.0303	0.0063	9	0.879	1.0519	2.5769	70.05988
16	173.6	5.69	6.01	3.27	173.674	3.2763	8	2.14151	135.5718	1.06676	0	1.0668	161.8	3.2965	0.0025	8	0.7183	0.9942	2.1467	162.1759
17	84.1	3.36	6.07	4	84.1743	3.9917	4	2.40406	129.9509	1.13174	0	1.1317	73.376	4.0461	0.0053	4	0.8286	0.9458	2.4282	74.22681
18	81.9	3.7	6.2	4.51	81.9759	4.5135	4	2.45212	130.5917	1.19704	0	1.197	67.482	4.5804	0.0055	4	0.8556	0.8998	2.4909	68.69505
19	92.5	4.8	5.82	5.18	92.5712	5.1852	9	2.46541	132.7926	1.26343	0	1.2634	72.27	5.2569	0.0046	9	0.8683	0.8573	2.5158	73.97791
20	61.5	2.66	5.9	4.32	61.5722	4.3201	4	2.52	127.479	1.32717	0	1.3272	45.394	4.4153	0.0071	4	0.9012	0.8153	2.5942	46.42146
21	60.7	2.4	5.9	3.95	60.7722	3.9492	4	2.49532	126.6944	1.39052	0	1.3905	42.705	4.0417	0.0072	4	0.9003	0.782	2.584	43.88399
22	61.9	2.46	5.74	3.97	61.9703	3.9697	4	2.49115	126.9227	1.45398	0.0156	1.4384	42.073	4.065	0.0066	4	0.9048	0.7575	2.5897	43.32101
23	67.7	2.83	5.74	4.18	67.7703	4.1759	4	2.48104	128.1662	1.51806	0.0468	1.4713	45.031	4.2716	0.0055	4	0.904	0.7423	2.5835	46.479
24	60.1	2.57	5.67	4.27	60.1694	4.2713	4	2.52316	127.1709	1.58165	0.078	1.5037	38.964	4.3866	0.0056	4	0.9261	0.7222	2.6377	39.98861
25	43.5	2.06	5.48	4.73	43.5671	4.7283	4	2.65185	124.7649	1.64403	0.1092	1.5348	27.314	4.9138	0.0068	3	0.9852	0.6932	2.7892	27.46499
26	32.9	1.25	5.36	3.81	32.9656	3.7918	4	2.67251	120.4295	1.70425	0.1404	1.5639	19.99	3.9986	0.0079	3	1	0.6766	2.8328	19.99006
27	35.9	1.26	5.36	3.49	35.9656	3.5034	4	2.6214	120.7003	1.7646	0.1716	1.593	21.47	3.6841	0.0063	4	0.9861	0.668	2.7843	21.59186
28	66.6	3.46	5.42	5.18	66.6663	5.19	4	2.55653	129.5968	1.82939	0.2028	1.6266	39.861	5.3365	0.0029	3	0.9531	0.6638	2.6933	40.67209
29	68.9	2.36	5.72	3.41	68.97	3.4218	4	2.41232	126.8801	1.89283	0.234	1.6588	40.436	3.5183	0.0027	4	0.9015	0.6667	2.5535	42.26681
30	110.8	5.76	5.96	5.2	110.873	5.1951	9	2.4183	134.5667	1.96012	0.2652	1.6949	64.259	5.2886	0.0015	4	0.8995	0.6545	2.5439	67.3731
31	178.1	10.16	6.48	5.7	178.179	5.7021	9	2.33483	137.28	2.02876	0.2964	1.7324	101.68	5.7678	0.001	9	0.8638	0.6532	2.4453	108.7432
32	204.9	9.2	7.28	4.49	204.989	4.488	9	2.21441	137.28	2.0974	0.3276	1.7698	114.64	4.5344	0.001	9	0.8194	0.6561	2.3236	125.8043
33	78.2	6.14	6.97	7.84	78.2853	7.8431	9	2.65213	134.1853	2.16449	0.3588	1.8057	42.156	8.0661	0.0019	3	1	0.586	2.8155	42.15609
34	201.4	6.61	6.76	3.28	201.483	3.2807	8	2.10484	137.0307	2.23301	0.39	1.843	108.11	3.3174	0.0005	5	0.7845	0.6471	2.2241	121.8452
35	205.7	8.44	7.57	4.1	205.793	4.1012	8	2.1805	137.28	2.30165	0.4212	1.8805	108.21	4.1476	0.0006	9	0.8168	0.6252	2.3042	120.2358
36	87.6	5.96	7.98	6.79	87.6977	6.7961	9	2.57275	134.2445	2.36877	0.4524	1.9164	44.526	6.9847	0.0014	3	0.9887	0.5559	2.7509	44.82622
37	81.8	4.7	7.29	5.74	81.8892	5.7395	9	2.53307	132.3395	2.43494	0.4836	1.9513	40.718	5.9154	0.0005	3	0.9793	0.5492	2.7218	41.23729
38	76.3	4.23	7.35	5.53	76.39	5.5374	9	2.53998	131.3991	2.50064	0.5148	1.9858	37.208	5.7248	0.0002	3	0.9878	0.537	2.7398	37.4961
39	56.3	3.38	7.27	5.99	56.389	5.9941	3	2.65144	129.0173	2.56515	0.546	2.0192	26.657	6.2798	-4E-04	3	1	0.524	2.8724	26.65674
40	44.7	1.84	6.59	4.11	44.7807	4.1089	4	2.60016	124.0055	2.62715	0.5772	2.05	20.563	4.365	-0.002	3	1	0.5162	2.8481	20.56321
41	141.5	1.76	6.88	1.25	141.584	1.2431	6	1.87961	126.4879	2.69039	0.6084	2.082	66.712	1.2672	-8E-04	5	0.7297	0.6103	2.0502	80.10687
42	25.6	0.61	6.58	2.38	25.6805	2.3753	4	2.6255	114.5709	2.74768	0.6396	2.1081	10.879	2.6599	-0.007	3	1	0.5019	2.9372	10.87857
43	717.8	0	6.87	0	717.884	0	0	0	769.6	3.13248	0.6708	2.4617	290.35	0	-3E-04	0	1	0.4298	0	0

	C-13A	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	102.4	0.42	-0.07	0.42	102.399	0.4102	6	1.70199	115.2137	0.05761	0	0.0576	1776.6	0.4104	-5E-05	6	0.4042	2	1.4473	193.4425
2	76.4	0.25	0.01	0.32	76.4001	0.3272	6	1.77108	110.7033	0.11296	0	0.113	675.36	0.3277	1E-05	6	0.4281	2	1.5033	144.1954
3	61.5	0.2	0.08	0.33	61.501	0.3252	6	1.85615	108.5415	0.16723	0	0.1672	366.76	0.3261	9E-05	6	0.462	2	1.5856	115.931
4	284.8	2.37	0.15	0.83	284.802	0.8322	6	1.54326	130.3698	0.23241	0	0.2324	1224.4	0.8328	4E-05	6	0.3882	1.8012	1.3845	484.4239
5	361.4	5.48	0.07	1.52	361.401	1.5163	6	1.68503	137.084	0.30096	0	0.301	1199.8	1.5176	1E-05	6	0.4594	1.7818	1.5601	608.0836
6	163	6.1	0.31	3.74	163.004	3.7422	8	2.20447	135.9263	0.36892	0	0.3689	440.84	3.7507	0.0001	8	0.6477	1.9787	2.0477	304.128
7	120.8	3.28	3.18	2.71	120.839	2.7144	5	2.17469	130.6565	0.43425	0	0.4343	277.27	2.7242	0.0019	8	0.6418	1.771	2.0245	201.5309
8	123.7	4	1.07	3.23	123.713	3.2333	5	2.22657	132.1659	0.50033	0	0.5003	246.26	3.2464	0.0006	8	0.6729	1.6553	2.0981	192.7567
9	100.4	3.14	3.72	3.13	100.446	3.1261	5	2.27356	129.8865	0.56527	0	0.5653	176.69	3.1438	0.0027	5	0.6984	1.5494	2.1569	146.2551
10	140.1	4.91	1.56	3.5	140.119	3.5042	8	2.22057	133.9694	0.63226	0	0.6323	220.62	3.5201	0.0008	8	0.6925	1.4284	2.1329	188.3048
11	104.1	4.27	4.78	4.1	104.159	4.0995	9	2.35371	132.2242	0.69837	0	0.6984	148.15	4.1272	0.0033	8	0.7499	1.3656	2.2753	133.5229
12	96.4	3.68	1.41	3.81	96.4173	3.8167	4	2.35103	130.9478	0.76384	0	0.7638	125.23	3.8472	0.0011	8	0.7583	1.2803	2.2884	115.7397
13	114.7	4.17	-1.04	3.64	114.687	3.636	5	2.28689	132.2857	0.82999	0	0.83	137.18	3.6625	-7E-04	8	0.7439	1.198	2.2429	128.9093
14	88.3	3.77	-0.27	4.27	88.2967	4.2697	4	2.4129	130.91	0.89544	0	0.8954	97.607	4.3134	-2E-04	9	0.8	1.1429	2.3823	94.40269
15	143.2	3	-4.35	2.1	143.147	2.0958	5	2.04156	130.4168	0.96065	0	0.9607	148.01	2.1099	-0.002	5	0.6679	1.0667	2.0274	143.3357
16	102.2	4.46	-0.06	4.36	102.199	4.364	9	2.38005	132.4964	1.0269	0	1.0269	98.522	4.4083	-4E-05	9	0.8052	1.0244	2.3797	97.94929
17	117.4	4.18	-0.76	3.57	117.391	3.5608	5	2.27348	132.36	1.09308	0	1.0931	106.39	3.5942	-5E-04	5	0.7726	0.9752	2.286	107.184
18	115.9	5.51	-3.18	4.76	115.861	4.7557	9	2.37613	134.3494	1.16025	0	1.1603	98.858	4.8038	-0.002	9	0.8201	0.9272	2.4022	100.5113
19	64.6	2.32	0.49	3.6	64.606	3.591	4	2.44706	126.5956	1.22355	0	1.2236	51.802	3.6603	0.0006	4	0.859	0.8827	2.4964	52.87414
20	71.9	2.94	0.8	4.09	71.9098	4.0885	4	2.45699	128.5898	1.28785	0	1.2879	54.837	4.163	0.0008	4	0.8704	0.8428	2.5182	56.25212
21	83.6	3.37	1.25	4.03	83.6153	4.0304	4	2.40911	129.9564	1.35282	0	1.3528	60.808	4.0966	0.0011	4	0.8589	0.8097	2.4799	62.95349
22	83.6	3.95	1.64	4.72	83.6201	4.7238	9	2.46175	131.1185	1.41838	0	1.4184	57.954	4.8053	0.0014	4	0.8871	0.7711	2.5458	59.90393
23	79.9	4.28	1.73	5.36	79.9212	5.3553	9	2.51631	131.5953	1.48418	0	1.4842	52.849	5.4566	0.0016	4	0.9166	0.7333	2.6151	54.36136
24	56.6	2.97	1.56	5.24	56.6191	5.2456	4	2.60689	128.081	1.54822	0.01872	1.5295	36.006	5.3931	0.0017	3	0.9622	0.7015	2.7292	36.51124
25	33.7	1.08	1.56	3.2	33.7191	3.2029	4	2.61634	119.415	1.60793	0.04992	1.558	20.61	3.3633	0.0019	4	0.9798	0.6845	2.7721	20.77176
26	32.9	0.77	1.72	2.34	32.9211	2.3389	4	2.53648	116.8811	1.66637	0.08112	1.5853	19.716	2.4636	0.0014	4	0.954	0.68	2.7007	20.08614
27	43.2	1.08	1.87	2.49	43.2229	2.4987	5	2.46418	120.0207	1.72638	0.11232	1.6141	25.709	2.6026	0.0005	4	0.9245	0.6768	2.6193	26.5428
28	70.9	3.07	2.31	4.33	70.9283	4.3283	4	2.47946	128.8729	1.79082	0.14352	1.6473	41.97	4.4404	0.0003	4	0.9249	0.664	2.6164	43.38904
29	77.4	2.69	2.94	3.48	77.436	3.4738	5	2.38293	128.1201	1.85488	0.17472	1.6802	44.985	3.5591	0.0005	4	0.8905	0.6625	2.5218	47.32072
30	120.3	7.7	3.25	6.4	120.34	6.3986	9	2.47078	136.8905	1.92332	0.20592	1.7174	68.951	6.5025	0.0002	9	0.9205	0.6403	2.5963	71.65636
31	133.2	7.93	-6.21	5.95	133.124	5.9569	9	2.42028	137.28	1.99196	0.23712	1.7548	74.726	6.0473	-0.005	9	0.9036	0.6331	2.5472	78.45894
32	80.2	5.26	-6.1	6.57	80.1253	6.5647	9	2.58472	133.1101	2.05852	0.26832	1.7902	43.608	6.7378	-0.009	3	0.9802	0.5973	2.7442	44.06484
33	68.7	4.1	-5.79	5.98	68.6291	5.9741	9	2.59502	130.9094	2.12397	0.29952	1.8245	36.452	6.1649	-0.011	3	0.9922	0.5824	2.7703	36.60811
34	320.5	11	-5.66	3.43	320.431	3.4329	8	2.01496	137.28	2.19261	0.33072	1.8619	170.92	3.4565	-0.002	8	0.7437	0.6569	2.1147	197.5601
35	117.8	8.13	-9.16	6.91	117.688	6.9081	9	2.50363	137.2338	2.26123	0.36192	1.8993	60.773	7.0434	-0.009	9	0.9537	0.5724	2.6608	62.44269
36	88.4	4.98	-8.93	5.65	88.2907	5.6405	9	2.50685	132.9465	2.3277	0.39312	1.9346	44.435	5.7932	-0.012	3	0.9653	0.5585	2.6869	45.37556
37	71.2	3.57	-9.08	5.03	71.0889	5.0219	4	2.52751	129.9824	2.39269	0.42432	1.9684	34.9	5.1968	-0.016	3	0.9825	0.5434	2.7282	35.28039
38	63.3	3.52	-9.39	5.57	63.1851	5.5709	4	2.59504	129.5918	2.45749	0.45552	2.002	30.334	5.7964	-0.019	3	1	0.5285	2.8081	30.33393
39	81.5	3.57	-9.59	4.39	81.3826	4.3867	4	2.44471	130.3123	2.52265	0.48672	2.0359	38.734	4.527	-0.015	4	0.9554	0.5351	2.6482	39.88172
40	19.4	1.96	-9.24	10.2	19.2869	10.162	3	3.13694	122.4133	2.58385	0.51792	2.0659	8.085	11.734	-0.071	3	1	0.5122	3.4362	8.085
41	76.4	1.57	-9.47	2.06	76.2841	2.0581	5	2.22494	124.1436	2.64592	0.54912	2.0968	35.119	2.1321	-0.017	5	0.8806	0.5476	2.4428	38.10702
42	25.7	1.11	-9.24	4.33	25.5869	4.3382	3	2.79341	118.9424	2.70539	0.58032	2.1251	10.767	4.8511	-0.054	3	1	0.4979	3.0944	10.76739
43	318.2	3.28	-7.9	1.03	318.103	1.0311	6	1.58273	133.0172	2.7719	0.61152	2.1604	145.96	1.0402	-0.004	6	0.6045	0.6495	1.7118	193.5731
44	126.2	4.52	-10.04	3.59	126.077	3.5851	8	2.2565	133.1063	2.83846	0.64272	2.1957	56.126	3.6677	-0.011	4	0.8898	0.5223	2.4548	60.83021
45	36.6	1.3	-9.25	3.56	36.4868	3.5629	4	2.62173	120.964	2.89894	0.67392	2.225	15.096	3.8705	-0.04	3	1	0.4756	2.9185	15.09553
46	39.4	1.12	-9.08	2.86	39.2889	2.8507	4	2.53307	120.054	2.95897	0.70512	2.2539	16.119	3.0829	-0.037	3	1	0.4695	2.8355	16.11907
47	51.3	2.01	-8.55	3.92	51.1954	3.9261	4	2.54515	124.9786	3.02145	0.73632	2.2851	21.081	4.1724	-0.028	3	1	0.463	2.8272	21.08142
48	39	1.11	-8.21	2.86	38.8995	2.8535	4	2.5366	119.9641	3.08144	0.76752	2.3139	15.479	3.099	-0.038	3	1	0.4573	2.8509	15.47941
49	42.7	0.93	-7.78	2.19	42.6048	2.1829	5	2.43085	118.8914	3.14088	0.79872	2.3422	16.849	2.3566	-0.034	4	1	0.4518	2.7511	16.84934
50	80	3.55	-7.57	4.44	79.9073	4.4427	4	2.45405	130.2265	3.206	0.82992	2.3761	32.281	4.6283	-0.018	4	0.9988	0.4458	2.7201	32.3133
51	31.9	1.01	-8.85	3.16	31.7917	3.1769	4	2.63329	118.7812	3.26539	0.86112	2.4043	11.865	3.5406	-0.053	3	1	0.4401	2.9781	11.86486
52	30.7	0.89	-8.85	2.92	30.5917	2.9093	4	2.62124	117.7618	3.32427	0.89232	2.432	11.212	3.264	-0.056	3	1	0.4351	2.9772	11.21217
53	28.6	0.67	-8.45	2.34	28.4966	2.3512	4	2.58703	115.5112	3.38202	0.92352	2.4585	10.215	2.6678	-0.061	3	1	0.4304	2.9606	10.21538
54	28.4	0.65	-8.39	2.31	28.2973	2.297	4	2.58323	115.2723	3.43966	0.95472	2.4849	10.003	2.6149	-0.063	3	1	0.4258	2.9634	10.00332
55	29	0.74	-8.32	2.57	28.8982	2.5607	4	2.60525	116.2724	3.4978	0.98592	2.5119	10.112	2.9133	-0.062	3	1	0.4212	2.9857	10.11211
56	34.6	1.06	-8.03	3.08	34.5017	3.0723	4	2.59693	119.3342	3.55746	1.01712	2.5403	12.181	3.4255	-0.052	3	1	0.4165	2.9604	12.18113
57	37.3	1.4	-6.86	3.76	37.216	3.7618	4	2.63144	121.5545	3.61824	1.04832	2.5699	13.073	4.1669	-0.046	3	1	0.4117	2.9874	13.07348
58	32.7	1.07	-6.67	3.28	32.6184	3.2804	4	2.63402	119.266	3.67787	1.07952	2.5984	11.138	3.6972	-0.054	3	1	0.4072	3.0114	11.13801
59	36.9	1.06	-6.33	2.88	36.8225	2.8787	4	2.55704	119.493	3.73762	1.11072	2.6269	12.595	3.2039	-0.047	3	1	0.4028	2.9316	12.59466
60	79.3	2.42	-7.1	3.05	79.2131	3.0551	5	2.33526	127.4015	3.80132	1.14192	2.6594	28.357	3.2091	-0.022	4	0.9858	0.4031	2.6509	28.72956
61	45	0.71	-6.66	1.57	44.9185	1.5806	5	2.32518	117.0454	3.85984	1.17312	2.6867	15.282	1.7292	-0.04	4	1	0.3938	2.7111	15.28205
62	56.8	1.29	-6.13	2.27	56.725	2.2741	5	2.34874	121.9838	3.92083	1.20432	2.7165	19.438	2.443	-0.031	4	1	0.3895	2.7099	19.43819
63	44.8	0.8	-6.33	1.79	44.7225	1.7888	5	2.35983	117.908	3.97979	1.23552	2.7443	14.846	1.9635	-0.042	4	1	0.3856	2.7517	14.84648
64	40.8	0.74	-6.25	1.81	40.7235	1.8171	5	2.39596	117.1091	4.03834	1.26672	2.7716	13.236	2.0172	-0.047	4	1	0.3818	2.7998	13.23598
65	47.1	0.84	-5.98	1.79	47.0268	1.7862	5	2.34242	118.3875	4.09754	1.29792	2.7996	15.334	1.9567	-0.04	4	1	0.378	2.7392	15.33398
66	48.4	0.77	-5.87	1.59	48.3282	1.5933	5	2.30222	117.8174	4.15645	1.32912	2.8273	15.623	1.7432	-0.04	4	1	0.3742	2.705	15.62314
67	44.4	0.88	-5.79	2	44.3291	1.9852	5	2.39128	118.5838	4.21574	1.36032	2.8554	14.048	2.1938	-0.044	4	1	0.3706	2.7984	14.04817
68	54.7	1.19	-5.48	2.18	54.6329	2.1782	5	2.3484	121.3017	4.27639	1.39152	2.8849	17.455	2.3632	-0.035	4	1	0.3668	2.7393	17.4554
69	64	1.66	-5.25	2.6	63.9357	2.5964	5	2.35014	124.1208	4.33845	1.42272	2.9157	20.44	2.7854	-0.03	4	1	0.3629	2.7268	20.43993
70	157.8	8.29	-6.66	5.25	157.718	5.2562	9	2.33399	137.28	4.40709	1.45392	2.9532	51.914	5.4073	-0.013	4	0.9887	0.3625	2.6221	52.51942
71	359.5	11.69	-9.78	3.25	359.38	3.2528	8	1.97038	137.28	4.47573	1.48512	2.9906	118.67	3.2938	-0.006	8	0.8218	0.4258	2.1793	142.8068
72	232.4	6.66	-7.76	2.87	232.305	2.8669	8	2.02168	137.28	4.54437	1.51632	3.0281	75.217	2.9241	-0.009	5	0.8607	0.4045	2.2768	87.07723
73	220.4	7.99	-10.69	3.63	220.269	3.6274	8	2.11969	137.28	4.61301	1.54752	3.0655	70.35	3.705	-0.011	4	0.9051	0.3819	2.3859	77.82585
74	324.1	8.61	-11.09	2.66	323.964	2.6577	8	1.91643	137.28	4.68165	1.57872	3.1029	102.9	2.6967	-0.007	5	0.8144	0.4164	2.1458	125.6341
75	374.2	7.94	-11.69	2.12	374.057	2.1227	8	1.80061	137.28	4.75029	1.60992	3.1404	117.6	2.15	-0.007	5	0.7677	0.4338	2.0184	151.409
76	338.8	6.34	-11.69	1.87	338.657	1.8721	6	1.77703	137.28	4.81893	1.64112	3.1778	105.05	1.8991	-0.007	5	0.7656	0.4309	2.0081	135.9415
77	328.9	9.75	-12.07	2.97	328.752	2.9658	8	1.95426	137.28	4.88757	1.67232	3.2153	100.73	3.0105	-0.008	5	0.8381	0.394	2.1941	120.5858
78	274.1	8.64	-11.76	3.15	273.956	3.1538	8	2.01775	137.28	4.95621	1.70352	3.2527	82.701	3.2119	-0.009	5	0.873	0.3752	2.2811	95.37727
79	301.1	7.51	-11.92	2.5	300.954	2.4954	8	1.90983	137.28	5.02485	1.73472	3.2901	89.945	2.5378	-0.009	5	0.831	0.3896	2.166	108.9506
80	301.6	0	-12.07	0	301.452	0	0	0	769.6	5.40965	1.76592	3.6437	81.247	0	-0.009	0	1	0.2904	0	0

	C-14	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	102.7	1.1	-0.07	1.07	102.699	1.0711	6	1.93939	122.2657	0.06113	0	0.0611	1678.9	1.0717	-5E-05	6	0.5084	2	1.7206	194.0029
2	67.1	1.07	0.23	1.6	67.1028	1.5946	5	2.19213	121.0254	0.12165	0	0.1217	550.63	1.5975	0.0003	6	0.6078	2	1.9739	126.6055
3	59.5	0.89	1.1	1.5	59.5135	1.4955	5	2.21439	119.3849	0.18134	0	0.1813	327.19	1.5	0.0013	6	0.6173	2	1.9915	112.1476
4	366.3	8.32	2.9	2.27	366.336	2.2711	8	1.83048	137.28	0.24998	0	0.25	1464.5	2.2727	0.0006	8	0.5087	2	1.6977	691.9625
5	233.4	8.8	4.21	3.77	233.452	3.7695	8	2.12021	137.28	0.31862	0	0.3186	731.7	3.7747	0.0013	8	0.6185	2	1.9776	440.66
6	89.6	4.69	35.83	5.21	90.0386	5.2089	9	2.47445	132.5554	0.3849	0	0.3849	232.93	5.2312	0.0288	9	0.7452	2	2.3018	169.4603
7	100.3	4.89	20.74	4.86	100.554	4.8631	9	2.42131	133.1303	0.45146	0	0.4515	221.73	4.885	0.0149	9	0.7354	1.8708	2.2665	176.9847
8	85.5	4.37	7.46	5.1	85.5913	5.1057	9	2.48144	131.9147	0.51742	0	0.5174	164.42	5.1367	0.0063	9	0.7669	1.7308	2.3425	139.1622
9	83.3	4.64	19.34	5.55	83.5367	5.5544	9	2.51655	132.2941	0.58357	0	0.5836	142.15	5.5935	0.0168	9	0.7913	1.6014	2.3983	125.5471
10	120.3	7.17	26.85	5.94	120.629	5.9439	9	2.44399	136.3746	0.65175	0	0.6518	184.08	5.9762	0.0161	9	0.779	1.4586	2.3563	165.3845
11	110.9	6.49	39.88	5.82	111.388	5.8265	9	2.45716	135.4511	0.71948	0	0.7195	153.82	5.8644	0.026	9	0.793	1.3578	2.3852	142.0159
12	95.1	4.93	36.3	5.16	95.5443	5.1599	9	2.45526	133.0653	0.78601	0	0.786	120.56	5.2027	0.0276	9	0.8009	1.2688	2.3979	113.6281
13	94.9	4.35	45.06	4.55	95.4515	4.5573	9	2.4133	132.1471	0.85208	0	0.8521	111.02	4.5983	0.0343	9	0.7943	1.1877	2.3726	106.1848
14	79.5	4.1	38.64	5.12	79.973	5.1267	9	2.50149	131.2825	0.91773	0	0.9177	86.143	5.1863	0.0352	9	0.8367	1.1265	2.4759	84.16379
15	65.5	3.57	32.02	5.41	65.8919	5.418	4	2.57399	129.7973	0.98262	0	0.9826	66.057	5.5	0.0355	4	0.8737	1.0668	2.565	65.44252
16	80.2	3.71	42.1	4.6	80.7153	4.5964	4	2.4625	130.5736	1.04791	0	1.0479	76.025	4.6569	0.0381	4	0.8399	1.0082	2.4682	75.9072
17	83.8	3.82	3.77	4.56	83.8461	4.556	4	2.44893	130.8802	1.11335	0	1.1134	74.31	4.6173	0.0033	4	0.8434	0.958	2.4691	74.90451
18	60.6	2.42	3.28	3.98	60.6402	3.9908	4	2.49928	126.7499	1.17673	0	1.1767	50.533	4.0697	0.004	4	0.873	0.9114	2.5391	51.2194
19	62.2	2.46	4.44	3.95	62.2544	3.9515	4	2.48835	126.9339	1.24019	0	1.2402	49.197	4.0319	0.0052	4	0.8773	0.87	2.5424	50.16513
20	60.9	2.13	4.61	3.49	60.9564	3.4943	4	2.45599	125.8286	1.30311	0	1.3031	45.778	3.5706	0.0056	4	0.8736	0.8336	2.5249	46.99848
21	76.2	3.51	6.23	4.6	76.2763	4.6017	4	2.47879	130.0302	1.36812	0	1.3681	54.753	4.6857	0.006	4	0.8884	0.7959	2.5555	56.34568
22	63.5	3.06	7.56	4.82	63.5925	4.8119	4	2.54533	128.5827	1.43241	0	1.4324	43.395	4.9228	0.0088	4	0.9243	0.7558	2.6417	44.40251
23	66.2	3	7.13	4.52	66.2873	4.5258	4	2.51346	128.5391	1.49668	0	1.4967	43.289	4.6303	0.0079	4	0.9197	0.7269	2.6217	44.51137
24	52.4	2.43	6.12	4.64	52.4749	4.6308	4	2.58937	126.4273	1.5599	0	1.5599	32.64	4.7727	0.0087	4	0.9607	0.6888	2.7215	33.14214
25	37.6	1.1	4.77	2.93	37.6584	2.921	4	2.55388	119.8188	1.61981	0.0312	1.5886	22.686	3.0523	0.0087	4	0.9577	0.6776	2.71	23.07898
26	27.9	0.71	5.06	2.55	27.9619	2.5392	4	2.61415	115.8893	1.67775	0.0624	1.6154	16.272	2.7012	0.0115	4	0.9924	0.6572	2.7969	16.32411
27	48	1.64	7.01	3.42	48.0858	3.4106	4	2.52143	123.3373	1.73942	0.0936	1.6458	28.16	3.5386	0.0089	4	0.9482	0.6578	2.6778	28.81243
28	80.2	3.03	15.01	3.77	80.3837	3.7694	4	2.39847	129.0821	1.80396	0.1248	1.6792	46.797	3.856	0.0122	4	0.8955	0.6613	2.535	49.11141
29	79.3	3.06	15.44	3.85	79.489	3.8496	4	2.40854	129.1269	1.86852	0.156	1.7125	45.325	3.9423	0.0123	4	0.9036	0.6472	2.5522	47.47883
30	141.3	7.33	24.15	5.17	141.596	5.1767	9	2.35489	136.9269	1.93699	0.1872	1.7498	79.815	5.2485	0.0111	9	0.877	0.6433	2.4776	84.91006
31	140.8	9.62	4.19	6.83	140.851	6.8299	9	2.45595	137.28	2.00563	0.2184	1.7872	77.688	6.9286	0.0006	9	0.9197	0.6175	2.5854	81.02807
32	71.5	4.08	7.11	5.7	71.587	5.6994	9	2.56758	130.9765	2.07112	0.2496	1.8215	38.164	5.8692	0.0038	3	0.9797	0.5873	2.739	38.58661
33	89.4	5.85	6.94	6.53	89.485	6.5374	9	2.55403	134.1574	2.13819	0.2808	1.8574	47.027	6.6974	0.0025	3	0.9739	0.5781	2.7193	47.72213
34	241.8	9.3	30.29	3.84	242.171	3.8403	8	2.11866	137.28	2.20683	0.312	1.8948	126.64	3.8756	0.0078	8	0.7914	0.6306	2.2357	143.0096
35	185.3	10.45	-9.8	5.64	185.18	5.6432	9	2.32213	137.28	2.27547	0.3432	1.9323	94.658	5.7134	-0.006	9	0.8785	0.5892	2.4588	101.8421
36	66.1	3.34	-9.96	5.07	65.9781	5.0623	4	2.55131	129.3132	2.34013	0.3744	1.9657	32.374	5.2484	-0.017	3	0.9936	0.5404	2.7564	32.5033
37	86.9	4.69	-10.34	5.4	86.7734	5.4049	9	2.49699	132.4653	2.40636	0.4056	2.0008	42.167	5.559	-0.014	3	0.9695	0.5393	2.6897	42.99616
38	31.7	1.82	-10.34	5.78	31.5734	5.7643	3	2.81145	123.0732	2.4679	0.4368	2.0311	14.33	6.2531	-0.041	3	1	0.521	3.0689	14.32994
39	39.1	0.76	-10.42	1.96	38.9725	1.9501	5	2.42994	117.197	2.5265	0.468	2.0585	17.705	2.0853	-0.033	4	0.975	0.5226	2.697	18.00192
40	29.9	1.37	-10.41	4.63	29.7726	4.6016	3	2.76199	120.8518	2.58692	0.4992	2.0877	13.022	5.0394	-0.046	3	1	0.5068	3.0403	13.02167
41	85.5	1.76	-10.37	2.06	85.3731	2.0615	5	2.19029	125.2541	2.64955	0.5304	2.1192	39.036	2.1276	-0.015	5	0.8658	0.5481	2.403	42.85071
42	192.4	2.16	-10.11	1.12	192.276	1.1234	6	1.75494	128.7328	2.71392	0.5616	2.1523	88.074	1.1395	-0.007	6	0.6814	0.6164	1.9147	110.4318
43	356.3	4.56	-9.66	1.28	356.182	1.2803	6	1.62809	135.7038	2.78177	0.5928	2.189	161.45	1.2903	-0.004	6	0.6219	0.6363	1.7539	212.5249
44	53.2	1.82	-2.24	3.41	53.1726	3.4228	4	2.49132	124.3445	2.84394	0.624	2.2199	22.671	3.6162	-0.016	4	1	0.4766	2.7629	22.67115
45	41.5	1.69	-5.8	4.07	41.429	4.0793	4	2.62202	123.1936	2.90554	0.6552	2.2503	17.119	4.3869	-0.028	3	1	0.4702	2.9103	17.11896
46	31.7	0.9	-4.98	2.86	31.639	2.8446	4	2.60377	117.9257	2.9645	0.6864	2.2781	12.587	3.1387	-0.036	3	1	0.4645	2.9265	12.58703
47	39.7	1.46	-3.83	3.68	39.6531	3.6819	4	2.60496	122.0163	3.02551	0.7176	2.3079	15.87	3.9861	-0.027	3	1	0.4585	2.9094	15.87047
48	37.4	0.77	-3.06	2.07	37.3626	2.0609	5	2.45922	117.1898	3.0841	0.7488	2.3353	14.678	2.2463	-0.028	4	1	0.4531	2.7883	14.67836
49	69.6	2.6	-2.73	3.73	69.5666	3.7374	4	2.4378	127.6098	3.14791	0.78	2.3679	28.05	3.9146	-0.015	4	0.9966	0.4481	2.7147	28.12765
50	58.5	2.5	-3.01	4.28	58.4632	4.2762	4	2.53203	126.8987	3.21136	0.8112	2.4002	23.02	4.5247	-0.019	3	1	0.4409	2.8215	23.02006
51	51.5	2.47	-1.34	4.79	51.4836	4.7976	4	2.60624	126.5003	3.27461	0.8424	2.4322	19.821	5.1235	-0.019	3	1	0.435	2.906	19.82107
52	36.6	0.8	-0.74	2.19	36.5909	2.1863	5	2.48235	117.4185	3.33332	0.8736	2.4597	13.521	2.4055	-0.028	4	1	0.4302	2.8346	13.52091
53	35.8	0.73	1.29	2.04	35.8158	2.0382	5	2.47062	116.6963	3.39167	0.9048	2.4869	13.038	2.2514	-0.025	4	1	0.4255	2.8315	13.03814
54	32	1.26	1.51	3.95	32.0185	3.9352	4	2.69272	120.4167	3.45187	0.936	2.5159	11.355	4.4107	-0.029	3	1	0.4206	3.0509	11.35454
55	30.3	0.7	2.1	2.3	30.3257	2.3083	4	2.56083	115.9834	3.50987	0.9672	2.5427	10.546	2.6104	-0.03	3	1	0.4161	2.9438	10.54634
56	38.9	1.17	4.58	3	38.9561	3.0034	4	2.55087	120.3528	3.57004	0.9984	2.5716	13.76	3.3064	-0.019	3	1	0.4115	2.9087	13.76008
57	48.3	1.85	7.13	3.82	48.3873	3.8233	4	2.55424	124.2341	3.63216	1.0296	2.6026	17.197	4.1336	-0.012	3	1	0.4066	2.8923	17.19657
58	37.4	0.97	8.96	2.59	37.5097	2.586	4	2.52059	118.8889	3.6916	1.0608	2.6308	12.855	2.8683	-0.012	3	1	0.4022	2.8963	12.85465
59	62.7	2.11	14.49	3.35	62.8774	3.3557	4	2.43399	125.8352	3.75452	1.092	2.6625	22.206	3.5688	-8E-04	4	1	0.3974	2.7661	22.20557
60	39.9	1.03	15.99	2.56	40.0957	2.5689	4	2.49671	119.4906	3.81427	1.1232	2.6911	13.482	2.8389	0.0008	3	1	0.3932	2.8768	13.48218
61	36.9	1.03	9.26	2.78	37.0133	2.7828	4	2.54571	119.2955	3.87392	1.1544	2.7195	12.186	3.1081	-0.015	3	1	0.3891	2.9354	12.18578
62	35.7	0.83	12.27	2.32	35.8502	2.3152	4	2.50493	117.638	3.93273	1.1856	2.7471	11.618	2.6005	-0.009	3	1	0.3852	2.908	11.61845
63	38.7	1.18	13.31	3.05	38.8629	3.0363	4	2.5548	120.4093	3.99294	1.2168	2.7761	12.561	3.384	-0.007	3	1	0.3811	2.9465	12.5606
64	33.6	0.85	14.78	2.51	33.7809	2.5162	4	2.54783	117.6672	4.05177	1.248	2.8038	10.603	2.8592	-0.006	3	1	0.3774	2.9641	10.60326
65	36.6	0.89	25.89	2.4	36.9169	2.4108	4	2.50628	118.2202	4.11088	1.2792	2.8317	11.585	2.7129	0.0178	3	1	0.3737	2.9194	11.58534
66	42.2	1.04	29.52	2.44	42.5613	2.4435	5	2.4629	119.7069	4.17074	1.3104	2.8603	13.422	2.709	0.0212	3	1	0.3699	2.8666	13.42171
67	36.8	0.89	30.8	2.39	37.177	2.394	4	2.50199	118.2373	4.22985	1.3416	2.8883	11.407	2.7013	0.0266	3	1	0.3664	2.9239	11.40728
68	47.1	1.59	43.7	3.34	47.6349	3.3379	4	2.51789	123.0877	4.2914	1.3728	2.9186	14.851	3.6684	0.0409	3	1	0.3625	2.9097	14.85079
69	70.2	2.23	72.12	3.13	71.0828	3.1372	5	2.37596	126.5391	4.35467	1.404	2.9507	22.615	3.3419	0.0568	4	1	0.3586	2.7418	22.61457
70	111.8	6.15	41.71	5.47	112.311	5.4759	9	2.43331	135.0775	4.42221	1.4352	2.987	36.119	5.7003	0.0145	3	1	0.3542	2.7497	36.11921
71	210.4	6.93	19.63	3.29	210.64	3.29	8	2.09501	137.28	4.49085	1.4664	3.0245	68.161	3.3616	-3E-04	5	0.8923	0.3918	2.3601	76.32643
72	221.4	7.3	2.23	3.3	221.427	3.2968	8	2.08371	137.28	4.55949	1.4976	3.0619	70.828	3.3661	-0.006	5	0.8895	0.3886	2.3481	79.6545
73	243.6	6.77	3.64	2.78	243.645	2.7786	8	1.99887	137.28	4.62813	1.5288	3.0993	77.119	2.8324	-0.005	5	0.8566	0.3983	2.257	89.96893
74	290.7	8.95	5.37	3.08	290.766	3.0781	8	1.99528	137.28	4.69677	1.56	3.1368	91.199	3.1286	-0.004	5	0.8518	0.3963	2.2397	107.1411
75	375.1	8.81	8.71	2.35	375.207	2.348	8	1.83772	137.28	4.76541	1.5912	3.1742	116.7	2.3783	-0.003	5	0.7847	0.4223	2.0588	147.8475
76	318.4	10.29	6.48	3.23	318.479	3.231	8	1.99338	137.28	4.83405	1.6224	3.2117	97.659	3.2808	-0.004	5	0.854	0.3874	2.2364	114.8408
77	263.1	9.71	7.28	3.69	263.189	3.6894	8	2.085	137.28	4.90269	1.6536	3.2491	79.495	3.7594	-0.004	4	0.9001	0.3643	2.3528	88.92111
78	247.5	9.47	7.01	3.82	247.586	3.8249	8	2.11216	137.28	4.97133	1.6848	3.2865	73.821	3.9033	-0.005	4	0.9175	0.3535	2.3914	81.0535
79	298.5	10.67	8.73	3.57	298.607	3.5733	8	2.04524	137.28	5.03997	1.716	3.324	88.318	3.6346	-0.004	5	0.8863	0.3626	2.3073	100.5933
80	260.9	8.12	8.39	3.11	261.003	3.1111	8	2.02383	137.28	5.10861	1.7472	3.3614	76.127	3.1732	-0.004	5	0.887	0.3587	2.3043	86.75109
81	251.6	8.77	7.7	3.49	251.694	3.4844	8	2.07393	137.28	5.17725	1.7784	3.3989	72.53	3.5576	-0.005	5	0.9111	0.3453	2.3632	80.455
82	209.9	7.1	7.1	3.38	209.987	3.3812	8	2.10561	137.28	5.24589	1.8096	3.4363	59.582	3.4678	-0.006	4	0.9357	0.3322	2.4208	64.26974
83	266.3	9.74	8.36	3.66	266.402	3.6561	8	2.07892	137.28	5.31453	1.8408	3.4737	75.161	3.7306	-0.005	4	0.9185	0.3356	2.3704	82.80802
84	288.5	10.09	10.05	3.5	288.623	3.4959	8	2.04443	137.28	5.38317	1.872	3.5112	80.668	3.5624	-0.004	5	0.9038	0.3382	2.33	90.53242
85	256.5	9.31	11.93	3.63	256.646	3.6276	8	2.08439	137.28	5.45181	1.9032	3.5486	70.787	3.7063	-0.004	4	0.9288	0.325	2.3885	77.15309
86	505.6	7.79	-5.78	1.54	505.529	1.541	6	1.61469	137.28	5.52045	1.9344	3.5861	139.43	1.558	-0.005	6	0.7207	0.4149	1.839	196.0785

87	253.9	7.24	-9.19	2.85	253.788	2.8528	8	1.99869	137.28	5.58909	1.9656	3.6235	68.497	2.917	-0.011	5	0.902	0.3295	2.3112	77.27755
88	321.2	9.56	-8.74	2.98	321.093	2.9773	8	1.96087	137.28	5.65773	1.9968	3.6609	86.163	3.0307	-0.008	5	0.88	0.3355	2.2486	100.007
89	353	8.84	-8.43	2.51	352.897	2.505	8	1.8754	137.28	5.72637	2.028	3.6984	93.871	2.5463	-0.008	5	0.846	0.3469	2.1546	113.8211
90	313.6	0	-8.58	0	313.495	0	0	0	769.6	6.11117	2.0592	4.052	75.86	0	-0.009	0	1	0.2611	0	0

	C-15	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	39.8	0.77	0.38	1.94	39.8047	1.9345	5	2.42058	117.3442	0.05867	0	0.0587	677.43	1.9373	0.0007	5	0.6886	2	2.1939	75.12651
2	38.6	0.83	0.46	2.14	38.6056	2.15	5	2.45968	117.8186	0.11758	0	0.1176	327.33	2.1565	0.0009	5	0.7075	2	2.2362	72.74881
3	246.7	4.69	1.2	1.9	246.715	1.901	6	1.86067	135.0138	0.18509	0	0.1851	1332	1.9024	0.0004	8	0.5065	2	1.7002	465.9819
4	285.9	8.01	2.61	2.8	285.932	2.8014	8	1.96421	137.28	0.25373	0	0.2537	1125.9	2.8039	0.0007	8	0.5568	2	1.8236	539.9793
5	83.1	3.97	3.54	4.77	83.1433	4.7749	9	2.46693	131.1415	0.3193	0	0.3193	259.39	4.7933	0.0031	9	0.7372	2	2.2889	156.5512
6	94.3	4.53	3.91	4.8	94.3479	4.8014	9	2.43413	132.4154	0.38551	0	0.3855	243.74	4.8211	0.003	9	0.7296	2	2.2609	177.6045
7	119.3	5.45	3.83	4.56	119.347	4.5665	9	2.35431	134.3415	0.45268	0	0.4527	262.65	4.5839	0.0023	9	0.7133	1.8324	2.2082	205.901
8	88.7	5	3.91	5.63	88.7479	5.6339	9	2.50507	132.9885	0.51917	0	0.5192	169.94	5.6671	0.0032	9	0.7767	1.7384	2.3679	144.9556
9	122.6	6.43	4.01	5.24	122.649	5.2426	9	2.39547	135.618	0.58698	0	0.587	207.95	5.2678	0.0024	9	0.7505	1.5562	2.2909	179.5224
10	86.8	4.96	3.82	5.72	86.8468	5.7112	9	2.51553	132.8769	0.65342	0	0.6534	131.91	5.7545	0.0032	9	0.8032	1.4728	2.4197	119.9744
11	74.5	4.66	3.75	6.25	74.5459	6.2512	9	2.58753	132.0479	0.71944	0	0.7194	102.62	6.3121	0.0037	9	0.8396	1.3825	2.5076	96.46074
12	108.9	5.59	3.85	5.13	108.947	5.1309	9	2.41856	134.3048	0.7866	0	0.7866	137.5	5.1682	0.0026	9	0.7877	1.2631	2.3632	129.1162
13	88.6	4.72	3.75	5.33	88.6459	5.3246	9	2.48613	132.564	0.85288	0	0.8529	102.94	5.3763	0.0031	9	0.8219	1.1939	2.4449	99.05892
14	96.9	4.67	3.84	4.82	96.947	4.8171	9	2.42789	132.7044	0.91923	0	0.9192	104.47	4.8632	0.0029	9	0.8091	1.1206	2.4033	101.6973
15	120.4	3.89	3.89	3.23	120.448	3.2296	5	2.23352	131.8966	0.98518	0	0.9852	121.26	3.2563	0.0023	5	0.7439	1.0546	2.224	119.0622
16	145.9	7.19	4.1	4.92	145.95	4.9263	9	2.3297	136.8597	1.05361	0	1.0536	137.52	4.9622	0.002	9	0.7888	1.0034	2.3333	137.4004
17	88.8	4.3	4.5	4.84	88.8551	4.8393	9	2.45313	131.8878	1.11955	0	1.1196	78.367	4.9011	0.0037	9	0.8455	0.9534	2.474	79.05307
18	53.4	1.91	4.52	3.57	53.4553	3.5731	4	2.50287	124.7106	1.18191	0	1.1819	44.228	3.6539	0.0062	4	0.8761	0.9076	2.5465	44.83862
19	80.5	3.3	4.29	4.1	80.5525	4.0967	4	2.42508	129.7118	1.24676	0	1.2468	63.609	4.1611	0.0039	4	0.8519	0.8696	2.4748	65.17416
20	76.6	3.37	4.36	4.4	76.6534	4.3964	4	2.46236	129.7444	1.31164	0	1.3116	57.441	4.473	0.0042	4	0.8749	0.8287	2.5271	59.00593
21	72.6	3.47	4.36	4.78	72.6534	4.7761	4	2.50481	129.8276	1.37655	0	1.3766	51.779	4.8683	0.0044	4	0.8999	0.7892	2.5848	53.16069
22	70.4	3.27	4.37	4.65	70.4535	4.6414	4	2.50416	129.3183	1.44121	0	1.4412	47.885	4.7383	0.0046	4	0.9083	0.7553	2.5986	49.26143
23	72.5	3.35	4.44	4.62	72.5544	4.6172	4	2.49408	129.5668	1.50599	0	1.506	47.177	4.7151	0.0045	4	0.9122	0.7247	2.6007	48.66257
24	31.2	1.32	4.36	4.21	31.2534	4.2236	4	2.72122	120.6981	1.56634	0	1.5663	18.953	4.4464	0.0106	3	1	0.6755	2.8802	18.95311
25	32.5	1.36	4.14	4.19	32.5507	4.1781	4	2.70507	121.0158	1.62685	0.01872	1.6081	19.23	4.3979	0.009	3	1	0.658	2.8724	19.2297
26	57.6	1.62	4.36	2.8	57.6534	2.8099	5	2.4063	123.6901	1.68869	0.04992	1.6388	34.15	2.8947	0.0047	4	0.8994	0.6747	2.5504	35.6864
27	72.3	3.01	4.59	4.16	72.3562	4.16	4	2.46082	128.7771	1.75308	0.08112	1.672	42.228	4.2633	0.0035	4	0.9202	0.6564	2.601	43.79794
28	88.3	4.41	4.9	4.99	88.36	4.991	9	2.46507	132.059	1.81911	0.11232	1.7068	50.704	5.0959	0.0028	4	0.9224	0.6434	2.6024	52.62079
29	96.2	5.43	5.05	5.64	96.2618	5.6409	9	2.48386	133.7903	1.88601	0.14352	1.7425	54.162	5.7536	0.0023	4	0.9322	0.6281	2.6238	56.02518
30	140.3	10.45	5.37	7.45	140.366	7.4448	9	2.48817	137.28	1.95465	0.17472	1.7799	77.762	7.55	0.0015	9	0.9312	0.6161	2.6166	80.59509
31	74.6	4.08	5.77	5.47	74.6706	5.464	9	2.54179	131.0794	2.02019	0.20592	1.8143	40.044	5.6159	0.0029	3	0.9679	0.5934	2.7089	40.74245
32	147.4	9.26	6.15	6.28	147.475	6.279	9	2.41447	137.28	2.08883	0.23712	1.8517	78.515	6.3692	0.0014	9	0.9098	0.601	2.5513	82.57897
33	222.7	11.84	6.85	5.32	222.784	5.3146	9	2.25824	137.28	2.15747	0.26832	1.8892	116.79	5.3665	0.001	9	0.8463	0.6123	2.3794	127.6709
34	68.3	3.95	6.89	5.78	68.3843	5.7762	4	2.58478	130.6279	2.22278	0.29952	1.9233	34.401	5.9702	0.003	3	0.9996	0.5503	2.7788	34.40827
35	80.8	4.16	6.28	5.15	80.8769	5.1436	9	2.49949	131.4162	2.28849	0.33072	1.9578	40.142	5.2934	0.0016	3	0.967	0.5515	2.6886	40.96436
36	67.3	2.93	5.91	4.35	67.3723	4.349	4	2.49586	128.4059	2.35269	0.36192	1.9908	32.661	4.5063	0.001	4	0.9743	0.5402	2.7036	33.19574
37	53	1.98	5.36	3.72	53.0656	3.7312	4	2.51846	124.9561	2.41517	0.39312	2.0221	25.049	3.9092	-1E-04	4	0.9941	0.5253	2.7508	25.14552
38	26.3	1.28	5.44	4.85	26.3666	4.8546	3	2.81651	120.0583	2.4752	0.42432	2.0509	11.649	5.3576	-0.001	3	1	0.5159	3.0946	11.64934
39	86.8	2.78	5.3	3.2	86.8649	3.2004	5	2.32303	128.6412	2.53952	0.45552	2.084	40.463	3.2968	-9E-04	4	0.9126	0.5387	2.5291	42.93275
40	92.7	2.73	5.2	2.94	92.7637	2.943	5	2.27688	128.6686	2.60385	0.48672	2.1171	42.586	3.028	-0.001	4	0.897	0.5368	2.4837	45.73884
41	321.2	5.22	5.88	1.63	321.272	1.6248	6	1.73858	136.4413	2.67207	0.51792	2.1542	147.9	1.6384	-3E-04	6	0.6635	0.6239	1.8677	187.8685
42	180.4	5.1	3.43	2.83	180.442	2.8264	5	2.07994	134.8641	2.73951	0.54912	2.1904	81.128	2.87	-0.002	5	0.8114	0.5541	2.2514	93.06172
43	32.7	1.61	-9.33	4.93	32.5858	4.9408	3	2.75481	122.2531	2.80063	0.58032	2.2203	13.415	5.4054	-0.042	3	1	0.4766	3.0497	13.41485
44	35	1.03	-9.27	2.96	34.8865	2.9524	4	2.58196	119.1512	2.86021	0.61152	2.2487	14.242	3.2161	-0.04	3	1	0.4705	2.8896	14.24223
45	38.4	1	-9.27	2.61	38.2865	2.6119	4	2.51662	119.1617	2.91979	0.64272	2.2771	15.532	2.8275	-0.037	4	1	0.4647	2.826	15.5317
46	36.5	1.61	-9.19	4.44	36.3875	4.4246	4	2.68704	122.5223	2.98105	0.67392	2.3071	14.48	4.8194	-0.04	3	1	0.4586	2.9923	14.47966
47	31.8	0.73	-9.19	2.31	31.6875	2.3038	4	2.54533	116.3976	3.03925	0.70512	2.3341	12.274	2.5482	-0.048	3	1	0.4533	2.8834	12.27364
48	33	0.8	-9.11	2.42	32.8885	2.4325	4	2.54752	117.1583	3.09783	0.73632	2.3615	12.615	2.6854	-0.047	3	1	0.4481	2.8865	12.6151
49	33.4	0.92	-9.04	2.75	33.2894	2.7637	4	2.5788	118.2105	3.15693	0.76752	2.3894	12.611	3.0532	-0.047	3	1	0.4428	2.9188	12.6108
50	47.1	1.81	-8.73	3.86	46.9931	3.8516	4	2.56551	124.0029	3.21894	0.79872	2.4202	18.087	4.1349	-0.033	3	1	0.4372	2.8755	18.08691
51	25.6	0.68	-8.42	2.67	25.4969	2.667	4	2.65882	115.3483	3.27661	0.82992	2.4467	9.0818	3.0603	-0.065	3	1	0.4325	3.0363	9.0818
52	29.4	0.82	-8.35	2.8	29.2978	2.7989	4	2.62495	117.057	3.33514	0.86112	2.474	10.494	3.1584	-0.056	3	1	0.4277	2.9924	10.49413
53	32.4	1.22	-8.19	3.78	32.2998	3.7771	4	2.67793	120.202	3.39524	0.89232	2.5029	11.548	4.2208	-0.051	3	1	0.4228	3.0334	11.54832
54	30.4	0.88	-8.12	2.91	30.3006	2.9042	4	2.62394	117.6558	3.45407	0.92352	2.5306	10.609	3.2779	-0.056	3	1	0.4181	2.9978	10.60899
55	33.2	0.75	-8.04	2.28	33.1016	2.2658	4	2.526	116.7019	3.51242	0.95472	2.5577	11.569	2.5347	-0.052	3	1	0.4137	2.9034	11.56868
56	44.8	1.61	-7.74	3.59	44.7053	3.6014	4	2.56063	123.0244	3.57393	0.98592	2.588	15.893	3.9143	-0.038	3	1	0.4089	2.904	15.89304
57	42.7	2.08	-7.58	4.88	42.6072	4.8818	4	2.66853	124.7813	3.63632	1.01712	2.6192	14.879	5.3373	-0.04	3	1	0.404	3.0117	14.87893
58	34.4	0.92	-7.5	2.68	34.3082	2.6816	4	2.56035	118.2841	3.69546	1.04832	2.6471	11.564	3.0053	-0.052	3	1	0.3997	2.9455	11.56445
59	32.1	1.01	-7.2	3.17	32.0119	3.1551	4	2.62907	118.798	3.75486	1.07952	2.6753	10.562	3.5743	-0.057	3	1	0.3955	3.0213	10.56202
60	32	1.09	-7.12	3.42	31.9129	3.4156	4	2.65273	119.3482	3.81454	1.11072	2.7038	10.392	3.8792	-0.058	3	1	0.3913	3.048	10.3921
61	32.3	0.72	-6.82	2.25	32.2165	2.2349	4	2.53151	116.3371	3.8727	1.14192	2.7308	10.379	2.5402	-0.058	3	1	0.3875	2.943	10.37937
62	34	0.78	-6.28	2.31	33.9231	2.2993	4	2.52168	117.0486	3.93123	1.17312	2.7581	10.874	2.6007	-0.054	3	1	0.3836	2.9319	10.87409
63	27.3	0.71	-6.2	2.59	27.2241	2.608	4	2.63047	115.8241	3.98914	1.20432	2.7848	8.3434	3.0557	-0.071	3	1	0.38	3.0664	8.34344
64	34.9	0.8	-6.05	2.3	34.826	2.2971	4	2.51255	117.2979	4.04779	1.23552	2.8123	10.944	2.5993	-0.054	3	1	0.3763	2.9294	10.94424
65	41.1	1.17	-5.81	2.86	41.0289	2.8517	4	2.51908	120.4793	4.10803	1.26672	2.8413	12.994	3.1689	-0.046	3	1	0.3724	2.9178	12.99431
66	41.4	1	-5.59	2.41	41.3316	2.4195	5	2.46976	119.3484	4.1677	1.29792	2.8698	12.95	2.6908	-0.046	3	1	0.3687	2.8777	12.95006
67	46.5	0.96	-5.36	2.07	46.4344	2.0674	5	2.38705	119.3336	4.22737	1.32912	2.8983	14.563	2.2745	-0.041	4	1	0.3651	2.7942	14.56293
68	56.4	1.87	-4.98	3.33	56.339	3.3192	4	2.46409	124.6839	4.28971	1.36032	2.9294	17.768	3.5928	-0.033	3	1	0.3612	2.8429	17.76797
69	88.9	4	-4.67	4.5	88.8428	4.5023	9	2.42891	131.3583	4.35539	1.39152	2.9639	28.506	4.7344	-0.02	3	1	0.357	2.7663	28.50578
70	215.3	8.79	-4.14	4.08	215.249	4.0836	8	2.16841	137.28	4.42403	1.42272	3.0013	70.244	4.1693	-0.008	4	0.9184	0.3839	2.4295	76.48061
71	175	9.37	-3.81	5.36	174.953	5.3557	9	2.31612	137.28	4.49267	1.45392	3.0388	56.096	5.4969	-0.01	4	0.986	0.3534	2.6042	56.9318
72	220.7	10.48	-3.24	4.75	220.66	4.7494	9	2.21846	137.28	4.56131	1.48512	3.0762	70.249	4.8496	-0.008	4	0.9434	0.3654	2.4865	74.62602
73	332.8	6.77	-2.81	2.03	332.766	2.0345	6	1.81155	137.28	4.62995	1.51632	3.1136	105.39	2.0632	-0.005	5	0.774	0.4337	2.0381	134.5031
74	396.5	11.88	-2.71	3	396.467	2.9965	8	1.91882	137.28	4.69859	1.54752	3.1511	124.33	3.0324	-0.004	5	0.8119	0.4123	2.1332	152.6612
75	384.3	4.16	-2.45	1.08	384.27	1.0826	6	1.5497	135.2172	4.7662	1.57872	3.1875	119.06	1.0962	-0.005	6	0.6743	0.4754	1.7665	170.5158
76	335.8	9.22	-2.41	2.74	335.771	2.7459	8	1.92073	137.28	4.83484	1.60992	3.2249	102.62	2.786	-0.005	5	0.8252	0.3987	2.1588	124.6948
77	254.6	9.3	-1.77	3.65	254.578	3.6531	8	2.08882	137.28	4.90348	1.64112	3.2624	76.532	3.7248	-0.007	4	0.9041	0.3613	2.3617	85.25843
78	301	10.73	-2.22	3.57	300.973	3.5651	8	2.04267	137.28	4.97212	1.67232	3.2998	89.703	3.625	-0.006	5	0.8829	0.3664	2.3012	102.4854
79	310.5	9.03	-2.05	2.91	310.475	2.9085	8	1.95952	137.28	5.04076	1.70352	3.3372	91.523	2.9565	-0.006	5	0.8529	0.3754	2.2177	108.3728
80	292.2	0	-2.37	0	292.171	0	0	0	769.6	5.42556	1.73472	3.6908	77.691	0	-0.007	0	1	0.2867	0	0

	C-16	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	30.5	1.19	-0.24	3.91	30.4971	3.902	4	2.70591	119.8798	0.05994	0	0.0599	507.79	3.9097	-6E-04	4	0.8022	2	2.4916	57.53122
2	26.1	0.96	-0.61	3.68	26.0925	3.6792	4	2.7399	117.9278	0.1189	0	0.1189	218.44	3.6961	-0.002	4	0.8165	2	2.5221	49.09448
3	186.1	3.58	0.14	1.92	186.102	1.9237	6	1.93972	132.3501	0.18508	0	0.1851	1004.5	1.9256	5E-05	6	0.5315	2	1.7657	351.4133
4	189.5	3.79	0.1	2	189.501	2	6	1.94793	132.8113	0.25148	0	0.2515	752.53	2.0026	4E-05	6	0.5387	2	1.7763	357.7135
5	169.8	2.85	0.38	1.68	169.805	1.6784	6	1.92013	130.458	0.31671	0	0.3167	535.15	1.6815	0.0002	6	0.5324	1.9007	1.7502	304.4461
6	190	3.68	-1.3	1.94	189.984	1.937	6	1.9364	132.602	0.38301	0	0.383	495.02	1.9409	-5E-04	6	0.5518	1.7519	1.7948	313.9254
7	219.2	3.87	-1.07	1.77	219.187	1.7656	6	1.86624	133.3191	0.44967	0	0.4497	486.44	1.7693	-4E-04	6	0.5382	1.585	1.7509	327.6494
8	234.1	4.76	-0.61	2.03	234.093	2.0334	6	1.89774	134.9942	0.51717	0	0.5172	451.64	2.0379	-2E-04	6	0.5606	1.4938	1.8012	329.7496
9	350.8	6.76	-0.35	1.93	350.796	1.9271	6	1.77938	137.28	0.58581	0	0.5858	597.82	1.9303	-7E-05	8	0.5298	1.3678	1.7117	452.7204
10	359.8	11.55	-0.46	3.21	359.794	3.2102	8	1.9651	137.28	0.65445	0	0.6545	548.77	3.216	-9E-05	8	0.6082	1.3394	1.9088	454.6004
11	182.7	9.27	20.3	5.07	182.948	5.067	9	2.28539	137.28	0.72309	0	0.7231	252.01	5.0871	0.008	9	0.7321	1.3214	2.2248	227.5731
12	133.7	4.27	19.87	3.19	133.943	3.1879	5	2.20019	132.8376	0.78951	0	0.7895	168.65	3.2068	0.0107	8	0.7064	1.2298	2.1491	154.758
13	110.8	3.58	17.77	3.22	111.018	3.2247	5	2.25559	131.0901	0.85505	0	0.8551	128.84	3.2498	0.0116	5	0.7353	1.1696	2.2172	121.7712
14	92.2	2.23	16.86	2.41	92.4064	2.4133	5	2.21487	127.179	0.91864	0	0.9186	99.59	2.4375	0.0133	5	0.728	1.1084	2.1904	95.8342
15	53.9	1.3	17.16	2.41	54.11	2.4025	5	2.37995	121.9252	0.97961	0	0.9796	54.236	2.4468	0.0233	5	0.7998	1.0636	2.3714	53.40595
16	104.1	2.95	16.85	2.83	104.306	2.8282	5	2.23006	129.5218	1.04437	0	1.0444	98.875	2.8568	0.0118	5	0.7503	1.0099	2.2334	98.5528
17	104.3	2.89	16.31	2.76	104.5	2.7656	5	2.22225	129.3759	1.10906	0	1.1091	93.224	2.7952	0.0114	5	0.7555	0.9651	2.2391	94.30205
18	91.2	3.08	16.72	3.37	91.4047	3.3696	5	2.32505	129.5153	1.17381	0	1.1738	76.87	3.4135	0.0133	5	0.8035	0.92	2.357	78.45329
19	52.3	1.74	16.47	3.31	52.5016	3.3142	4	2.48541	123.9846	1.23581	0	1.2358	41.484	3.3941	0.0231	4	0.8772	0.8727	2.5426	42.28232
20	71.6	2.88	16.39	4.02	71.8006	4.0111	4	2.45126	128.4352	1.30002	0	1.3	54.23	4.0851	0.0167	4	0.8698	0.836	2.5151	55.70414
21	66.7	1.82	16.23	2.72	66.8987	2.7205	5	2.35028	124.9046	1.36248	0	1.3625	48.101	2.7771	0.0178	5	0.8401	0.8087	2.4293	50.08533
22	35.7	1.44	15.95	4	35.8952	4.0117	4	2.66198	121.6725	1.42331	0	1.4233	24.22	4.1773	0.0333	3	0.9764	0.7486	2.7797	24.38982
23	58.4	1.52	15.85	2.6	58.594	2.5941	5	2.37725	123.2633	1.48494	0	1.4849	38.459	2.6616	0.02	4	0.8681	0.7451	2.4874	40.21721
24	47.9	1.55	15.96	3.23	48.0954	3.2228	4	2.50433	122.9248	1.54641	0	1.5464	30.101	3.3298	0.0247	4	0.928	0.7032	2.6372	30.93525
25	66.8	1.63	15.85	2.43	66.994	2.4331	5	2.31594	124.1013	1.60846	0	1.6085	40.651	2.4929	0.0175	5	0.8582	0.6981	2.4457	43.13857
26	40.9	1.16	16.08	2.81	41.0968	2.8226	4	2.51559	120.4205	1.66867	0	1.6687	23.629	2.9421	0.0294	4	0.9519	0.6482	2.6846	24.15249
27	51.9	1.54	16.14	2.94	52.0976	2.956	4	2.45331	123.0724	1.7302	0	1.7302	29.111	3.0575	0.0231	4	0.9309	0.6327	2.6217	30.11743
28	24.3	0.95	15.7	3.86	24.4922	3.8788	4	2.7757	117.6968	1.78905	0.02184	1.7672	12.847	4.1845	0.0488	3	1	0.5987	2.9945	12.84686
29	24.4	0.63	15.62	2.58	24.5912	2.5619	4	2.66045	114.7013	1.8464	0.05304	1.7934	12.683	2.7699	0.0471	3	1	0.59	2.8923	12.68276
30	18.8	1.07	15.55	5.65	18.9903	5.6345	3	2.96562	117.9467	1.90538	0.08424	1.8211	9.3815	6.2628	0.0606	3	1	0.581	3.2103	9.38149
31	44.7	1.67	14.86	3.71	44.8819	3.7209	4	2.56925	123.3017	1.96703	0.11544	1.8516	23.177	3.8914	0.0222	4	0.9952	0.573	2.7753	23.23936
32	48.4	1.9	14.95	3.91	48.583	3.9108	4	2.55995	124.4391	2.02925	0.14664	1.8826	24.728	4.0813	0.02	4	0.9938	0.5641	2.7674	24.81708
33	70.1	2.99	15.15	4.25	70.2854	4.2541	4	2.47647	128.6575	2.09357	0.17784	1.9157	35.596	4.3847	0.0134	4	0.9563	0.5669	2.6655	36.53175
34	148.9	3.72	14.93	2.49	149.083	2.4953	5	2.08815	132.0898	2.15962	0.20904	1.9506	75.323	2.5319	0.0059	5	0.7944	0.6152	2.2366	85.41691
35	75.6	2.7	4.13	3.57	75.6506	3.569	4	2.39843	128.0904	2.22366	0.24024	1.9834	37.02	3.6771	0.0008	4	0.9328	0.5565	2.5951	38.61646
36	120.3	2.86	4.44	2.38	120.354	2.3763	5	2.13225	129.6441	2.28849	0.27144	2.0171	58.534	2.4224	0.0004	5	0.823	0.588	2.3035	65.61418
37	160.5	1.83	4.61	1.14	160.556	1.1398	6	1.81426	127.0799	2.35203	0.30264	2.0494	77.196	1.1567	0.0002	6	0.6978	0.6305	1.9707	94.26329
38	114.3	2.26	4.36	1.97	114.353	1.9763	5	2.08824	127.7965	2.41592	0.33384	2.0821	53.762	2.019	-2E-04	5	0.8144	0.5762	2.2727	60.9598
39	41.5	1.3	4.27	3.12	41.5523	3.1286	4	2.54196	121.2811	2.47657	0.36504	2.1115	18.506	3.3269	-0.001	4	1	0.5011	2.8083	18.50591
40	66.5	1.43	4.13	2.15	66.5506	2.1487	5	2.28096	123.1273	2.53813	0.39624	2.1419	29.886	2.2339	-0.002	4	0.9106	0.5262	2.5163	31.83079
41	31.5	1.66	3.72	5.27	31.5455	5.2622	3	2.78398	122.3978	2.59933	0.42744	2.1719	13.328	5.7348	-0.006	3	1	0.4872	3.0683	13.32767
42	23.3	1.1	3.68	4.73	23.345	4.7119	3	2.84702	118.6525	2.65865	0.45864	2.2	9.4028	5.3175	-0.009	3	1	0.481	3.1654	9.40284
43	52.3	1.47	3.74	2.81	52.3458	2.8083	5	2.43651	122.7436	2.72003	0.48984	2.2302	22.252	2.9622	-0.004	4	0.9885	0.4785	2.7113	22.44344
44	64.5	3.86	2.14	5.98	64.5262	5.9821	4	2.61265	130.3177	2.78518	0.52104	2.2641	27.269	6.2519	-0.006	3	1	0.4673	2.8641	27.26902
45	36.9	2.01	2.14	5.45	36.9262	5.4433	3	2.74581	124.1818	2.84728	0.55224	2.295	14.849	5.8981	-0.012	3	1	0.461	3.0406	14.84897
46	36	1.29	2.14	3.59	36.0262	3.5807	4	2.62726	120.8765	2.90771	0.58344	2.3243	14.249	3.8951	-0.013	3	1	0.4552	2.9399	14.24896
47	47.3	1.59	1.99	3.36	47.3244	3.3598	4	2.5219	123.0718	2.96925	0.61464	2.3546	18.838	3.5847	-0.011	3	1	0.4494	2.8225	18.83756
48	32.3	1.28	2.18	3.97	32.3267	3.9596	4	2.69146	120.5553	3.02953	0.64584	2.3837	12.291	4.369	-0.017	3	1	0.4439	3.0212	12.29069
49	40.3	2.13	2.18	5.28	40.3267	5.2819	3	2.70971	124.8209	3.09194	0.67704	2.4149	15.419	5.7205	-0.014	3	1	0.4382	3.0195	15.41876
50	37.9	1.66	1.05	4.39	37.9129	4.3785	4	2.67107	122.8462	3.15336	0.70824	2.4451	14.216	4.7757	-0.018	3	1	0.4327	2.996	14.21586
51	54	2.05	-2.23	3.8	53.9727	3.7982	4	2.51881	125.2517	3.21599	0.73944	2.4766	20.495	4.0389	-0.018	3	1	0.4273	2.8273	20.49495
52	138.1	2.78	-4.98	2.02	138.039	2.0139	5	2.03898	129.7709	3.28087	0.77064	2.5102	53.684	2.063	-0.008	5	0.8352	0.486	2.2741	61.89615
53	144	5.34	-5.74	3.71	143.93	3.7101	8	2.23334	134.6491	3.3482	0.80184	2.5464	55.209	3.7985	-0.009	4	0.913	0.4486	2.472	59.59438
54	105.3	1.58	-5.67	1.5	105.231	1.5015	5	2.02933	124.9747	3.41068	0.83304	2.5776	39.501	1.5518	-0.012	5	0.8477	0.4701	2.2985	45.2369
55	140	1.95	-5.51	1.39	139.933	1.3935	6	1.91822	127.2093	3.47429	0.86424	2.6101	52.282	1.429	-0.009	5	0.7986	0.4863	2.1653	62.70841
56	135.1	1.62	-5.28	1.2	135.035	1.1997	6	1.88369	125.7659	3.53717	0.89544	2.6417	49.777	1.232	-0.01	5	0.7898	0.4855	2.1382	60.33276
57	90.6	1.54	-5.28	1.7	90.5354	1.701	5	2.11402	124.4202	3.59938	0.92664	2.6727	32.527	1.7714	-0.015	5	0.8962	0.4359	2.4139	35.81221
58	87.7	5.22	-5.18	5.96	87.6366	5.9564	9	2.52749	133.2728	3.66602	0.95784	2.7082	31.006	6.2165	-0.016	3	1	0.3907	2.8229	31.00629
59	63.5	3.82	-5.03	6.02	63.4384	6.0216	4	2.6196	130.2	3.73112	0.98904	2.7421	21.774	6.3979	-0.023	3	1	0.3859	2.9412	21.77447
60	19.4	1.38	-5.08	7.12	19.3378	7.1363	3	3.02904	119.8525	3.79104	1.02024	2.7708	5.6109	8.8764	-0.089	2	1	0.3819	3.4792	5.61092
61	23	1.03	-5.44	4.48	22.9334	4.4913	3	2.83901	118.128	3.85011	1.05144	2.7987	6.8187	5.3974	-0.076	3	1	0.3781	3.2804	6.81871
62	117.2	2.97	-5.48	2.54	117.133	2.5356	5	2.16118	129.8541	3.91504	1.08264	2.8324	39.972	2.6233	-0.013	5	0.9222	0.4033	2.4603	43.15334
63	53	1.45	-4.9	2.73	52.94	2.739	5	2.42552	122.6709	3.97637	1.11384	2.8625	17.105	2.9614	-0.03	4	1	0.3696	2.8044	17.10502
64	78.4	2.99	-4.52	3.82	78.3447	3.8165	4	2.40991	128.9222	4.04083	1.14504	2.8958	25.659	4.024	-0.02	4	1	0.3654	2.7525	25.65924
65	88.7	3.08	-4.15	3.47	88.6492	3.4744	5	2.34381	129.4406	4.10555	1.17624	2.9293	28.861	3.6431	-0.017	4	1	0.3612	2.6856	28.86126
66	96.5	3.15	-3.91	3.27	96.4521	3.2659	5	2.29946	129.8108	4.17046	1.20744	2.963	31.144	3.4135	-0.016	4	0.9967	0.3583	2.641	31.2519
67	113.8	4.99	-3.68	4.38	113.755	4.3866	9	2.35308	133.5793	4.23725	1.23864	2.9986	36.523	4.5563	-0.014	4	1	0.3529	2.6772	36.52285
68	95.6	4.09	-3.45	4.29	95.5578	4.2801	9	2.39184	131.6988	4.3031	1.26984	3.0333	30.085	4.482	-0.017	4	1	0.3488	2.733	30.08472
69	107.1	4.89	-3.37	4.57	107.059	4.5676	9	2.3831	133.2832	4.36974	1.30104	3.0687	33.463	4.762	-0.015	4	1	0.3448	2.7178	33.46338
70	111.5	8.3	-3.35	7.44	111.459	7.4467	9	2.54388	137.2526	4.43836	1.33224	3.1061	34.455	7.7555	-0.015	3	1	0.3407	2.8611	34.45471
71	88.1	5.23	-3.14	5.93	88.0616	5.939	9	2.52519	133.2986	4.50501	1.36344	3.1416	26.597	6.2592	-0.019	3	1	0.3368	2.8721	26.59703
72	57.2	3.54	-3.08	6.18	57.1623	6.1929	3	2.65826	129.3889	4.56971	1.39464	3.1751	16.564	6.731	-0.031	3	1	0.3333	3.0432	16.56424
73	46.7	2.37	-3.06	5.09	46.6626	5.079	4	2.65355	125.958	4.63269	1.42584	3.2069	13.106	5.6389	-0.039	3	1	0.33	3.0692	13.10628
74	51.2	2.39	-3.02	4.67	51.163	4.6713	4	2.59967	126.2441	4.69581	1.45704	3.2388	14.347	5.1434	-0.036	3	1	0.3267	3.0134	14.34718
75	98.8	5.39	-3.06	5.46	98.7626	5.4575	9	2.46569	133.7988	4.76271	1.48824	3.2745	28.707	5.7341	-0.018	3	1	0.3231	2.8218	28.70689
76	332.2	9.75	-2.5	2.94	332.169	2.9353	8	1.94813	137.28	4.83135	1.51944	3.3119	98.837	2.9786	-0.005	5	0.8434	0.382	2.1961	118.1679
77	424.6	10.01	-2.16	2.36	424.574	2.3577	8	1.813	137.28	4.89999	1.55064	3.3494	125.3	2.3852	-0.004	5	0.7848	0.4048	2.0373	160.5595
78	50.2	2.83	-2.45	5.64	50.17	5.6408	3	2.66551	127.4328	4.96371	1.58184	3.3819	13.367	6.2602	-0.039	3	1	0.3129	3.0921	13.36727
79	48.4	1.23	-2.68	2.55	48.3672	2.5431	5	2.43265	121.2465	5.02433	1.61304	3.4113	12.706	2.8378	-0.042	3	1	0.3102	2.8977	12.70572
80	77.1	4.74	-2.97	6.15	77.0637	6.1508	9	2.57302	132.2534	5.09046	1.64424	3.4462	20.885	6.5858	-0.026	3	1	0.307	2.963	20.8847
81	81.4	3.61	-2.76	4.44	81.3662	4.4367	4	2.44852	130.3933	5.15565	1.67544	3.4802	21.898	4.7369	-0.025	3	1	0.304	2.851	21.89825
82	91.2	4.61	-2.64	5.05	91.1677	5.0566	9	2.461	132.4599	5.22188	1.70664	3.5152	24.449	5.3639	-0.022	3	1	0.301	2.852	24.44947
83	57.1	3.33	-2.6	5.83	57.0682	5.8351	4	2.63923	128.9374	5.28635	1.73784	3.5485	14.593	6.4308	-0.037	3	1	0.2982	3.071	14.59255
84	102.8	5.69	-2.53	5.54	102.769	5.5367	9	2.46021	134.2921	5.3535	1.76904	3.5845	27.177	5.841	-0.02	3	1	0.2952	2.8444	27.17721
85	152.8	10.27	-2.1	6.73	152.774	6.7223	9	2.43099	137.28	5.42214	1.80024	3.6219	40.684	6.9697	-0.013	3	1	0.2921	2.7782	40.6837
86	44.2	1.91	-2.14	4.31	44.1738	4.3238	4	2.62	124.2455	5.48426	1.83144	3.6528	10.592	4.9367	-0.051	3	1	0.2897	3.1048	10.59169

87	64.5	3.15	-2.13	4.88	64.4739	4.8857	4	2.54631	128.8284	5.54867	1.86264	3.686	15.986	5.3458	-0.034	3	1	0.2871	2.9884	15.98609
88	264.9	9.63	-1.79	3.64	264.878	3.6356	8	2.07811	137.28	5.61731	1.89384	3.7235	69.629	3.7144	-0.008	4	0.9403	0.3064	2.3972	75.062
89	81.4	4.58	-1.37	5.63	81.3832	5.6277	9	2.52809	132.1352	5.68338	1.92504	3.7583	20.142	6.0502	-0.027	3	1	0.2815	2.9493	20.14182
90	87.9	4.44	-1.3	5.05	87.8841	5.0521	9	2.47066	132.0955	5.74943	1.95624	3.7932	21.653	5.4058	-0.025	3	1	0.279	2.893	21.65319

	C-17	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	24.8	0.85	-0.21	3.43	24.7974	3.4278	4	2.73689	116.9132	0.05846	0	0.0585	423.2	3.4359	-6E-04	4	0.8109	2	2.5148	46.76077
2	35.2	1.2	-0.16	3.41	35.198	3.4093	4	2.62042	120.2907	0.1186	0	0.1186	295.77	3.4208	-3E-04	4	0.7727	2	2.4071	66.30597
3	43.2	0.82	-0.49	1.89	43.194	1.8984	5	2.38777	118.0038	0.1776	0	0.1776	242.2	1.9063	-8E-04	5	0.683	2	2.1642	81.30814
4	156	2.4	-0.1	1.54	155.999	1.5385	6	1.91666	128.9937	0.2421	0	0.2421	643.35	1.5409	-5E-05	6	0.5196	2	1.7274	294.406
5	130.7	2.63	0.05	2.01	130.701	2.0122	5	2.05455	129.2318	0.30672	0	0.3067	425.13	2.017	3E-05	6	0.576	2	1.8674	246.4661
6	150	2.54	0.06	1.69	150.001	1.6933	6	1.95886	129.3129	0.37137	0	0.3714	402.91	1.6975	3E-05	6	0.5535	1.7851	1.8006	252.4387
7	173.6	3.23	0.26	1.86	173.603	1.8606	6	1.94782	131.4278	0.43709	0	0.4371	396.18	1.8653	0.0001	6	0.563	1.6451	1.8176	269.2232
8	216.5	2.17	0.71	1	216.509	1.0023	6	1.68351	129.0561	0.50161	0	0.5016	430.62	1.0046	0.0002	6	0.4764	1.4271	1.5826	291.3265
9	322.5	8.05	0.46	2.5	322.506	2.4961	8	1.89412	137.28	0.57025	0	0.5703	564.55	2.5005	0.0001	8	0.5704	1.4227	1.8202	432.8765
10	398.6	14.16	19.32	3.55	398.836	3.5503	8	1.98308	137.28	0.63889	0	0.6389	623.26	3.556	0.0035	8	0.6144	1.3634	1.9271	513.0773
11	205.7	9.04	16.01	4.39	205.896	4.3906	8	2.20533	137.28	0.70753	0	0.7075	290	4.4057	0.0056	8	0.7007	1.3258	2.1443	257.098
12	149	4.48	17.6	3	149.215	3.0024	5	2.15074	133.4522	0.77426	0	0.7743	191.72	3.018	0.0085	8	0.6862	1.239	2.098	173.8225
13	119.4	4.25	14.28	3.55	119.575	3.5543	5	2.26785	132.5265	0.84052	0	0.8405	141.26	3.5794	0.0087	8	0.7383	1.1853	2.2268	133.0017
14	92.6	2.72	13.65	2.93	92.7671	2.9321	5	2.27568	128.6419	0.90485	0	0.9049	101.52	2.961	0.0107	5	0.7493	1.1244	2.2478	97.61649
15	89.1	1.47	13.85	1.65	89.2695	1.6467	5	2.10885	124.0455	0.96687	0	0.9669	91.329	1.6647	0.0113	5	0.6942	1.0646	2.0957	88.84446
16	82.9	2.15	10.91	2.59	83.0335	2.5893	5	2.26909	126.6508	1.03019	0	1.0302	79.6	2.6218	0.0096	5	0.7638	1.0206	2.2706	79.09883
17	77.6	2.68	11.74	3.45	77.7437	3.4472	5	2.3793	128.1026	1.09424	0	1.0942	70.048	3.4964	0.011	4	0.8146	0.973	2.396	70.48531
18	79.5	1.4	11.38	1.76	79.6393	1.7579	5	2.16452	123.4101	1.15595	0	1.156	67.895	1.7838	0.0104	5	0.7408	0.9366	2.1945	69.4697
19	53.9	1.87	10.78	3.45	54.032	3.4609	4	2.48977	124.5819	1.21824	0	1.2182	43.352	3.5408	0.0147	4	0.8761	0.8839	2.542	44.11602
20	47.8	1.93	10.76	4.03	47.9317	4.0266	4	2.57306	124.5208	1.2805	0	1.2805	36.432	4.1371	0.0166	4	0.9179	0.8394	2.6439	37.00738
21	39.7	0.64	10.76	1.61	39.8317	1.6068	5	2.37102	115.9928	1.3385	0	1.3385	28.759	1.6626	0.0201	5	0.8513	0.8186	2.4617	29.78143
22	51.6	1.36	10.68	2.63	51.7307	2.629	5	2.42076	122.1456	1.39957	0	1.3996	35.962	2.7021	0.0153	4	0.8752	0.7829	2.5168	37.2394
23	46.2	1.21	10.76	2.61	46.3317	2.6116	5	2.45427	121.0217	1.46008	0	1.4601	30.732	2.6966	0.0173	4	0.8979	0.7489	2.5688	31.75979
24	42.7	1.12	10.65	2.62	42.8304	2.615	4	2.48017	120.2645	1.52021	0	1.5202	27.174	2.7112	0.0186	4	0.9174	0.7172	2.6124	28.00012
25	34.1	1.06	10.53	3.09	34.2289	3.0968	4	2.6018	119.3149	1.57987	0	1.5799	20.666	3.2467	0.0232	4	0.9767	0.676	2.761	20.85979
26	60.7	2.38	10.82	3.9	60.8324	3.9124	4	2.49207	126.6356	1.64319	0	1.6432	36.021	4.021	0.0132	4	0.9315	0.6637	2.6343	37.12365
27	49.5	2.89	10.79	5.81	49.6321	5.8229	3	2.67887	127.56	1.70697	0	1.707	28.076	6.0302	0.0162	3	1	0.6199	2.844	28.07615
28	27.3	1.63	2.81	5.98	27.3344	5.9632	3	2.86645	121.9149	1.76793	0.0312	1.7367	14.721	6.3755	0.0067	3	1	0.6093	3.0656	14.72107
29	23.2	0.92	2.93	3.95	23.2359	3.9594	3	2.79888	117.3336	1.82659	0.0624	1.7642	12.135	4.2972	0.0069	3	1	0.5998	3.0211	12.13545
30	24.9	0.84	2.95	3.38	24.9361	3.3686	4	2.73019	116.8402	1.88501	0.0936	1.7914	12.868	3.6441	0.0052	3	1	0.5907	2.9574	12.86755
31	87.2	2.86	2.8	3.28	87.2343	3.2785	5	2.32959	128.8591	1.94944	0.1248	1.8246	46.741	3.3535	0.0009	4	0.8846	0.6175	2.488	49.77382
32	58.3	3.14	2.99	5.38	58.3366	5.3826	4	2.6066	128.5612	2.01372	0.156	1.8577	30.318	5.575	0.0011	3	1	0.5696	2.7963	30.31823
33	81.2	3.93	3.11	4.83	81.2381	4.8376	9	2.47773	131.0109	2.07923	0.1872	1.892	41.838	4.9647	0.0005	4	0.9506	0.5755	2.6536	43.05614
34	75.6	2.15	3.03	2.84	75.6371	2.8425	5	2.32639	126.4233	2.14244	0.2184	1.924	38.198	2.9254	0	4	0.8984	0.5844	2.5117	40.59086
35	141	2.14	3.11	1.51	141.038	1.5173	6	1.94231	127.9088	2.20639	0.2496	1.9568	70.949	1.5414	-2E-04	5	0.7403	0.6344	2.0938	83.23163
36	216.9	2.38	3.39	1.1	216.941	1.0971	6	1.7116	129.7368	2.27126	0.2808	1.9905	107.85	1.1087	-2E-04	6	0.6463	0.6647	1.8427	134.861
37	139.7	2.5	3.49	1.79	139.743	1.789	6	1.99723	129.024	2.33577	0.312	2.0238	67.896	1.8194	-4E-04	5	0.7686	0.6075	2.1597	78.8892
38	67.9	2.75	-5.97	4.06	67.8269	4.0544	4	2.4713	127.9584	2.39975	0.3432	2.0566	31.814	4.2032	-0.012	4	0.9724	0.524	2.6904	32.40347
39	32.3	0.99	-5.85	3.06	32.2284	3.0718	4	2.61927	118.6681	2.45909	0.3744	2.0847	14.28	3.3256	-0.027	3	1	0.5076	2.8973	14.27998
40	88.9	2.86	-6.03	3.22	88.8262	3.2198	5	2.3185	128.9032	2.52354	0.4056	2.1179	40.748	3.3139	-0.01	4	0.9139	0.5304	2.5283	43.2572
41	31.8	1.78	-6	5.63	31.7266	5.6104	3	2.80168	122.9224	2.585	0.4368	2.1482	13.566	6.1081	-0.03	3	1	0.4926	3.0802	13.56556
42	34.3	2.27	-6	6.64	34.2266	6.6323	3	2.83031	124.8867	2.64744	0.468	2.1794	14.49	7.1883	-0.029	3	1	0.4855	3.1054	14.48953
43	83.4	5.64	-5.92	6.77	83.3275	6.7685	9	2.5848	133.7161	2.7143	0.4992	2.2151	36.393	6.9964	-0.011	3	1	0.4777	2.8121	36.39256
44	36	2.59	-5.85	7.2	35.9284	7.2088	3	2.84211	125.97	2.77729	0.5304	2.2469	14.754	7.8127	-0.029	3	1	0.4709	3.1239	14.75424
45	20.3	1.21	-5.87	5.99	20.2282	5.9818	3	2.96263	119.0004	2.83679	0.5616	2.2752	7.6439	6.9575	-0.057	3	1	0.4651	3.3083	7.64393
46	38.2	1.01	-5.92	2.66	38.1275	2.649	4	2.52198	119.2244	2.8964	0.5928	2.3036	15.294	2.8668	-0.029	4	1	0.4593	2.835	15.29395
47	79.1	2.89	-5.92	3.65	79.0275	3.657	4	2.39356	128.6945	2.96075	0.624	2.3368	32.552	3.7993	-0.014	4	0.971	0.4634	2.6517	33.31019
48	42.2	2.34	-5.77	5.54	42.1294	5.5543	3	2.71228	125.6156	3.02355	0.6552	2.3684	16.512	5.9838	-0.027	3	1	0.4468	3.01	16.51181
49	31.7	1.84	-5.77	5.84	31.6294	5.8174	3	2.8137	123.1575	3.08513	0.6864	2.3987	11.9	6.4461	-0.039	3	1	0.4411	3.1387	11.89971
50	32.1	1.92	-5.77	6.02	32.0294	5.9945	3	2.81905	123.4996	3.14688	0.7176	2.4293	11.889	6.6476	-0.039	3	1	0.4356	3.1477	11.88931
51	88.5	2.18	-5.69	2.47	88.4304	2.4652	5	2.23476	126.9058	3.21034	0.7488	2.4615	34.621	2.5581	-0.014	4	0.9209	0.4596	2.5033	37.01255
52	150.1	2.42	-5.54	1.61	150.032	1.613	6	1.94324	128.9593	3.27482	0.78	2.4948	58.825	1.649	-0.008	5	0.7943	0.506	2.1685	70.17502
53	126.7	5.83	-5.16	4.6	126.637	4.6037	9	2.34173	134.9793	3.34231	0.8112	2.5311	48.712	4.7285	-0.01	4	0.9568	0.4341	2.5901	50.5809
54	105.6	2.82	-5.16	2.68	105.537	2.6721	5	2.20824	129.2206	3.40692	0.8424	2.5645	39.824	2.7612	-0.012	4	0.9158	0.4445	2.477	42.90519
55	169.4	3.88	-5.01	2.29	169.339	2.2913	5	2.02455	132.7087	3.47327	0.8736	2.5997	63.802	2.3393	-0.007	5	0.8321	0.4733	2.2548	74.19755
56	132.8	2.05	-5.01	1.55	132.739	1.5444	6	1.96614	127.4465	3.53699	0.9048	2.6322	49.085	1.5867	-0.01	5	0.8211	0.4732	2.2217	57.77769
57	98.7	4.77	-4.92	4.84	98.6398	4.8358	9	2.42455	132.9016	3.60344	0.936	2.6674	35.628	5.0191	-0.014	3	1	0.3967	2.7145	35.62824
58	132.8	5.92	-4.7	4.46	132.742	4.4598	9	2.31849	135.2063	3.67105	0.9672	2.7039	47.736	4.5866	-0.01	4	0.964	0.4048	2.5877	49.37444
59	29.1	1.53	-5.01	5.26	29.0387	5.2688	3	2.81024	121.5991	3.73185	0.9984	2.7335	9.2582	6.0458	-0.054	3	1	0.3871	3.2052	9.25821
60	27.5	1.58	-5.01	5.78	27.4387	5.7583	3	2.85471	121.6962	3.79269	1.0296	2.7631	8.5578	6.6819	-0.059	3	1	0.3829	3.259	8.55779
61	184.4	1.4	-4.93	0.76	184.34	0.7595	6	1.64965	125.457	3.85542	1.0608	2.7946	64.583	0.7757	-0.008	6	0.7043	0.5046	1.8943	86.06396
62	55.7	3	-4.77	5.38	55.6416	5.3917	4	2.62082	128.1121	3.91948	1.092	2.8275	18.293	5.8002	-0.028	3	1	0.3742	2.9678	18.29266
63	83.4	2.13	-4.24	2.56	83.3481	2.5556	5	2.26385	126.5917	3.98278	1.1232	2.8596	27.754	2.6838	-0.018	4	0.9781	0.3782	2.6053	28.36651
64	86.7	3.25	-4.09	3.75	86.6499	3.7507	4	2.37536	129.7781	4.04766	1.1544	2.8933	28.55	3.9345	-0.018	4	1	0.3657	2.7114	28.54985
65	77	2.83	-4.01	3.68	76.9509	3.6777	4	2.40311	128.476	4.1119	1.1856	2.9263	24.891	3.8853	-0.02	4	1	0.3616	2.7523	24.89114
66	75.2	2.62	-3.9	3.48	75.1523	3.4863	4	2.39285	127.8542	4.17583	1.2168	2.959	23.986	3.6914	-0.021	4	1	0.3576	2.75	23.98639
67	81.8	2.9	-3.78	3.55	81.7537	3.5472	5	2.37388	128.8025	4.24023	1.248	2.9922	25.905	3.7413	-0.02	4	1	0.3536	2.7285	25.90492
68	114.3	6.5	-3.63	5.69	114.256	5.689	9	2.44228	135.5244	4.30799	1.2792	3.0288	36.301	5.9119	-0.014	3	1	0.3494	2.7596	36.30079
69	114.3	5.43	-3.4	4.75	114.258	4.7524	9	2.37954	134.2084	4.3751	1.3104	3.0647	35.855	4.9416	-0.014	4	1	0.3453	2.7077	35.85453
70	84.5	3.6	-3.17	4.26	84.4612	4.2623	4	2.42475	130.4641	4.44033	1.3416	3.0987	25.824	4.4988	-0.02	3	1	0.3415	2.7828	25.82377
71	82.5	4.78	-3.17	5.8	82.4612	5.7967	9	2.53455	132.48	4.50657	1.3728	3.1338	24.876	6.1318	-0.021	3	1	0.3377	2.8867	24.87568
72	52	2.6	-3.25	5	51.9602	5.0038	4	2.61688	126.898	4.57002	1.404	3.166	14.968	5.4864	-0.035	3	1	0.3342	3.0175	14.96839
73	38	2.01	-3.25	5.28	37.9602	5.295	3	2.72885	124.2491	4.63214	1.4352	3.1969	10.425	6.031	-0.05	3	1	0.331	3.1644	10.42498
74	48.4	3.3	-2.84	6.82	48.3652	6.8231	3	2.73769	128.4676	4.69638	1.4664	3.23	13.52	7.5569	-0.038	3	1	0.3276	3.1423	13.51987
75	318.1	8.21	-2.41	2.58	318.071	2.5812	8	1.90969	137.28	4.76502	1.4976	3.2674	95.888	2.6205	-0.005	5	0.8266	0.3938	2.1572	116.5964
76	270.5	11.82	-1.64	4.37	270.48	4.37	8	2.14245	137.28	4.83366	1.5288	3.3049	80.381	4.4495	-0.006	9	0.9268	0.348	2.414	87.36495
77	71.3	3.89	-1.97	5.46	71.2759	5.4577	4	2.55435	130.617	4.89897	1.56	3.339	19.879	5.8605	-0.026	3	1	0.3169	2.9441	19.87949
78	40	1.15	-2.02	2.87	39.9753	2.8768	4	2.53006	120.2897	4.95911	1.5912	3.3679	10.397	3.2842	-0.05	3	1	0.3142	3.0055	10.397
79	53	2.88	-1.94	5.43	52.9763	5.4364	4	2.63775	127.6936	5.02296	1.6224	3.4006	14.102	6.0058	-0.037	3	1	0.3112	3.0627	14.1016
80	67.2	3.44	-2.17	5.12	67.1734	5.1211	4	2.54999	129.5728	5.08774	1.6536	3.4341	18.079	5.5407	-0.029	3	1	0.3081	2.9584	18.07895
81	62.6	2.93	-1.94	4.68	62.5763	4.6823	4	2.54115	128.2258	5.15186	1.6848	3.4671	16.563	5.1024	-0.032	3	1	0.3052	2.9636	16.56287
82	63.3	2.78	-1.94	4.4	63.2763	4.3934	4	2.51739	127.8684	5.21579	1.716	3.4998	16.59	4.7881	-0.032	3	1	0.3023	2.9451	16.5897
83	84.3	4.46	-2	5.29	84.2755	5.2922	9	2.49779	132.0261	5.2818	1.7472	3.5346	22.349	5.646	-0.024	3	1	0.2994	2.8958	22.34868
84	99.4	5.38	-1.79	5.42	99.3781	5.4137	9	2.46127	133.8004	5.3487	1.7784	3.5703	26.337	5.7216	-0.02	3	1	0.2964	2.8479	26.33653
85	76.6	4.02	-1.81	5.25	76.5779	5.2496	9	2.52142	131.0325	5.41422	1.8096	3.6046	19.742	5.649	-0.027	3	1	0.2935	2.9356	19.74234
86	57.3	2.83	-1.79	4.94	57.2781	4.9408	4	2.58422	127.7559	5.4781	1.8408	3.6373	14.241	5.4633	-0.038	3	1	0.2909	3.0328	14.24134

87	161.5	9.19	-1.56	5.69	161.481	5.6911	9	2.35717	137.28	5.54674	1.872	3.6747	42.434	5.8935	-0.013	3	1	0.2879	2.7121	42.4341
88	71.5	3.51	-1.41	4.92	71.4827	4.9103	4	2.51853	129.8719	5.61167	1.9032	3.7085	17.762	5.3286	-0.03	3	1	0.2853	2.953	17.76231
89	63.1	3.2	-1.26	5.07	63.0846	5.0726	4	2.5648	128.8905	5.67612	1.9344	3.7417	15.343	5.5741	-0.035	3	1	0.2828	3.0138	15.3428
90	36.3	1.63	-1.49	4.49	36.2818	4.4926	4	2.69256	122.6055	5.73742	1.9656	3.7718	8.098	5.3365	-0.068	3	1	0.2805	3.2177	8.09803
91	62.2	2.4	-1.29	3.86	62.1842	3.8595	4	2.48122	126.7505	5.8008	1.9968	3.804	14.822	4.2566	-0.037	3	1	0.2782	2.9504	14.82215
92	40.4	2.58	-1.33	6.38	40.3837	6.3887	3	2.76913	126.2268	5.86391	2.028	3.8359	8.9991	7.474	-0.062	3	1	0.2758	3.273	8.99912
93	53.9	2.46	-1.18	4.57	53.8856	4.5652	4	2.57697	126.5818	5.9272	2.0592	3.868	12.399	5.1295	-0.045	3	1	0.2736	3.0616	12.39874
94	49	1.58	-1.1	3.22	48.9865	3.2254	4	2.49881	123.1098	5.98876	2.0904	3.8984	11.03	3.6746	-0.05	3	1	0.2714	3.0132	11.02972
95	55	1.74	-0.97	3.16	54.9881	3.1643	4	2.45699	124.0975	6.0508	2.1216	3.9292	12.455	3.5556	-0.045	3	1	0.2693	2.9623	12.45477
96	95.6	5.9	-0.73	6.17	95.5911	6.1721	9	2.51682	134.3807	6.118	2.1528	3.9652	22.565	6.5942	-0.025	3	1	0.2669	2.9391	22.56461
97	131.8	9.87	-0.36	7.49	131.796	7.4889	9	2.50523	137.28	6.18664	2.184	4.0026	31.382	7.8577	-0.018	3	1	0.2644	2.8928	31.38157
98	117.3	9.36	-0.11	7.98	117.299	7.9796	9	2.55619	137.28	6.25528	2.2152	4.0401	27.485	8.4291	-0.02	3	1	0.2619	2.9545	27.48547
99	71.7	3.39	0.2	4.72	71.7025	4.7279	4	2.50521	129.6248	6.32009	2.2464	4.0737	16.05	5.1849	-0.034	3	1	0.2597	2.9785	16.04992
100	73	4.15	0.2	5.68	73.0025	5.6847	9	2.5613	131.1487	6.38566	2.2776	4.1081	16.216	6.2297	-0.034	3	1	0.2576	3.0275	16.21611

	C-18	In situ data									Basic output data									
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	30.8	1.01	0.38	3.28	30.8047	3.2787	4	2.65261	118.7042	0.05935	0	0.0594	518.02	3.2851	0.0009	4	0.7802	2	2.4342	58.11373
2	90.6	4.25	0.65	4.69	90.608	4.6905	9	2.43725	131.8499	0.12528	0	0.1253	722.26	4.697	0.0005	9	0.7171	2	2.2603	171.0273
3	30.2	1.2	0.71	3.98	30.2087	3.9724	4	2.71417	119.9178	0.18524	0	0.1852	162.08	3.9969	0.0017	4	0.8123	2	2.5027	56.74932
4	243.1	0	0.55	0	243.107	0	0	0	769.6	0.57004	0	0.57	425.48	0	0.0002	0	1	1.8562	0	0

	C-18A	In situ data									Basic output data									
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	30.5	1.11	-0.4	3.65	30.4951	3.6399	4	2.68581	119.3704	0.05969	0	0.0597	509.93	3.6471	-1E-03	4	0.7938	2	2.4698	57.528
2	108.1	3.99	0.08	3.69	108.101	3.691	5	2.30814	131.8185	0.12559	0	0.1256	859.71	3.6953	5E-05	8	0.6679	2	2.1311	204.0914
3	22.3	1.3	0.23	5.84	22.3028	5.8289	3	2.9238	119.7635	0.18548	0	0.1855	119.25	5.8777	0.0008	3	0.8934	2	2.7157	41.80545

	C-18C	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	31.7	1.16	-1.04	3.65	31.6873	3.6608	4	2.67502	119.7863	0.05989	0	0.0599	528.06	3.6677	-0.002	4	0.7901	2	2.46	59.781
2	31.7	1.24	-0.67	3.92	31.6918	3.9127	4	2.69433	120.2746	0.12003	0	0.12	263.03	3.9276	-0.002	4	0.8014	2	2.4822	59.67589
3	18.4	0.76	-1.22	4.11	18.3851	4.1338	3	2.88883	115.3645	0.17771	0	0.1777	102.45	4.1741	-0.005	4	0.8754	2	2.6693	34.41493
4	109.8	2.33	-0.29	2.12	109.796	2.1221	5	2.12284	127.9205	0.24167	0	0.2417	453.32	2.1268	-2E-04	6	0.5969	2	1.9305	207.0767
5	90.2	2.7	0.66	2.99	90.2081	2.9931	5	2.29046	128.5196	0.30593	0	0.3059	293.86	3.0033	0.0005	8	0.6654	2	2.1021	169.93
6	191.5	4.04	-1.29	2.11	191.484	2.1098	6	1.96332	133.3041	0.37258	0	0.3726	512.93	2.114	-5E-04	6	0.5604	1.7949	1.8186	324.188
7	227.6	5.31	-1.84	2.33	227.577	2.3333	6	1.95328	135.7254	0.44045	0	0.4405	515.7	2.3378	-6E-04	8	0.5704	1.6487	1.8365	353.9041
8	229.1	5.18	-1.53	2.26	229.081	2.2612	6	1.94055	135.5601	0.50823	0	0.5082	449.75	2.2662	-5E-04	8	0.5753	1.5248	1.8408	329.3812
9	149.5	3.79	-0.05	2.54	149.499	2.5351	5	2.09272	132.233	0.57434	0	0.5743	259.3	2.5449	-2E-05	5	0.6364	1.4752	1.9929	207.6337
10	295.8	9.11	0	3.08	295.8	3.0798	8	1.99165	137.28	0.64298	0	0.643	459.04	3.0865	0	8	0.6149	1.3584	1.9279	378.9187
11	215.4	8.69	4.05	4.03	215.45	4.0334	8	2.16366	137.28	0.71162	0	0.7116	301.76	4.0468	0.0014	8	0.6855	1.3125	2.1046	266.3615
12	110.5	5.85	0.92	5.29	110.511	5.2936	9	2.42568	134.6722	0.77896	0	0.779	140.87	5.3312	0.0006	9	0.7894	1.2735	2.3686	132.0722
13	106.9	4.87	0.77	4.55	106.909	4.5553	9	2.38255	133.2498	0.84559	0	0.8456	125.43	4.5916	0.0005	9	0.7821	1.1917	2.3413	119.4518
14	72	2.33	0.54	3.23	72.0066	3.2358	5	2.38183	126.8916	0.90903	0	0.909	78.213	3.2772	0.0006	5	0.7899	1.1275	2.3541	75.75692
15	92.3	4.38	0.54	4.75	92.3066	4.7451	9	2.43608	132.1157	0.97509	0	0.9751	93.665	4.7957	0.0004	9	0.8198	1.0693	2.4244	92.29571
16	127.4	4.52	0.15	3.55	127.402	3.5478	8	2.25013	133.1318	1.04165	0	1.0417	121.31	3.5771	9E-05	8	0.7572	1.0119	2.252	120.8465
17	99.1	3.77	0.15	3.8	99.1018	3.8042	4	2.34228	131.1916	1.10725	0	1.1073	88.503	3.8472	0.0001	4	0.8012	0.9643	2.3593	89.30492
18	76.5	3.24	0.15	4.23	76.5018	4.2352	4	2.45067	129.4517	1.17198	0	1.172	64.276	4.3011	0.0001	4	0.8523	0.9166	2.4852	65.25395
19	63.3	2.94	-0.15	4.64	63.2982	4.6447	4	2.53522	128.2787	1.23612	0	1.2361	50.207	4.7372	-2E-04	4	0.8945	0.8702	2.5881	51.03779
20	50.5	2.21	-0.18	4.37	50.4978	4.3764	4	2.58309	125.6393	1.29894	0	1.2989	37.876	4.492	-3E-04	4	0.9237	0.8275	2.6568	38.47385
21	69.5	2.39	-0.19	3.45	69.4977	3.439	4	2.41164	126.9911	1.36243	0	1.3624	50.01	3.5077	-2E-04	4	0.8631	0.804	2.4897	51.77147
22	40.7	1.04	-0.46	2.56	40.6944	2.5556	4	2.49037	119.5975	1.42223	0	1.4222	27.613	2.6482	-8E-04	4	0.9085	0.7644	2.6016	28.37027
23	70.6	2.25	-0.44	3.19	70.5946	3.1872	5	2.383	126.5876	1.48552	0	1.4855	46.522	3.2557	-5E-04	4	0.8676	0.745	2.4861	48.6592
24	78.8	2.43	-0.38	3.09	78.7954	3.0839	5	2.33982	127.4188	1.54923	0	1.5492	49.861	3.1458	-4E-04	4	0.8574	0.7212	2.4512	52.64719
25	45.9	1.3	-0.46	2.83	45.8944	2.8326	4	2.48098	121.5235	1.60999	0	1.61	27.506	2.9356	-8E-04	4	0.9284	0.6773	2.6304	28.34472
26	41.2	1.99	-0.46	4.84	41.1944	4.8308	4	2.67554	124.3754	1.67218	0	1.6722	23.635	5.0352	-8E-04	3	1	0.6328	2.8442	23.6351
27	19.7	0.98	-0.46	4.97	19.6944	4.976	3	2.91809	117.3926	1.73088	0	1.7309	10.378	5.4555	-0.002	3	1	0.6113	3.1386	10.37825
28	13.7	0.53	-0.61	3.87	13.6925	3.8707	3	2.97128	112.0085	1.78688	0.0234	1.7635	6.7512	4.4517	-0.006	3	1	0.6	3.2349	6.75122
29	22.8	1.14	-0.69	5	22.7916	5.0019	3	2.87207	118.8554	1.84631	0.0546	1.7917	11.69	5.4428	-0.005	3	1	0.5906	3.0977	11.69008
30	49	1.99	-0.62	4.06	48.9924	4.0619	4	2.56907	124.7982	1.90871	0.0858	1.8229	25.829	4.2265	-0.003	3	0.9887	0.584	2.7625	25.98792
31	73.9	3.18	-0.77	4.31	73.8906	4.3037	4	2.46585	129.2302	1.97332	0.117	1.8563	38.742	4.4218	-0.002	4	0.9438	0.5883	2.6401	39.98435
32	38.4	2.43	-0.69	6.34	38.3916	6.3295	3	2.78122	125.6651	2.03616	0.1482	1.888	19.256	6.684	-0.005	3	1	0.5605	2.993	19.25647
33	138.4	3.82	-0.49	2.76	138.394	2.7602	5	2.14254	132.1025	2.10221	0.1794	1.9228	70.882	2.8028	-0.002	5	0.8139	0.615	2.2912	79.2176
34	85.6	2.84	-0.38	3.32	85.5954	3.3179	5	2.33896	128.7615	2.16659	0.2106	1.956	42.653	3.4041	-0.003	4	0.9039	0.5739	2.5222	45.24802
35	128	2.97	-0.31	2.32	127.996	2.3204	5	2.10682	130.0704	2.23162	0.2418	1.9898	63.204	2.3616	-0.002	5	0.8089	0.6	2.2699	71.30984
36	97.5	3.46	-0.23	3.55	97.4972	3.5488	5	2.32376	130.5239	2.29689	0.273	2.0239	47.038	3.6344	-0.003	4	0.9027	0.5569	2.5107	50.10175
37	109.3	1.66	-0.15	1.52	109.298	1.5188	6	2.02086	125.4286	2.3596	0.3042	2.0554	52.028	1.5523	-0.003	5	0.7867	0.5931	2.2033	59.94388
38	33.7	1.55	-0.23	4.61	33.6972	4.5998	4	2.72278	122.057	2.42063	0.3354	2.0852	14.999	4.9558	-0.011	3	1	0.5074	2.9883	14.9991
39	43.6	1.82	-0.23	4.17	43.5972	4.1746	4	2.61326	123.8602	2.48256	0.3666	2.116	19.431	4.4267	-0.009	3	1	0.5001	2.8708	19.43073
40	42.4	2.07	-0.46	4.9	42.3944	4.8827	4	2.67011	124.7338	2.54493	0.3978	2.1471	18.559	5.1946	-0.011	3	1	0.4928	2.9313	18.55943
41	28.1	1.55	-0.54	5.51	28.0934	5.5173	3	2.83446	121.6134	2.60573	0.429	2.1767	11.709	6.0814	-0.018	3	1	0.4861	3.1278	11.70913
42	31	1.56	-0.54	5.03	30.9934	5.0333	3	2.77607	121.9001	2.66668	0.4602	2.2065	12.838	5.5072	-0.018	3	1	0.4796	3.0695	12.83795
43	68.7	4.96	-0.51	7.21	68.6938	7.2205	9	2.65859	132.305	2.73284	0.4914	2.2414	29.428	7.5196	-0.008	3	1	0.4721	2.8981	29.42798
44	23.7	1.69	-0.61	7.13	23.6925	7.1331	3	2.96522	121.8306	2.79375	0.5226	2.2712	9.2019	8.0866	-0.027	3	1	0.4659	3.2876	9.20185
45	27	1.48	-0.61	5.48	26.9925	5.483	3	2.84515	121.1778	2.85434	0.5538	2.3005	10.492	6.1314	-0.025	3	1	0.4599	3.1668	10.49241
46	53.4	1.53	-0.61	2.86	53.3925	2.8656	5	2.43629	123.0846	2.91588	0.585	2.3309	21.656	3.0311	-0.012	4	1	0.454	2.7297	21.6556
47	31	1.57	-0.61	5.07	30.9925	5.0657	3	2.77801	121.9468	2.97686	0.6162	2.3607	11.868	5.604	-0.024	3	1	0.4482	3.1007	11.86776
48	31	1.84	-0.61	5.95	30.9925	5.9369	3	2.8262	123.1079	3.03841	0.6474	2.391	11.691	6.5822	-0.025	3	1	0.4425	3.1504	11.69135
49	25	0.81	-0.61	3.26	24.9925	3.241	4	2.71873	116.5796	3.0967	0.6786	2.4181	9.055	3.6993	-0.033	3	1	0.4376	3.0843	9.05498
50	53.6	2.47	-0.69	4.62	53.5916	4.6089	4	2.58161	126.5981	3.16	0.7098	2.4502	20.583	4.8977	-0.015	3	1	0.4319	2.8807	20.58265
51	137.8	2.62	-0.52	1.9	137.794	1.9014	5	2.02091	129.3328	3.22466	0.741	2.4837	54.182	1.947	-0.006	5	0.8256	0.4944	2.2521	62.87437
52	170.3	4.61	-0.32	2.7	170.296	2.7071	5	2.08008	133.9838	3.29166	0.7722	2.5195	66.286	2.7604	-0.005	5	0.8453	0.4803	2.2995	75.80575
53	87.5	5.38	0.08	6.15	87.501	6.1485	9	2.53879	133.4899	3.3584	0.8034	2.555	32.933	6.3939	-0.009	3	1	0.4141	2.8135	32.9325
54	109.1	1.82	0.15	1.67	109.102	1.6682	5	2.04988	126.0975	3.42145	0.8346	2.5869	40.853	1.7222	-0.008	5	0.8553	0.4655	2.3172	46.4946
55	105	4.7	0.25	4.47	105.003	4.4761	9	2.38138	132.9459	3.48792	0.8658	2.6221	38.715	4.6299	-0.008	4	0.9878	0.408	2.6608	39.1466
56	143.3	3.59	0.23	2.51	143.303	2.5052	5	2.10039	131.7331	3.55379	0.897	2.6568	52.601	2.5689	-0.006	5	0.8724	0.4479	2.3536	59.1573
57	85.2	6.71	0.3	7.87	85.2037	7.8753	9	2.63152	135.0414	3.62131	0.9282	2.6931	30.293	8.2248	-0.011	3	1	0.3929	2.9178	30.29299
58	48.3	3.79	0.38	7.86	48.3047	7.846	3	2.78385	129.4776	3.68605	0.9594	2.7267	16.364	8.4942	-0.021	3	1	0.3881	3.1159	16.3639
59	25.1	1.35	0.08	5.36	25.101	5.3783	3	2.8624	120.3279	3.74621	0.9906	2.7556	7.7496	6.3218	-0.046	3	1	0.384	3.2778	7.74955
60	24.7	1.75	0	7.05	24.7	7.085	3	2.95026	122.1875	3.80731	1.0218	2.7855	7.5005	8.3761	-0.049	3	1	0.3799	3.3654	7.5005
61	393	5.88	0.23	1.5	393.003	1.4962	6	1.66019	137.28	3.87595	1.053	2.823	137.84	1.5111	-0.003	6	0.6852	0.5105	1.8411	187.7397
62	74	2.29	0.84	3.09	74.0103	3.0942	5	2.35952	126.8318	3.93936	1.0842	2.8552	24.542	3.2681	-0.015	4	1	0.3706	2.7082	24.54183
63	74.7	2.6	1.07	3.48	74.7131	3.48	4	2.394	127.7838	4.00325	1.1154	2.8879	24.485	3.677	-0.015	4	1	0.3664	2.7421	24.48525
64	69.7	2.35	1.15	3.37	69.7141	3.3709	4	2.40439	126.8752	4.06669	1.1466	2.9201	22.481	3.5797	-0.016	4	1	0.3624	2.7628	22.48127
65	69.7	2.36	1.23	3.39	69.7151	3.3852	4	2.40573	126.9063	4.13015	1.1778	2.9524	22.215	3.5984	-0.017	4	1	0.3584	2.7683	22.21451
66	70.8	2.35	1.3	3.31	70.8159	3.3185	5	2.39477	126.9134	4.1936	1.209	2.9846	22.322	3.5274	-0.017	4	1	0.3545	2.7611	22.32201
67	71.7	2.82	1.38	3.93	71.7169	3.9321	4	2.44518	128.2783	4.25774	1.2402	3.0175	22.356	4.1803	-0.017	3	1	0.3507	2.8084	22.35567
68	95.9	4.73	1.73	4.93	95.9212	4.9311	9	2.43872	132.7719	4.32413	1.2714	3.0527	30.005	5.1639	-0.013	3	1	0.3466	2.7763	30.00499
69	117.6	5.61	1.91	4.77	117.623	4.7695	9	2.3732	134.5178	4.39139	1.3026	3.0888	36.659	4.9544	-0.01	4	1	0.3426	2.7017	36.65906
70	66.7	3.48	2.07	5.22	66.7253	5.2154	4	2.55789	129.6411	4.45621	1.3338	3.1224	19.943	5.5886	-0.019	3	1	0.3389	2.9292	19.94267
71	55.5	2.83	2.22	5.1	55.5272	5.0966	4	2.60327	127.6802	4.52005	1.365	3.1551	16.167	5.5482	-0.024	3	1	0.3354	2.9953	16.16684
72	63.6	3.67	2.3	5.76	63.6282	5.7679	4	2.60452	129.9141	4.585	1.3962	3.1888	18.516	6.2158	-0.021	3	1	0.3318	2.9841	18.51577
73	44.2	2.8	2.37	6.33	44.229	6.3307	3	2.73942	127.0474	4.64853	1.4274	3.2211	12.288	7.0742	-0.032	3	1	0.3285	3.1544	12.28777
74	81.3	5.03	2.53	6.18	81.331	6.1846	9	2.56033	132.8194	4.71494	1.4586	3.2563	23.528	6.5652	-0.017	3	1	0.3249	2.9247	23.52829
75	233.8	10.27	2.83	4.39	233.835	4.392	8	2.17636	137.28	4.78358	1.4898	3.2938	69.541	4.4837	-0.006	4	0.9446	0.3421	2.4626	74.05222
76	102.5	5.58	3.29	5.45	102.54	5.4418	9	2.45481	134.1438	4.85065	1.521	3.3297	29.339	5.712	-0.013	3	1	0.3178	2.8139	29.33932
77	46.4	1.27	3.22	2.74	46.4394	2.7348	4	2.46691	121.3815	4.91134	1.5522	3.3591	12.363	3.0582	-0.032	3	1	0.315	2.9263	12.36271
78	48.8	1.74	3.14	3.56	48.8384	3.5628	4	2.52983	123.8082	4.97324	1.5834	3.3898	12.94	3.9667	-0.031	3	1	0.3121	2.9778	12.94018
79	91.3	5.16	3.29	5.65	91.3403	5.6492	9	2.4983	133.2892	5.03989	1.6146	3.4253	25.195	5.9791	-0.016	3	1	0.3089	2.8751	25.19507
80	87.8	4.52	3.6	5.14	87.8441	5.1455	9	2.47698	132.225	5.106	1.6458	3.4602	23.911	5.463	-0.017	3	1	0.3058	2.8645	23.91135

	C-19	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	30.9	1.28	-0.66	4.15	30.8919	4.1435	4	2.71931	120.4446	0.06022	0	0.0602	511.96	4.1516	-0.002	4	0.808	2	2.5069	58.27704
2	25.4	1.14	0.46	4.5	25.4056	4.4872	3	2.80548	119.1202	0.11978	0	0.1198	211.1	4.5085	0.0013	4	0.8432	2	2.592	47.79446
3	23.4	0.96	-2.87	4.1	23.3649	4.1087	3	2.80753	117.6585	0.17861	0	0.1786	129.81	4.1404	-0.009	4	0.8459	2	2.5918	43.82588
4	57.6	1.35	-0.28	2.34	57.5966	2.3439	5	2.35268	122.3536	0.23979	0	0.2398	239.2	2.3537	-4E-04	5	0.6778	2	2.1431	108.4139
5	23	0.38	0	1.65	23	1.6522	4	2.57232	110.839	0.29521	0	0.2952	76.911	1.6737	0	5	0.7542	2	2.3367	42.91583
6	59	0.95	0	1.61	59	1.6102	5	2.23764	119.8412	0.35513	0	0.3551	165.14	1.6199	0	5	0.6359	2	2.0186	110.8486
7	42.5	1.01	-0.08	2.38	42.499	2.3765	5	2.45551	119.4891	0.41487	0	0.4149	101.44	2.4	-1E-04	5	0.7254	1.9722	2.2456	78.43999
8	57	1.24	0	2.18	57	2.1754	5	2.33428	121.7063	0.47573	0	0.4757	118.82	2.1938	0	5	0.6973	1.7461	2.1652	93.27774
9	97.9	2.2	0.03	2.25	97.9004	2.2472	5	2.17515	127.2207	0.53934	0	0.5393	180.52	2.2596	2E-05	5	0.6566	1.5565	2.0504	143.2222
10	314.4	10.71	2.11	3.41	314.426	3.4062	8	2.01606	137.28	0.60798	0	0.608	516.17	3.4128	0.0005	8	0.6208	1.4105	1.9476	418.3391
11	113.3	6.16	3.38	5.43	113.341	5.4349	9	2.42833	135.1117	0.67553	0	0.6755	166.78	5.4675	0.0022	9	0.7759	1.4165	2.3454	150.8255
12	134.6	5.88	2.83	4.36	134.635	4.3674	9	2.30752	135.1912	0.74313	0	0.7431	180.17	4.3916	0.0015	9	0.7409	1.2993	2.2455	164.4102
13	119.3	4.22	2.6	3.54	119.332	3.5364	5	2.26669	132.4697	0.80936	0	0.8094	146.44	3.5605	0.0016	8	0.7337	1.2173	2.2184	136.3511
14	131.8	4.33	2.53	3.28	131.831	3.2845	5	2.21464	132.9009	0.87581	0	0.8758	149.52	3.3065	0.0014	8	0.723	1.1465	2.1823	141.893
15	144.9	4.81	2.62	3.31	144.932	3.3188	8	2.19292	133.9012	0.94276	0	0.9428	152.73	3.3405	0.0013	8	0.7233	1.0871	2.175	147.9298
16	112.8	4.81	2.6	4.26	112.832	4.263	9	2.34544	133.2906	1.00941	0	1.0094	110.78	4.3015	0.0017	9	0.7896	1.0379	2.341	109.6874
17	98.2	4.12	2.53	4.19	98.231	4.1942	9	2.37744	131.8196	1.07532	0	1.0753	90.351	4.2406	0.0019	9	0.8106	0.987	2.3878	90.62714
18	75.2	3.99	2.57	5.3	75.2315	5.3036	9	2.52977	130.9344	1.14079	0	1.1408	64.947	5.3853	0.0025	4	0.8784	0.9361	2.5576	65.54417
19	69.2	2.49	1.95	3.6	69.2239	3.597	4	2.42706	127.2814	1.20443	0	1.2044	56.475	3.6607	0.0021	4	0.8483	0.896	2.4706	57.59553
20	79.6	3.66	2.07	4.6	79.6253	4.5965	4	2.46632	130.4412	1.26965	0	1.2697	61.715	4.671	0.0019	4	0.8706	0.8533	2.5213	63.18682
21	44.3	2.32	1.99	5.24	44.3244	5.2341	4	2.6784	125.6766	1.33249	0	1.3325	32.264	5.3964	0.0033	3	0.9664	0.8003	2.7648	32.5155
22	61.2	2.42	1.68	3.95	61.2206	3.9529	4	2.49343	126.7731	1.39587	0	1.3959	42.858	4.0452	0.002	4	0.9002	0.7793	2.583	44.06003
23	81.7	2.73	1.76	3.35	81.7215	3.3406	5	2.35463	128.3595	1.46005	0	1.4601	54.972	3.4014	0.0016	4	0.8516	0.7602	2.4473	57.66178
24	60.7	2.86	1.76	4.71	60.7215	4.71	4	2.5518	127.9755	1.52404	0	1.524	38.842	4.8313	0.0021	4	0.9392	0.7099	2.6695	39.71372
25	57.2	2.51	1.68	4.38	57.2206	4.3865	4	2.54649	126.8755	1.58748	0	1.5875	35.045	4.5117	0.0022	4	0.9463	0.6812	2.6803	35.81648
26	30.9	1.25	1.68	4.05	30.9206	4.0426	4	2.7118	120.2733	1.64761	0	1.6476	17.767	4.2702	0.0041	3	1	0.6422	2.8904	17.76687
27	14.9	0.53	1.61	3.56	14.9197	3.5524	3	2.91902	112.2178	1.70372	0.01872	1.685	7.8433	4.0103	0.0074	3	1	0.628	3.1555	7.8433
28	30.2	0.78	1.3	2.57	30.2159	2.5814	4	2.59236	116.7664	1.76211	0.04992	1.7122	16.618	2.7413	0.0015	4	0.9956	0.6193	2.7937	16.65385
29	22.9	0.51	1.3	2.24	22.9159	2.2255	4	2.64811	112.983	1.8186	0.08112	1.7375	12.142	2.4174	0.0006	4	1	0.609	2.8744	12.14249
30	63.1	2.46	1.3	3.9	63.1159	3.8976	4	2.47991	126.9674	1.88208	0.11232	1.7698	34.6	4.0174	-3E-04	4	0.9423	0.6159	2.6468	35.64287
31	85.7	3	0.99	3.49	85.7121	3.5001	5	2.35589	129.1659	1.94666	0.14352	1.8031	46.455	3.5814	-9E-04	4	0.8926	0.6214	2.5118	49.19288
32	63.2	3.05	-0.38	4.83	63.1954	4.8263	4	2.54811	128.5435	2.01094	0.17472	1.8362	33.321	4.9849	-0.003	3	0.9766	0.5837	2.729	33.75315
33	89.2	3.46	-1.3	3.88	89.1841	3.8796	4	2.37832	130.3065	2.07609	0.20592	1.8702	46.578	3.9721	-0.003	4	0.9082	0.5962	2.5444	49.07846
34	111.8	2.13	-1.08	1.9	111.787	1.9054	5	2.08358	127.3077	2.13974	0.23712	1.9026	57.629	1.9426	-0.003	5	0.7936	0.6277	2.2406	65.04765
35	162.5	2.46	-1.07	1.52	162.487	1.514	6	1.89954	129.2738	2.20438	0.26832	1.9361	82.788	1.5348	-0.002	5	0.7189	0.6477	2.0402	98.11325
36	161.3	2.09	-1.3	1.3	161.284	1.2959	6	1.85254	128.063	2.26841	0.29952	1.9689	80.764	1.3143	-0.002	6	0.7044	0.6457	1.9979	97.03991
37	50.7	0.91	-2.56	1.79	50.6687	1.796	5	2.31882	119.1551	2.32799	0.33072	1.9973	24.203	1.8825	-0.011	4	0.9155	0.559	2.5474	25.53792
38	41.6	1.25	-2.68	3	41.5672	3.0072	4	2.53028	120.995	2.38849	0.36192	2.0266	19.333	3.1905	-0.014	4	1	0.5221	2.7821	19.33255
39	75.8	2.92	-2.91	3.85	75.7644	3.8541	4	2.42276	128.6672	2.45282	0.39312	2.0597	35.593	3.983	-0.008	4	0.9514	0.5306	2.6345	36.76547
40	35	2.2	-2.98	6.3	34.9635	6.2923	3	2.80743	124.7094	2.51518	0.42432	2.0909	15.519	6.78	-0.02	3	1	0.5061	3.0663	15.51918
41	42.1	2.56	-3.06	6.09	42.0626	6.0862	3	2.74165	126.2692	2.57831	0.45552	2.1228	18.6	6.4836	-0.017	3	1	0.4985	2.9951	18.60016
42	64.8	4.01	-3.06	6.18	64.7626	6.1919	3	2.62309	130.6055	2.64361	0.48672	2.1569	28.8	6.4554	-0.011	3	1	0.4906	2.8571	28.8002
43	43.6	2.87	-3.14	6.59	43.5616	6.5884	3	2.75667	127.191	2.70721	0.51792	2.1893	18.661	7.025	-0.018	3	1	0.4833	3.0178	18.66103
44	24.6	1.53	-3.21	6.21	24.5607	6.2295	3	2.91308	121.1906	2.7678	0.54912	2.2187	9.8225	7.0206	-0.036	3	1	0.4769	3.2264	9.82245
45	49.4	1.85	-3.21	3.74	49.3607	3.7479	4	2.54201	124.2827	2.82994	0.58032	2.2496	20.684	3.9759	-0.017	3	1	0.4704	2.8199	20.68379
46	37	2.38	-3.24	6.44	36.9603	6.4393	3	2.79799	125.4203	2.89265	0.61152	2.2811	14.935	6.9861	-0.025	3	1	0.4639	3.0874	14.93454
47	33.4	2.04	-3.22	6.11	33.3606	6.115	3	2.81276	124.0425	2.95468	0.64272	2.312	13.152	6.7092	-0.029	3	1	0.4577	3.1171	13.1516
48	48.7	2.56	-3.23	5.27	48.6605	5.2609	4	2.65222	126.6246	3.01799	0.67392	2.3441	19.471	5.6088	-0.02	3	1	0.4514	2.9379	19.47148
49	80.8	2.3	-3.19	2.84	80.761	2.8479	5	2.3073	127.0766	3.08153	0.70512	2.3764	32.688	2.9609	-0.012	4	0.9421	0.4666	2.5703	34.25568
50	92.8	5.35	-3.06	5.77	92.7626	5.7674	9	2.5013	133.5914	3.14832	0.73632	2.412	37.153	5.97	-0.011	3	1	0.4387	2.7557	37.15346
51	72.6	5.24	-2.91	7.23	72.5644	7.2212	9	2.64385	132.8405	3.21474	0.76752	2.4472	28.338	7.5559	-0.014	3	1	0.4324	2.911	28.3381
52	120	2.31	-2.83	1.92	119.965	1.9256	5	2.06573	128.0735	3.27878	0.79872	2.4801	47.05	1.9797	-0.009	5	0.847	0.486	2.3088	53.59855
53	113.2	5.27	-2.76	4.66	113.166	4.6569	9	2.37505	133.9661	3.34576	0.82992	2.5158	43.652	4.7987	-0.009	4	0.9717	0.431	2.6314	44.7345
54	82.8	1.59	-2.76	1.92	82.7662	1.9211	5	2.17866	124.4352	3.40798	0.86112	2.5469	31.159	2.0036	-0.013	5	0.9116	0.449	2.4678	33.67461
55	77.1	2.3	-2.68	2.98	77.0672	2.9844	5	2.33605	126.9624	3.47146	0.89232	2.5791	28.535	3.1252	-0.015	4	0.9776	0.4185	2.6391	29.10987
56	51.1	3.09	-2.83	6.06	51.0654	6.0511	3	2.68302	128.119	3.53552	0.92352	2.612	18.197	6.5012	-0.024	3	1	0.4051	3.0029	18.19672
57	45.7	3.13	-2.76	6.85	45.6662	6.8541	3	2.75571	127.9406	3.59949	0.95472	2.6448	15.906	7.4406	-0.027	3	1	0.4001	3.0856	15.90562
58	21.5	1.19	-2.83	5.53	21.4654	5.5438	3	2.92134	119.0232	3.659	0.98592	2.6731	6.6614	6.683	-0.067	3	1	0.3958	3.3445	6.66136
59	286.7	3.79	-2.91	1.32	286.664	1.3221	6	1.69549	133.8209	3.72591	1.01712	2.7088	104.45	1.3395	-0.004	6	0.6991	0.5183	1.8917	138.5989
60	60.8	2.75	-2.76	4.53	60.7662	4.5255	4	2.53874	127.6903	3.78976	1.04832	2.7414	20.783	4.8266	-0.022	3	1	0.386	2.8734	20.78342
61	61.9	2.16	-2.45	3.5	61.87	3.4912	4	2.45121	125.9672	3.85274	1.07952	2.7732	20.921	3.723	-0.022	3	1	0.3815	2.7977	20.92053
62	61.5	2.27	-2.37	3.69	61.471	3.6928	4	2.47075	126.3149	3.9159	1.11072	2.8052	20.517	3.9441	-0.022	3	1	0.3772	2.8203	20.51744
63	62	2.14	-2.37	3.45	61.971	3.4532	4	2.44731	125.9031	3.97885	1.14192	2.8369	20.442	3.6902	-0.023	3	1	0.373	2.803	20.44186
64	63.2	2.51	-2.37	3.98	63.171	3.9733	4	2.48576	127.1168	4.04241	1.17312	2.8693	20.607	4.245	-0.023	3	1	0.3688	2.8395	20.6074
65	74.7	3.68	-2.39	4.93	74.6708	4.9283	4	2.50745	130.3244	4.10757	1.20432	2.9033	24.305	5.2152	-0.02	3	1	0.3645	2.8456	24.30488
66	87.1	3.86	-2.3	4.44	87.0719	4.4331	4	2.42931	131.0485	4.1731	1.23552	2.9376	28.22	4.6563	-0.017	3	1	0.3602	2.7646	28.22013
67	83.6	4.09	-2.14	4.9	83.5738	4.8939	9	2.47374	131.372	4.23878	1.26672	2.9721	26.694	5.1554	-0.018	3	1	0.356	2.8125	26.6936
68	119.4	5.93	-1.91	4.97	119.377	4.9675	9	2.38353	134.9598	4.30626	1.29792	3.0083	38.25	5.1534	-0.012	3	1	0.3517	2.701	38.25043
69	67.6	3.86	-1.99	5.71	67.5756	5.7121	4	2.58439	130.4303	4.37148	1.32912	3.0424	20.775	6.1072	-0.023	3	1	0.3478	2.9422	20.77474
70	51.4	3.33	-1.97	6.48	51.3759	6.4816	3	2.70362	128.6811	4.43582	1.36032	3.0755	15.263	7.0942	-0.032	3	1	0.344	3.0848	15.2626
71	28.5	1.41	-2.07	4.94	28.4747	4.9518	3	2.79789	120.9536	4.49629	1.39152	3.1048	7.7231	5.8803	-0.064	3	1	0.3408	3.2597	7.72306
72	67.3	4.28	-2.07	6.36	67.2747	6.362	9	2.62159	131.1751	4.56188	1.42272	3.1392	19.978	6.8248	-0.025	3	1	0.3371	2.9876	19.97756
73	103	6.43	-2.03	6.25	102.975	6.2442	9	2.50158	135.1916	4.62948	1.45392	3.1756	30.97	6.5382	-0.016	3	1	0.3332	2.839	30.96958
74	53.7	2.51	-1.91	4.69	53.6766	4.6762	4	2.58573	126.7195	4.69284	1.48512	3.2077	15.271	5.1241	-0.033	3	1	0.3299	2.9916	15.27061
75	34.7	1.61	-1.84	4.65	34.6775	4.6428	4	2.7166	122.4049	4.75404	1.51632	3.2377	9.2421	5.3804	-0.055	3	1	0.3268	3.1744	9.24213
76	41.9	1.8	-2.14	4.3	41.8738	4.2986	4	2.63466	123.681	4.81588	1.54752	3.2684	11.338	4.8573	-0.046	3	1	0.3237	3.0771	11.33839
77	86.8	4.53	-1.99	5.22	86.7756	5.2204	9	2.4852	132.2113	4.88199	1.57872	3.3033	24.792	5.5316	-0.021	3	1	0.3203	2.8568	24.79173
78	78	3.69	-1.88	4.73	77.977	4.7322	4	2.48183	130.4499	4.94721	1.60992	3.3373	21.883	5.0527	-0.024	3	1	0.3171	2.8699	21.88295
79	63	3.05	-1.84	4.85	62.9775	4.843	4	2.55023	128.5351	5.01148	1.64112	3.3704	17.199	5.2617	-0.031	3	1	0.314	2.9599	17.19877
80	42.2	0	-1.77	0	42.1783	0	0	0	769.6	5.39628	1.67232	3.724	9.8771	0	-0.049	0	1	0.2841	0	0

	C-20	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	43.7	1.67	-0.17	3.81	43.6979	3.8217	4	2.58567	123.2365	0.06162	0	0.0616	708.17	3.8271	-3E-04	4	0.7597	2	2.38	82.47986
2	23.8	1.27	-3.61	5.33	23.7558	5.3461	3	2.87819	119.7466	0.12149	0	0.1215	194.53	5.3735	-0.011	4	0.8721	2	2.6675	44.6728
3	18.3	0.91	-1.29	4.98	18.2842	4.977	3	2.94255	116.6691	0.17983	0	0.1798	100.68	5.0264	-0.005	3	0.8976	2	2.7273	34.2203
4	20.2	0.51	-1.1	2.5	20.1865	2.5264	4	2.72512	112.6737	0.23616	0	0.2362	84.477	2.5563	-0.004	4	0.8125	2	2.4969	37.70952
5	22.5	0.44	-0.98	1.95	22.488	1.9566	4	2.62208	111.8568	0.29209	0	0.2921	75.99	1.9824	-0.003	5	0.7746	2	2.3904	41.95397
6	27.3	0.45	-0.37	1.66	27.2955	1.6486	5	2.51048	112.4938	0.34834	0	0.3483	77.359	1.6699	-1E-03	5	0.7344	2	2.2781	50.93456
7	21.4	0.53	-0.23	2.47	21.3972	2.477	4	2.6997	113.0972	0.40489	0	0.4049	51.847	2.5247	-8E-04	4	0.8127	2	2.4767	39.67893
8	27.4	0.58	-0.15	2.14	27.3982	2.1169	4	2.57287	114.3598	0.46207	0	0.4621	58.295	2.1532	-4E-04	5	0.7742	1.8993	2.3665	48.34943
9	265.4	5.79	0.36	2.18	265.404	2.1816	6	1.89103	136.7336	0.53043	0	0.5304	499.35	2.186	0.0001	8	0.5616	1.4738	1.8022	368.9274
10	261.1	10.44	-4.4	4	261.046	3.9993	8	2.11691	137.28	0.59907	0	0.5991	434.75	4.0085	-0.001	8	0.6557	1.4521	2.0405	357.4268
11	151.6	5.69	-3.53	3.75	151.557	3.7544	8	2.22415	135.2396	0.66669	0	0.6667	226.33	3.771	-0.002	8	0.6995	1.3814	2.1469	196.9895
12	97.2	5.12	-3.41	5.27	97.1583	5.2698	9	2.458	133.3828	0.73338	0	0.7334	131.48	5.3098	-0.003	9	0.7944	1.338	2.3871	121.9351
13	112.2	4.34	-3.67	3.87	112.155	3.8696	8	2.31406	132.5236	0.79965	0	0.7997	139.26	3.8974	-0.002	8	0.75	1.2338	2.2626	129.84
14	132.5	4.18	-3.83	3.15	132.453	3.1558	5	2.19978	132.6544	0.86597	0	0.866	151.95	3.1766	-0.002	5	0.7161	1.1543	2.1654	143.5488
15	115.9	3.87	-3.83	3.34	115.853	3.3404	5	2.25556	131.764	0.93186	0	0.9319	123.33	3.3675	-0.002	5	0.7455	1.0994	2.2346	119.4005
16	120.8	5.2	-4.08	4.31	120.75	4.3064	9	2.33095	134.0265	0.99887	0	0.9989	119.89	4.3423	-0.002	9	0.7827	1.0461	2.3242	118.3954
17	152.7	5.83	-3.98	3.82	152.651	3.8192	8	2.22831	135.435	1.06659	0	1.0666	142.12	3.846	-0.002	8	0.7516	0.994	2.2341	142.4034
18	118.5	5.41	-3.87	4.57	118.453	4.5672	9	2.35633	134.2693	1.13372	0	1.1337	103.48	4.6114	-0.002	9	0.8092	0.9457	2.3769	104.8532
19	110.6	4.26	-3.98	3.85	110.551	3.8534	5	2.31655	132.3523	1.1999	0	1.1999	91.134	3.8957	-0.003	4	0.8024	0.904	2.3509	93.42651
20	94	3.97	-4.06	4.23	93.9503	4.2256	9	2.39221	131.4396	1.26562	0	1.2656	73.233	4.2833	-0.003	4	0.8405	0.8603	2.4426	75.35466
21	84.6	2.33	-4.06	2.76	84.5503	2.7558	5	2.28324	127.2833	1.32926	0	1.3293	62.607	2.7998	-0.004	5	0.8078	0.8317	2.3486	65.41374
22	105.5	2.98	-4.44	2.83	105.446	2.8261	5	2.2267	129.6223	1.39407	0	1.3941	74.639	2.864	-0.003	5	0.7919	0.8038	2.2986	79.04792
23	82.8	3.14	-4.36	3.79	82.7466	3.7947	4	2.39234	129.4137	1.45878	0	1.4588	55.723	3.8628	-0.004	4	0.8657	0.7573	2.4845	58.179
24	51.2	2.32	-4.36	4.53	51.1466	4.536	4	2.5905	126.0258	1.52179	0	1.5218	32.61	4.6751	-0.006	4	0.9565	0.7064	2.7153	33.12878
25	89.5	3.38	-4.52	3.78	89.4447	3.7789	4	2.36882	130.1425	1.58686	0	1.5869	55.366	3.8471	-0.004	4	0.871	0.7026	2.4824	58.33629
26	26	1.13	-4.59	4.36	25.9438	4.3556	3	2.79007	119.1068	1.64641	0.01248	1.6339	14.87	4.6507	-0.014	3	1	0.6476	2.9736	14.87049
27	26.9	1.1	-4.67	4.08	26.8428	4.0979	4	2.76142	118.993	1.70591	0.04368	1.6622	15.122	4.376	-0.015	3	1	0.6366	2.9512	15.12241
28	23.1	1.17	-4.9	5.1	23.04	5.0781	3	2.87297	119.0719	1.76545	0.07488	1.6906	12.584	5.4995	-0.02	3	1	0.6259	3.0758	12.58429
29	34.9	1.22	-4.94	3.51	34.8395	3.5018	4	2.6315	120.3866	1.82564	0.10608	1.7196	19.199	3.6954	-0.014	3	1	0.6153	2.8244	19.19904
30	70.8	2.55	-4.9	3.6	70.74	3.6048	4	2.42134	127.5085	1.88939	0.13728	1.7521	39.296	3.7037	-0.007	4	0.9155	0.6302	2.5784	41.00753
31	84.5	3.26	-4.98	3.86	84.439	3.8608	4	2.39221	129.7375	1.95426	0.16848	1.7858	46.19	3.9522	-0.006	4	0.9048	0.6228	2.5462	48.54932
32	83.1	3.1	-4.9	3.73	83.04	3.7331	4	2.38598	129.3285	2.01893	0.19968	1.8193	44.536	3.8262	-0.007	4	0.9068	0.6118	2.5471	46.84381
33	34.7	2.01	-4.82	5.81	34.641	5.8024	3	2.78505	124.0259	2.08094	0.23088	1.8501	17.599	6.1732	-0.018	3	1	0.5719	2.9984	17.59946
34	79.8	2.36	-4.75	2.96	79.7419	2.9596	5	2.32323	127.2341	2.14456	0.26208	1.8825	41.221	3.0413	-0.008	4	0.8913	0.5984	2.4982	43.88597
35	158.3	1.88	-4.67	1.19	158.243	1.1881	6	1.83143	127.2418	2.20818	0.29328	1.9149	81.485	1.2049	-0.004	6	0.6912	0.6637	1.97	97.86615
36	95.5	1.6	-4.67	1.68	95.4428	1.6764	5	2.09304	124.8286	2.27059	0.32448	1.9461	47.876	1.7173	-0.007	5	0.8057	0.612	2.2669	53.89259
37	31.1	0.92	-4.71	2.95	31.0424	2.9637	4	2.62157	118.0401	2.32961	0.35568	1.9739	14.546	3.2042	-0.024	3	1	0.536	2.8812	14.54596
38	30.9	1.35	-4.75	4.37	30.8419	4.3772	4	2.73599	120.8302	2.39003	0.38688	2.0032	14.204	4.7449	-0.026	3	1	0.5282	2.9945	14.20356
39	32.6	1.42	-4.75	4.37	32.5419	4.3636	4	2.71803	121.331	2.45069	0.41808	2.0326	14.804	4.719	-0.025	3	1	0.5206	2.9791	14.80418
40	33.8	2.15	-4.9	6.37	33.74	6.3723	3	2.82213	124.4543	2.51292	0.44928	2.0636	15.132	6.885	-0.026	3	1	0.5127	3.0789	15.13205
41	52	3.06	-4.9	5.89	51.94	5.8914	3	2.66944	128.0891	2.57696	0.48048	2.0965	23.546	6.199	-0.017	3	1	0.5047	2.9071	23.54563
42	29.3	1.79	-4.82	6.11	29.241	6.1215	3	2.8535	122.7644	2.63835	0.51168	2.1267	12.509	6.7287	-0.032	3	1	0.4975	3.1343	12.50908
43	19.2	1.07	-5.1	5.59	19.1376	5.5911	3	2.96088	117.9655	2.69733	0.54288	2.1545	7.6308	6.5084	-0.055	3	1	0.4911	3.2909	7.63083
44	25.8	1.31	-5.05	5.1	25.7382	5.0897	3	2.83813	120.169	2.75741	0.57408	2.1833	10.526	5.7004	-0.041	3	1	0.4846	3.1458	10.52554
45	43.1	1.59	-5.08	3.69	43.0378	3.6944	4	2.5802	122.8402	2.81883	0.60528	2.2136	18.169	3.9534	-0.024	3	1	0.478	2.8615	18.16941
46	34.6	2.62	-4.98	7.6	34.539	7.5856	3	2.86998	125.9581	2.88181	0.63648	2.2453	14.099	8.2762	-0.031	3	1	0.4713	3.1554	14.09912
47	30.9	1.91	-5.12	6.21	30.8373	6.1938	3	2.84074	123.3689	2.9435	0.66768	2.2758	12.257	6.8474	-0.037	3	1	0.4649	3.146	12.25662
48	68.7	2.91	-5.05	4.24	68.6382	4.2396	4	2.48223	128.4012	3.0077	0.69888	2.3088	28.426	4.4339	-0.016	3	1	0.4583	2.7478	28.42601
49	125.5	6.25	-4.9	4.98	125.44	4.9825	9	2.37185	135.4652	3.07543	0.73008	2.3454	52.173	5.1077	-0.009	4	0.9495	0.4697	2.594	54.31377
50	81.5	4.81	-4.54	5.9	81.4444	5.9059	9	2.54425	132.4955	3.14168	0.76128	2.3804	32.895	6.1428	-0.014	3	1	0.4445	2.8013	32.8948
51	168.9	3.79	-4.44	2.24	168.846	2.2447	5	2.01839	132.5299	3.20794	0.79248	2.4155	68.574	2.2881	-0.007	5	0.8118	0.5117	2.2245	80.0968
52	137.4	5.93	-4.27	4.32	137.348	4.3175	9	2.29838	135.3018	3.27559	0.82368	2.4519	54.681	4.423	-0.008	4	0.9298	0.4578	2.5285	58.00457
53	115.5	2.12	-4.18	1.83	115.449	1.8363	5	2.06231	127.3518	3.33927	0.85488	2.4844	45.126	1.891	-0.01	5	0.8475	0.4851	2.3096	51.39717
54	115.6	4.4	-4.13	3.81	115.549	3.8079	8	2.30052	132.6968	3.40562	0.88608	2.5195	44.51	3.9235	-0.011	4	0.9432	0.4412	2.5554	46.75864
55	47	2.86	-3.98	6.09	46.9513	6.0914	3	2.70958	127.3482	3.46929	0.91728	2.552	17.038	6.5774	-0.028	3	1	0.4146	3.0274	17.03831
56	41.4	3.17	-4.36	7.69	41.3466	7.6669	3	2.82075	127.7911	3.53319	0.94848	2.5847	14.63	8.3833	-0.033	3	1	0.4094	3.1474	14.62967
57	92.3	1.94	-4.43	2.1	92.2458	2.1031	5	2.17256	126.1554	3.59627	0.97968	2.6166	33.88	2.1884	-0.015	5	0.9131	0.4375	2.463	36.65307
58	543.6	0	-6.87	0	543.516	0	0	0	769.6	3.98107	1.01088	2.9702	181.65	0	-0.003	0	1	0.3562	0	0

	C-21	In situ data			Basic output data														
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	69.8	1.12	0.69	1.61	69.8085	1.6044	5	2.18084	121.456	0.06073	0	0.0607	1148.5	1.6058	0.0007	6	0.6009	2	1.9634	131.8348
2	19.2	1.05	-0.17	5.49	19.1979	5.4693	3	2.95352	117.8351	0.11965	0	0.1197	159.46	5.5036	-6E-04	3	0.8993	2	2.7393	36.06111
3	39.5	0.86	-0.83	2.18	39.4898	2.1778	5	2.4556	118.1337	0.17871	0	0.1787	219.97	2.1877	-0.002	5	0.7096	2	2.2339	74.30457
4	105.4	2.13	0.52	2.02	105.406	2.0208	5	2.11967	127.1643	0.24229	0	0.2423	434.03	2.0254	0.0004	6	0.5946	2	1.9243	198.7776
5	57.4	1.06	0.44	1.85	57.4054	1.8465	5	2.28505	120.576	0.30258	0	0.3026	188.72	1.8563	0.0006	5	0.6526	2	2.069	107.9338
6	50.1	0.94	0.2	1.88	50.1025	1.8762	5	2.33467	119.365	0.36227	0	0.3623	137.3	1.8898	0.0003	5	0.6735	2	2.1165	94.01721
7	82.7	1.9	0.14	2.29	82.7017	2.2974	5	2.23323	125.7366	0.42513	0	0.4251	193.53	2.3093	0.0001	5	0.6554	1.8177	2.0613	141.3415
8	84.9	2.41	0.14	2.84	84.9017	2.8386	5	2.29138	127.5404	0.4889	0	0.4889	172.66	2.855	0.0001	5	0.6897	1.7032	2.1436	135.8738
9	91.7	1.84	0.21	2	91.7026	2.0065	5	2.15993	125.7537	0.55178	0	0.5518	165.19	2.0186	0.0002	5	0.652	1.5289	2.037	131.7053
10	393.8	9.98	3.21	2.53	393.839	2.534	8	1.85616	137.28	0.62042	0	0.6204	633.79	2.538	0.0006	8	0.5641	1.3514	1.7974	502.2101
11	158	6.11	2.83	3.86	158.035	3.8662	8	2.22381	135.8628	0.68835	0	0.6884	228.58	3.8832	0.0013	8	0.7027	1.3527	2.1526	201.1533
12	115	5.88	2.13	5.11	115.026	5.1119	9	2.40313	134.8073	0.75576	0	0.7558	151.2	5.1457	0.0013	9	0.7779	1.2992	2.3411	140.3104
13	138	4.57	1.52	3.31	138.019	3.3112	5	2.2051	133.4075	0.82246	0	0.8225	166.81	3.331	0.0008	8	0.7127	1.1967	2.1617	155.1626
14	166.3	4.94	1.52	2.97	166.319	2.9702	5	2.11838	134.4321	0.88968	0	0.8897	185.94	2.9862	0.0007	8	0.6888	1.1268	2.0909	176.1746
15	110.7	3.04	1.52	2.75	110.719	2.7457	5	2.2033	129.8872	0.95462	0	0.9546	114.98	2.7696	0.001	5	0.7285	1.0779	2.1873	111.8135
16	154.7	5.07	0.98	3.28	154.712	3.2771	8	2.17139	134.4457	1.02184	0	1.0218	150.41	3.2989	0.0005	8	0.7246	1.0256	2.1688	148.9675
17	133.8	4.15	1.13	3.1	133.814	3.1013	5	2.19109	132.6267	1.08815	0	1.0882	121.97	3.1268	0.0006	5	0.7403	0.9795	2.2017	122.8634
18	92.9	4.67	1.36	5.02	92.9167	5.026	9	2.45379	132.6008	1.15446	0	1.1545	79.485	5.0892	0.0011	9	0.85	0.9286	2.4816	80.5308
19	83.4	3.35	1.13	4.02	83.4138	4.0161	4	2.40863	129.907	1.21941	0	1.2194	67.405	4.0757	0.001	4	0.8418	0.8874	2.4519	68.93503
20	66.4	3.77	1.16	5.68	66.4142	5.6765	4	2.58718	130.2154	1.28452	0	1.2845	50.704	5.7885	0.0013	3	0.9204	0.8366	2.6499	51.49282
21	106.4	3.88	1.13	3.65	106.414	3.6461	5	2.30837	131.5756	1.3503	0	1.3503	77.807	3.693	0.0008	4	0.8177	0.8192	2.3722	81.34333
22	108.1	4.14	0.98	3.83	108.112	3.8294	5	2.32051	132.0888	1.41635	0	1.4164	75.331	3.8802	0.0007	4	0.83	0.785	2.3962	79.15925
23	96	4.24	1	4.42	96.0122	4.4161	9	2.40107	131.974	1.48234	0	1.4823	63.771	4.4854	0.0008	4	0.87	0.7458	2.4928	66.62858
24	56.6	3.01	1.13	5.31	56.6138	5.3167	4	2.61127	128.1787	1.54643	0	1.5464	35.609	5.466	0.0015	3	0.966	0.6931	2.737	36.07259
25	48.6	3.05	0.75	6.27	48.6092	6.2745	3	2.70903	127.9035	1.61038	0	1.6104	29.185	6.4895	0.0012	3	1	0.6571	2.8547	29.18497
26	14.5	0.64	0.67	4.43	14.5082	4.4113	3	2.98649	113.5295	1.66714	0.0312	1.6359	7.8493	4.984	0.0013	3	1	0.6468	3.2107	7.84934
27	19.2	0.85	0.67	4.43	19.2082	4.4252	3	2.89317	116.2903	1.72529	0.0624	1.6629	10.514	4.8619	-8E-04	3	1	0.6363	3.1032	10.51359
28	39.4	1.5	0.52	3.82	39.4064	3.8065	4	2.61686	122.1988	1.78639	0.0936	1.6928	22.224	3.9872	-0.001	3	0.9956	0.6264	2.7962	22.26952
29	55.9	1.46	0.52	2.6	55.9064	2.6115	5	2.39409	122.8541	1.84781	0.1248	1.723	31.374	2.7008	-0.002	4	0.9064	0.6428	2.5581	32.83951
30	82.6	2.71	0.6	3.28	82.6073	3.2806	5	2.34565	128.332	1.91198	0.156	1.756	45.955	3.3583	-0.001	4	0.884	0.6391	2.495	48.73672
31	60.1	2.8	0.83	4.66	60.1102	4.6581	4	2.55119	127.7957	1.97588	0.1872	1.7887	32.501	4.8164	-0.002	3	0.9732	0.5999	2.7259	32.96189
32	77.4	4.03	0.98	5.21	77.412	5.2059	9	2.51562	131.0771	2.04142	0.2184	1.823	41.344	5.3469	-0.002	3	0.9582	0.5938	2.6822	42.29415
33	58.5	2.26	0.98	3.87	58.512	3.8625	4	2.49965	126.1622	2.1045	0.2496	1.8549	30.41	4.0066	-0.003	4	0.9626	0.5826	2.6897	31.05546
34	87.9	2.22	1.06	2.53	87.913	2.5252	5	2.24407	127.0245	2.16801	0.2808	1.8872	45.435	2.5891	-0.002	5	0.8595	0.6082	2.4137	49.2841
35	115.6	0.87	1.06	0.75	115.613	0.7525	6	1.80322	120.8382	2.22843	0.312	1.9164	59.165	0.7673	-0.002	6	0.687	0.665	1.9586	71.25509
36	38.3	0.94	0.98	2.45	38.312	2.4535	4	2.49882	118.7106	2.28778	0.3432	1.9446	18.525	2.6094	-0.008	4	0.9862	0.5487	2.7408	18.6814
37	32.2	0.6	0.75	1.86	32.2092	1.8628	5	2.48334	115.0025	2.34528	0.3744	1.9709	15.153	2.0091	-0.011	4	0.9908	0.54	2.7477	15.23942
38	52.4	1.66	0.75	3.18	52.4092	3.1674	4	2.47222	123.6359	2.4071	0.4056	2.0015	24.982	3.3199	-0.007	4	0.9739	0.5375	2.7012	25.40168
39	26.5	1.53	0.83	5.77	26.5102	5.7714	3	2.86618	121.3769	2.46779	0.4368	2.031	11.838	6.3638	-0.016	3	1	0.521	3.1368	11.83775
40	52.4	3.04	0.75	5.81	52.4092	5.8005	3	2.6618	128.063	2.53182	0.468	2.0638	24.167	6.095	-0.008	3	1	0.5127	2.8939	24.16747
41	62.7	4.26	0.92	6.79	62.7113	6.793	3	2.66297	130.9695	2.59731	0.4992	2.0981	28.652	7.0865	-0.007	3	1	0.5043	2.8876	28.65152
42	25.9	1.63	0.83	6.28	25.9102	6.291	3	2.89932	121.7843	2.6582	0.5304	2.1278	10.928	7.0102	-0.02	3	1	0.4973	3.1905	10.9277
43	21.2	1.38	0.83	6.5	21.2102	6.5063	3	2.97231	120.0779	2.71824	0.5616	2.1566	8.5744	7.4627	-0.027	3	1	0.4906	3.2887	8.57442
44	47.9	1.42	0.67	2.96	47.9082	2.964	4	2.48062	122.2743	2.77938	0.5928	2.1866	20.639	3.1466	-0.012	4	1	0.4839	2.7561	20.63904
45	53.6	3.19	0.81	5.95	53.6099	5.9504	3	2.66354	128.4707	2.84361	0.624	2.2196	22.872	6.2837	-0.011	3	1	0.4767	2.9203	22.87171
46	36.5	2.38	0.83	6.5	36.5102	6.5187	3	2.80551	125.3904	2.90631	0.6552	2.2511	14.928	7.0825	-0.018	3	1	0.47	3.0915	14.92771
47	61.1	1.5	0.83	2.45	61.1102	2.4546	5	2.34749	123.269	2.96794	0.6864	2.2815	25.484	2.5799	-0.011	4	0.9562	0.4797	2.6194	26.35643
48	86.6	2.4	0.95	2.77	86.6116	2.771	5	2.27782	127.5586	3.03172	0.7176	2.3141	36.117	2.8715	-0.008	4	0.9218	0.4861	2.5243	38.39765
49	114.2	5.87	1.15	5.14	114.214	5.1395	9	2.40684	134.7775	3.09911	0.7488	2.3503	47.277	5.2828	-0.006	4	0.9662	0.4625	2.6374	48.57047
50	130.4	5.13	1.52	3.93	130.419	3.9335	8	2.27938	134.1152	3.16617	0.78	2.3862	53.329	4.0314	-0.005	4	0.9174	0.4743	2.5039	57.03481
51	152.5	5.96	1.6	3.91	152.52	3.9077	8	2.23659	135.5943	3.23396	0.8112	2.4228	61.618	3.9924	-0.005	4	0.9001	0.4744	2.4537	66.93245
52	95.4	2.07	1.67	2.17	95.4204	2.1694	5	2.17188	126.7125	3.29732	0.8424	2.4549	37.526	2.247	-0.008	5	0.8929	0.4717	2.4324	41.06674
53	123.6	2.99	1.67	2.42	123.62	2.4187	5	2.13033	130.0346	3.36234	0.8736	2.4887	48.321	2.4863	-0.006	5	0.8719	0.4744	2.3731	53.91672
54	98.3	6.74	2.08	6.86	98.3255	6.8548	9	2.54612	135.4234	3.43005	0.9048	2.5253	37.579	7.1026	-0.008	3	1	0.419	2.8075	37.57864
55	56.4	3.68	2.2	6.52	56.4269	6.5217	3	2.67896	129.6411	3.49487	0.936	2.5589	20.686	6.9523	-0.015	3	1	0.4135	2.9822	20.68572
56	79.9	2.59	1.75	3.24	79.9214	3.2407	5	2.35141	127.92	3.55883	0.9672	2.5916	29.465	3.3917	-0.011	4	0.9837	0.4143	2.6536	29.89982
57	403.4	7.36	1.82	1.82	403.422	1.8244	6	1.72732	137.28	3.62747	0.9984	2.6291	152.07	1.8409	-0.002	6	0.6941	0.5317	1.8887	200.8902
58	44.3	1.33	2.72	3.01	44.3333	3	4	2.5089	121.606	3.68827	1.0296	2.6587	15.288	3.2722	-0.021	3	1	0.398	2.8695	15.28771
59	88.7	3.12	3.06	3.52	88.7375	3.516	5	2.34741	129.5374	3.75304	1.0608	2.6922	31.566	3.6713	-0.01	4	0.9902	0.3966	2.6559	31.85534
60	87.3	3.33	3.28	3.81	87.3402	3.8127	4	2.37849	129.9754	3.81803	1.092	2.726	30.639	3.987	-0.01	4	1	0.3882	2.6926	30.63875
61	77	3.15	3.37	4.08	77.0413	4.0887	4	2.43716	129.2627	3.88266	1.1232	2.7595	26.512	4.3057	-0.012	3	1	0.3835	2.7615	26.51192
62	85	3.17	3.58	3.73	85.0438	3.7275	4	2.37866	129.5501	3.94743	1.1544	2.793	29.035	3.9089	-0.011	4	1	0.3788	2.7041	29.03522
63	98.8	5.06	3.7	5.12	98.8453	5.1191	9	2.44346	133.3386	4.0141	1.1856	2.8285	33.527	5.3358	-0.01	3	1	0.3741	2.7519	33.52697
64	99.5	3.63	3.89	3.65	99.5476	3.6465	5	2.32693	130.9256	4.07957	1.2168	2.8628	33.348	3.8023	-0.01	4	0.9955	0.3713	2.6501	33.4973
65	124.5	7.53	4.31	6.04	124.553	6.0456	9	2.44202	136.8111	4.14797	1.248	2.9	41.519	6.2539	-0.008	3	1	0.3649	2.7375	41.51928
66	109	6.16	4.5	5.64	109.055	5.6485	9	2.45174	135.0176	4.21548	1.2792	2.9363	35.705	5.8756	-0.009	3	1	0.3604	2.7627	35.70489
67	72.9	4.09	4.58	5.6	72.9561	5.6061	9	2.55682	131.0406	4.281	1.3104	2.9706	23.118	5.9556	-0.014	3	1	0.3562	2.9009	23.11823
68	67.7	4.58	4.39	6.76	67.7537	6.7598	9	2.64003	131.6881	4.34685	1.3416	3.0053	21.099	7.2232	-0.016	3	1	0.3521	2.9875	21.09874
69	57.2	3.45	4.35	6.02	57.2532	6.0259	3	2.64883	129.2043	4.41145	1.3728	3.0387	17.39	6.5289	-0.02	3	1	0.3482	3.0186	17.3899
70	173.6	8.04	4.54	4.63	173.656	4.6299	9	2.26495	137.28	4.48009	1.404	3.0761	54.997	4.7525	-0.006	4	0.9703	0.3551	2.5578	56.76987
71	155.3	9.21	4.8	5.92	155.359	5.9282	9	2.38119	137.28	4.54873	1.4352	3.1135	48.437	6.107	-0.007	3	1	0.3398	2.685	48.43702
72	43.4	2.54	4.5	5.86	43.4551	5.8451	3	2.71917	126.2912	4.61187	1.4664	3.1455	12.349	6.5391	-0.029	3	1	0.3364	3.1305	12.34892
73	52.6	2.44	4.73	4.63	52.6579	4.6337	4	2.58853	126.4658	4.67511	1.4976	3.1775	15.101	5.0852	-0.024	3	1	0.333	2.9932	15.10077
74	112.2	8.8	4.58	7.84	112.256	7.8392	9	2.56051	137.28	4.74375	1.5288	3.215	33.441	8.1851	-0.011	3	1	0.3291	2.8871	33.4414
75	78.7	3.59	4.96	4.56	78.7607	4.5581	4	2.46661	130.2733	4.80888	1.56	3.2489	22.762	4.8545	-0.016	3	1	0.3257	2.8456	22.76223
76	68.4	3.2	5.09	4.67	68.4623	4.6741	4	2.51466	129.09	4.87343	1.5912	3.2822	19.374	5.0323	-0.019	3	1	0.3224	2.9082	19.37369
77	50.1	2.2	4.96	4.38	50.1607	4.3859	4	2.58579	125.5897	4.93622	1.6224	3.3138	13.647	4.8646	-0.028	3	1	0.3193	3.0148	13.64723
78	151.4	8.83	5.05	5.83	151.462	5.8299	9	2.38118	137.28	5.00486	1.6536	3.3513	43.702	6.0291	-0.009	3	1	0.3157	2.7107	43.70202
79	281.8	7.04	5.42	2.5	281.866	2.4976	8	1.92545	137.28	5.0735	1.6848	3.3887	81.681	2.5434	-0.005	5	0.8483	0.3726	2.1991	97.45935
80	51.8	0	5.57	0	51.8682	0	0	0	769.6	5.4583	1.716	3.7423	12.401	0	-0.028	0	1	0.2827	0	0

	C-22	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	37.9	1.98	-0.4	5.22	37.8951	5.225	3	2.72526	124.1349	0.06207	0	0.0621	609.55	5.2335	-8E-04	9	0.8145	2	2.5237	71.51073
2	18.4	0.86	-1.03	4.71	18.3874	4.6771	3	2.92318	116.2693	0.1202	0	0.1202	151.97	4.7079	-0.004	4	0.8861	2	2.7046	34.52803
3	100.4	3.79	-0.12	3.78	100.399	3.775	5	2.3361	131.262	0.18583	0	0.1858	539.26	3.782	-9E-05	8	0.6807	2	2.1573	189.4187
4	65.5	1.54	0.22	2.34	65.5027	2.3511	5	2.31273	123.6308	0.24765	0	0.2477	263.5	2.36	0.0002	5	0.6644	2	2.1068	123.3429
5	34.5	0.77	0.3	2.24	34.5037	2.2317	4	2.50781	116.9956	0.30615	0	0.3062	111.7	2.2516	0.0006	5	0.7355	2	2.2862	64.63901
6	19.6	0.43	0.15	2.2	19.6018	2.1937	4	2.69946	111.3536	0.36182	0	0.3618	53.175	2.2349	0.0006	5	0.8087	2	2.4714	36.36682
7	33	0.92	0.07	2.79	33.0009	2.7878	4	2.58412	118.1893	0.42092	0	0.4209	77.402	2.8238	0.0002	5	0.7728	2	2.3698	61.5815
8	71.5	1.31	0.07	1.84	71.5009	1.8322	5	2.21122	122.661	0.48225	0	0.4823	147.27	1.8446	7E-05	5	0.6555	1.6738	2.0549	112.3443
9	76.9	1.57	0	2.04	76.9	2.0416	5	2.22001	124.1632	0.54433	0	0.5443	140.27	2.0562	0	5	0.6712	1.5623	2.0883	112.7368
10	262.7	8.33	0.64	3.17	262.708	3.1708	8	2.02933	137.28	0.61297	0	0.613	427.58	3.1782	0.0002	8	0.6243	1.4061	1.9563	348.292
11	86.8	4.73	1.65	5.45	86.8202	5.448	9	2.49955	132.5287	0.67923	0	0.6792	126.82	5.491	0.0014	9	0.8012	1.4264	2.4113	116.1226
12	122.5	4.78	1.1	3.9	122.513	3.9016	8	2.29312	133.4456	0.74596	0	0.746	163.24	3.9255	0.0007	8	0.7352	1.2931	2.2301	148.8063
13	89.3	3.82	0.15	4.28	89.3018	4.2776	4	2.41037	131.034	0.81147	0	0.8115	109.05	4.3169	0.0001	9	0.7872	1.2324	2.3589	103.062
14	133.7	3.84	0.22	2.88	133.703	2.872	5	2.16537	132.0566	0.8775	0	0.8775	151.37	2.891	0.0001	5	0.7045	1.1409	2.1337	143.2232
15	119.9	3.97	0.38	3.31	119.905	3.311	5	2.24313	132.0345	0.94352	0	0.9435	126.08	3.3372	0.0002	5	0.7423	1.0888	2.2248	122.4123
16	77.9	2.81	0.38	3.6	77.9047	3.607	4	2.39327	128.4542	1.00775	0	1.0078	76.306	3.6542	0.0004	4	0.8082	1.0402	2.3898	75.59522
17	49.7	1.5	0.35	3.02	49.7043	3.0179	4	2.47432	122.7651	1.06913	0	1.0691	45.49	3.0842	0.0005	4	0.8494	0.9912	2.4905	45.56149
18	109.1	3.75	0.48	3.44	109.106	3.437	5	2.28169	131.3872	1.13482	0	1.1348	95.144	3.4732	0.0003	5	0.7812	0.9468	2.3033	96.61183
19	102	4.48	0.22	4.39	102.003	4.392	9	2.38275	132.5245	1.20108	0	1.2011	83.925	4.4444	0.0002	9	0.8283	0.9003	2.4187	85.77179
20	86.8	3.28	-0.13	3.78	86.7984	3.7789	4	2.37733	129.8495	1.26601	0	1.266	67.561	3.8348	-1E-04	4	0.8355	0.8608	2.4295	69.58389
21	73	1.97	-0.18	2.7	72.9978	2.6987	5	2.32103	125.6969	1.32886	0	1.3289	53.933	2.7488	-2E-04	5	0.8236	0.8289	2.3903	56.14415
22	78.2	2.01	-0.77	2.57	78.1906	2.5706	5	2.28505	126.0116	1.39186	0	1.3919	55.177	2.6172	-7E-04	5	0.8171	0.7993	2.3653	58.01367
23	65.2	2.57	-0.7	3.94	65.1914	3.9422	4	2.47396	127.3664	1.45555	0	1.4556	43.788	4.0323	-8E-04	4	0.8996	0.7506	2.5741	45.21234
24	53	2.88	-0.7	5.44	52.9914	5.4348	4	2.63758	127.6943	1.51939	0	1.5194	33.877	5.5953	-1E-03	3	0.9736	0.7031	2.7605	34.20204
25	31.8	2.03	-1.62	6.39	31.7802	6.3876	3	2.84105	123.8882	1.58134	0.01248	1.5689	19.249	6.7221	-0.004	3	1	0.6744	2.9949	19.24892
26	20.8	0.89	-1.67	4.29	20.7796	4.2831	3	2.85795	116.8185	1.63975	0.04368	1.5961	11.992	4.65	-0.009	3	1	0.663	3.0463	11.99185
27	24.2	0.6	-2.31	2.48	24.1717	2.4822	4	2.658	114.3023	1.6969	0.07488	1.622	13.856	2.6697	-0.011	4	1	0.6523	2.8517	13.85608
28	40.1	1.6	-2.96	4.01	40.0638	3.9936	4	2.62606	122.7114	1.75825	0.10608	1.6522	23.185	4.1769	-0.008	3	0.9934	0.6423	2.7953	23.25281
29	63.7	2.39	-4.99	3.75	63.6389	3.7556	4	2.4657	126.7763	1.82164	0.13728	1.6844	36.701	3.8662	-0.008	4	0.9263	0.6501	2.6154	37.98074
30	61.6	3.64	-5.68	5.91	61.5305	5.9158	4	2.62233	129.7723	1.88653	0.16848	1.7181	34.716	6.1029	-0.01	3	0.9915	0.6184	2.7818	34.85937
31	95.8	4.16	-7.69	4.34	95.7059	4.3467	9	2.3966	131.8268	1.95244	0.19968	1.7528	53.489	4.4372	-0.008	4	0.9003	0.6348	2.5385	56.24925
32	76.8	2.69	-8.36	3.51	76.6977	3.5073	4	2.38881	128.0968	2.01649	0.23088	1.7856	41.824	3.602	-0.011	4	0.9057	0.6226	2.5484	43.94002
33	147.4	2.22	-8.53	1.51	147.296	1.5072	6	1.92718	128.2833	2.08063	0.26208	1.8186	79.852	1.5288	-0.006	5	0.7194	0.6773	2.056	92.95888
34	158.5	3.02	-8.99	1.91	158.39	1.9067	6	1.98175	130.7122	2.14599	0.29328	1.8527	84.333	1.9329	-0.006	5	0.7425	0.6597	2.1126	97.41729
35	125.3	3.28	-9.2	2.62	125.187	2.6201	5	2.15304	130.7427	2.21136	0.32448	1.8869	65.174	2.6672	-0.008	5	0.8164	0.6236	2.3024	72.47588
36	22	0.97	-9.28	4.43	21.8864	4.432	3	2.85051	117.5749	2.27015	0.35568	1.9145	10.246	4.9449	-0.052	3	1	0.5527	3.1165	10.24633
37	75.1	1.52	-9.33	2.03	74.9858	2.0271	5	2.22582	123.8649	2.33208	0.38688	1.9452	37.35	2.0921	-0.015	5	0.8633	0.5912	2.4164	40.5916
38	32.3	2.05	-9.35	6.37	32.1856	6.3693	3	2.8363	123.9908	2.39408	0.41808	1.976	15.077	6.8812	-0.037	3	1	0.5355	3.0799	15.0767
39	50.1	2.68	-9.35	5.37	49.9856	5.3616	4	2.65032	127.0253	2.45759	0.44928	2.0083	23.666	5.6388	-0.024	3	1	0.5269	2.8772	23.66568
40	92.9	6.26	-9.37	6.75	92.7853	6.7468	9	2.55552	134.7414	2.52496	0.48048	2.0445	44.148	6.9355	-0.013	3	0.9955	0.5191	2.7521	44.27938
41	52	3.73	-9.35	7.2	51.8856	7.1889	3	2.73479	129.5352	2.58973	0.51168	2.0781	23.722	7.5666	-0.024	3	1	0.5092	2.9654	23.7222
42	31.4	2.07	-9.28	6.62	31.2864	6.6163	3	2.85671	123.9927	2.65172	0.54288	2.1088	13.578	7.229	-0.042	3	1	0.5018	3.1281	13.57839
43	44	2.15	-9.28	4.9	43.8864	4.899	4	2.66067	125.0956	2.71427	0.57408	2.1402	19.238	5.222	-0.03	3	1	0.4944	2.9212	19.23761
44	53	2.53	-9.28	4.78	52.8864	4.7838	4	2.59735	126.7414	2.77764	0.60528	2.1724	23.067	5.049	-0.025	3	1	0.4871	2.8528	23.0665
45	30.4	2.12	-9.2	7.01	30.2874	6.9996	3	2.88406	124.0882	2.83968	0.63648	2.2032	12.458	7.7238	-0.047	3	1	0.4803	3.1751	12.45808
46	29.9	1.62	-9.2	5.45	29.7874	5.4385	3	2.81182	122.0794	2.90072	0.66768	2.233	12.04	6.0253	-0.049	3	1	0.4738	3.1159	12.04036
47	110.4	2.42	-9.2	2.2	110.287	2.1943	5	2.13212	128.2087	2.96483	0.69888	2.266	47.363	2.2549	-0.013	5	0.8525	0.5225	2.35	52.99198
48	119.3	7.52	-9.02	6.31	119.19	6.3093	9	2.46817	136.694	3.03318	0.73008	2.3031	50.435	6.474	-0.012	3	0.9833	0.4654	2.6887	51.09307
49	106.8	2.44	-8.82	2.29	106.692	2.287	5	2.15508	128.1881	3.09727	0.76128	2.336	44.347	2.3553	-0.013	5	0.8699	0.5021	2.3869	49.16003
50	169.2	4.59	-8.74	2.71	169.093	2.7145	5	2.0829	133.9347	3.16424	0.79248	2.3718	69.96	2.7663	-0.009	5	0.8323	0.5108	2.2837	80.10148
51	124.6	3.29	-8.82	2.65	124.492	2.6427	5	2.15746	130.7514	3.22961	0.82368	2.4059	50.401	2.7131	-0.012	5	0.8735	0.488	2.3876	55.92158
52	212.9	7.18	-8.63	3.38	212.794	3.3742	8	2.10166	137.28	3.29825	0.85488	2.4434	85.741	3.4273	-0.007	5	0.8399	0.4952	2.2948	98.03487
53	118.4	8.23	-8.13	6.96	118.3	6.9569	9	2.50486	137.28	3.36689	0.88608	2.4808	46.329	7.1607	-0.013	3	1	0.4265	2.7496	46.329
54	27.7	2.18	-8.2	7.9	27.5996	7.8987	3	2.94982	124.0658	3.42893	0.91728	2.5117	9.6235	9.0192	-0.062	3	1	0.4213	3.3038	9.62345
55	246.2	3.68	-8.13	1.49	246.1	1.4953	6	1.77843	133.2333	3.49554	0.94848	2.5471	95.249	1.5169	-0.006	6	0.7211	0.5307	1.9698	121.6887
56	332.3	3.43	-8.15	1.03	332.2	1.0325	6	1.57146	133.4502	3.56227	0.97968	2.5826	127.25	1.0437	-0.005	6	0.6359	0.567	1.7415	176.0957
57	78.1	2.34	-8.43	3	77.9968	3.0001	5	2.33412	127.1178	3.62583	1.01088	2.615	28.441	3.1464	-0.022	4	0.9807	0.4118	2.6429	28.9408
58	113.4	3.58	-8.13	3.16	113.3	3.1597	5	2.24314	131.1397	3.6914	1.04208	2.6493	41.373	3.2662	-0.015	4	0.9358	0.4236	2.5194	43.88433
59	115.5	4.7	-8.13	4.08	115.4	4.0728	9	2.3238	133.1762	3.75798	1.07328	2.6847	41.585	4.2099	-0.015	4	0.9694	0.4055	2.6043	42.78606
60	107.6	7.72	-8.05	7.18	107.501	7.1813	9	2.53995	136.6344	3.8263	1.10448	2.7218	38.09	7.4463	-0.016	3	1	0.3888	2.8187	38.09036
61	93	3.93	-7.98	4.24	92.9023	4.2303	4	2.39568	131.3381	3.89197	1.13568	2.7563	32.294	4.4152	-0.019	4	1	0.3839	2.7061	32.29353
62	150.5	10.95	-7.59	7.28	150.407	7.2802	9	2.46384	137.28	3.96061	1.16688	2.7937	52.42	7.4771	-0.012	3	1	0.3787	2.7291	52.41968
63	99.4	4.74	-7.36	4.77	99.3099	4.7729	9	2.41827	132.872	4.02705	1.19808	2.829	33.681	4.9747	-0.018	3	1	0.374	2.7291	33.68115
64	103.7	5.47	-7.21	5.28	103.612	5.2793	9	2.4416	134.0235	4.09406	1.22928	2.8648	34.738	5.4965	-0.018	3	1	0.3694	2.7502	34.73835
65	60.2	3.36	-7.21	5.59	60.1118	5.5896	4	2.61032	129.1298	4.15862	1.26048	2.8981	19.307	6.005	-0.032	3	1	0.3651	2.9606	19.30654
66	43	2.39	-7.26	5.55	42.9111	5.5697	3	2.70765	125.8151	4.22153	1.29168	2.9299	13.205	6.1774	-0.047	3	1	0.3612	3.0923	13.20532
67	34.7	1.79	-7.29	5.16	34.6108	5.1718	3	2.74995	123.1756	4.28312	1.32288	2.9602	10.245	5.9022	-0.061	3	1	0.3574	3.1644	10.245
68	54.8	4.24	-7.29	7.74	54.7108	7.7499	3	2.74486	130.6022	4.34842	1.35408	2.9943	16.819	8.419	-0.037	3	1	0.3534	3.1046	16.81918
69	376.8	5.48	-6.98	1.45	376.715	1.4547	6	1.66004	137.1852	4.41701	1.38528	3.0317	122.8	1.4719	-0.005	6	0.7042	0.4765	1.8649	167.6596
70	67.7	4.13	-6.44	6.11	67.6212	6.1076	4	2.60651	130.9266	4.48248	1.41648	3.066	20.593	6.5412	-0.03	3	1	0.3451	2.9654	20.59321
71	40.5	1.46	-6.9	3.6	40.4155	3.6125	4	2.59327	122.0628	4.54351	1.44768	3.0958	11.587	4.07	-0.054	3	1	0.3418	3.0226	11.58722
72	34.5	1.13	-6.9	3.28	34.4155	3.2834	4	2.61681	119.796	4.60341	1.47888	3.1245	9.5413	3.7904	-0.066	3	1	0.3387	3.072	9.54133
73	54.8	2.42	-6.88	4.42	54.7158	4.4229	4	2.56239	126.4991	4.66665	1.51008	3.1566	15.856	4.8353	-0.04	3	1	0.3352	2.9629	15.85552
74	74.7	3.45	-6.67	4.62	74.6184	4.6235	4	2.48656	129.8504	4.73158	1.54128	3.1903	21.906	4.9366	-0.029	3	1	0.3317	2.8628	21.90602
75	111	7.26	-6.6	6.55	110.919	6.5453	9	2.49923	136.2612	4.79971	1.57248	3.2272	32.883	6.8413	-0.019	3	1	0.3279	2.8351	32.88253
76	45.4	1.55	-6.44	3.42	45.3212	3.42	4	2.54081	122.7799	4.8611	1.60368	3.2574	12.421	3.8309	-0.051	3	1	0.3248	2.9827	12.42089
77	162.9	9.32	-6.22	5.72	162.824	5.724	9	2.35731	137.28	4.92974	1.63488	3.2949	47.921	5.9027	-0.013	3	1	0.3211	2.677	47.92134
78	295.1	8.76	-5.75	2.97	295.03	2.9692	8	1.97863	137.28	4.99838	1.66608	3.3323	87.036	3.0204	-0.007	5	0.8619	0.3721	2.2419	101.9818
79	62.1	3.4	-5.6	5.48	62.0315	5.4811	4	2.59493	129.293	5.06303	1.69728	3.3658	16.926	5.9682	-0.037	3	1	0.3144	3.0013	16.92594
80	58.4	3.56	-5.67	6.1	58.3306	6.1031	3	2.64772	129.4795	5.12777	1.72848	3.3993	15.651	6.6914	-0.04	3	1	0.3113	3.0597	15.65117
81	192.1	10.44	-5.62	5.44	192.031	5.4366	9	2.30005	137.28	5.19641	1.75968	3.4367	54.364	5.5878	-0.012	4	1	0.3079	2.6228	54.36417
82	70.4	3.2	-5.52	4.55	70.3324	4.5498	4	2.49814	129.1558	5.26098	1.79088	3.4701	18.752	4.9177	-0.034	3	1	0.3049	2.9123	18.75201
83	48.4	1.67	-5.37	3.46	48.3343	3.4551	4	2.52374	123.4825	5.32273	1.82208	3.5007	12.287	3.8827	-0.051	3	1	0.3023	2.99	12.28675
84	36.1	1.18	-5.45	3.29	36.0333	3.2748	4	2.60116	120.2249	5.38284	1.85328	3.5296	8.6839	3.8499	-0.073	3	1	0.2998	3.1092	8.68393
85	35.8	1.17	-5.45	3.27	35.7333	3.2743	4	2.60382	120.1422	5.44291	1.88448	3.5584	8.5123	3.8626	-0.075	3	1	0.2974	3.1171	8.51229
86	39.5	0.81	-5.45	2.05	39.4333	2.0541	5	2.44005	117.6919	5.50176	1.91568	3.5861	9.462	2.3872	-0.068	3	1	0.2951	2.962	9.46203

87	64.3	2.01	-5.37	3.13	64.2343	3.1292	5	2.4058	125.532	5.56452	1.94688	3.6176	16.218	3.426	-0.04	3	1	0.2925	2.8613	16.21768
88	79.7	3.19	-5.28	4.01	79.6354	4.0058	4	2.42099	129.4358	5.62924	1.97808	3.6512	20.269	4.3105	-0.032	3	1	0.2898	2.8493	20.26922
89	118.8	9.22	-5.14	7.77	118.737	7.7651	9	2.54341	137.28	5.69788	2.00928	3.6886	30.646	8.1565	-0.021	3	1	0.2869	2.9117	30.64556
90	234.1	8.25	-4.59	3.53	234.044	3.525	8	2.09499	137.28	5.76652	2.04048	3.726	61.265	3.614	-0.01	4	0.9529	0.3013	2.4304	65.00762
91	82.5	3.24	-4.45	3.94	82.4455	3.9299	4	2.40483	129.6342	5.83134	2.07168	3.7597	20.378	4.229	-0.031	3	1	0.2814	2.8422	20.37798
92	77	3.68	-4.48	4.78	76.9452	4.7826	4	2.48908	130.3976	5.89654	2.10288	3.7937	18.728	5.1796	-0.034	3	1	0.2789	2.9275	18.72828
93	62.1	3.71	-4.37	5.97	62.0465	5.9794	4	2.62351	129.9321	5.9615	2.13408	3.8274	14.653	6.615	-0.044	3	1	0.2765	3.0777	14.65347
94	60.1	2.59	-4.42	4.32	60.0459	4.3134	4	2.52689	127.2226	6.02511	2.16528	3.8598	13.996	4.7945	-0.046	3	1	0.2741	3.0023	13.99563
95	47.2	1.45	-4.36	3.07	47.1466	3.0755	4	2.49666	122.3882	6.08631	2.19648	3.8898	10.556	3.5314	-0.061	3	1	0.272	3.0185	10.55582
96	75.3	8.41	-4.2	11.18	75.2486	11.176	9	2.78625	136.3907	6.1545	2.22768	3.9268	17.595	12.172	-0.037	3	1	0.2695	3.2037	17.59542
97	262.7	9.35	-3.68	3.56	262.655	3.5598	8	2.07217	137.28	6.22314	2.25888	3.9643	64.686	3.6462	-0.01	4	0.9598	0.2815	2.4191	68.21751
98	260.7	10.12	-3.3	3.88	260.66	3.8825	8	2.10617	137.28	6.29178	2.29008	4.0017	63.565	3.9785	-0.01	4	0.9762	0.2729	2.4584	65.60802
99	232.7	8.35	-2.84	3.59	232.665	3.5889	8	2.10295	137.28	6.36042	2.32128	4.0391	56.028	3.6897	-0.011	4	0.9842	0.2676	2.475	57.2293
100	656.5	0	-2.42	0	656.47	0	0	0	769.6	6.74522	2.35248	4.3927	147.91	0	-0.004	0	1	0.2409	0	0

Kettner Substation Relocation
San Diego, CA

CPT Shear Wave Measurements

	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
C-1						
	10.11	9.11	10.39	14.15	734.41	
	20.09	19.09	19.73	23.03	856.88	1052.03
	30.28	29.28	29.70	30.15	985.20	1400.27
	40.03	39.03	39.35	38.14	1031.70	1207.15
	50.02	49.02	49.27	44.46	1108.28	1570.47
	60.11	59.11	59.32	51.00	1163.16	1536.20
	69.96	68.96	69.14	57.89	1194.35	1425.24
	80.08	79.08	79.24	64.57	1227.16	1511.51
C-8						
	10.13	9.13	10.41	11.93	872.55	
	20.10	19.10	19.74	19.15	1031.00	1292.82
	30.00	29.00	29.43	25.29	1163.62	1577.24
	39.98	38.98	39.30	32.04	1226.57	1462.44
	50.06	49.06	49.31	40.51	1217.33	1182.38
	60.12	59.12	59.33	50.26	1180.48	1027.38
C-10						
	70.04	69.04	69.22	55.08	1256.73	
	79.97	78.97	79.13	64.50	1226.79	1051.73
	89.97	88.97	89.11	72.04	1236.96	1323.91

Shear Wave Source Offset = 5 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
C-15						
	10.19	9.19	10.46	10.89	960.71	
	20.16	19.16	19.80	17.70	1118.74	1371.44
	30.07	29.07	29.50	24.08	1224.95	1519.62
	40.04	39.04	39.36	30.99	1270.05	1427.21
	50.08	49.08	49.33	40.67	1213.03	1030.49
	60.07	59.07	59.28	51.21	1157.61	943.76
	70.03	69.03	69.21	60.52	1143.60	1066.55
	80.03	79.03	79.19	67.85	1167.10	1361.14
C-16						
	10.28	9.28	10.54	11.65	904.83	
	20.23	19.23	19.87	18.64	1065.95	1334.50
	30.08	29.08	29.51	27.85	1059.49	1046.40
	40.07	39.07	39.39	34.97	1126.36	1387.91
	50.70	49.70	49.95	45.24	1104.13	1028.46
	60.07	59.07	59.28	55.29	1072.19	928.39
	70.14	69.14	69.32	62.48	1109.48	1396.29
	80.09	79.09	79.25	69.76	1136.01	1363.64
	90.17	89.17	89.31	76.23	1171.59	1555.21

Shear Wave Source Offset = 5 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

C-22	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
	10.12	9.12	10.40	11.72	887.43	
	20.10	19.10	19.74	19.48	1013.53	1203.98
	30.14	29.14	29.57	27.01	1094.63	1304.42
	40.01	39.01	39.33	35.60	1104.75	1136.59
	50.03	49.03	49.28	42.72	1153.66	1398.20
	60.19	59.19	59.40	49.11	1209.55	1583.18
	70.03	69.03	69.21	58.42	1184.71	1053.71
	79.98	78.98	79.14	64.72	1222.78	1575.76
	90.01	89.01	89.15	72.25	1233.91	1329.64
	99.94	98.94	99.07	78.71	1258.62	1534.97

Shear Wave Source Offset = 5 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

Presented below is a list of formulas used for the estimation of various soil properties. The formulas are presented in SI unit system and assume that all components are expressed in the same units.

:: Unit Weight, g (kN/m³) ::

$$g = g_w \cdot \left(0.27 \cdot \log(R_f) + 0.36 \cdot \log(\frac{q_t}{p_a}) + 1.236\right)$$

where g_w = water unit weight

:: Permeability, k (m/s) ::

$I_c < 3.27$ and $I_c > 1.00$ then $k = 10^{0.952-3.04 \cdot I_c}$

$I_c \leq 4.00$ and $I_c > 3.27$ then $k = 10^{-4.52-1.37 \cdot I_c}$

:: N_{SPT} (blows per 30 cm) ::

$$N_{60} = \left(\frac{q_c}{P_a}\right) \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

$$N_{1(60)} = Q_{tn} \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

:: Young's Modulus, Es (MPa) ::

$(q_t - \sigma_v) \cdot 0.015 \cdot 10^{0.55 \cdot I_c + 1.68}$

(applicable only to $I_c < I_{c\_cutoff}$)

:: Relative Density, Dr (%) ::

$100 \cdot \sqrt{\frac{Q_{tn}}{k_{DR}}}$ (applicable only to SBT_n: 5, 6, 7 and 8 or $I_c < I_{c\_cutoff}$)

:: State Parameter, ψ ::

$\psi = 0.56 - 0.33 \cdot \log(Q_{tn,cs})$

:: Peak drained friction angle, φ (°) ::

$\varphi = 17.60 + 11 \cdot \log(Q_{tn})$

(applicable only to SBT_n: 5, 6, 7 and 8)

:: 1-D constrained modulus, M (MPa) ::

If $I_c > 2.20$

$\alpha = 14$ for $Q_{tn} > 14$

$\alpha = Q_{tn}$ for $Q_{tn} \leq 14$

$M_{CPT} = \alpha \cdot (q_t - \sigma_v)$

If $I_c \leq 2.20$

$M_{CPT} = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$

:: Small strain shear Modulus, Go (MPa) ::

$G_0 = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$

:: Shear Wave Velocity, Vs (m/s) ::

$$V_s = \left(\frac{G_0}{\rho}\right)^{0.50}$$

:: Undrained peak shear strength, Su (kPa) ::

$N_{kt} = 10.50 + 7 \cdot \log(F_r)$ or user defined

$$S_u = \frac{(q_t - \sigma_v)}{N_{kt}}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Remolded undrained shear strength, Su(rem) (kPa) ::

$S_{u(rem)} = f_s$ (applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Overconsolidation Ratio, OCR ::

$$k_{OCR} = \left[\frac{Q_{tn}^{0.20}}{0.25 \cdot (10.50 \cdot +7 \cdot \log(F_r))}\right]^{1.25}$$ or user defined

$OCR = k_{OCR} \cdot Q_{tn}$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: In situ Stress Ratio, Ko ::

$$K_O = 0.1 \cdot \left(\frac{q_t - \sigma_v}{\sigma'_{vo}}\right)$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Soil Sensitivity, S_t ::

$$S_t = \frac{N_S}{F_r}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Effective Stress Friction Angle, φ' (°) ::

$\varphi' = 29.5° \cdot B_q^{0.121} \cdot (0.256 + 0.336 \cdot B_q + \log Q_t)$

(applicable for $0.10 < B_q < 1.00$)

References

- Robertson, P.K., Cabal K.L., Guide to Cone Penetration Testing for Geotechnical Engineering, Gregg Drilling & Testing, Inc., 4th Edition, July 2010
- Robertson, P.K., Interpretation of Cone Penetration Tests - a unified approach., Can. Geotech. J. 46(11): 1337–1355 (2009)

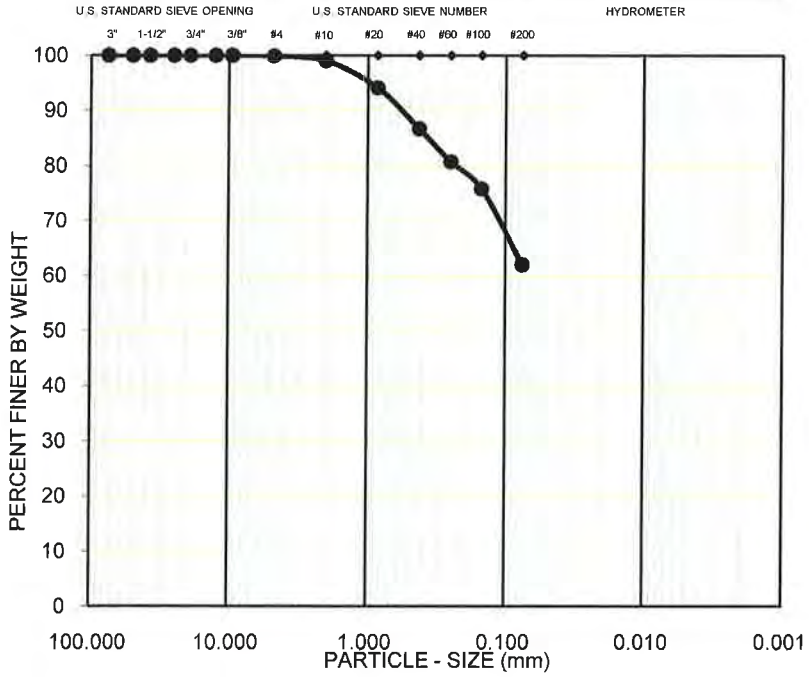
APPENDIX D

Geotechnical Laboratory Testing

Sieve Analysis

(ASTM D422)

G Force Lab No.	9392		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/15/2013	By:	JLN
Boring No.:	B-1	Depth:	10'
Sample Description:	Brown Sandy Silt (ML)		



Sieve Size	% Passing
3"	100
2"	100
1-1/2"	100
1"	100
3/4"	100
1/2"	100
3/8"	100
#4	100
#10	99
#20	94
#40	87
#60	81
#100	76
#200	62

Reviewed by: _____
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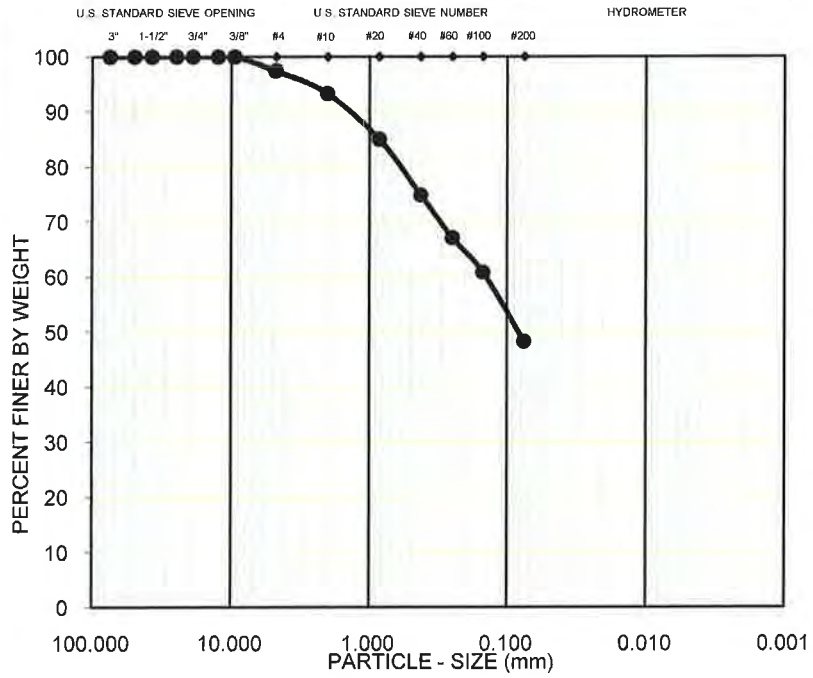
Sieve Analysis

(ASTM D422)

G Force Lab No.	9396		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/15/2013	By:	JLN
Boring No.:	B-2	Depth:	30'
Sample Description:	Brown Silty Sand (SM)		



Sieve Size	% Passing
3"	100
2"	100
1-1/2"	100
1"	100
3/4"	100
1/2"	100
3/8"	100
#4	97
#10	93
#20	85
#40	75
#60	67
#100	61
#200	48

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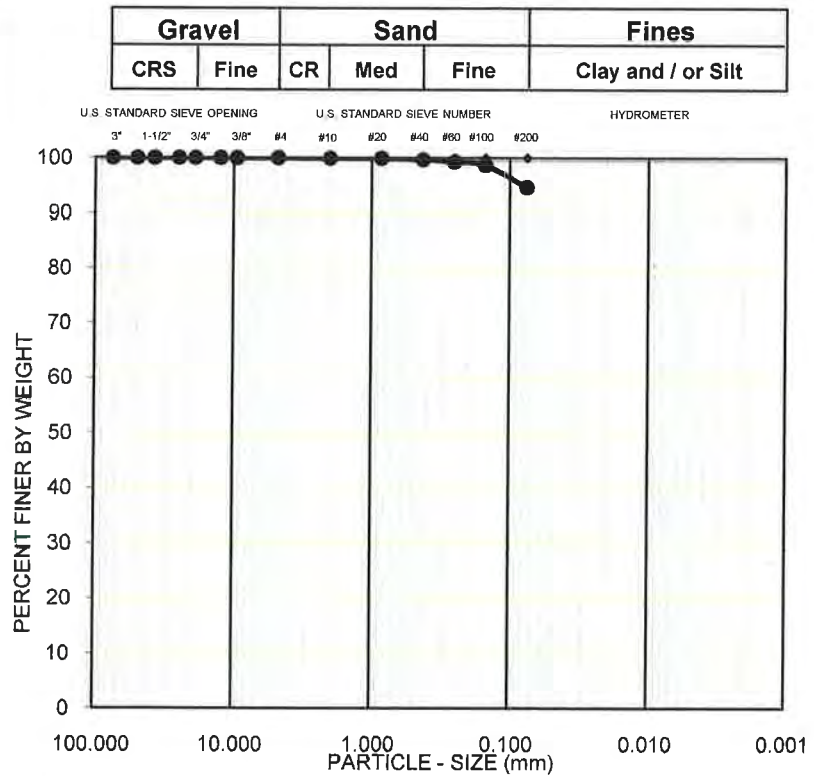
Sieve Analysis

(ASTM D422)

G Force Lab No. 9406
Date Sampled: July 10 and 11, 2013 By: JW
Date Submitted: 7/15/2013 By: JLN
Boring No.: B-3 Depth: 45'
Sample Description: Tan Fat Clay (CH)



Sieve Size	% Passing
3"	100
2"	100
1-1/2"	100
1"	100
3/4"	100
1/2"	100
3/8"	100
#4	100
#10	100
#20	100
#40	100
#60	99
#100	99
#200	95

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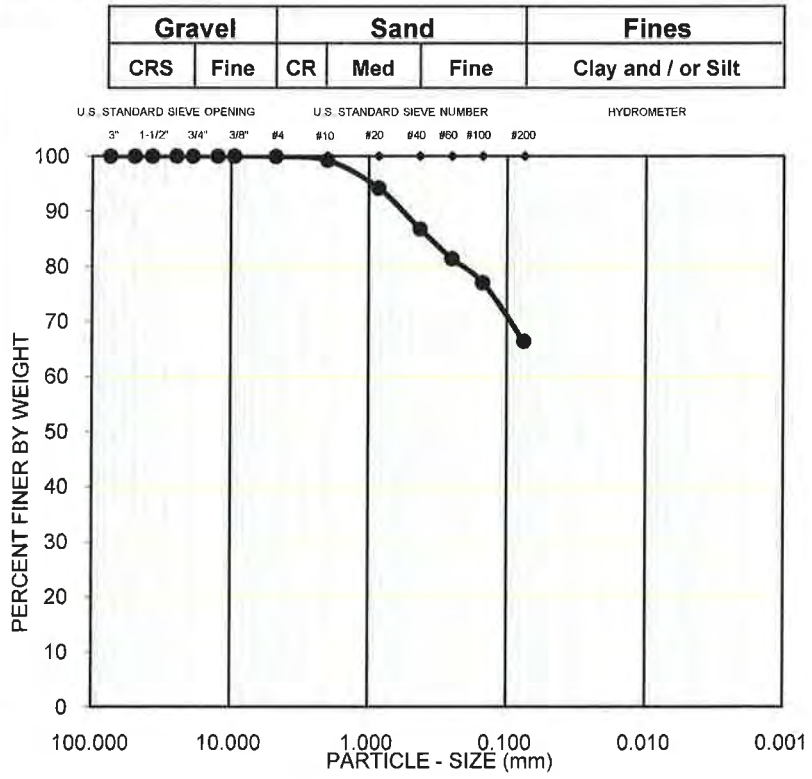
Sieve Analysis

(ASTM D422)

G Force Lab No. 9408
Date Sampled: July 10 and 11, 2013 By: JW
Date Submitted: 7/15/2013 By: JLN
Boring No.: B-4 Depth: 10'
Sample Description: Brown Sandy Silt (ML)



Sieve Size	% Passing
3"	100
2"	100
1-1/2"	100
1"	100
3/4"	100
1/2"	100
3/8"	100
#4	100
#10	99
#20	94
#40	87
#60	81
#100	77
#200	66

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Amount of Material in Soils Finer than No. 200 Sieve (ASTM D1140)

Lab No.	9397	9399	9401	9404	9405	9409
Boring No.	B-2	B-3	B-3	B-3	B-3	B-4
Depth, ft.	40'	0 - 5'	10'	30'	35'	15'
Total Dry Mass, g	333.1	378.3	436.8	410.6	273.0	264.2
% Passing No. 200	**66.3**	**54.2**	**60.5**	**53.1**	**62.1**	**59.3**

Lab No.	9411	9412	9413	9414	9418	9421
Boring No.	B-4	B-4	B-4	B-4	B-5	B-5
Depth, ft.	25'	30'	35'	40'	25'	40'
Total Dry Mass, g	134.3	266.9	364.8	240.0	369.9	173.3
% Passing No. 200	**62.7**	**57.6**	**50.1**	**68.8**	**56.3**	**56.5**

Method: A
Sampled By: JW
Date Sampled: July 10 and 11, 2013
Engineer: JLN

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Amount of Material in Soils Finer than No. 200 Sieve (ASTM D1140)

Lab No.	9444	9399	9446	9449	9452	9454
Boring No.	B-1	B-2	B-3	B-4	B-5	B-5
Depth, ft.	20'	20'	20'	20'	20'	30'
Total Dry Mass, g	296.7	222.4	280.3	195.7	280.2	205.4
% Passing	**63.4**	**57.4**	**56.4**	**56.5**	**59.1**	**52.6**

Lab No.	9455
Boring No.	B-5
Depth, ft.	35'
Total Dry Mass, g	261.6
% Passing No. 200	**55.7**

Method: A
Sampled By: JW
Date Sampled: July 10 and 11, 2013
Engineer: JLN
Date submitted: 7-30-2013

Reviewed by: _____
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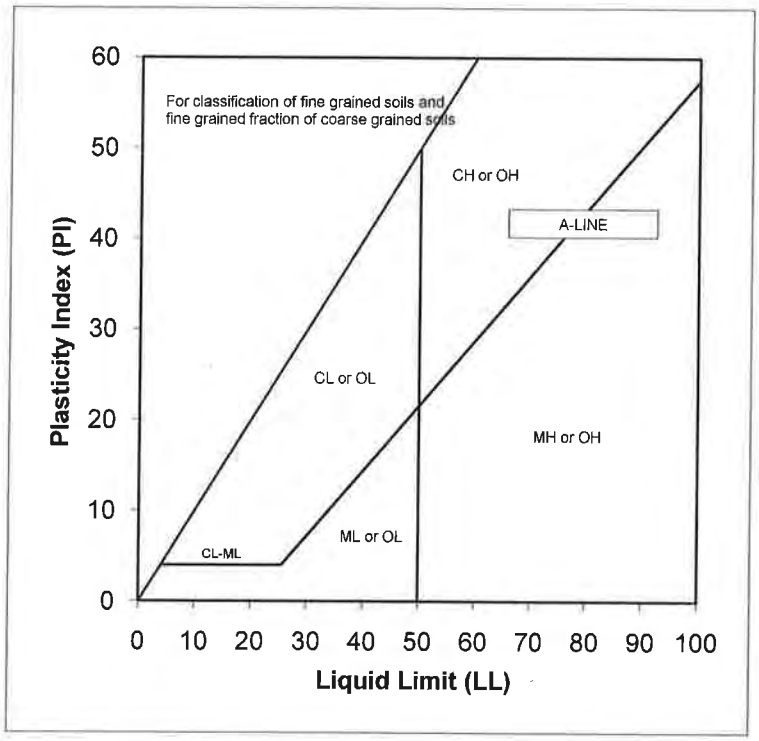
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9396		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/15/2013	By:	JLN
Boring No.:	B-2	Depth (ft.):	30'
Sample Description:	Brown Silty Sand (SM)		

Liquid Limit	0
Plastic Limit	0
Plasticity Index	***NP**
Classification	**(SM)**



* Sample is designated as Non-Plastic

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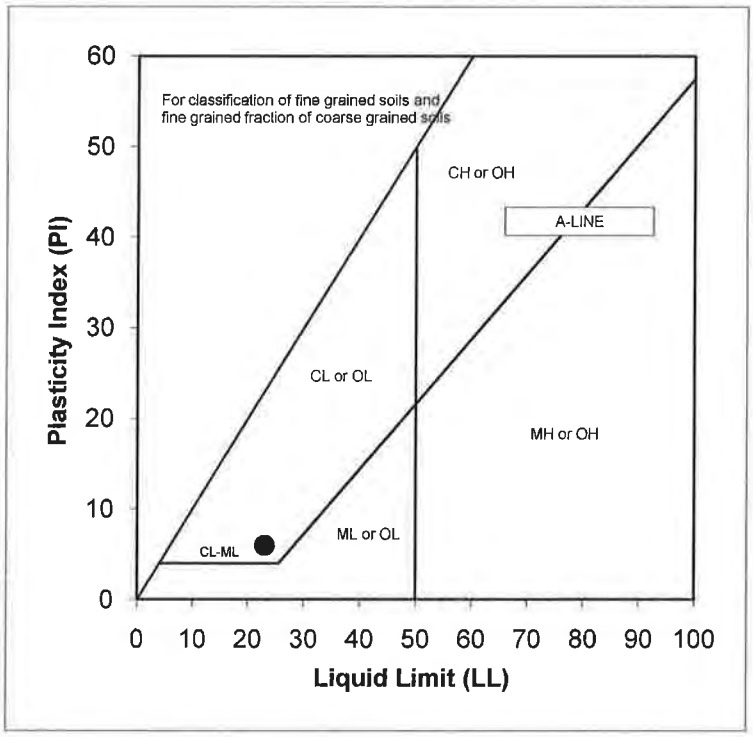
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9447		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-3	Depth (ft.):	30'
Sample Description:	Brown Sandy Lean Clay to Sandy Silt (CL-ML)		

Liquid Limit	23
Plastic Limit	17
Plasticity Index	**6**
Classification	**(ML)**



Reviewed by: _____

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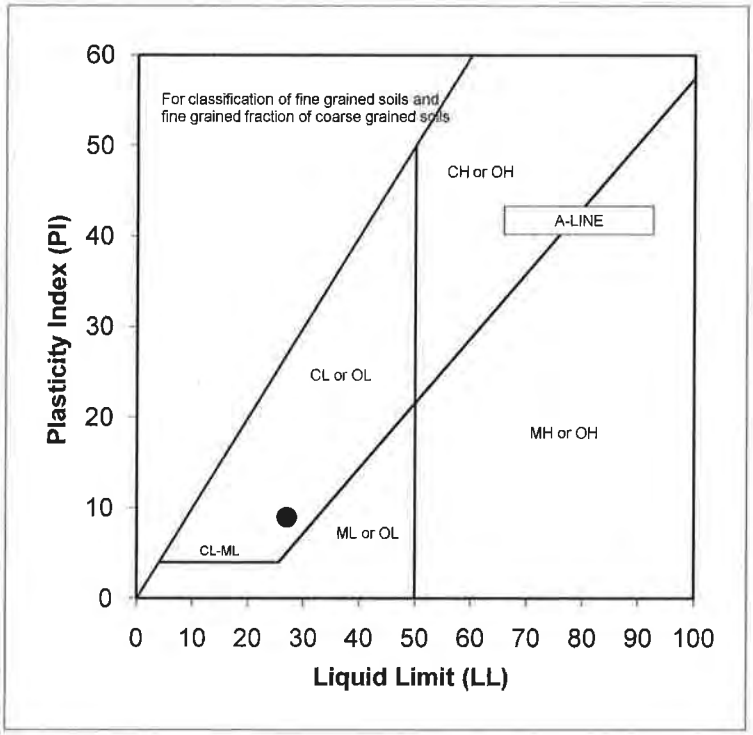
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9405		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/15/2013	By:	JLN
Boring No.:	B-3	Depth (ft.):	35'
Sample Description:	Brown Sandy Lean Clay (CL)		

Liquid Limit	27
Plastic Limit	18
Plasticity Index	**9**
Classification	**(CL)**



Reviewed by: _____

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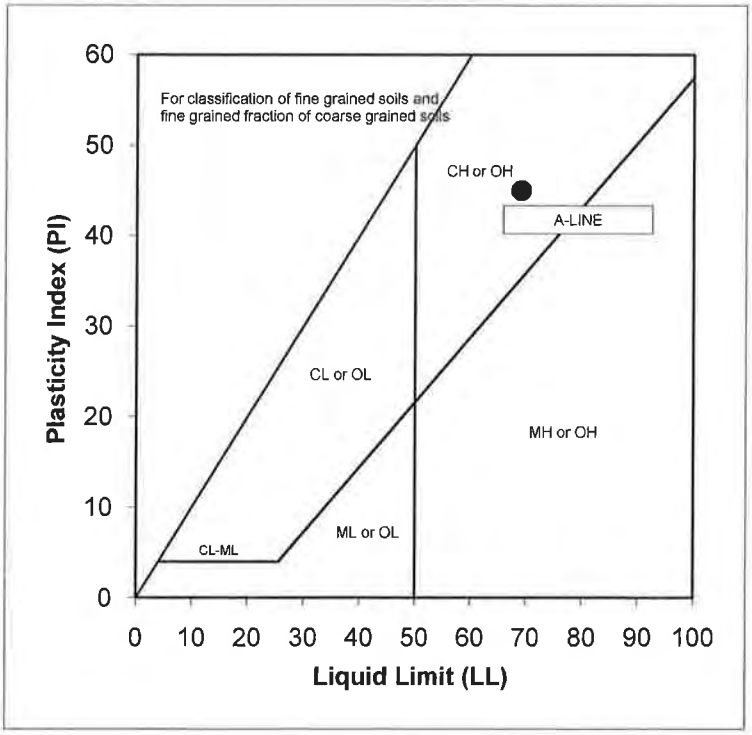
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9448		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-3	Depth (ft.):	45'
Sample Description:	Olive Gray Fat Clay (CH)		

Liquid Limit	69
Plastic Limit	24
Plasticity Index	**45**
Classification	**(CH)**



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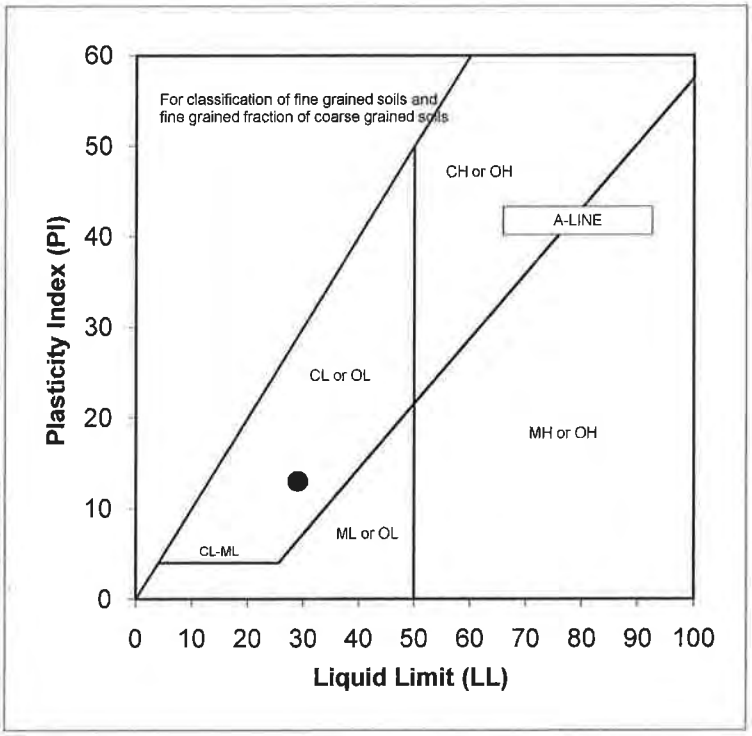
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9449		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-4	Depth (ft.):	20'
Sample Description:	Brown Clayey Sand (CL/ML)		

Liquid Limit	29
Plastic Limit	16
Plasticity Index	**13**
Classification	**(CL)**



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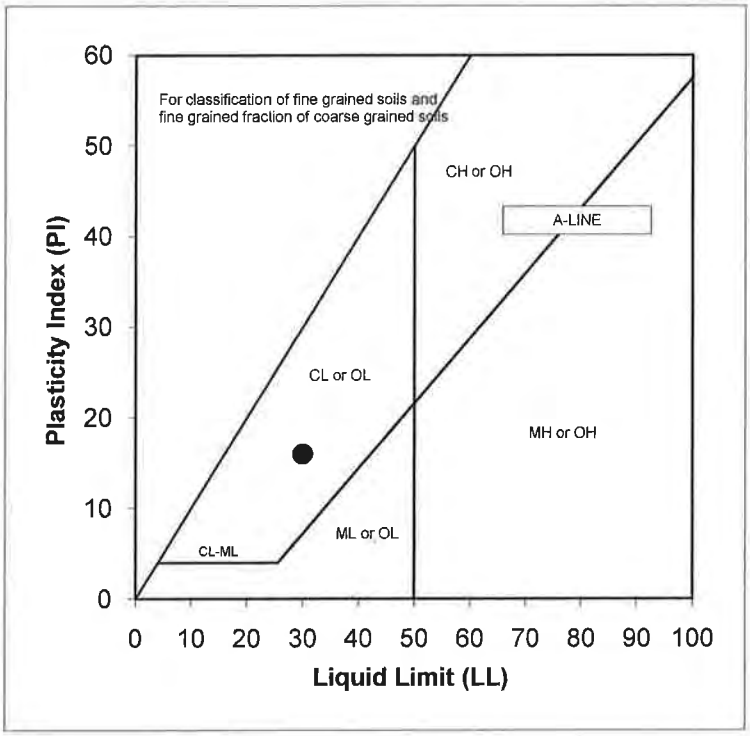
Atterberg Limits

(ASTM D4318)

G Force Lab No.	9411		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/15/2013	By:	JLN
Boring No.:	B-4	Depth (ft.):	25'
Sample Description:	Brown Sandy Lean Clay (CL)		

Liquid Limit	30
Plastic Limit	14
Plasticity Index	**16**
Classification	**(CL)**



Reviewed by: _____

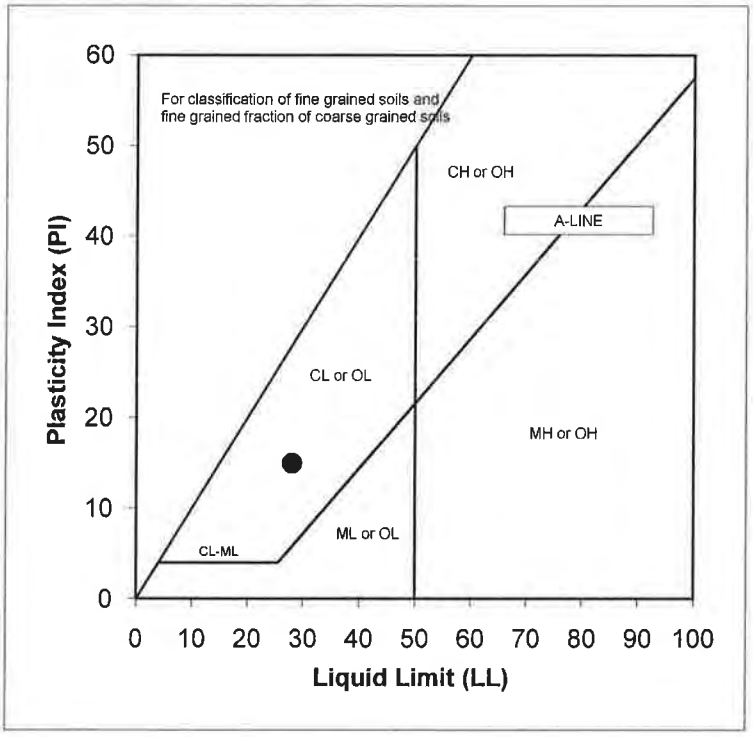
Neal W. Clements, P.E., C54902

Atterberg Limits

(ASTM D4318)

G Force Lab No.	9450		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-4	Depth (ft.):	30'
Sample Description:	Brown Sandy Clay (CL)		

Liquid Limit	28
Plastic Limit	14
Plasticity Index	**15**
Classification	**(CL)**



Reviewed by: _____

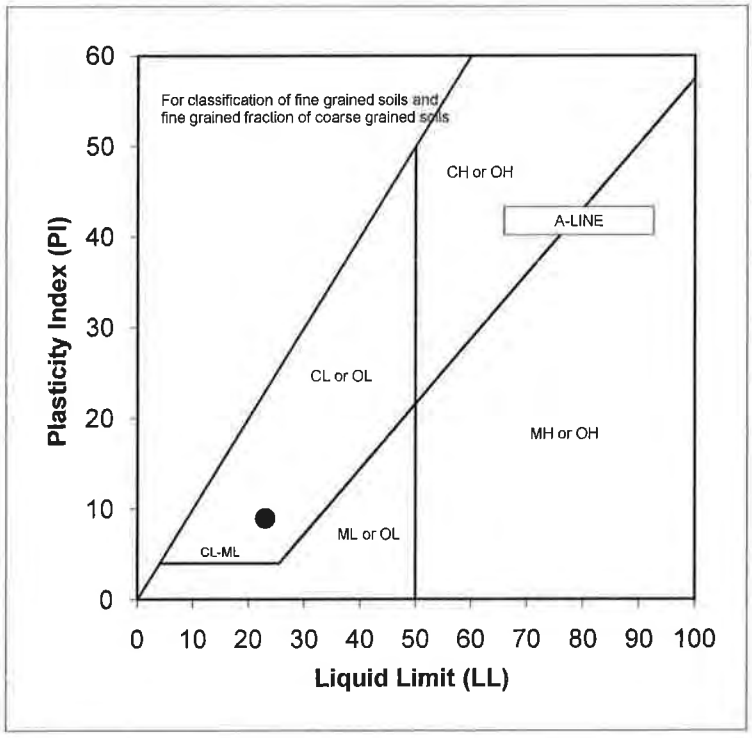
Neal W. Clements, P.E., C54902

Atterberg Limits

(ASTM D4318)

G Force Lab No.	9451		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-4	Depth (ft.):	35'
Sample Description:	Brown Silty Sand (CL/ML)		

Liquid Limit	23
Plastic Limit	14
Plasticity Index	**9**
Classification	**(CL)**



Reviewed by: _____

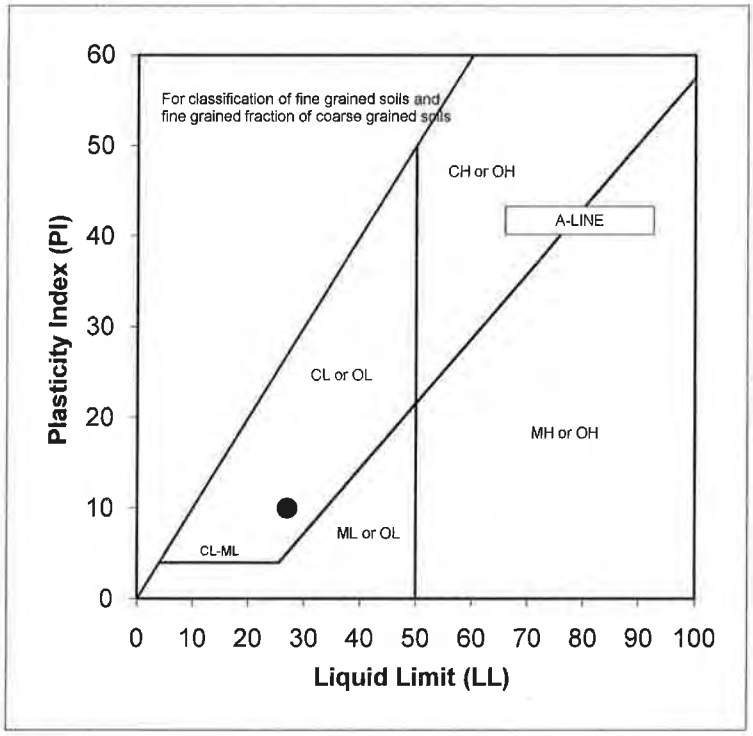
Neal W. Clements, P.E., C54902

Atterberg Limits

(ASTM D4318)

G Force Lab No.	9453		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-5	Depth (ft.):	25'
Sample Description:	Brown Clayey Sand (CL/ML)		

Liquid Limit	27
Plastic Limit	17
Plasticity Index	**10**
Classification	**(CL)**



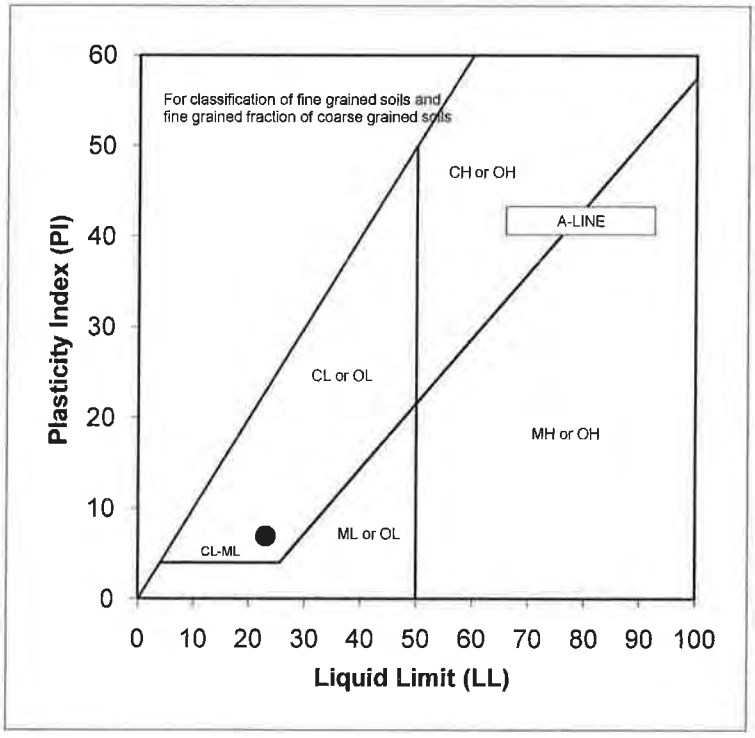
Reviewed by: _____
Neal W. Clements, P.E., C54902

Atterberg Limits

(ASTM D4318)

G Force Lab No.	9454		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-5	Depth (ft.):	30'
Sample Description:	Brown Silty Sand (CL/ML)		

Liquid Limit	23
Plastic Limit	16
Plasticity Index	**7**
Classification	**(CL)**



Reviewed by: _____

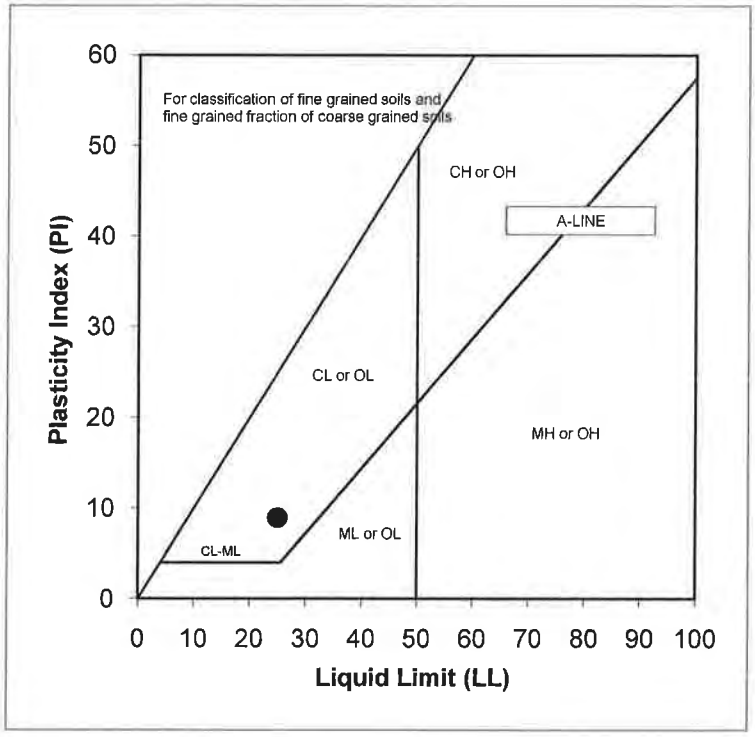
Neal W. Clements, P.E., C54902

Atterberg Limits

(ASTM D4318)

G Force Lab No.	9455		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	7/30/2013	By:	JLN
Boring No.:	B-5	Depth (ft.):	35'
Sample Description:	Brown Clayey Sand (CL/ML)		

Liquid Limit	25
Plastic Limit	16
Plasticity Index	**9**
Classification	**(CL)**



Reviewed by: _____
Neal W. Clements, P.E., C54902

Expansion Index (ASTM D4829)

G Force Lab No.	9391		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	07/15/13	By:	JLN
Sample Location:	B-1 @ 5'		
Sample Description:	Brown Silty Sand (SM)		

Initial Water Content, %	9.1
Dry Density, pcf	112.3
Saturation, %	49.1
Initial Dial Reading, in.	0.0000
Final Dial Reading, in.	0.0318
Final Water Content, %	16.7
Expansion Index	**31**
Potential Expansion	**Low**

Checked by: _____
Adam Thomas, Lab Manager

Reviewed by: _____
Neal W. Clements, P.E., C54902

Expansion Index (ASTM D4829)

G Force Lab No.	9415		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	07/15/13	By:	JLN
Sample Location:	B-5 @ 5'		
Sample Description:	Light Brown Sandy Silt (ML)		

Initial Water Content, %	11.5
Dry Density, pcf	103.9
Saturation, %	49.9
Initial Dial Reading, in.	0.0000
Final Dial Reading, in.	0.0514
Final Water Content, %	25.5
Expansion Index	**51**
Potential Expansion	**Medium**

Checked by: _____
Adam Thomas, Lab Manager

Reviewed by: _____
Neal W. Clements, P.E., C54902

Soil Density and Moisture Content

Lab No.	9391	9393	9395	9396	9397	9398
Boring No.	B-1	B-1	B-2	B-2	B-2	B-2
Depth, ft.	5'	15'	10'	30'	40'	50'
Moisture Content, %	8.0	15.2	13.0	19.8	19.1	22.6
Dry Density, pcf	107.5	109.1	102.6	114.2	114.5	107.2

Lab No.	9400	9402	9403	9408	9410	9416
Boring No.	B-3	B-3	B-3	B-4	B-4	B-5
Depth, ft.	5'	15'	25'	10'	20'	10'
Moisture Content, %	12.8	11.2	14.7	15.2	14.2	12.3
Dry Density, pcf	115.6	113.2	121.1	113.4	118.1	106.3

Lab No.	9417	9419	9421
Boring No.	B-5	B-5	B-5
Depth, ft.	20'	30'	40'
Moisture Content, %	14.3	16.3	22.2
Dry Density, pcf	118.9	120.3	102.5

Moisture Content

Lab No.	9401	9411	9415
Boring No.	B-3	B-4	B-5
Depth, ft.	10'	25'	5'
Moisture Content, %	11.4	13.7	8.3

Sampled By: JW
Date Sampled: July 10 and 11, 2013
Engineer: JLN

Checked by: _____
Adam Thomas, Lab Manager

Reviewed by: _____
Neal W. Clements, P.E., C54902

Soil Density and Moisture Content

Lab No.	9445
Boring No.	B-2
Depth, ft.	20'
Moisture Content, %	16.1
Dry Density, pcf	114.4

Sampled By: JW
Date Sampled: July 10 and 11, 2013
Engineer: JLN
Date Submitted :7-30-13

Reviewed by: _____
Neal W. Clements, P.E., C54902

Specific Gravity of Soils (ASTM D854)

G Force Lab No.	9403		
Date Sampled:	July 10 and 11, 2013	By:	JW
Date Submitted:	07/15/13	By:	JLN
Boring No.	B-3	Depth:	25'
Sample Description:	Brown Silty, Clayey, Sand (SC)		

Percent Passing #4 Sieve, %:	100.0
Method:	B
Specific Gravity @ Test Temp.	2.728
Vol. of Pycnometer, mL	500.81
Dry Wt. of Soil:	75.43
Test Temperature,°C	25.1
Specific Gravity @ 20 °C	**2.725**

Checked by: _____
Adam Thomas, Lab Manager

Reviewed by: _____
Neal W. Clements, P.E., C54902

Geosyntec Consultants **July 25, 2013**

Kettner Substation Relocation **GF13578**

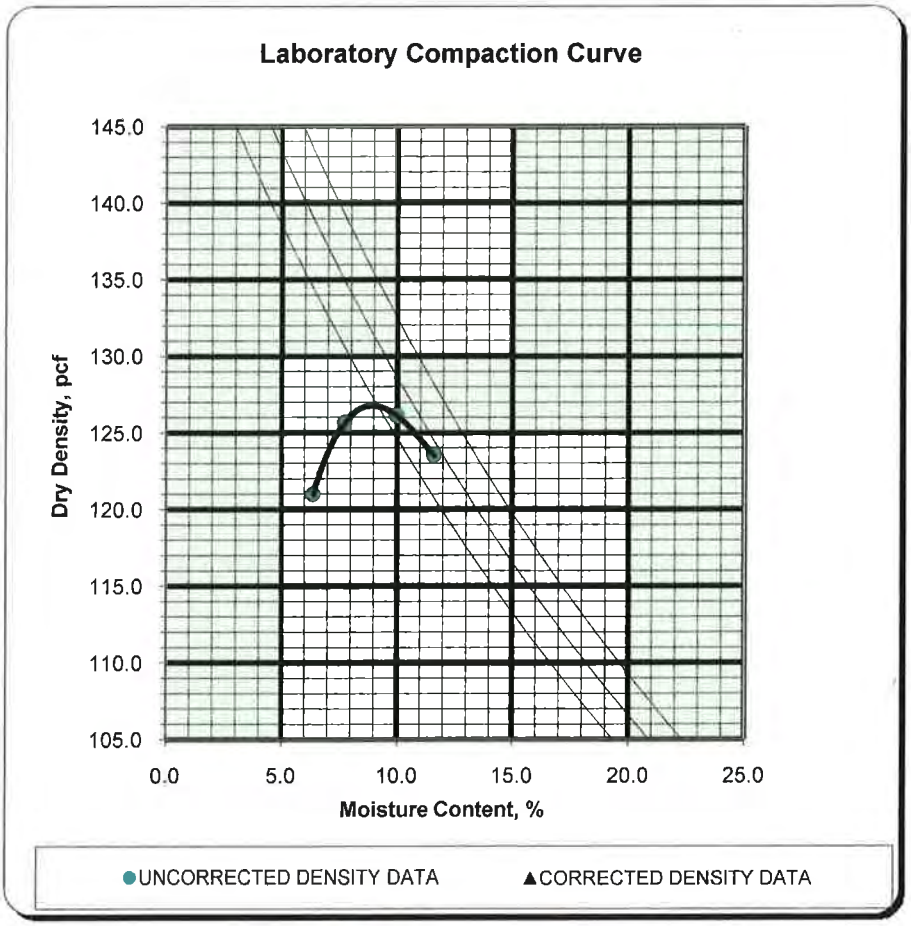
Geosyntec Project No. SC0368-30

LABORATORY COMPACTION CURVE

G Force Lab No.:	**9394**		
Boring No.	**B-2**	EL., ft.:	**0 - 5'**
Soil Description:	**Brown Sandy Clay (CL)**		
Source of Soil:	**Native**		

Test Designation:	**ASTM D1557**		Method	**A**	
% +3/4"	**0.2**	% +3/8"	**0.5**	% +#4	**1.1**
Oversize Correction Applied?	**No**				
Method of Sample Preparation:	**Dry**				
Type of Rammer Used:	**Manual**				

M/D Curve No. B-2



Test Results

Maximum Density, pcf	**127.0**
Optimum Moisture, %	**9.0**

Reviewed by: _____
Neal W. Clements, P.E., C54902

♦ 4035 Pacific Highway, San Diego, CA 92110 ♦ Tel: 619-583-6633 ♦
www.gforceca.com

Soil Corrosivity

(ASTM D4972,CTM 417,CTM 422)

Lab Number	Boring No.	Depth	Sulfate %	Chloride %	PH	Resistivity (OHM-cm)
9390	B-1	0 - 5'	0.034	0.016	8.30	1215

Lab Number	Boring No.	Depth	Sulfate %	Chloride %	PH	Resistivity (OHM-cm)
9407	B-4	5'	0.031	0.111	8.13	265

Date Sampled: July 10 and 11, 2013
Sampled By: JW
Date Submitted: 7/15/2013
Submitted By: JLN

Reviewed by: _____
Neal W. Clements, P.E., C54902

R-Value Test Results

Subject: On 7/15/12, One soil sample was submitted to G Force for the above referenced project. The sample was identified as B-3 @ 0' - 5'. Lab No. 9399 was assigned to the sample. The sample was submitted to Southern California Soil and Testing, Inc. for R-value determinations. Results from Southern California Soil and Testing were received on 7/26/13.

Results: Attached are R-value test results as reported by Southern California Soil and Testing, Inc..

Checked by: _____
Neal W. Clements, P.E., C54902

SOUTHERN CALIFORNIA SOIL AND TESTING, INC.

6280 RIVERDALE STREET, P. O. BOX 600627, SAN DIEGO, CA 92160 (619) 280-4321

☑ CAL-TEST 301
☐ ASTM D 2844

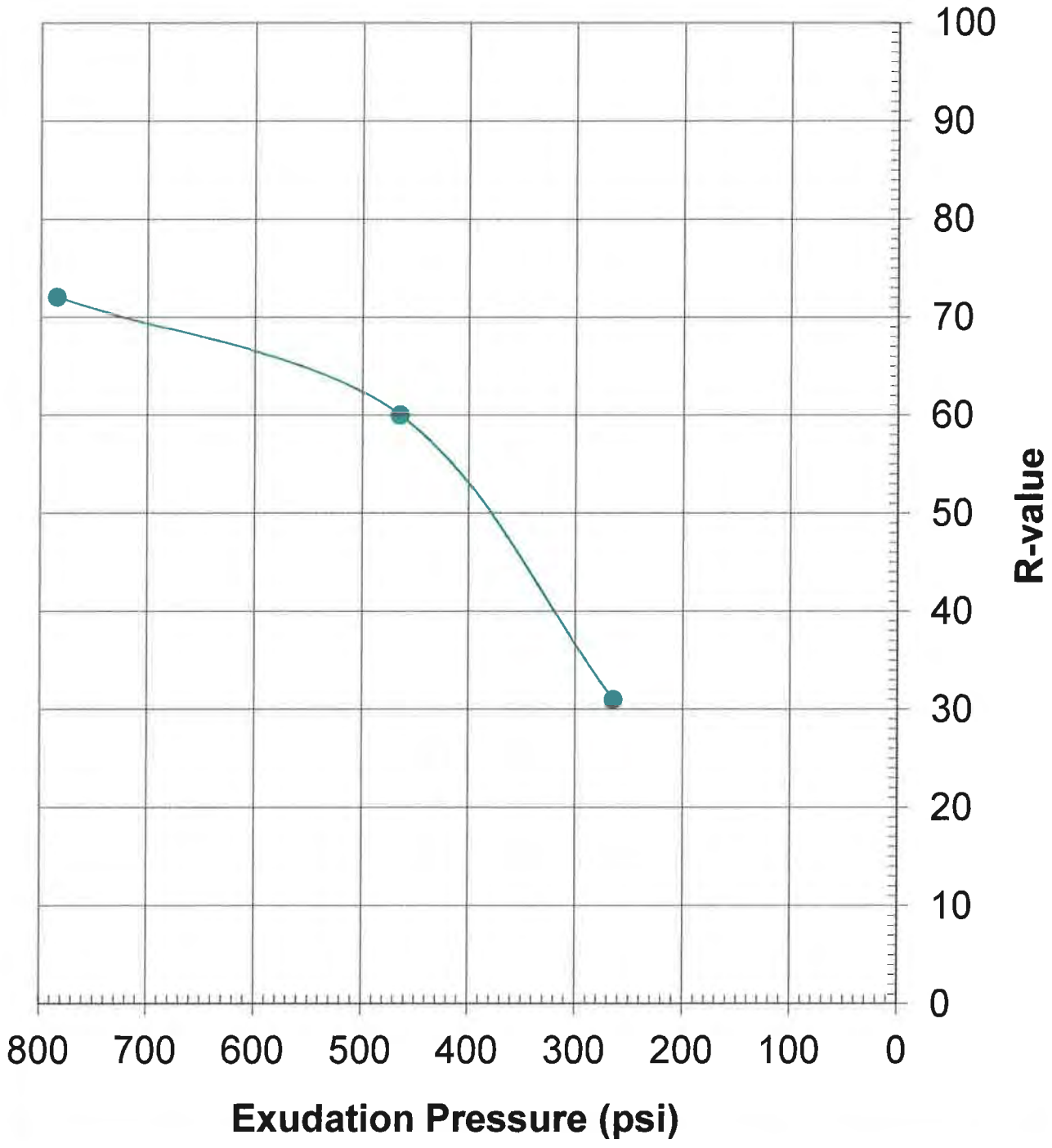
Job Name: G-Force #GF13580L **Job No.:** 1312123
Date: 07/24/13 **Street:** n/a
Sample #: Lab #9399 **Station:** n/a
Source: B3@0-5' **By:** DRB
Description: Brown F-M Silty Sand w/ Trace Gravel

Test Specimen		A	B	C	D
Date Tested		7/24/2013	7/24/2013	7/24/2013	
Compactor Air Pressure	PSI	225	350	350	
Initial Moisture	%	5.6	5.6	5.6	
Soil Wt. Added	GRAMS	1060	1080	1080	
Water Added	ML	50	40	35	
Water Added	%	5	3.9	3.4	
Moisture At Compaction	%	10.6	9.5	9	
Weight of Briquette & Tare	GRAMS	3163	3159	3168	
Net Weight of Briquette	GRAMS	1103	1114	1109	
Briquette Height	IN	2.44	2.45	2.45	
Density	PCF	123.8	125.8	125.8	
Exudation Pressure	PSI	265	465	785	
Expansion Pressure	PSF	0	0	0	
PH at 1000 Pounds	PSI	35	19	13	
PH at 2000 Pounds	PSI	70	37	25	
Displacement	Turns	6.50	5.55	5.20	
R' Value		33	60	72	
Stabilometer Thickness	FT	0.99	0.58	0.4	
Expansion Thickness	FT	0	0	0	
Expansion Dial Reading		0000	0000	0000	
R' Value Modifier		-2	0	0	
Corrected R-Value		31	60	72	
R-Value by Exudation Pressure			36		
Gravel Equivalent		0	0	0	
Traffic Index		4.5	4.5	4.5	
R-Value by Expansion Pressure			N/A		
R-Value at Equivalent			**36**		

Grain Size Distribution

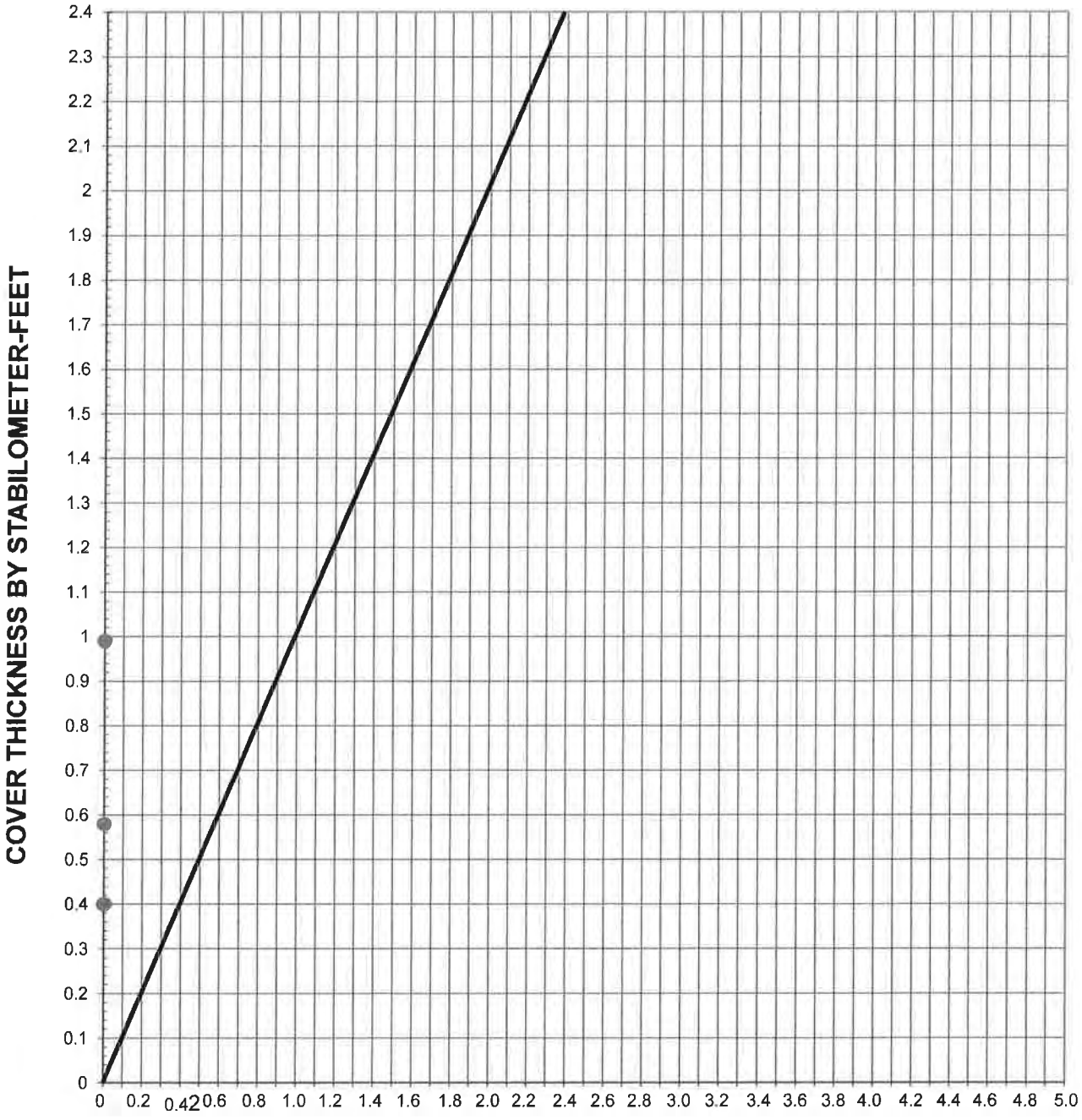
	As Received Minus #4 Sample			As Tested Plus #4 Sample		
		% Ret.	% Pass	Wt. Ret.	% Ret	% Pass
Total Equals						
Total + #4						
Total - #4						
Sieve						
1						
3/4						
1/2						
3/8						
#4						

R-value By Exudation Pressure



SOUTHERN CALIFORNIA SOIL AND TESTING, INC.	Job Name:		G-Force #GF13580L	
	By:	DRB	Date:	7/24/2013
	Job No.:	1312123	Sample No.:	Lab #9399
	R-Value by Ex.:	36	Plate No.:	

EXPANSION PRESSURE CHART



SOUTHERN CALIFORNIA SOIL AND TESTING, INC.	Job Name:		G-Force #GF13580L	
	By:	DRB	Date:	7/24/2013
	Job No.:	1312123	Sample No.:	Lab #9399
	Gravel Equ:	0	Plate No.:	

APPENDIX E

Seismic Evaluations

Geosyntec consultants

2100 Main Street, Suite 150
Huntington Beach, California 92648
PH 714.969.0800
FAX 714.969.0820
www.geosyntec.com

21 November 2013

Ms. Jennifer Nevius, P.E., G.E.
Senior Engineer
Geosyntec Consultants, Inc.
10875 Rancho Bernardo Rd., Suite 200
San Diego, CA 92127

Subject: Seismic Evaluations
Vine Substation
San Diego, California

Dear Ms. Nevius:

This letter report presents the results of the seismic evaluations performed by Geosyntec Consultants, Inc. (Geosyntec) to support planning, design, and construction of the proposed Vine Substation in San Diego, California.

PROJECT DESCRIPTION

San Diego Gas and Electric Company (SDG&E) plans to relocate the existing Kettner Substation from its current location south of Palm Street and west of Kettner Boulevard to its new location south of Vine Street and west of Kettner Boulevard (site) in San Diego, California. The project was previously called "Kettner Substation Relocation", but has been renamed, as the Kettner Substation will remain in operation. The approximate location of this site with respect to the major highways in the area is shown on Figure 1.

A plan view of the site is shown on Figure 2; the site extends over approximately 1.5 acres and is presently developed as a commercial parking lot. The approximate coordinates of the geometric center of the site are 32.739 North Latitude and -117.179 West Longitude.

PURPOSE AND SCOPE OF EVALUATIONS

The purposes of these engineering evaluations were: (i) assessment of soil liquefaction potential at the site; (ii) evaluation of soil liquefaction impacts, if any; and (iii) development of seismic parameters for structural design.

To achieve these objectives, Geosyntec:

- Evaluated seismic hazard parameters;
- Developed design ground motions;
- Performed site response analysis;
- Evaluated soil liquefaction potential;
- Evaluated soil liquefaction-induced site impacts; and
- Developed structural design parameters.

The above outlined engineering evaluations were based upon site-specific geological, hydrogeological, and geotechnical information.

SUBSURFACE CONDITIONS

Knowledge of the site subsurface conditions was developed from a review of regional geologic conditions, previous geotechnical investigations by others, and the current investigation.

Benton [1974; 1977] previously performed investigations at the site that included hollow stem drilling, excavation of test pits, and geotechnical laboratory testing. For the current study, Geosyntec [2013] advanced five borings and twenty six Cone Penetration Test (CPT) soundings, and performed geotechnical laboratory testing. Six of these CPT soundings also included shear wave velocity measurements.

The approximate location of these explorations are shown on Figure 2 along with the locations of geotechnical cross-sections (designated as Section A-A' through Section D-D') developed by Geosyntec [2013]. These cross-sections are reproduced herein on Figure 3 (Section A-A'), Figure 4 (Section B-B'), Figure 5 (Section C-C') and Figure 6 (Section D-D'). These cross-sections indicate that the site has been graded in the past, with fill thickness extending up to approximately 12 feet below the existing ground surface (bgs). The underlying colluvium and old paralic deposits are very gently sloping alternating layers of silty sand (SM), clayey sand (SC), low plasticity silt (ML) and low plasticity clay (CL).

Groundwater, as observed in boreholes and inferred from the CPT soundings, was estimated at approximately 24 to 25 feet bgs. However, information on the depth to

bedrock that is required for execution of site response analysis is lacking and cannot be inferred from existing information.

Inferred site stratigraphy and the moist unit weight profile established as representative of broader site conditions is presented on Figure 7. Moist unit weight profile was determined by previous and current geotechnical laboratory test data and correlation to representative CPT data (CPT C-1, C-8, C-15, C-16, and C-22).

Similarly, Figure 8 presents shear wave velocity (V_s) profile established as representative of the broader site conditions. This profile was determined by evaluation of the V_s data collected from CPTs C-1, C-8, C-10, C-15, C-16, and C-22. The average V_s over the top 100 feet, or approximately 30 meters, of the profile (V_{s30}) is 1,300 feet per second (ft/s). Based upon this information, the site may be classified as Site Class C in accordance with the site classification scheme presented in the International Building Code (IBC) and adopted by the 2013 edition of the California Building Code (2013 CBC).

EVALUATION OF SEISMIC HAZARD PARAMETERS

Geosyntec performed probabilistic seismic hazard analysis (PSHA) to evaluate seismic hazard parameters at the geometric center of the site. The PSHA was performed for:

- Free-field site conditions that are representative of conditions at the top of soil profile at the site; and
- Hypothetical bedrock outcrop conditions that are representative of bedrock underlying the site.

The geometric center of the site was established at approximate geographic coordinates are 32.739 North Latitude and -117.179 West Longitude. A V_s value of 2,500 ft/s was assigned to the hypothetical bedrock outcrop at the site based upon Burger [1992]. The evaluation for free-field site conditions was performed for V_{s30} equal to 1,300 ft/s that was established based upon site-specific measurements.

To establish the design earthquake, probabilistic seismic hazard analysis was performed for an event with 2% probability of exceedance (PE) in 50 years by the means of the United States Geological Survey (USGS) on-line tools. The latest available (i.e., 2008) USGS database was used for this evaluation.

The results of the probabilistic seismic hazard analysis are presented on Figures 9 and 10. Figure 9 indicates that seismic hazard at the site is governed by a Moment Magnitude (**M**) 6.64 event on the San Diego section of Rose Canyon Fault Zone (RCFZ). Figure 9 further indicates that the RCFZ is approximately 1 km (0.6 miles) from the geometric center of the site. Figure 10 compares bedrock outcrop and free-field ground surface (target) acceleration response spectra (5% viscous damping) and shows a characteristic shift to the right when bedrock conditions transition to the free-field soil conditions.

As shown on Figure 10, the 2% PE in 50 years free-field Peak Ground Acceleration (PGA) is 0.60 g. This PGA, along with **M**6.64, may be used for evaluation of soil liquefaction potential at the site. The bedrock outcrop Peak Horizontal Ground Acceleration (PHGA) is 0.56 g.

EVALUATION OF DESIGN GROUND MOTIONS

In order to characterize design ground motions in time domain, Geosyntec established a suite of five acceleration time histories (design ground motions; accelerograms) for the site. As the depth to bedrock cannot be inferred from existing field exploration data, the design ground motions were initially selected to conform to the ground surface (i.e., free-field soil conditions) target spectrum. The selection process was as follows:

- Screen the Next Generation Attenuation (NGA) database of acceleration time histories on the basis of site conditions, earthquake magnitude, and PGA similar to those established for the site;
- Plot the acceleration response spectra of the candidate accelerograms (24 motions) against the target soil acceleration response spectrum; and
- Out of 24 candidate motions, select 5 motions that most closely conform to the target free-field (soil) spectrum over a broad range of periods.

Following the above outlined methodology, Geosyntec established a suite of 5 design accelerograms that conform to the target soil spectrum. These accelerograms include:

- The NGA No. 1095 accelerogram, recorded in the 1994 **M**6.7 Northridge, California earthquake at the Whittier - S. Alta Drive station;
- The NGA No. 730 accelerogram, recorded in the 1988 **M**6.8, Spitak, Armenia earthquake at the Gukasian station;

- The NGA No. 2550 accelerogram, recorded in the 1999 **M**7.6 Chi-Chi, Taiwan earthquake at the HWA050 station;
- The NGA No. 1012 accelerogram, recorded in the 1994 **M**6.7 Northridge earthquake at Los Angeles 00 station; and
- The NGA No.: 1056 accelerogram, recorded in the 1994 **M**6.7, Northridge earthquake at Phelan Wilson Ranch station;

The acceleration response spectra of the above listed accelerograms, scaled to a free-field (soil) PGA of 0.60 g, are plotted against the free-field (soil) target acceleration response spectrum on Figure 11. Figure 11 indicates that the acceleration response spectra of these accelerograms match and/or exceed the target acceleration response spectrum over a broad range of periods. Therefore, these accelerograms scaled to a PGA of 0.60 g are selected for use in site response analysis.

SITE RESPONSE ANALYSIS

General

Geosyntec conducted a site response analysis to evaluate the response of the site to design ground motions. As depth to bedrock cannot be inferred from existing information, a deconvolution of design ground motions was performed first to assess depth to bedrock. Once depth to bedrock was assessed, a conventional site response analysis was performed. The purpose of the conventional site response analysis was to develop input parameters for evaluation of soil liquefaction potential at the site.

Dynamic Response Model

The dynamic response model for both deconvolution of design ground motion and for site response analysis was developed for the geometric center of the site. The average unit weight and average shear wave velocity profiles that form a backbone of this model are shown on Figures 7 and 8. As indicated in Figures 7 and 8, moist unit weight of 116 pounds per cubic foot (pcf) was assigned within top 10.5 feet of the profile, while 128 pcf was assigned within the remainder of the profile, with a constant value of shear wave velocity of 1,300 ft/s applied over the entire profile.

Also indicated in Figures 7 and 8 is the inferred stratification (layering) of the site and associated material characterization. The particular material classification and confining stress calculated from the average unit weight profile served as a basis for selection of nonlinear properties of on-site soils. In particular, Geosyntec selected the stress and

Plasticity Index-dependent Darendeli [2001] modulus reduction and damping curves for development of site response analysis model.

Both the deconvolution of design ground motion and site response analysis were performed in frequency domain using the latest iteration of one-dimensional equivalent-linear site response analysis program SHAKE [Schnabel et al., 1972]. In particular, Geosyntec employed SHAKE2000 [www.GeoMotions.com].

Deconvolution of Design Ground Motions

The principle of the deconvolution of design ground motion is schematically presented on Figure 12. As depicted, the deconvolution analysis starts with propagation of a design ground motion downward, from the free-field ground surface to an assumed elevation of bedrock. The results are monitored in a form of calculated acceleration response spectrum at the assumed bedrock level and are compared to the target bedrock spectrum that was evaluated as a part of seismic hazard analysis. If a reasonable agreement between the calculated acceleration spectrum and the target bedrock spectrum is obtained, the process is repeated with other accelerograms in the suite of design accelerograms. If the agreement is judged not to be satisfactory, depth to bedrock is increased and the process is repeated until the satisfactory agreement is obtained.

The results of deconvolution analysis are shown on Figure 13. These results indicate that: (i) bedrock at this site is at an approximate depth of 200 ft bgs; and (ii) the predominant period of this site, evaluated as (4 x 200 ft)/$V_{s,average}$ = 0.62 seconds.

The acceleration time histories calculated by deconvolution at a depth of 200 ft bgs (see acceleration response spectra of these time histories on Figure 13) can be used for site response analysis at this site.

Site Response Analysis

The purpose of the conventional site response analysis was to develop input parameters for evaluation of soil liquefaction potential at the site, namely to establish a profile of design Earthquake Cyclic Stress Ratio (CSR_{EQ}).

The site response analysis was performed using the 200-foot high one-dimensional site model shown on Figures 7 and 8. The results are presented on Figure 14 in a form of calculated and an average CSR_{EQ} profiles. Figure 14 further indicates that a relatively narrow band of CSR_{EQ} was calculated across the entire profile. Therefore, the average

calculated CSR_{EQ} profile can be used for evaluation of soil liquefaction potential at this site.

ASSESSMENT OF SOIL LIQUEFACTION POTENTIAL

Soil liquefaction potential was evaluated using the Youd et al. [2001] procedure, as coded in the computer program CLiq [GeoLogismiki, 2013]. The analysis was performed for individual CPT soundings. A "design high" groundwater elevation of approximately 20 feet bgs was assumed for soil liquefaction analysis [Geosyntec, 2013].

The CSR_{EQ} profile evaluated as a part of site response analysis was directly input into CLiq. A "thin-layer" correction procedure [Robertson and Wride, 1998] was implemented to account for presence of thin layers of high permeable soils (e.g., sands) that are locally "sandwiched" between relatively thick layers of low permeable soils (e.g., clays).

A summary of the liquefaction evaluation results are shown on Figures 15 and 16; detailed results of the liquefaction analysis are presented in Attachment A to this letter. The results of seismic evaluations documented herein indicate that relatively thin and isolated lenses of saturated sandy soil may liquefy during the design earthquake. These lenses are unevenly distributed within the top 60 feet of the profile. The lens thickness approximately ranges from 1.5 to 5 feet with an average thickness of 2.6 feet.

ASSESSMENT OF SOIL LIQUEFACTION IMPACT

Potential impacts of soil liquefaction at this site include:

- Surface manifestation;
- Lateral spreading;
- Total and differential downdrag settlement of deep foundations; and
- Drag load on deep foundations.

By inspection, we judge that potential for surface manifestation of soil liquefaction is small as the "crust" of non-liquefiable soils is over 30 ft thick. Also by inspection, we further judge that potential for lateral spreading at this site is low as: (i) potentially-liquefiable soil lenses do not appear to be connected; (ii) the site is relatively level; (iii)

a free-face and/or steeply sloped site conditions do not exist in a relative vicinity of the site; and (iv) the depth to the potentially liquefiable soils is relatively high.

The magnitude of soil liquefaction-induced settlement calculated for each CPT sounding is relatively small; the calculated values range from a fraction of an inch to 2.3 inches, with an average value of 0.8 inches. As Building Departments in southern California typically limit allowable (total) settlement to 4 inches and allowable (differential) settlement to 1 inch over a standard 30-foot span, we judge that the impact of soil liquefaction-induced settlement on proposed development is small.

While the average magnitude of liquefaction-induced settlement is relatively small, soil liquefaction may induce drag loads and downdrag on deep foundations. Therefore, design of deep foundations should include additional drag loads in the top 60 feet of the site profile.

PARAMETERS FOR STRUCTURAL DESIGN

Geosyntec evaluated the design spectral response acceleration parameters in accordance with the requirements of the 2010 and 2013 Editions of the CBC. The calculations are in accordance with site classification established above (Site Class C), and include the following:

$$S_{MS} = F_a S_s$$

$$S_{M1} = F_v S_1$$

and

$$S_{DS} = 2/3\ S_{MS}$$

$$S_{D1} = 2/3\ S_{M1}$$

where S_s and S_1 are mapped spectral response accelerations at 0.2 s and 1.0 s periods respectively. F_a and F_v are site coefficients (herein corresponding to Site Class C) at 0.2 s and 1.0 s periods respectively. S_{MS} and S_{M1} are adjusted maximum considered earthquake spectral response accelerations at 0.2 s and 1.0 s periods correspondingly. S_{DS} and S_{D1} are design spectral acceleration parameters at 0.2 s and 1.0 s periods.

We understand that the Structural Engineer will select the edition of building code upon which structural design will be based. Geosyntec offers spectral response acceleration parameters for the two latest editions of CBC, as presented in Tables 1 and 2. Output from the USGS tool utilized to confirm the seismic design parameters is presented in Attachment B to this letter.

Table 1. 2010 CBC Seismic Parameters
Vine Substation
San Diego, California

Parameter [a]	Value
Site Soil Class	C
Mapped Spectral Response Acceleration at 0.2 s Period, S_S	1.60 g
Mapped Spectral Response Acceleration at 1.0 s Period, S_1	0.63 g
Short Period Site Coefficient at 0.2 s Period, F_a	1.00
Long Period Site Coefficient at 1.0 s Period, F_v	1.30
Adjusted Spectral Response Acceleration at 0.2 s Period, S_{MS}	1.60 g
Adjusted Spectral Response Acceleration at 1.0 s Period, S_{M1}	0.81 g
Design Spectral Response Acceleration at 0.2 s Period, S_{DS}	1.06 g
Design Spectral Response Acceleration at 1.0 s Period, S_{D1}	0.54 g

Note:

a. The 2010 CBC parameters are based on the ASCE 7-5 Standard/2009 International Building Code which makes use of the 2002 USGS hazard data.

Table 2. 2013 CBC Seismic Parameters
Vine Substation
San Diego, California

Parameter [b]	Value
Site Soil Class	C
Mapped Spectral Response Acceleration at 0.2 s Period, S_S	1.23 g
Mapped Spectral Response Acceleration at 1.0 s Period, S_1	0.48 g
Short Period Site Coefficient at 0.2 s Period, F_a	1.00
Long Period Site Coefficient at 1.0 s Period, F_v	1.32
Adjusted Spectral Response Acceleration at 0.2 s Period, S_{MS}	1.23 g
Adjusted Spectral Response Acceleration at 1.0 s Period, S_{M1}	0.63 g
Design Spectral Response Acceleration at 0.2 s Period, S_{DS}	0.82 g
Design Spectral Response Acceleration at 1.0 s Period, S_{D1}	0.42 g

Note:

b. The 2013 CBC parameters are based on the ASCE 7-10 Standard/2012 International Building Code which makes use of the 2008 USGS hazard data.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary and Conclusions

This letter report presents the results of the seismic evaluations performed by Geosyntec to support planning, design, and construction of the proposed Vine Substation project in San Diego, California. The ultimate objectives of these evaluations were: (i) assessment of soil liquefaction potential at the site; (ii) evaluation of soil liquefaction impacts, if any; and (iii) development of seismic parameters for structural design.

The results of seismic evaluations documented herein indicate that the design earthquake is an event with 2 percent PE in 50 years (2,475-year return period). The design earthquake magnitude corresponding to this design event is **M**6.64. The design (bedrock) PHGA is 0.56 g. The controlling fault is the RCFZ.

The results of seismic evaluations documented herein further indicate that relatively thin and isolated lenses of saturated sandy soil may liquefy in design earthquake. However, the impact of soil liquefaction on overall site response is relatively small and manifests itself primarily through soil liquefaction-induced settlements that are on the order of 1 inch. While the average magnitude of liquefaction-induced settlement is relatively small, soil liquefaction may induce drag loads and downdrag settlement on deep foundations. Therefore, design of deep foundations should include additional downdrag loads in the top 60 feet of the site profile.

LIMITATIONS

It should be recognized that the data, conclusions, and recommendations contained in this report are partially based on information provided and work conducted by others. Geosyntec is not responsible for circumstances resulting from errors, omissions, and inaccuracies in the information and work performed by others.

Geosyntec is not responsible for the use of the data or conclusions presented in this report for any purposes other than the specific purposes expressed herein. If you have any questions regarding this report or require additional information, please do not hesitate to contact either of the undersigned.

CLOSURE

This letter report was prepared in accordance with general standards of engineering practice existing in southern California at the time of preparation of this report. In

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accordance with the peer review policy of the firm, this letter report was reviewed by Steven Fitzwilliam, P.E., G.E., of Geosyntec.

Sincerely,

Zahra A. Amini, Ph.D.
Senior Staff Engineer

Neven Matasovic, Ph.D., P.E., G.E.
Associate

Attachments

REFERENCES

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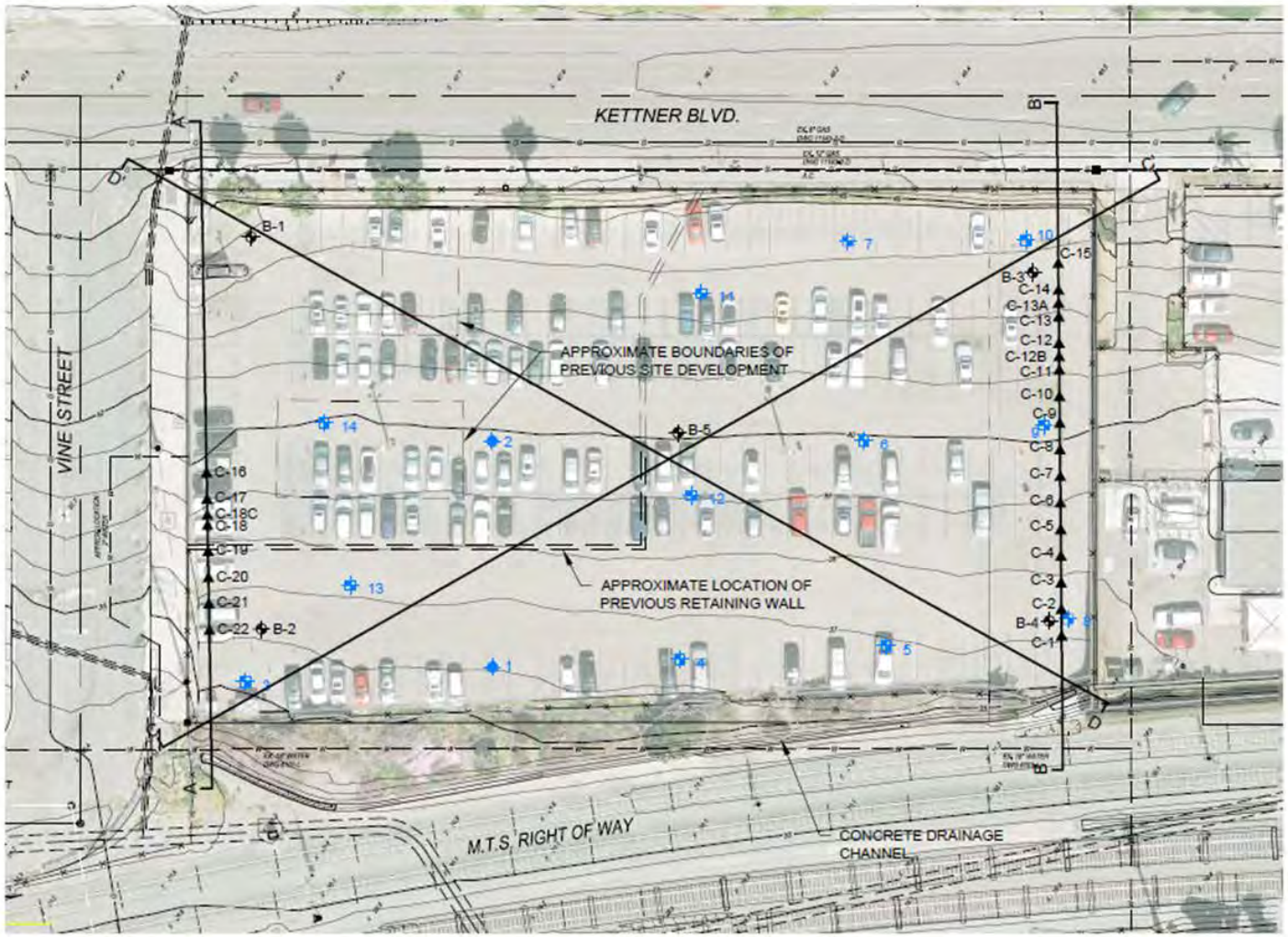
SITE LOCATION MAP
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	**NOVEMBER 2013**	**FILE NO.**	**FIGURE 1.DOC**
PROJECT NO.	**SC0368-30**	**FIGURE NO.**	**1**



LEGEND

- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF CPT (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974)
- APPROXIMATE LOCATION OF TEST PIT (BENTON, 1974)
- A — A' APPROXIMATE LOCATION OF GEOLOGIC CROSS SECTION
- 40 EXISTING GROUND CONTOUR MAJOR (FEET)
- EXISTING GROUND CONTOUR MINOR (FEET)
- FENCELINE

0 40' 80'

SCALE IN FEET

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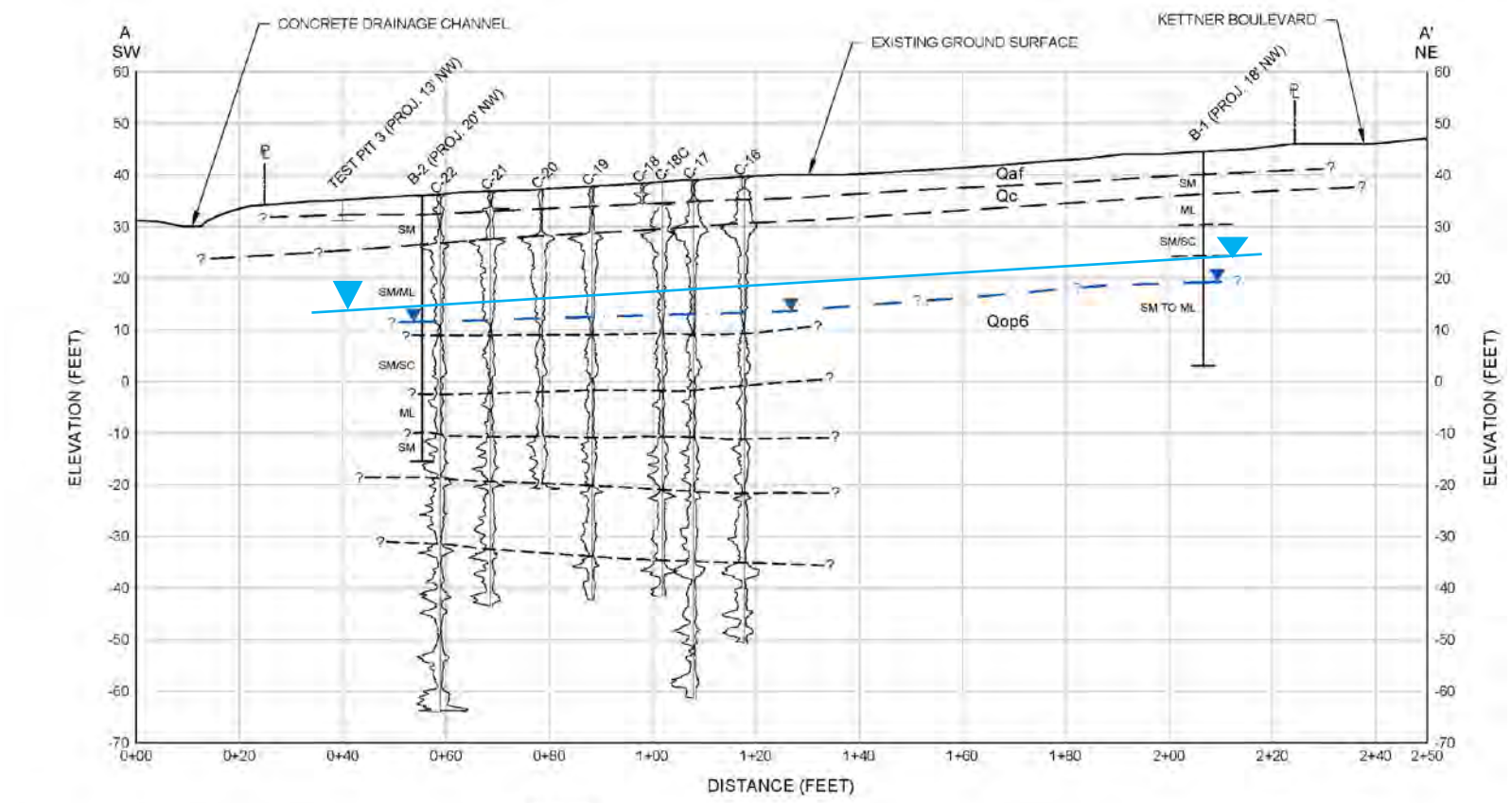
SITE AND EXPLORATION LOCATION PLAN
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 2.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	2



LEGEND

CPT DATA

Friction (tsf) 14 0 800 Tip Resistance (tsf)

- EXISTING GROUND
- GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)
- LITHOLOGIC CONTACT (APPROXIMATE)
- INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM
- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)
- PROPERTY LINE
- GROUNDWATER (DESIGN)

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

0 20' 40'
SCALE IN FEET

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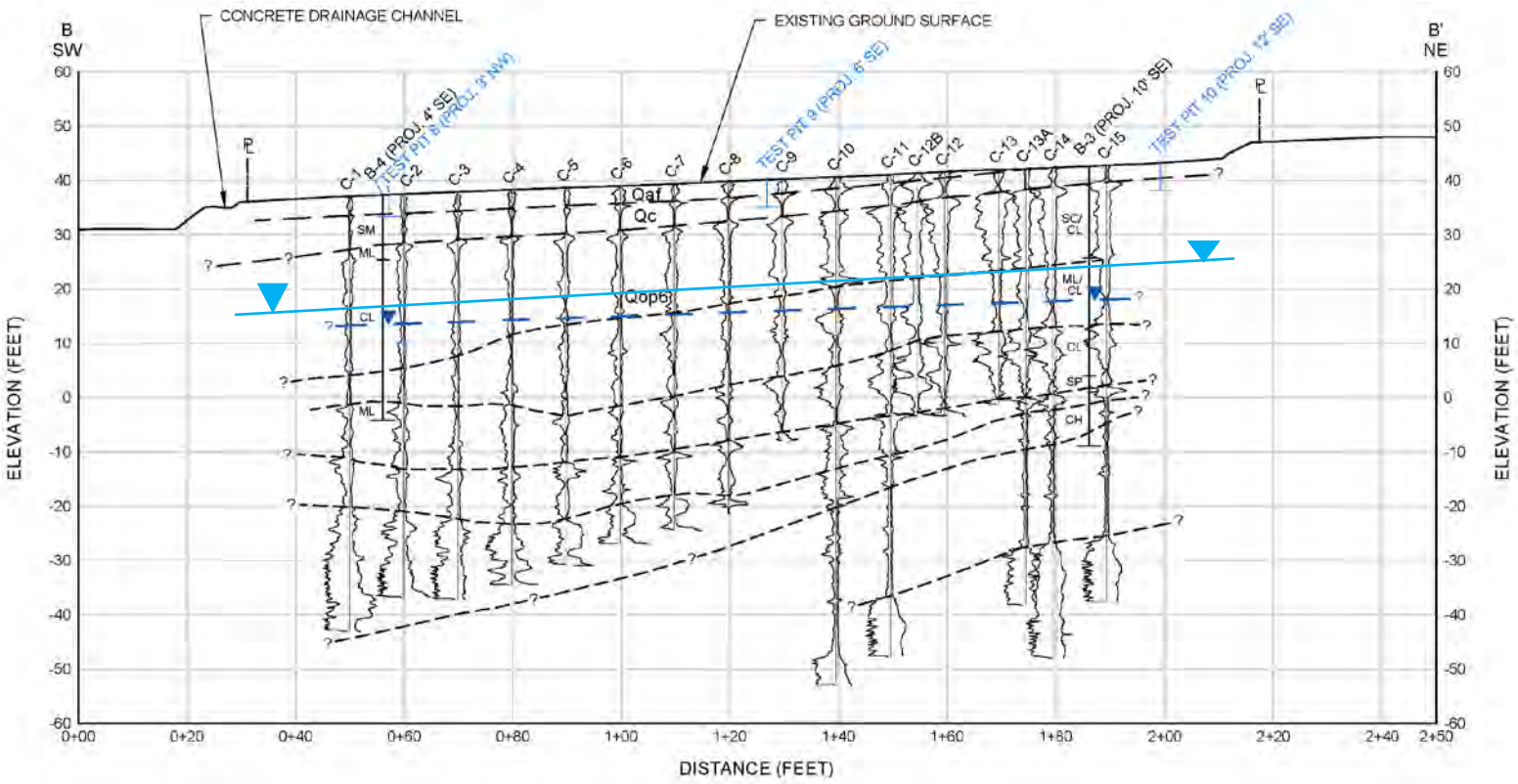
GEOLOGIC CROSS SECTION A-A'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 3.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	3



LEGEND

CPT DATA

Friction (tsf) 14 0 800 Tip Resistance (tsf)

- EXISTING GROUND
- GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)
- LITHOLOGIC CONTACT (APPROXIMATE)
- INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM
- APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)
- APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)
- PROPERTY LINE
- GROUNDWATER (DESIGN)

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION SEE APPENDIX B

0 20' 40'
SCALE IN FEET

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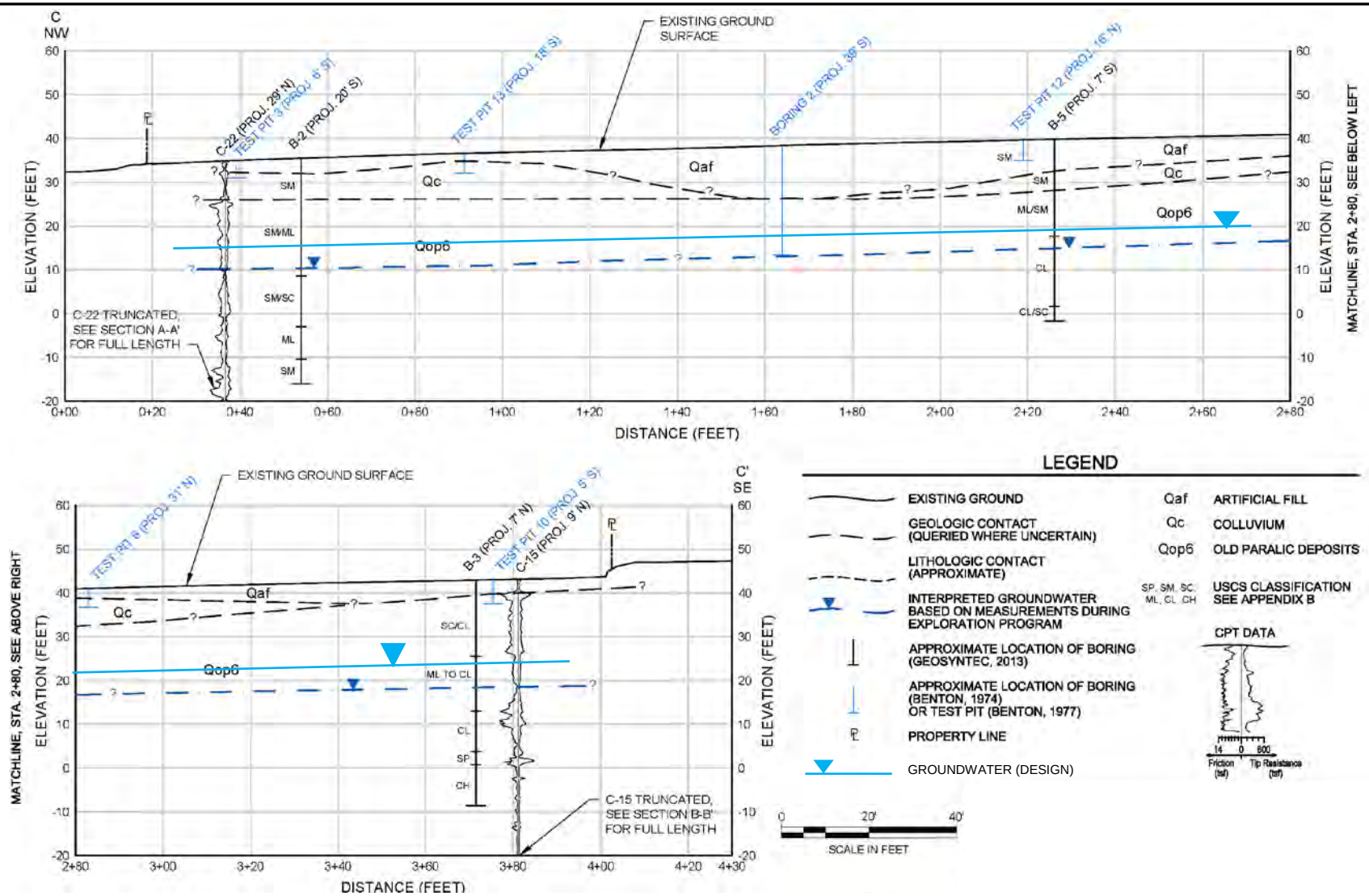
GEOLOGIC CROSS SECTION B-B'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 4.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	4



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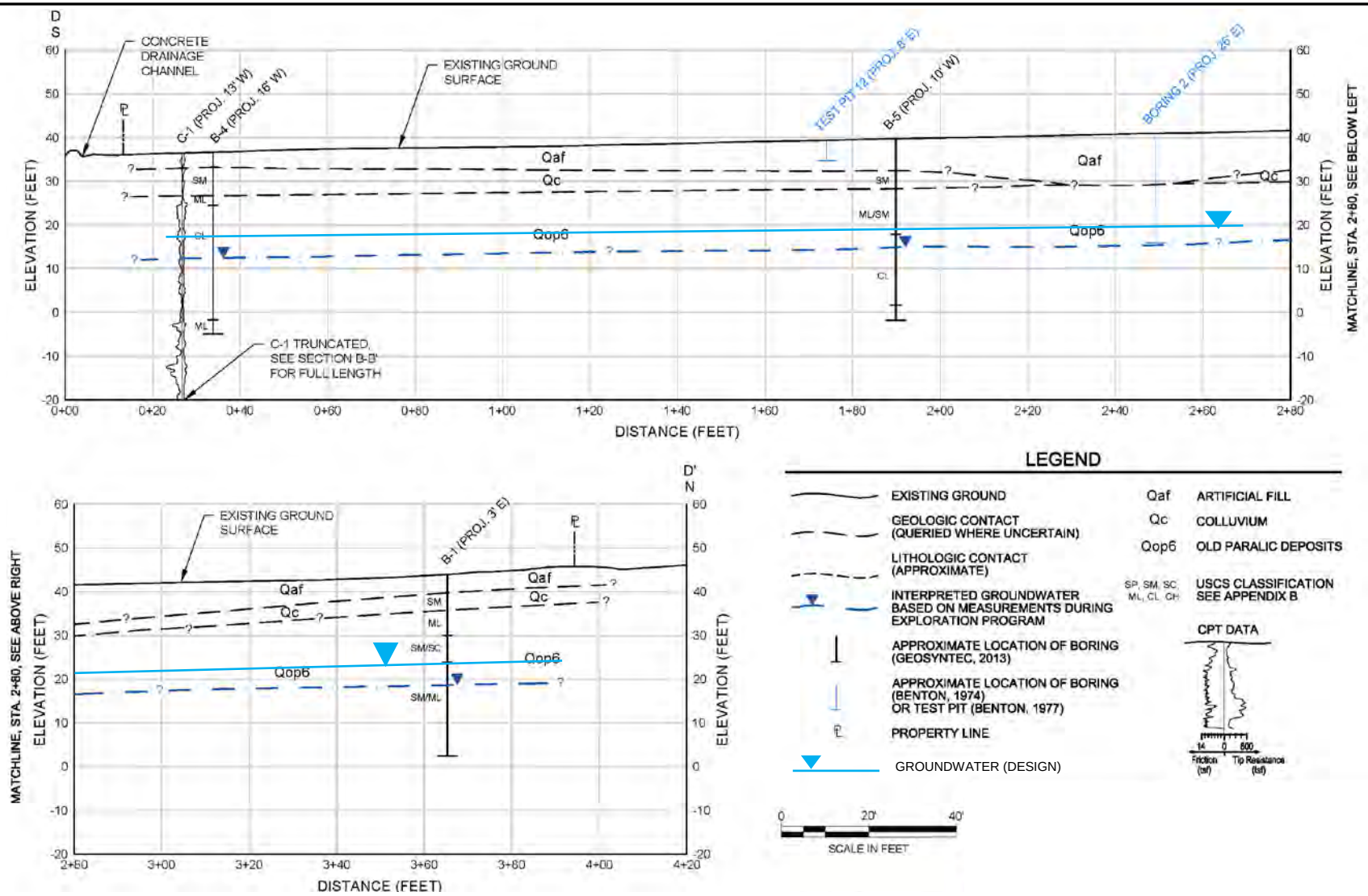
GEOLOGIC CROSS SECTION C-C'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 5.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	5



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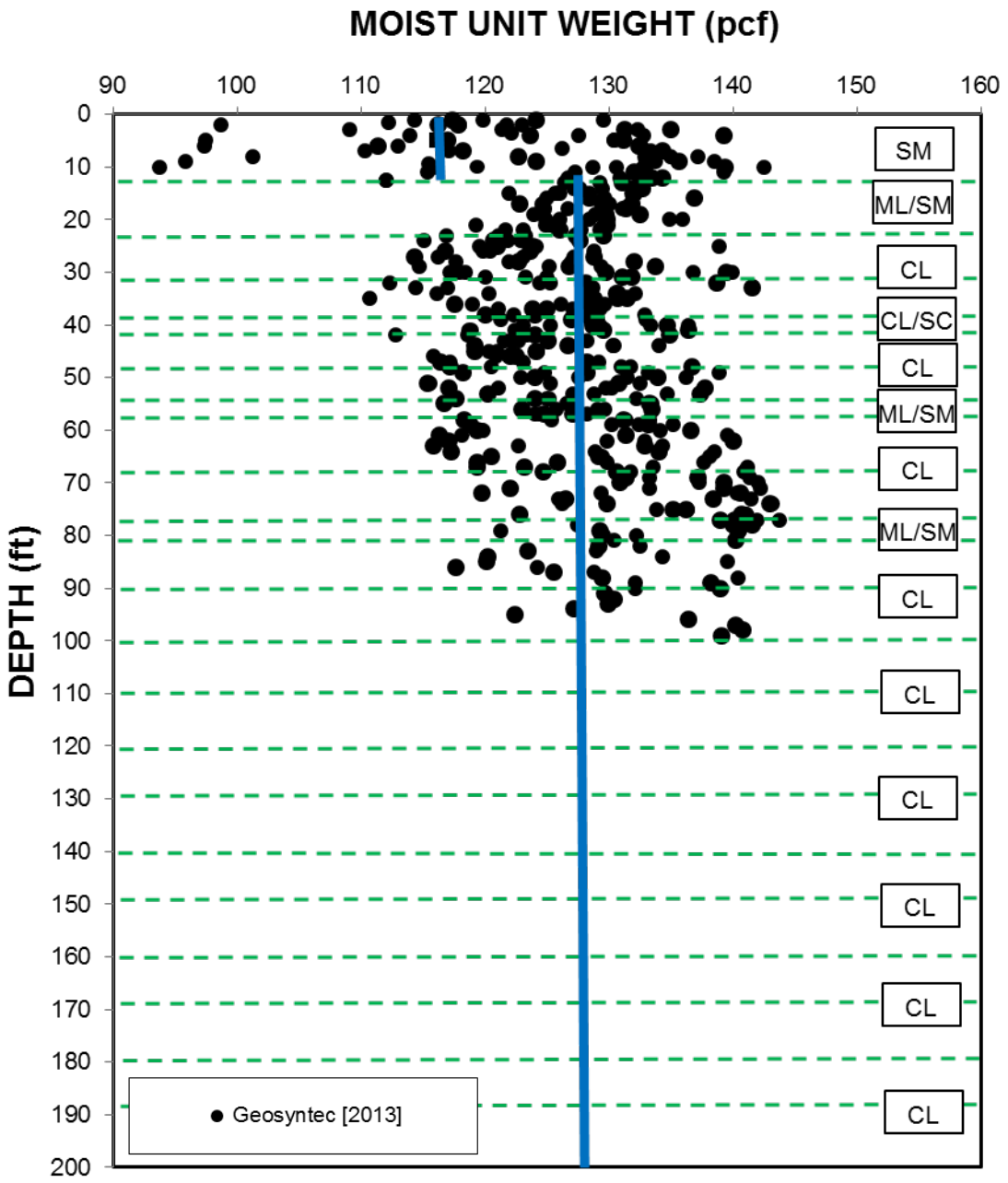
GEOLOGIC CROSS SECTION D-D'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	**NOVEMBER 2013**	**FILE NO.**	**FIGURE 6.DOC**
PROJECT NO.	**SC0368-30**	**FIGURE NO.**	**6**



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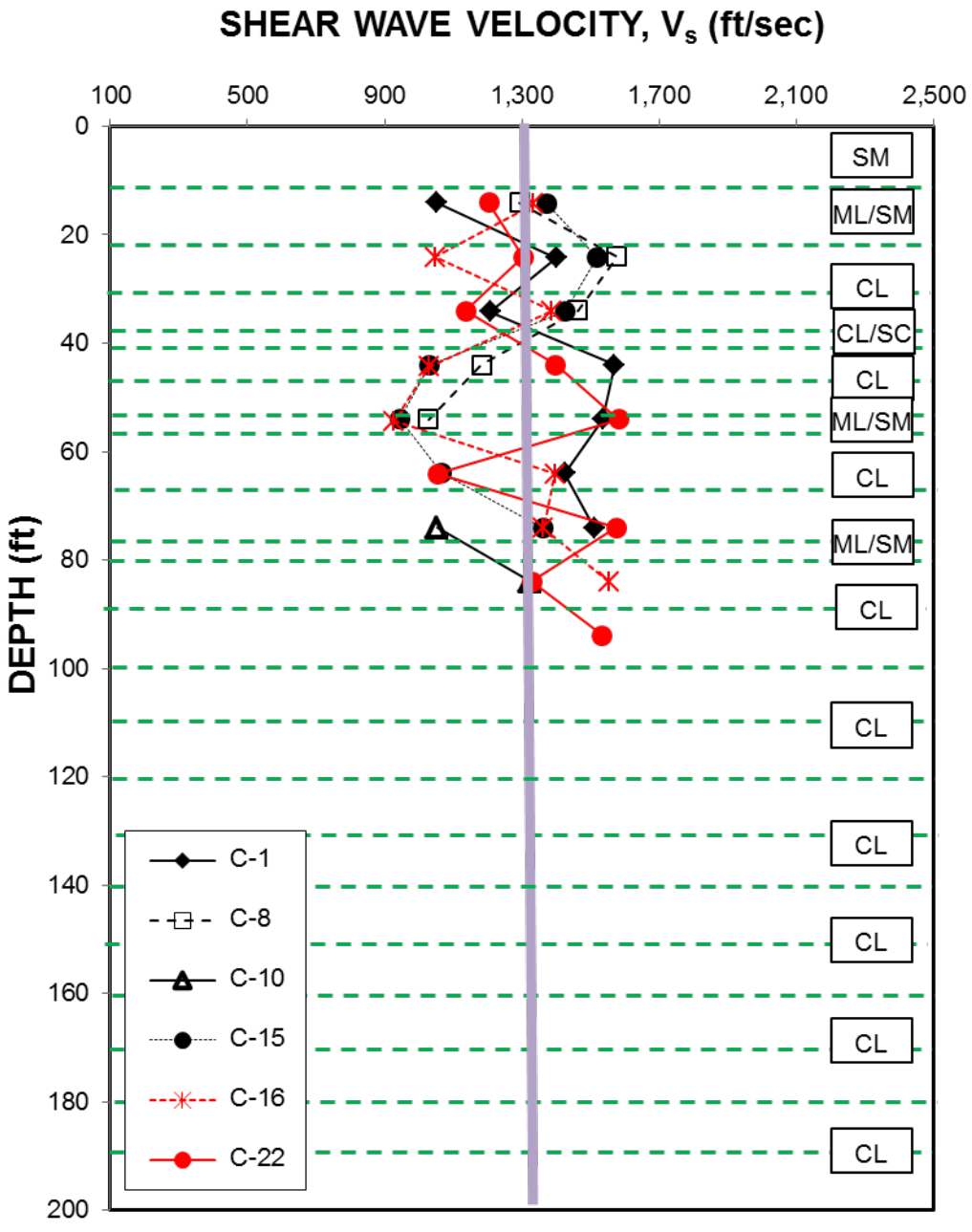
MOIST UNIT WEIGHT PROFILE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 7.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	7



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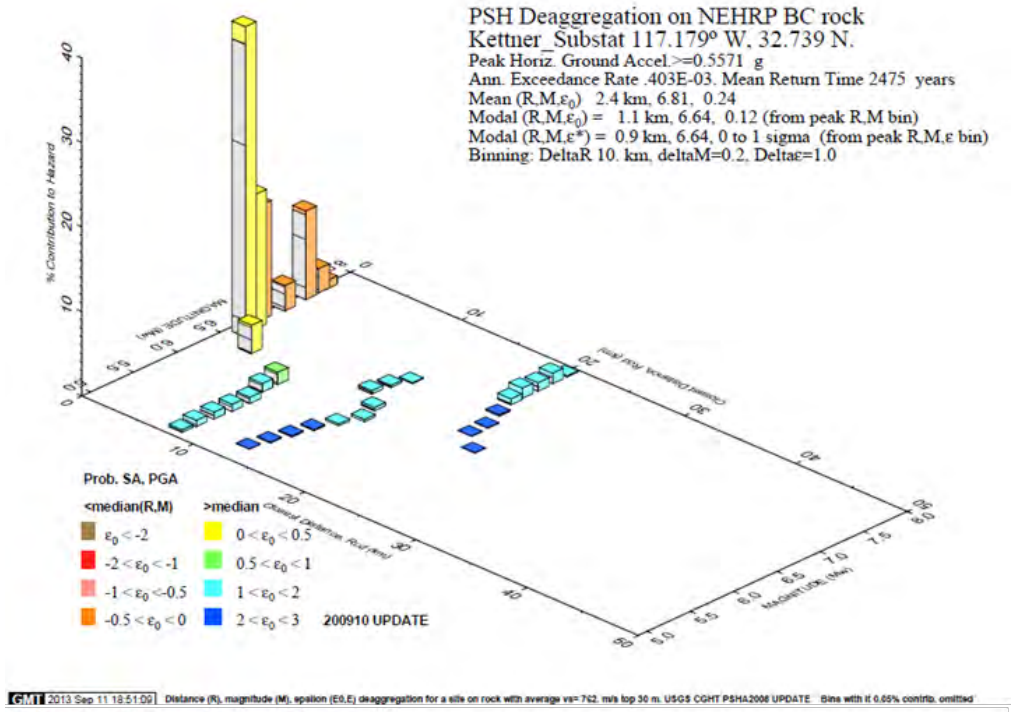
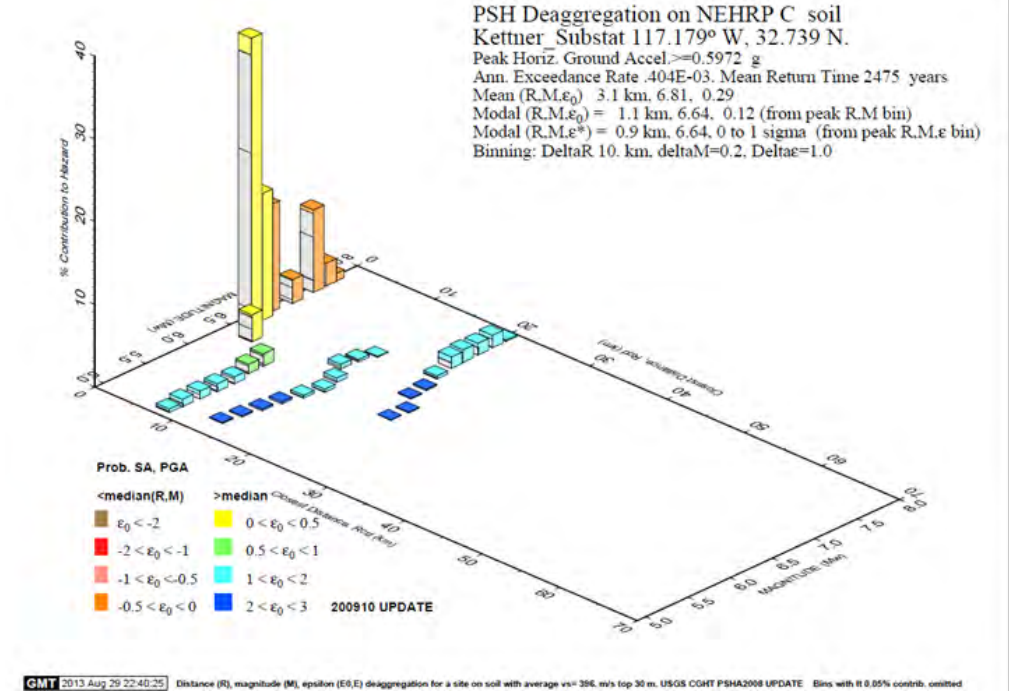
SHEAR WAVE VELOCITY PROFILE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 8.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	8



GMT 2013 Sep 11 18:51:09 Distance (R), magnitude (M), epsilon (E0,E) deaggregation for a site on rock with average vs= 762. m/s top 30 m. USGS CGHT PSHA2008 UPDATE Bins with lt 0.05% contrib. omitted



GMT 2013 Aug 29 22:40:25 Distance (R), magnitude (M), epsilon (E0,E) deaggregation for a site on soil with average vs= 356. m/s top 30 m. USGS CGHT PSHA2008 UPDATE Bins with lt 0.05% contrib. omitted

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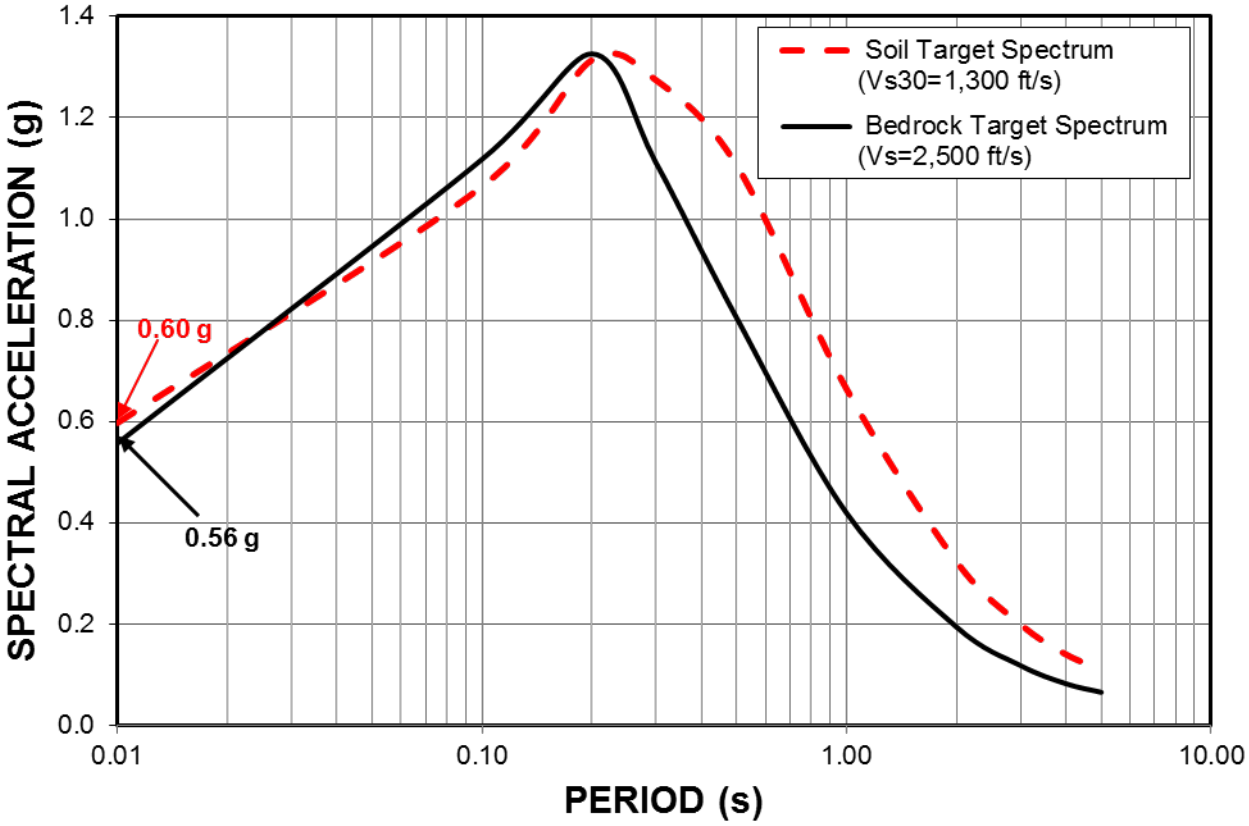
PSHA DEAGGREGATION ON BEDROCK AND SOIL
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	**NOVEMBER 2013**	**FILE NO.**	**FIGURE 9.DOC**
PROJECT NO.	**SC0368-30**	**FIGURE NO.**	**9**



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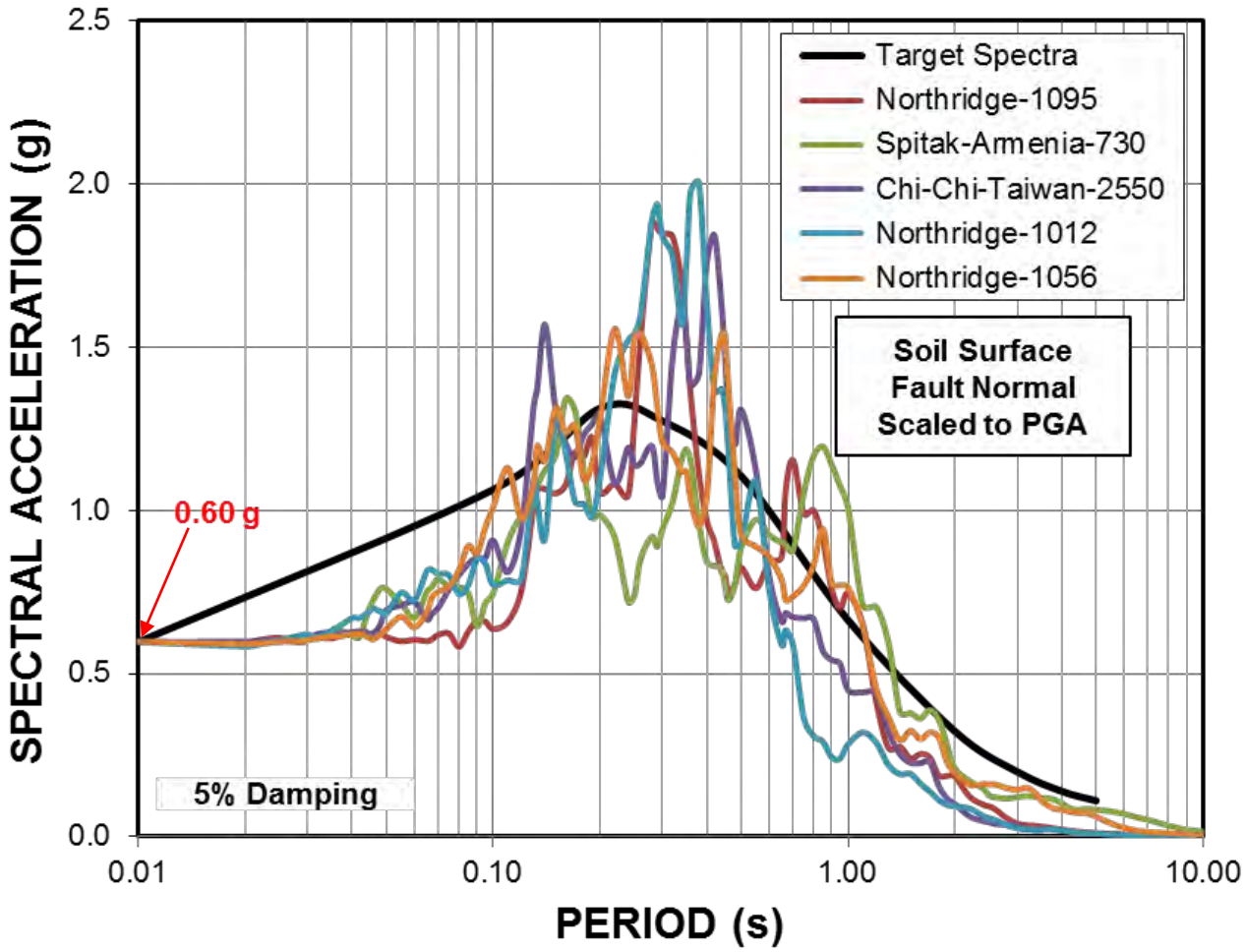
TARGET ACCELERATION RESPONSE SPECTRA
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 10.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	10



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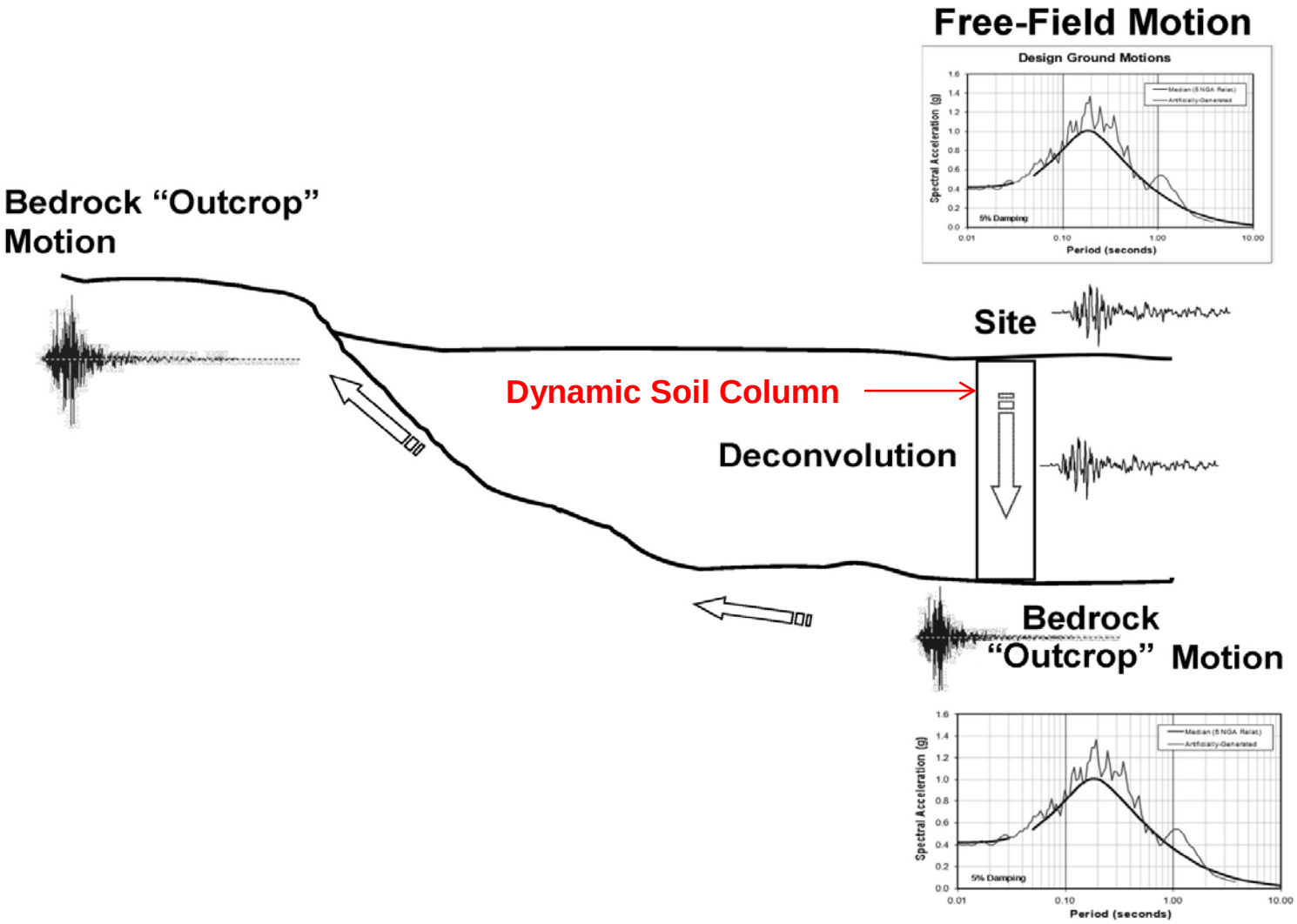
FREE-FIELD ACCELERATION RESPONSE SPECTRA
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 11.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	11



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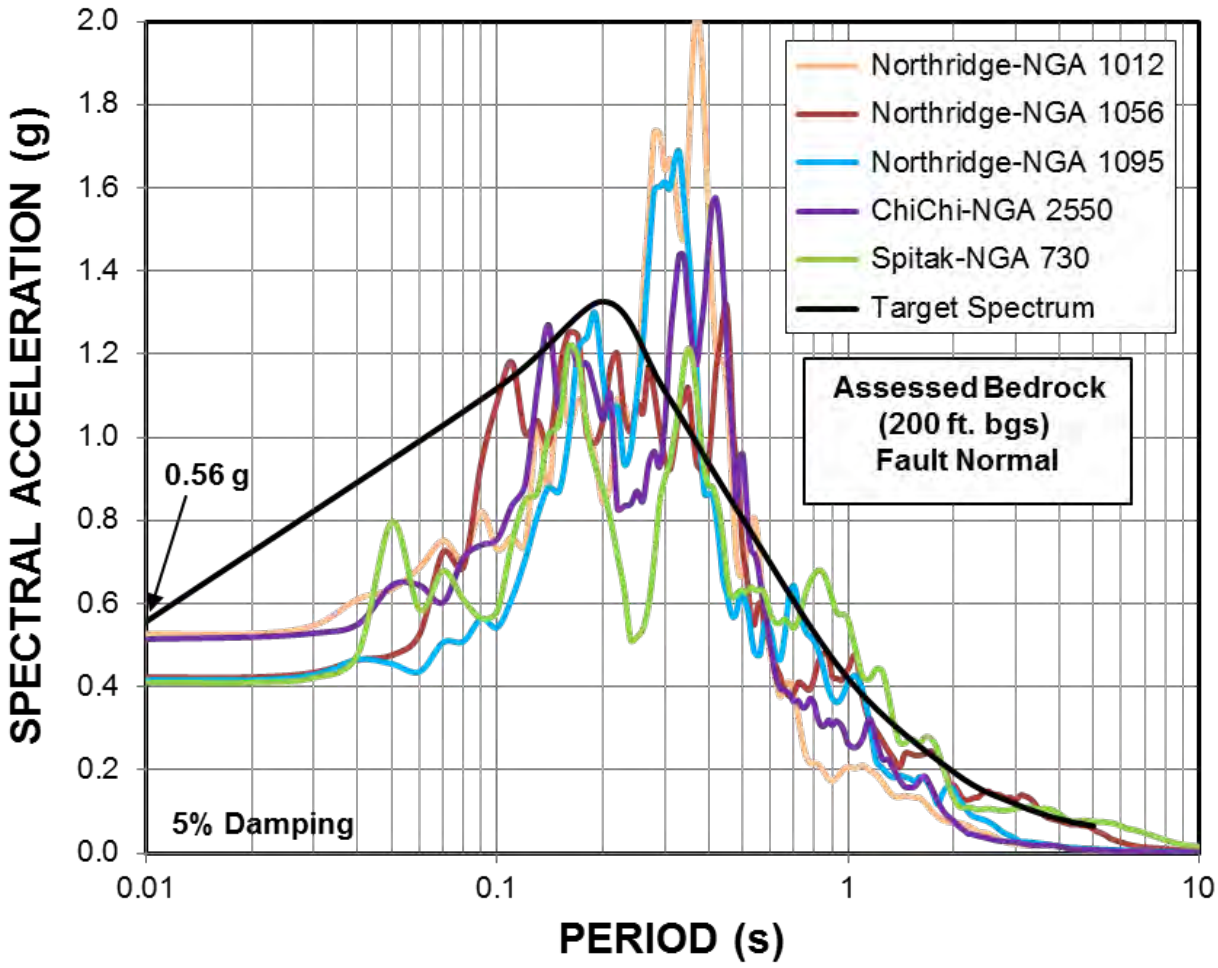
DECONVOLUTION PROCEDURE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 12.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	12



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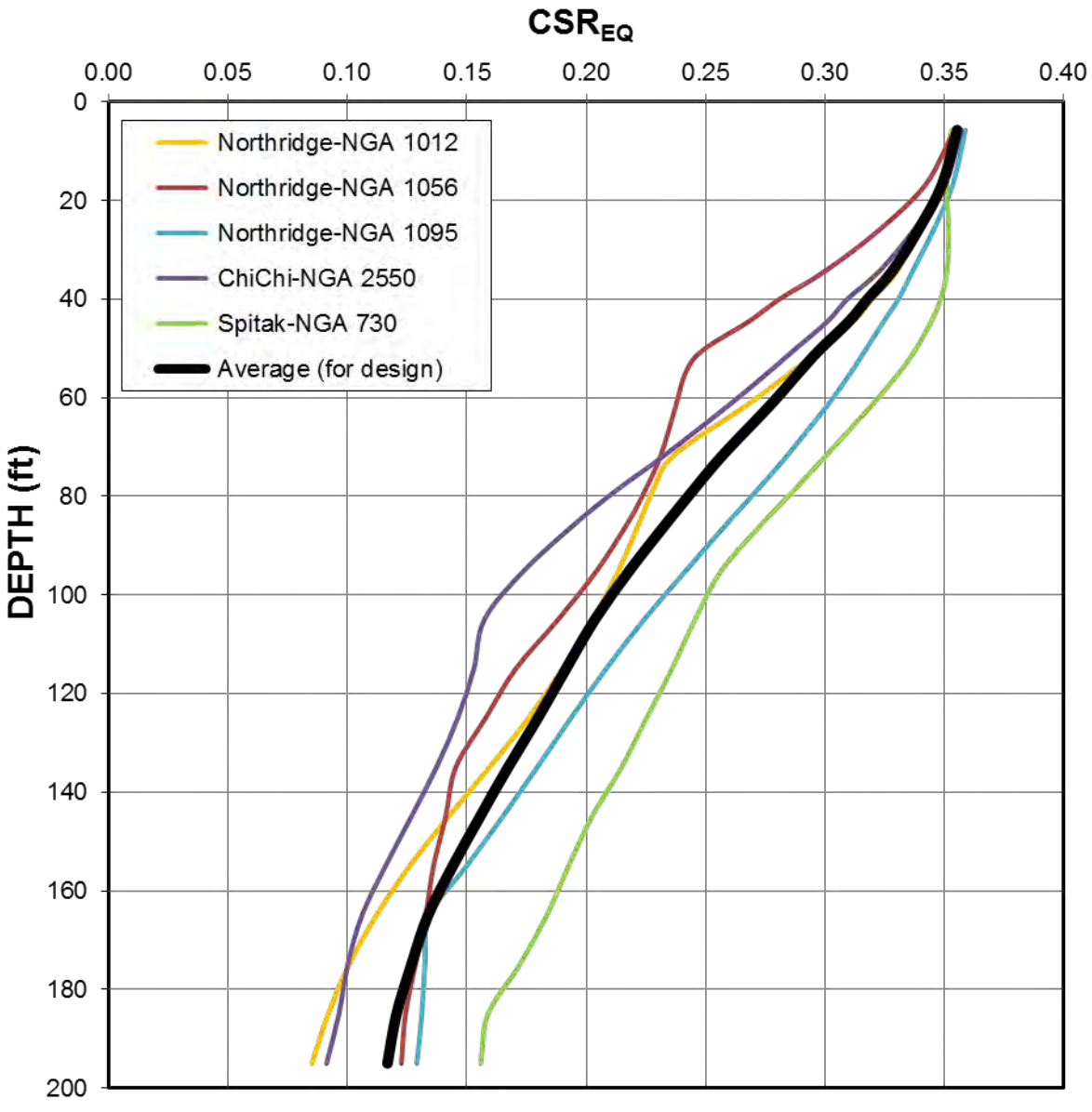
BEDROCK ACCELERATION RESPONSE SPECTRA
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 13.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	13



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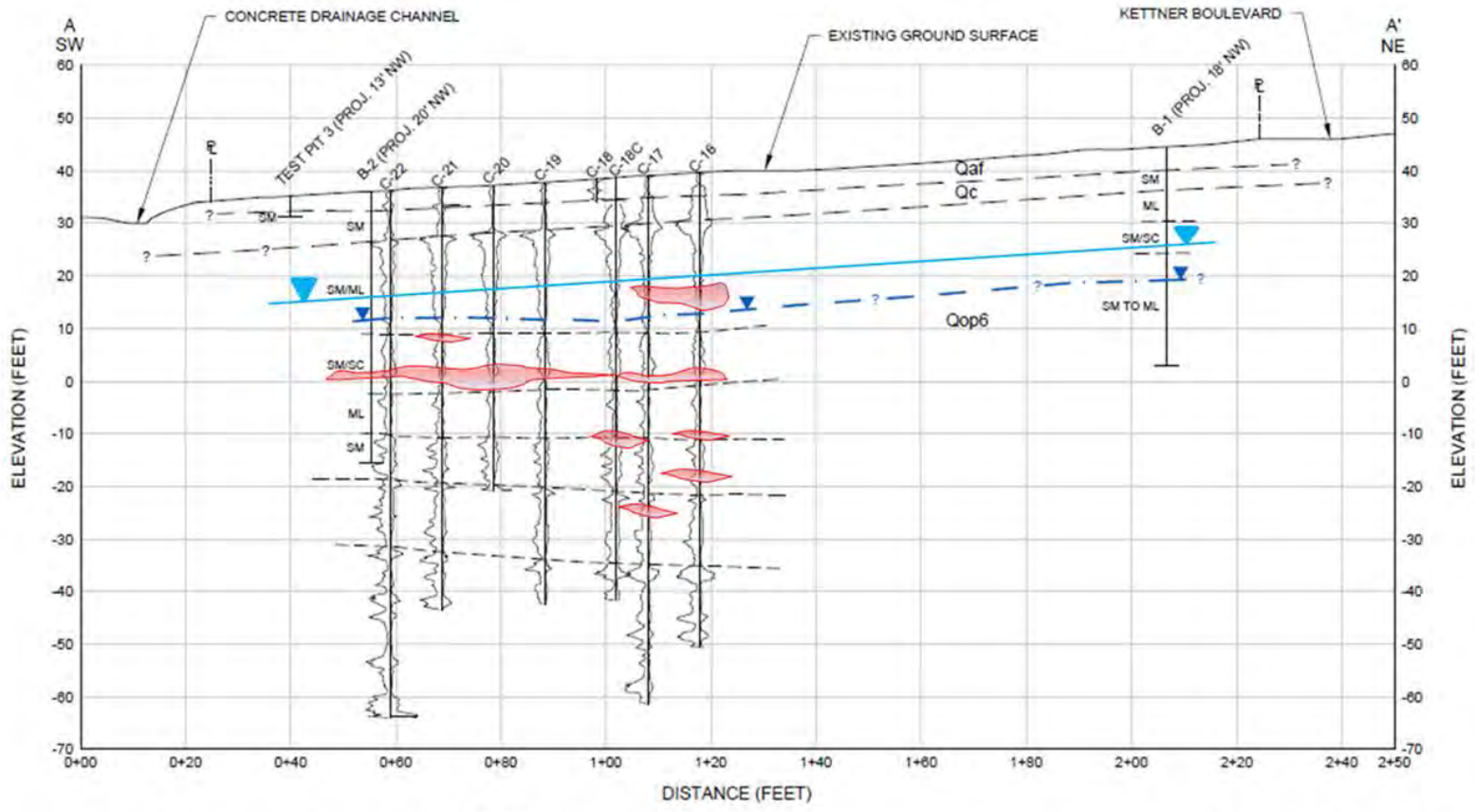
EARTHQUAKE CYCLIC STRESS RATIO PROFILE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 14.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	14



LEGEND

CPT DATA

EXISTING GROUND

GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)

LITHOLOGIC CONTACT (APPROXIMATE)

INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM

APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)

APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)

℄ PROPERTY LINE

GROUNDWATER (DESIGN)

SUSCEPTIBLE TO LIQUEFACTION

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION

0 20' 40'

SCALE IN FEET

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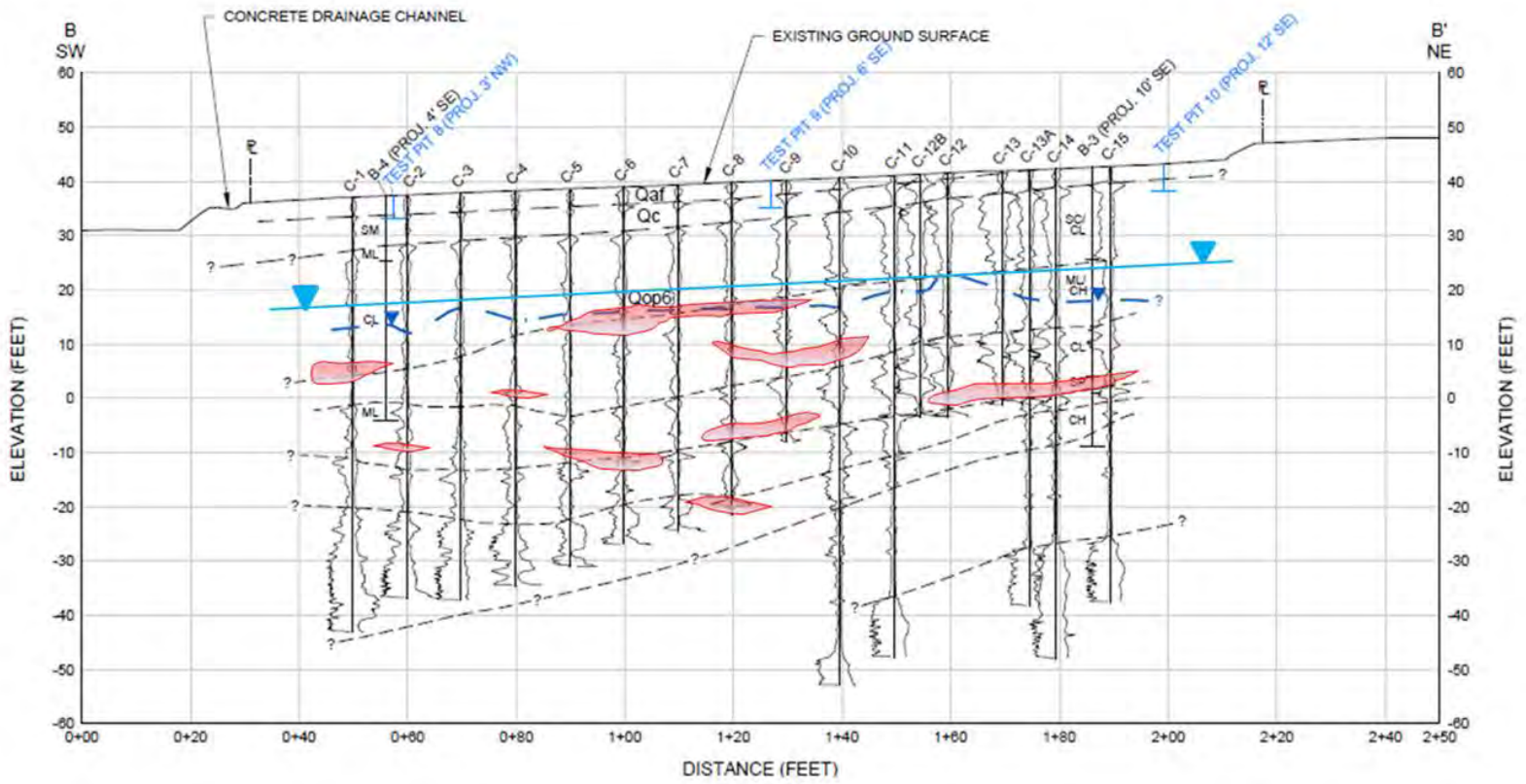
LIQUEFACTION POTENTIAL ALONG CROSS SECTION AA'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 15.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	15



LEGEND

CPT DATA

Friction (tsf) Tip Resistance (tsf)

EXISTING GROUND

GEOLOGIC CONTACT (QUERIED WHERE UNCERTAIN)

LITHOLOGIC CONTACT (APPROXIMATE)

INTERPRETED GROUNDWATER BASED ON MEASUREMENTS DURING EXPLORATION PROGRAM

APPROXIMATE LOCATION OF BORING (GEOSYNTEC, 2013)

APPROXIMATE LOCATION OF BORING (BENTON, 1974) OR TEST PIT (BENTON, 1977)

PROPERTY LINE

GROUNDWATER (DESIGN)

SUSCEPTIBLE TO LIQUEFACTION

Qaf	ARTIFICIAL FILL
Qc	COLLUVIUM
Qop6	OLD PARALIC DEPOSITS
SP, SM, SC, ML, CL, CH	USCS CLASSIFICATION

0 20' 40'

SCALE IN FEET

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LIQUEFACTION POTENTIAL ALONG CROSS SECTION BB'
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	NOVEMBER 2013	FILE NO.	FIGURE 16.DOC
PROJECT NO.	SC0368-30	FIGURE NO.	16

APPENDIX A
SEISMIC DESIGN PARAMETERS

USGS WEB TOOL OUTPUT

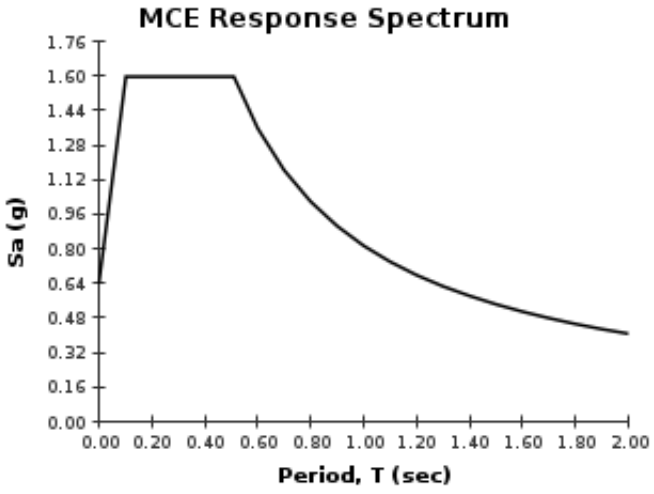
USGS Design Maps Summary Report

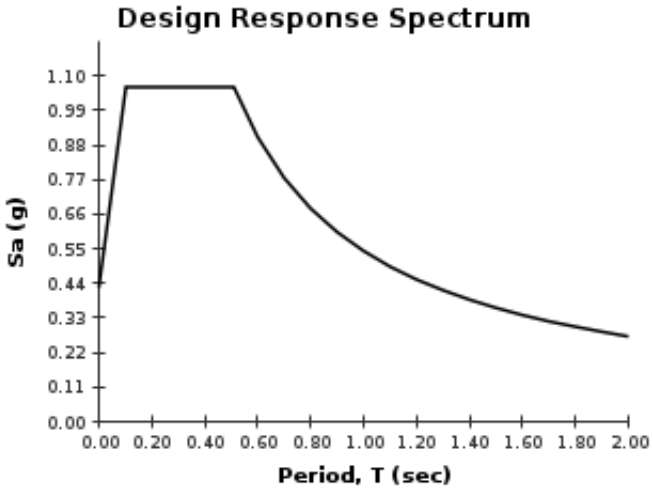
User–Specified Input

Report Title	Kettner Substation Mon September 23, 2013 17:15:19 UTC
Building Code Reference Document	2006/2009 International Building Code (which utilizes USGS hazard data available in 2002)
Site Coordinates	32.739°N, 117.179°W
Site Soil Classification	Site Class C – "Very Dense Soil and Soft Rock"
Occupancy Category	I/II/III

USGS–Provided Output

S_S =	1.596 g	S_{MS} =	1.596 g	S_{DS} =	1.064 g
S_1 =	0.626 g	S_{M1} =	0.814 g	S_{D1} =	0.543 g





Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

USGS Design Maps Summary Report

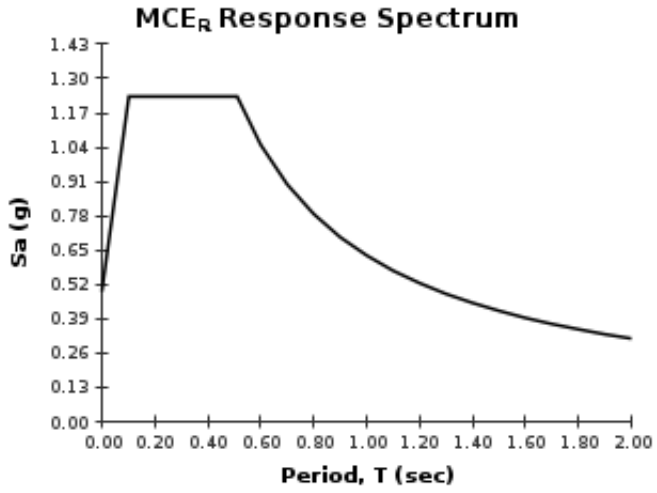
User–Specified Input

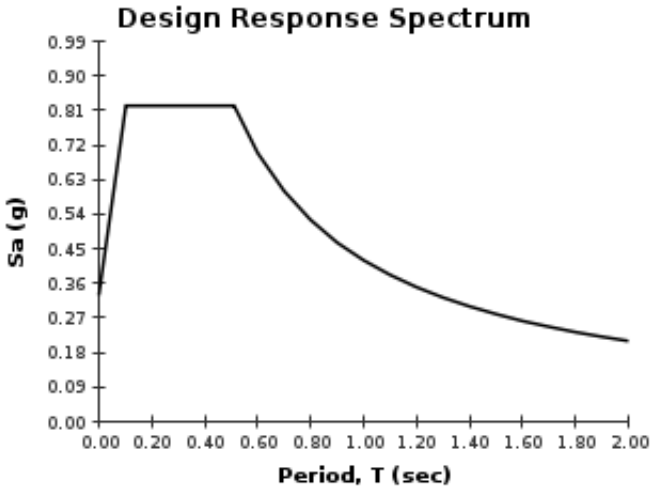
Report Title	Kettner Substation Mon September 23, 2013 17:13:16 UTC
Building Code Reference Document	2012 International Building Code (which utilizes USGS hazard data available in 2008)
Site Coordinates	32.739°N, 117.179°W
Site Soil Classification	Site Class C – "Very Dense Soil and Soft Rock"
Risk Category	I/II/III

USGS–Provided Output

S_S =	1.232 g	S_{MS} =	1.232 g	S_{DS} =	0.822 g
S_1 =	0.475 g	S_{M1} =	0.630 g	S_{D1} =	0.420 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.





Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter

APPENDIX B
SOIL LIQUEFACTION POTENTIAL ASSESSMENT

CLIQ OUTPUT

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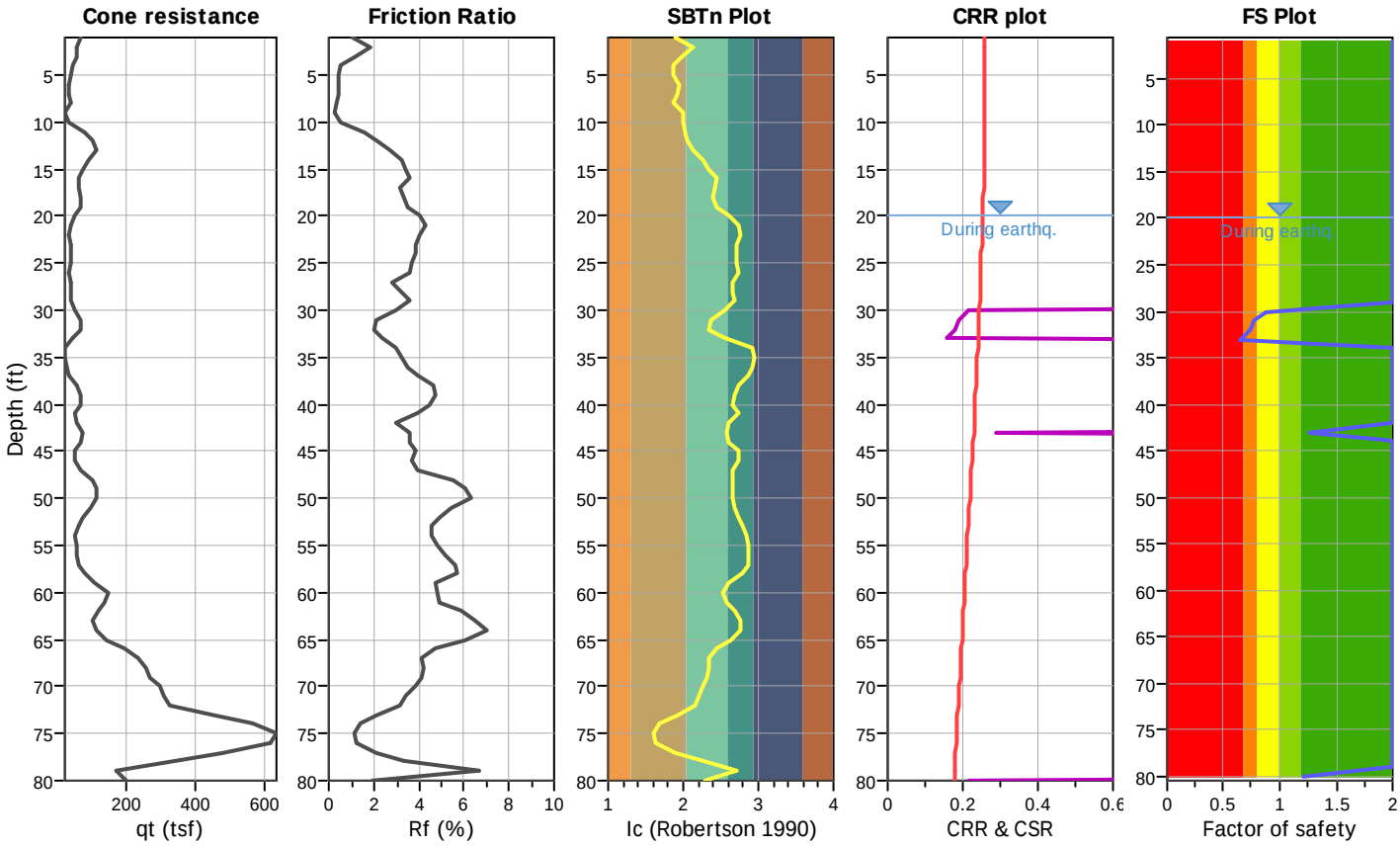
LIQUEFACTION ANALYSIS REPORT

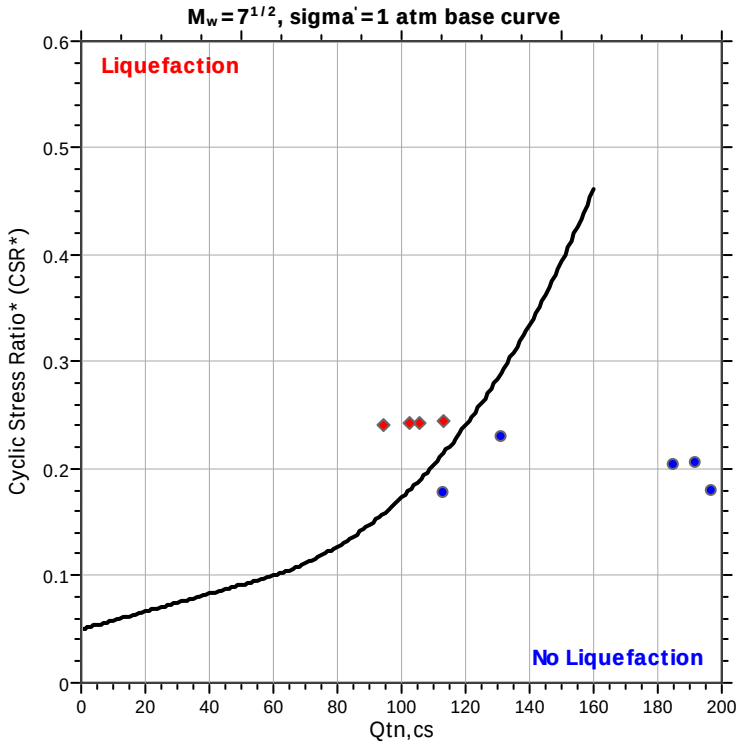
Project title : Kettner Substation **Location : San Diego, CA**

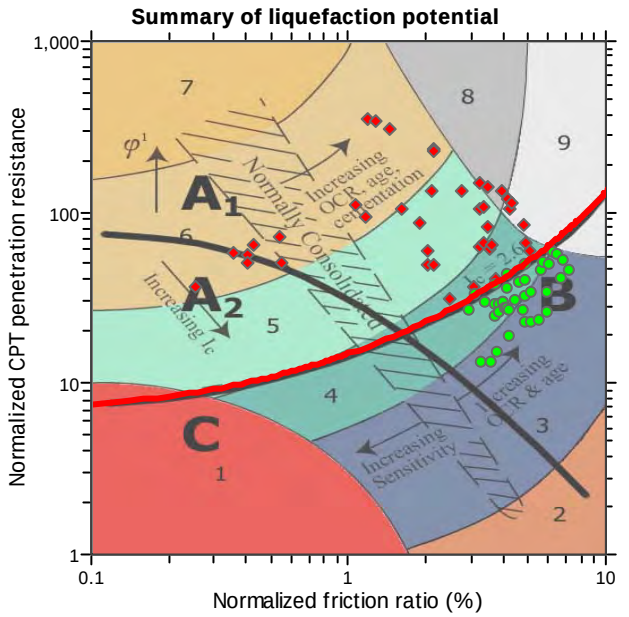
CPT file : CPT-1i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	80.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

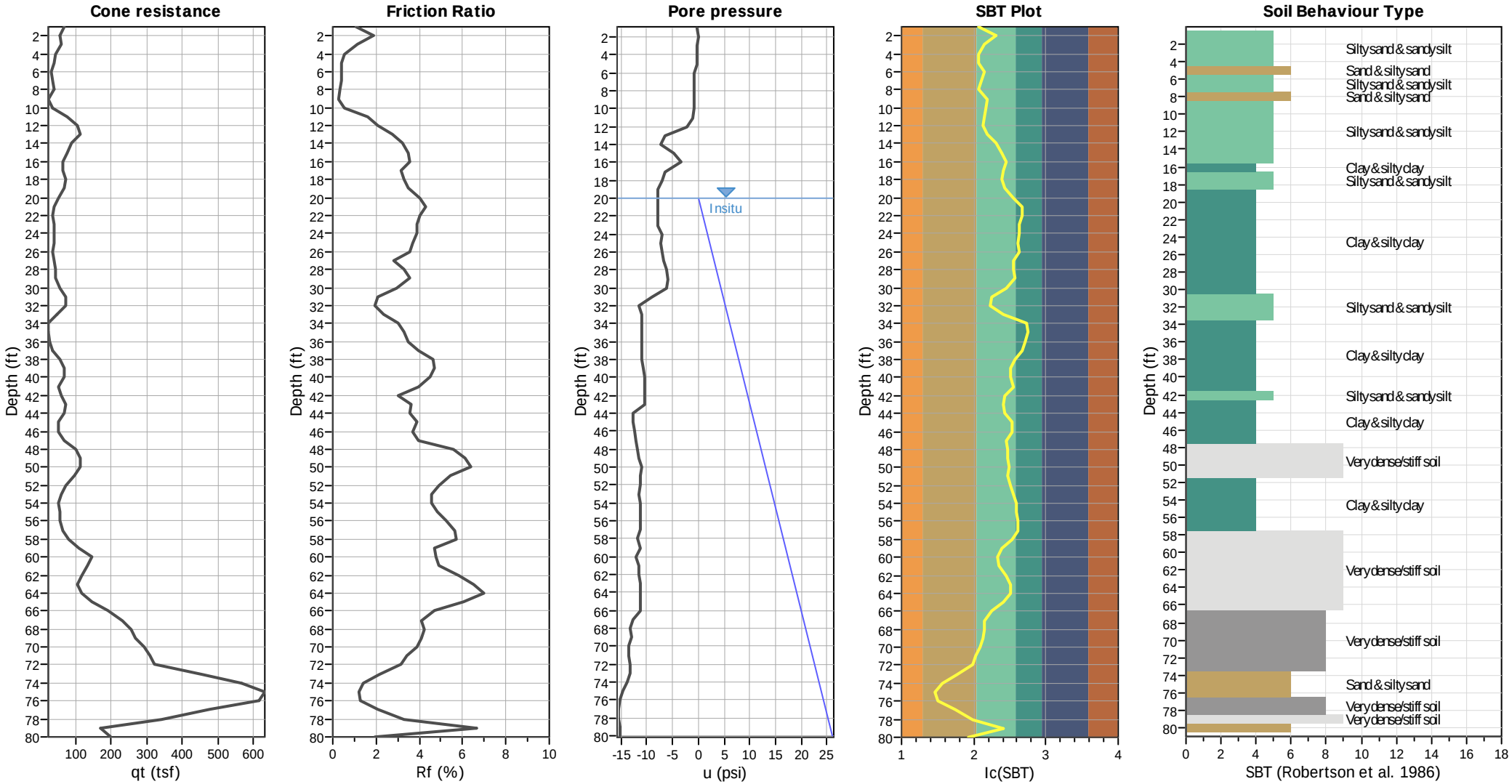






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



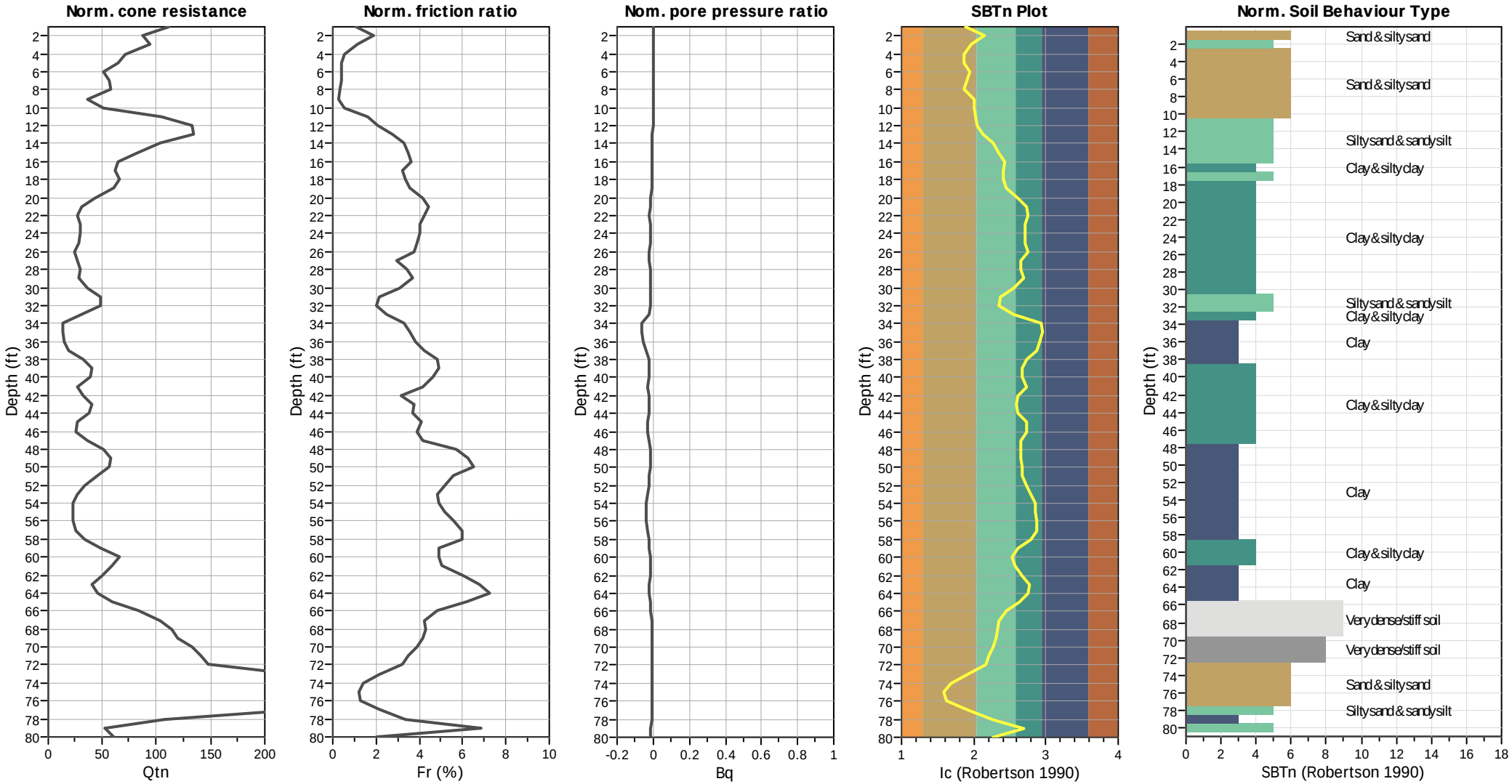
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



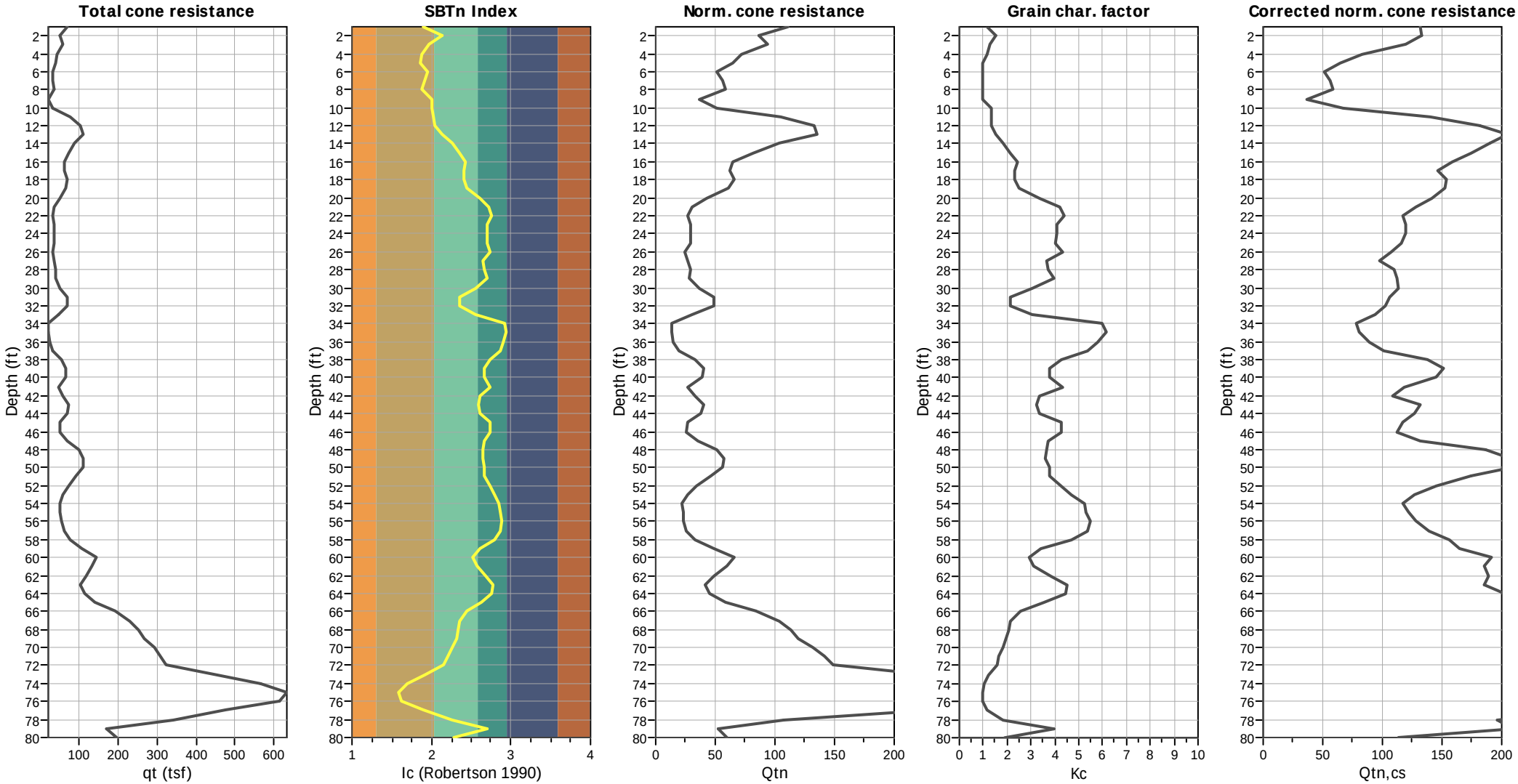
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

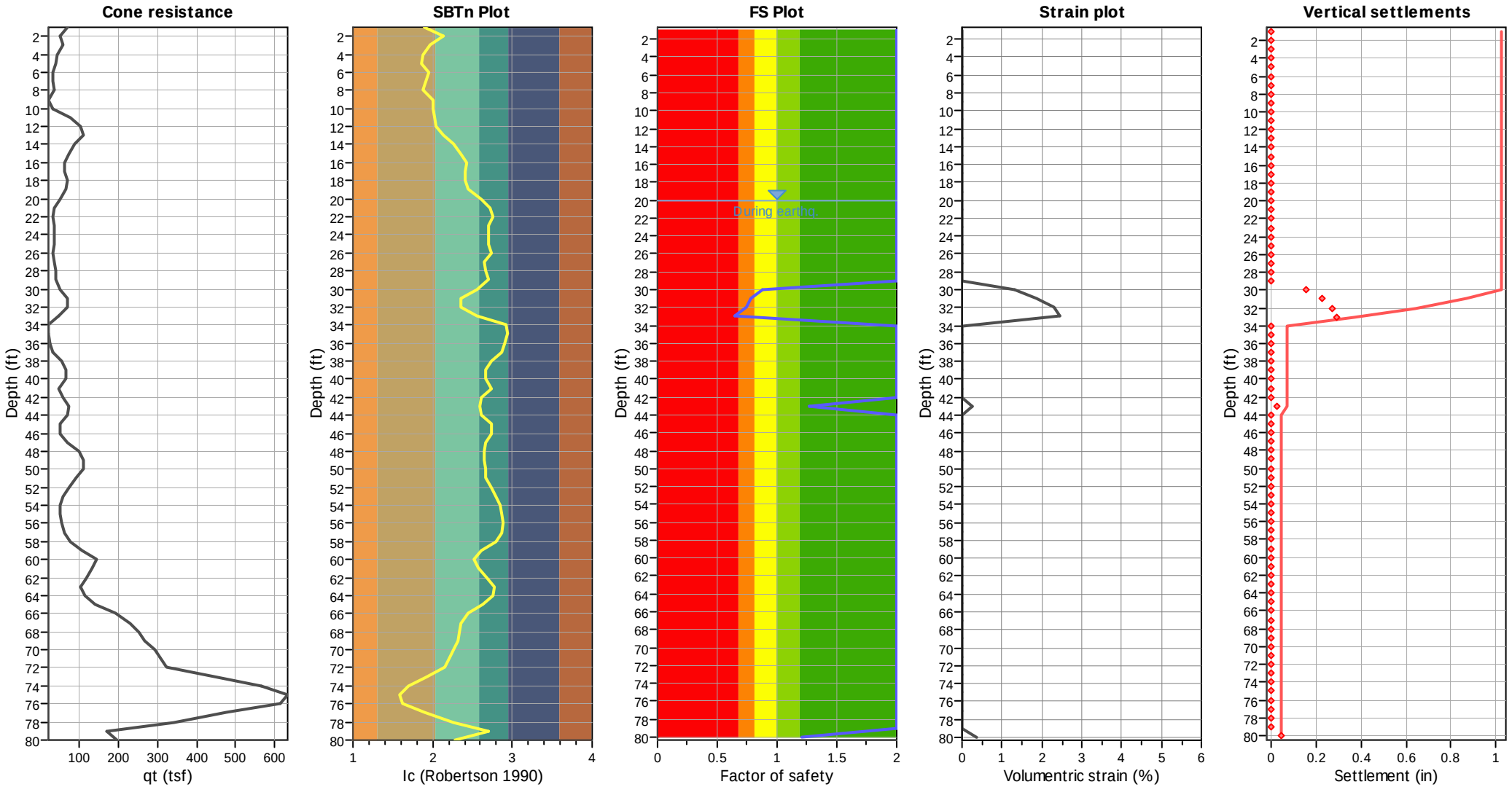
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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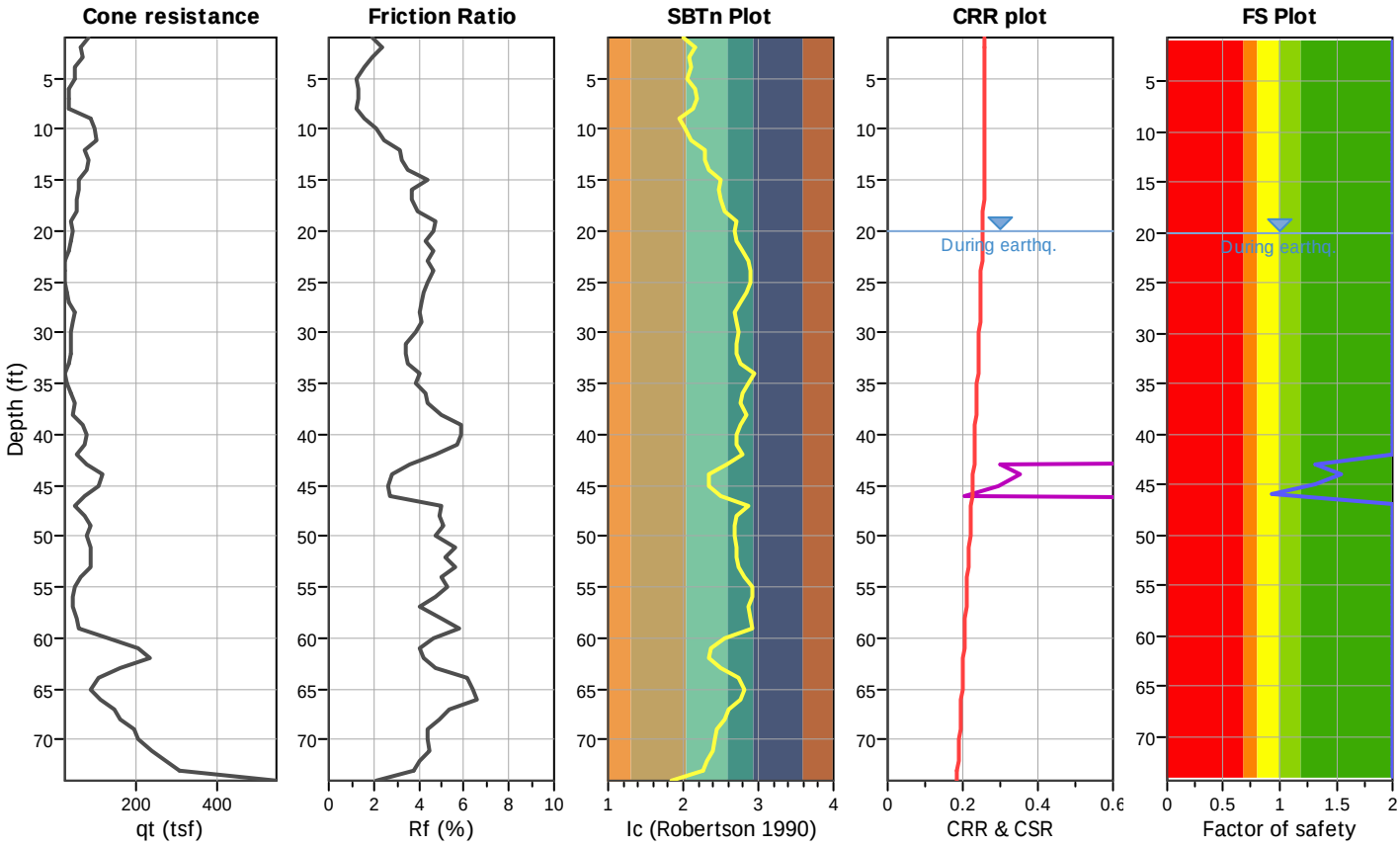
LIQUEFACTION ANALYSIS REPORT

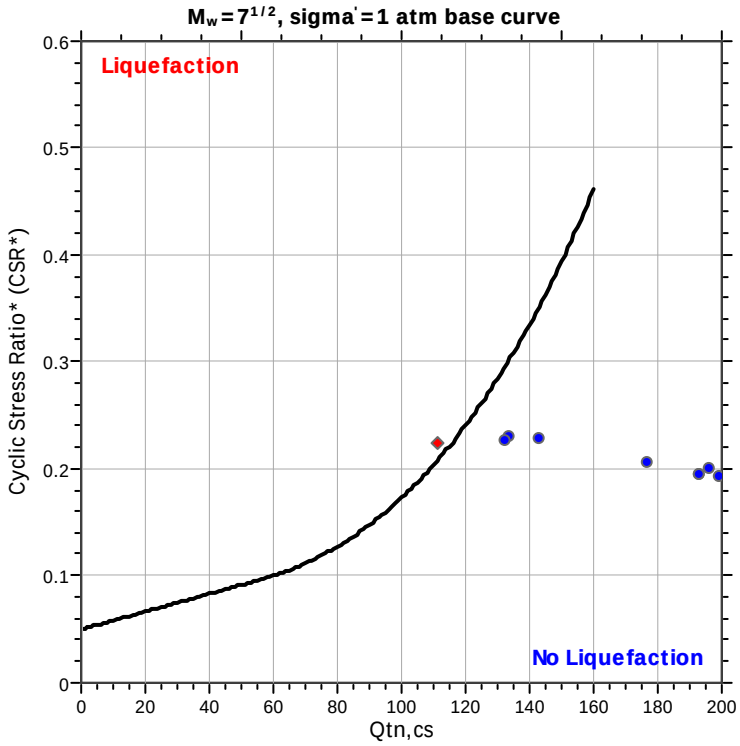
Project title : Kettner Substation **Location : San Diego, CA**

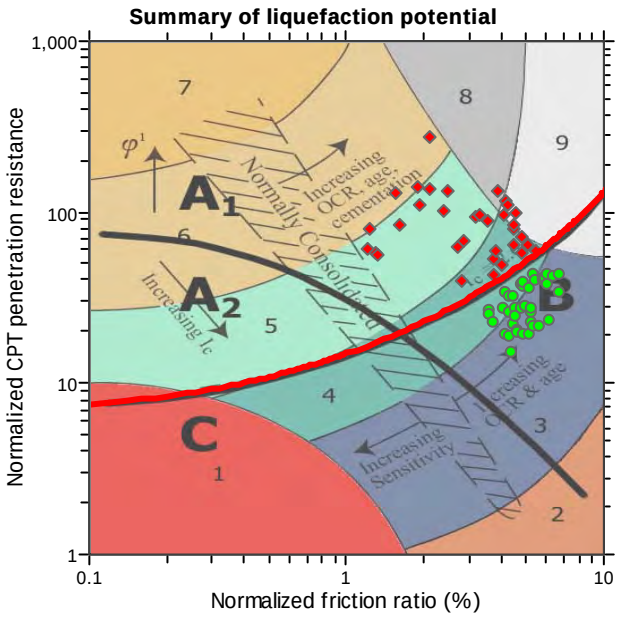
CPT file : CPT-2i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	75.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

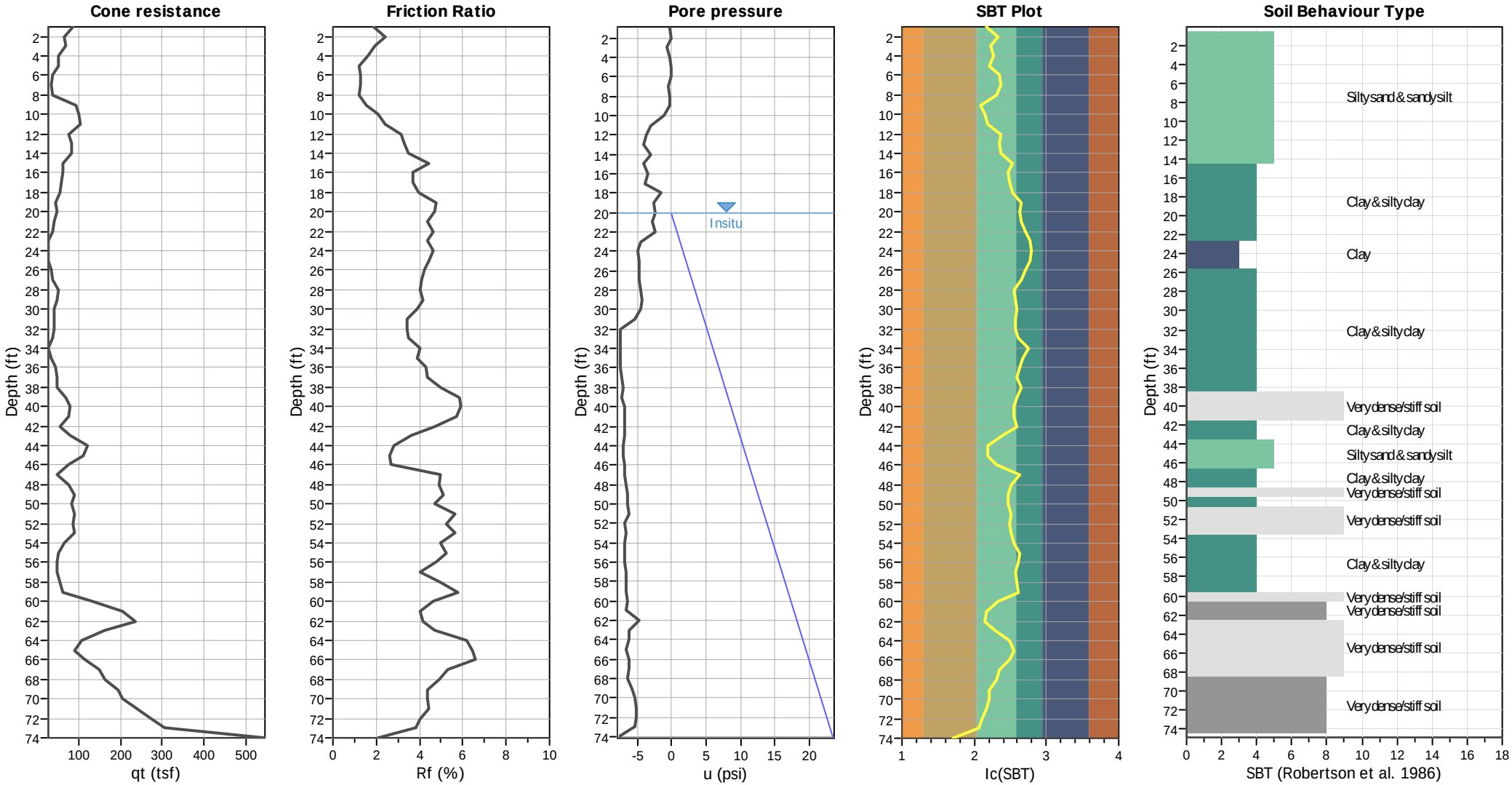






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



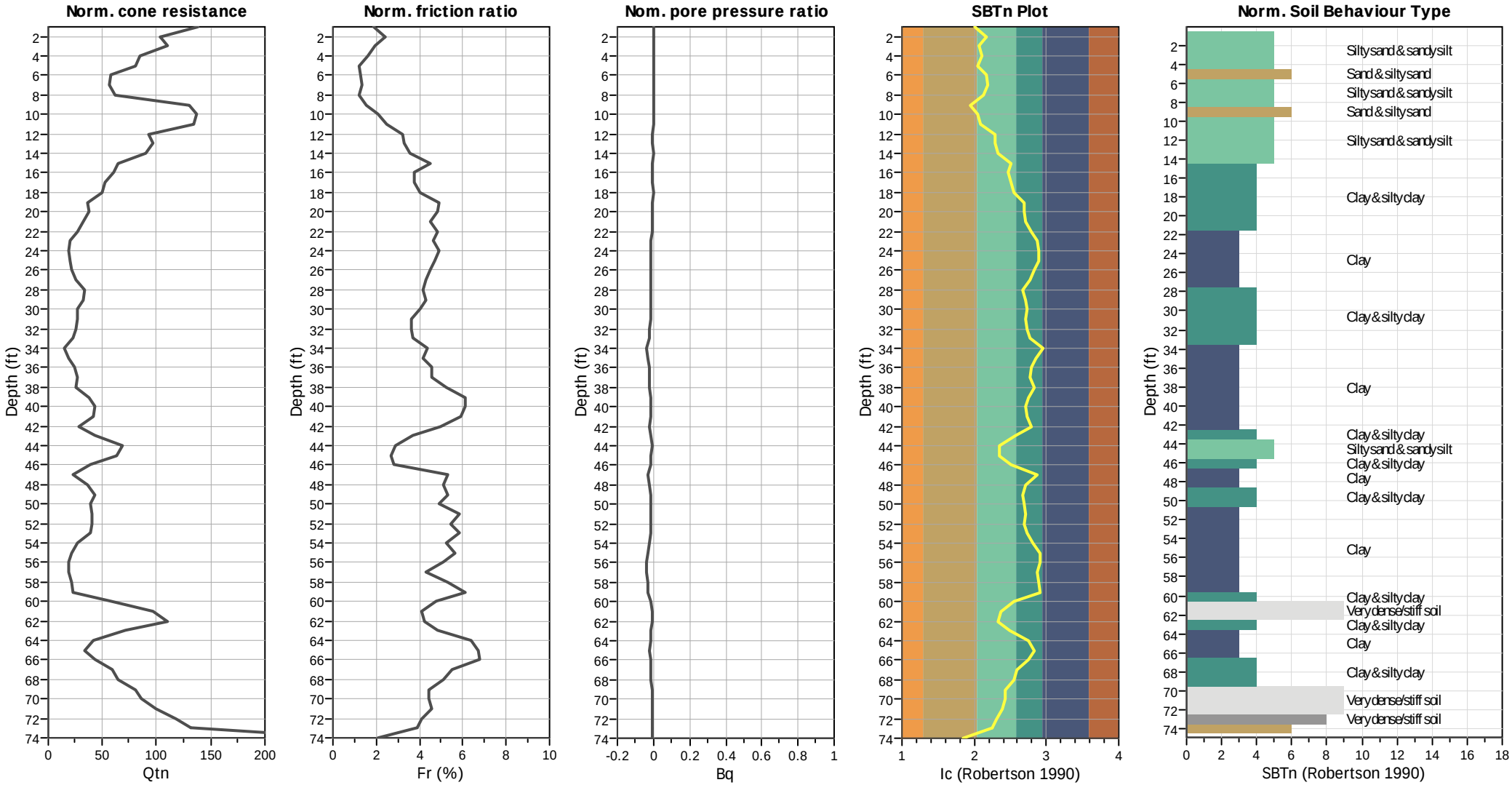
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



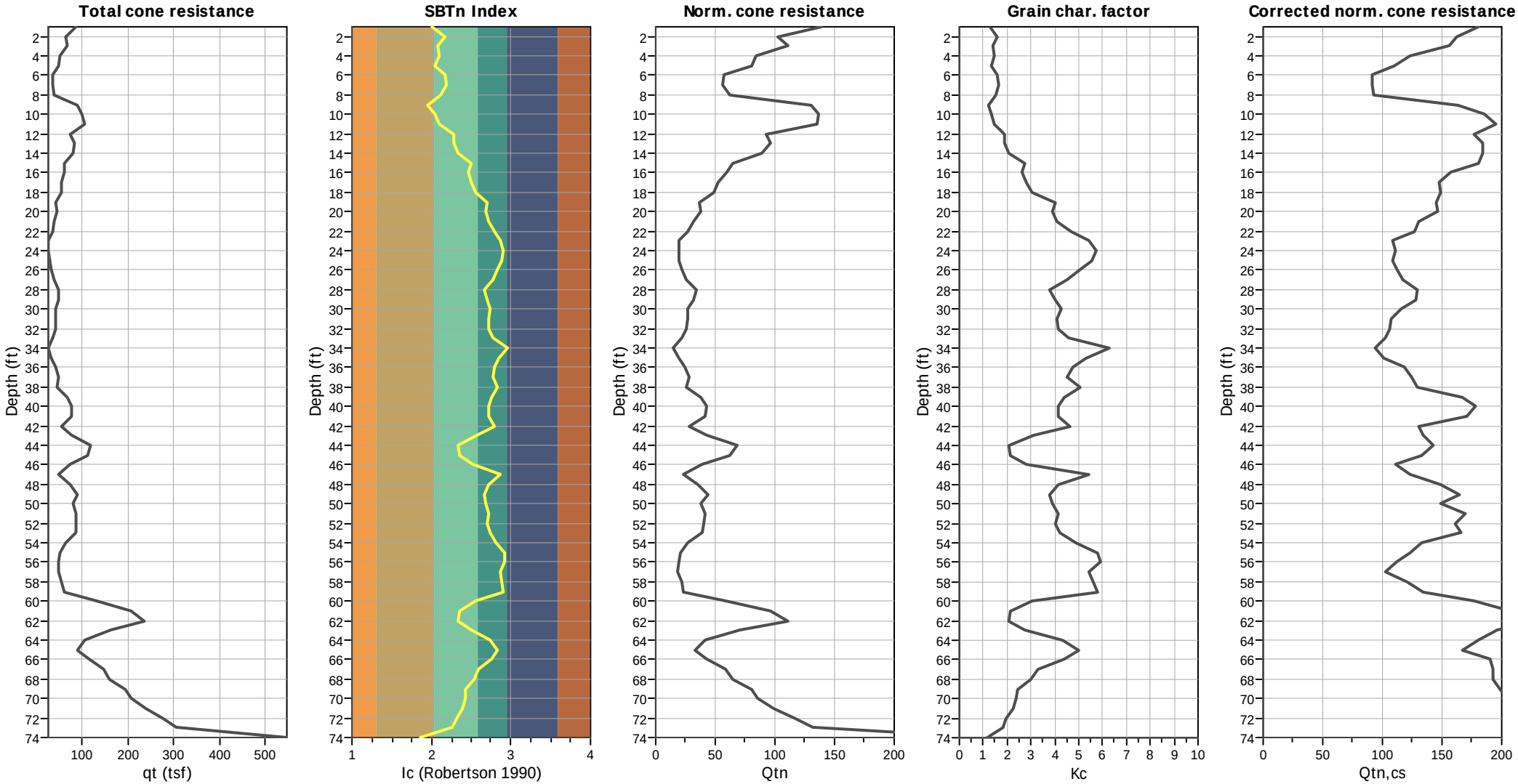
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

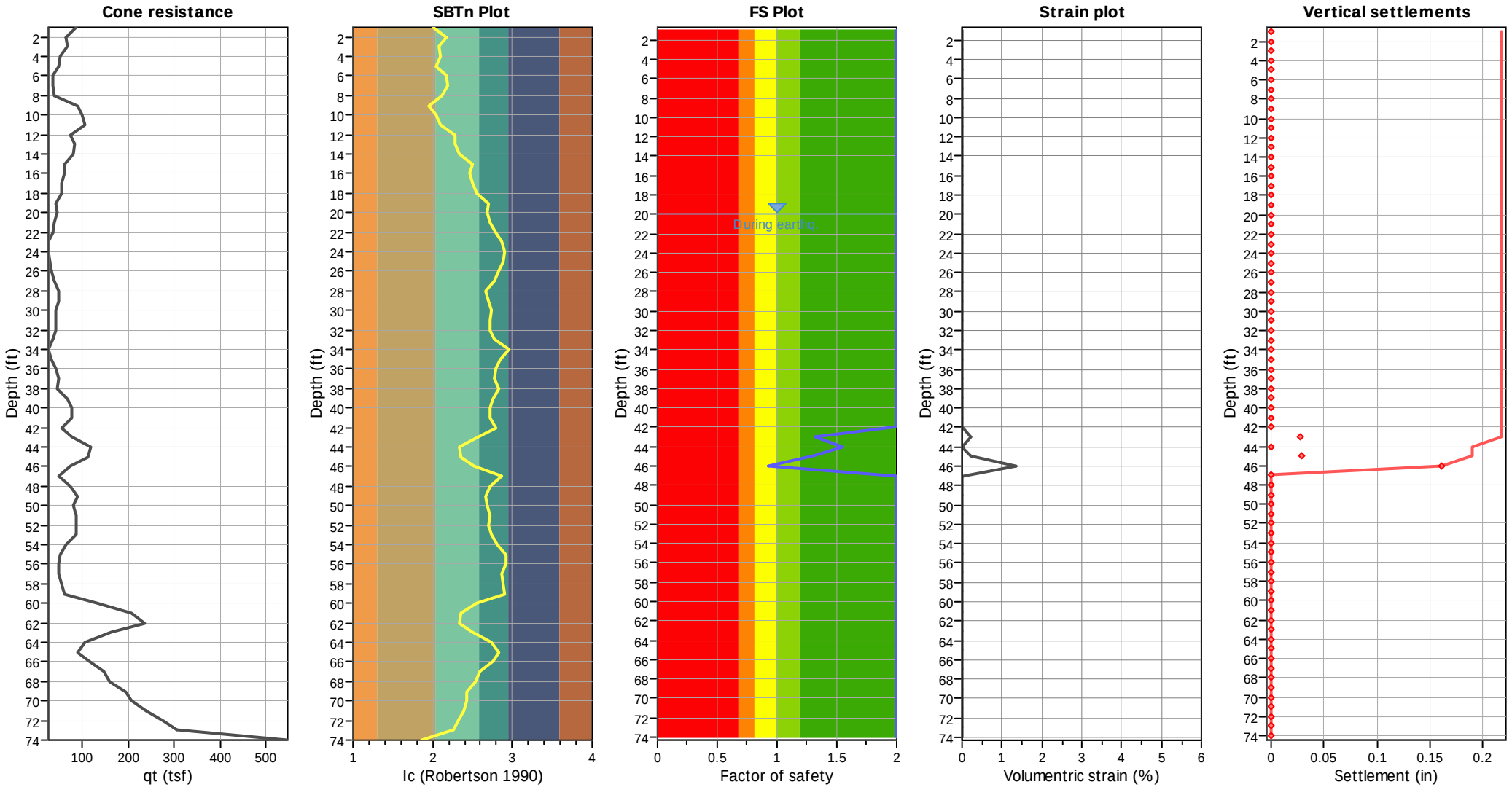
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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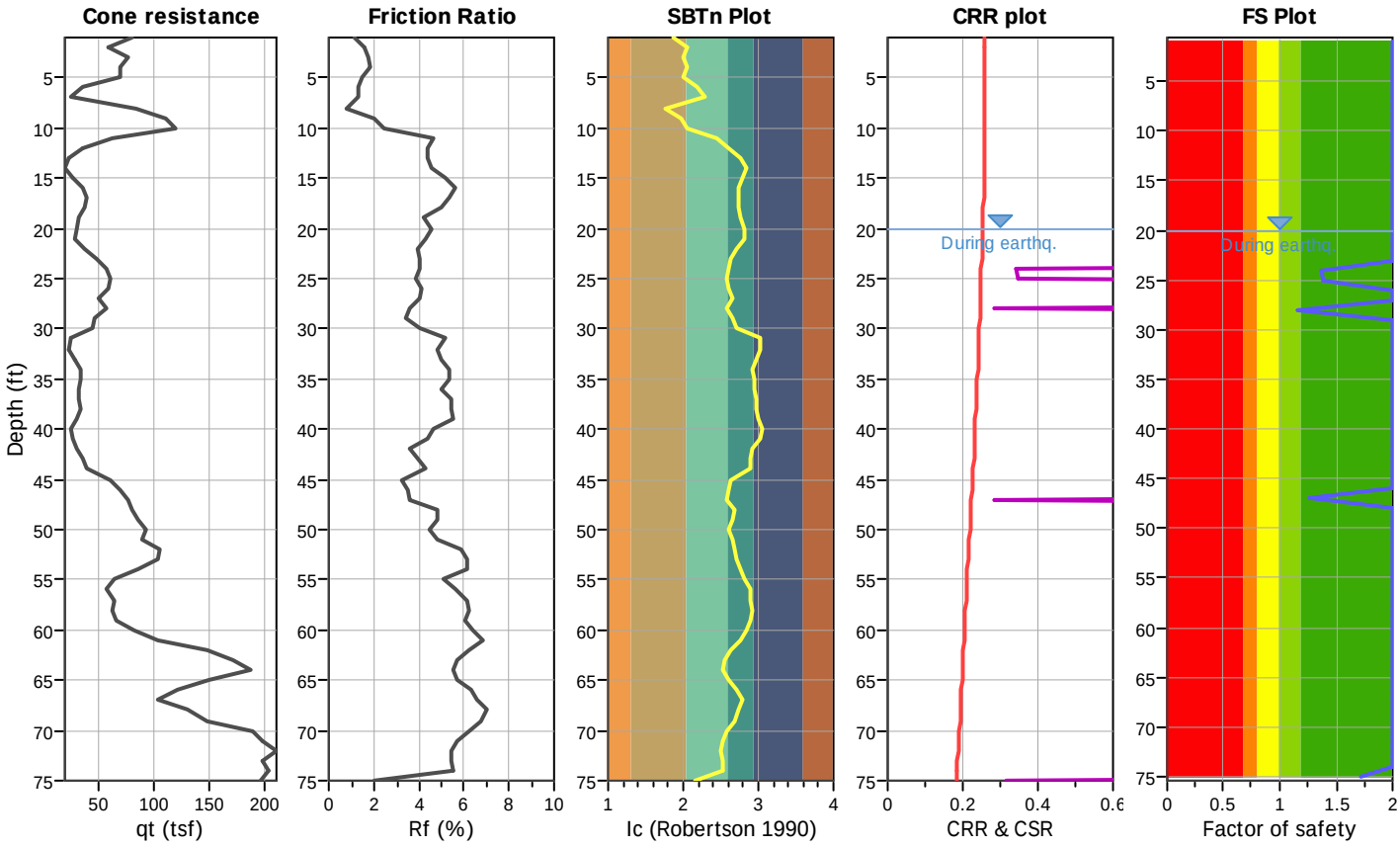
LIQUEFACTION ANALYSIS REPORT

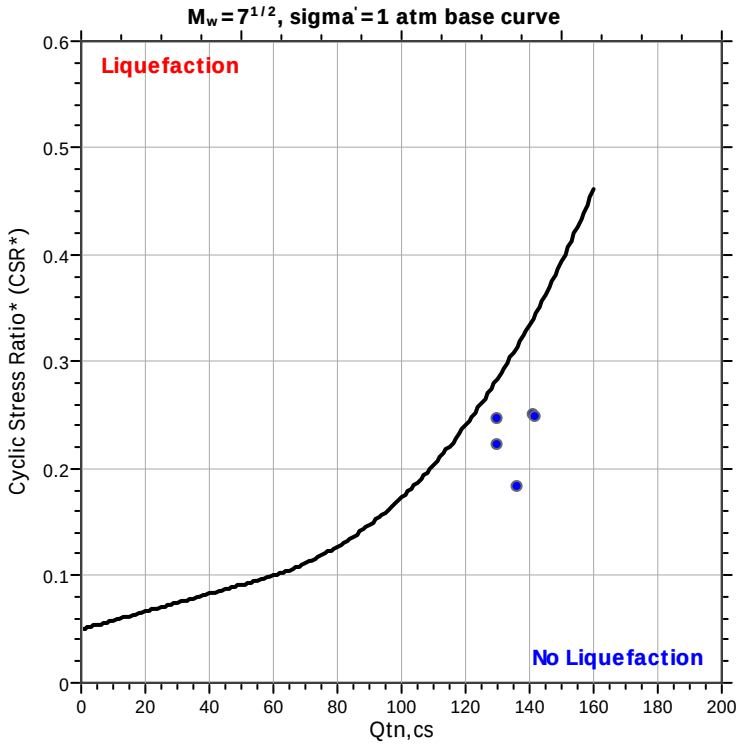
Project title : Kettner Substation **Location : San Diego, CA**

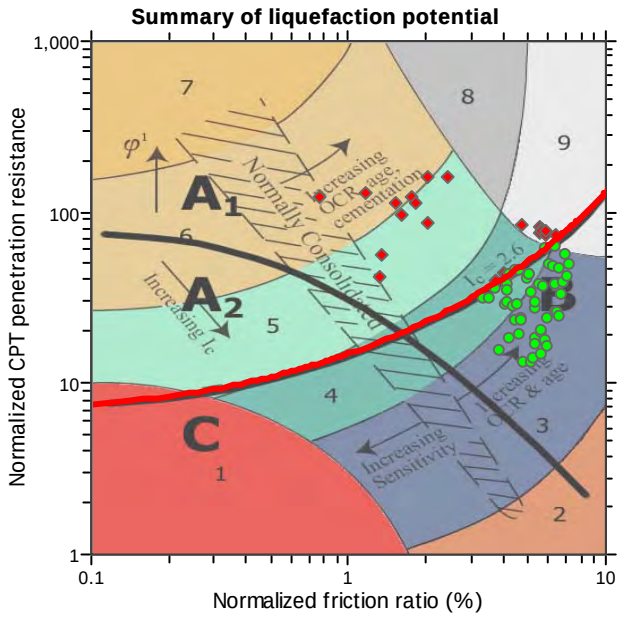
CPT file : CPT-3i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	75.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

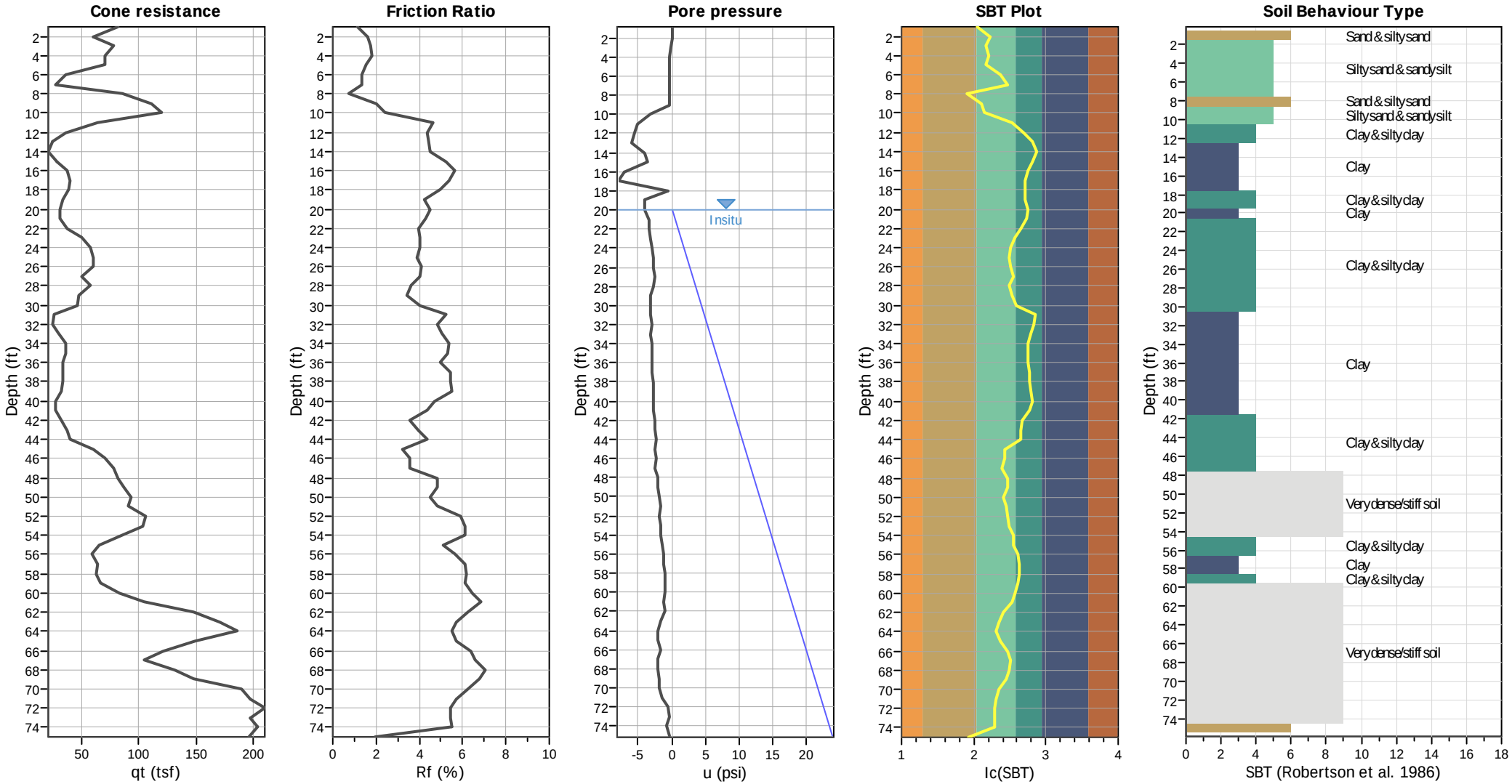






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



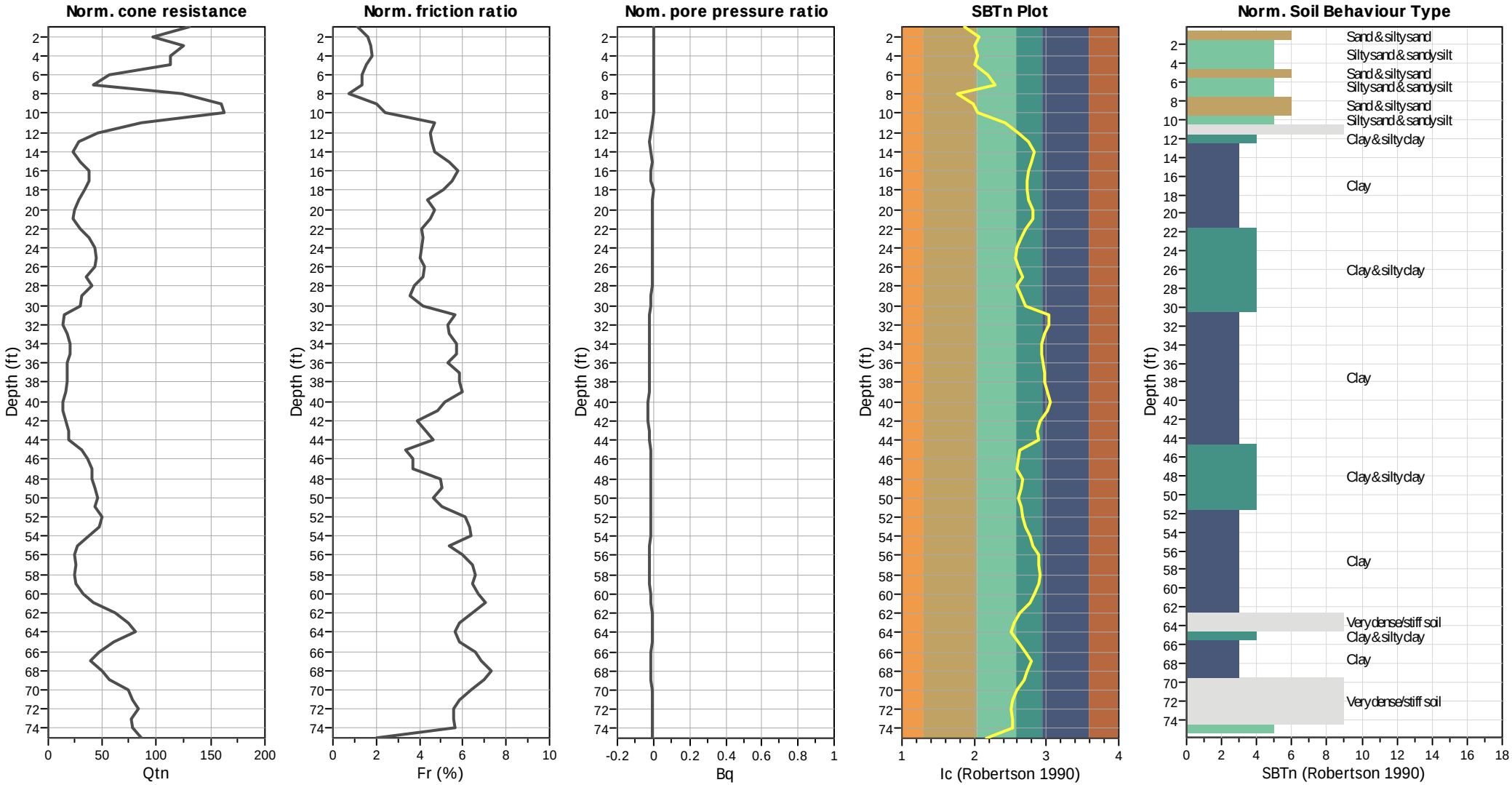
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



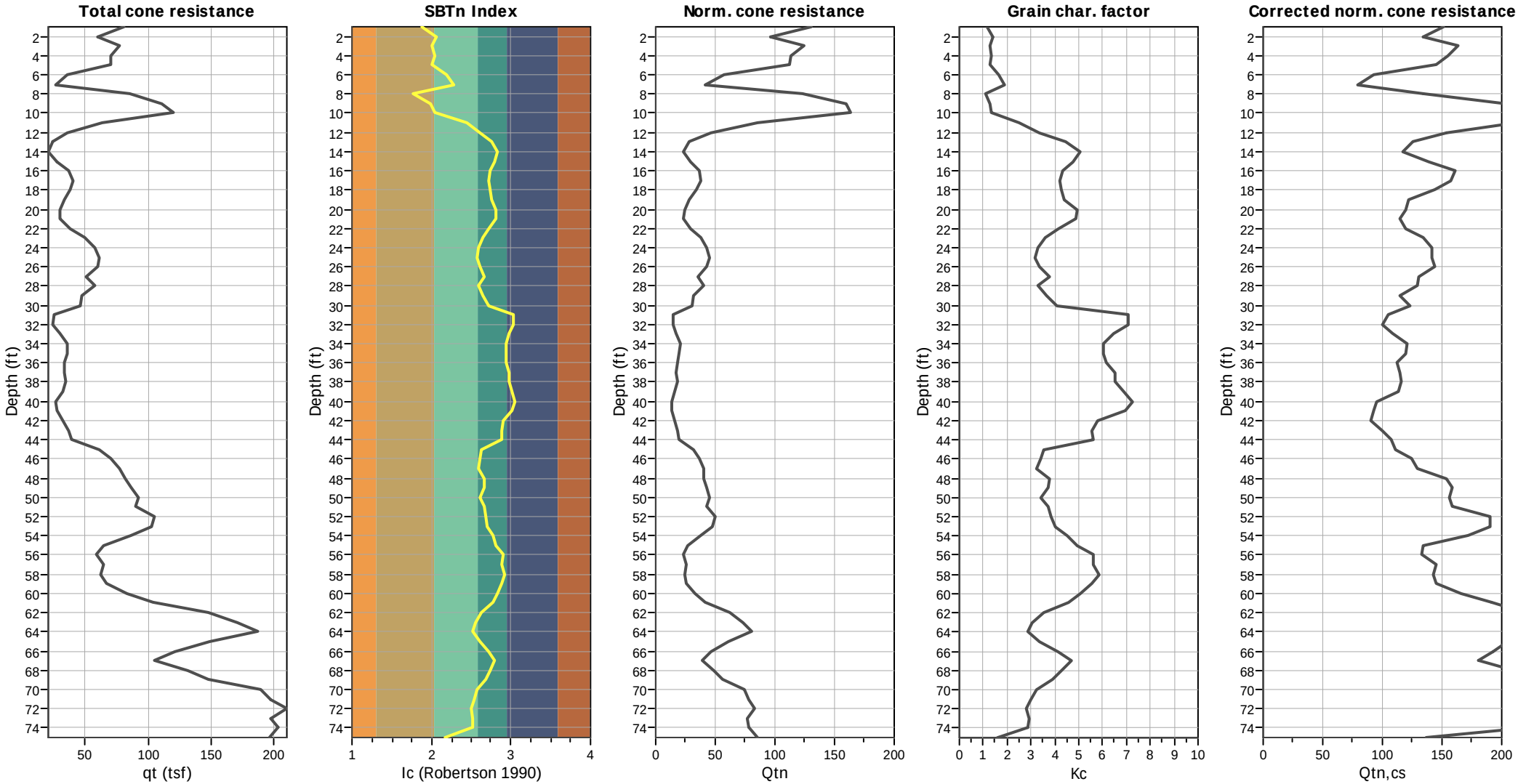
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

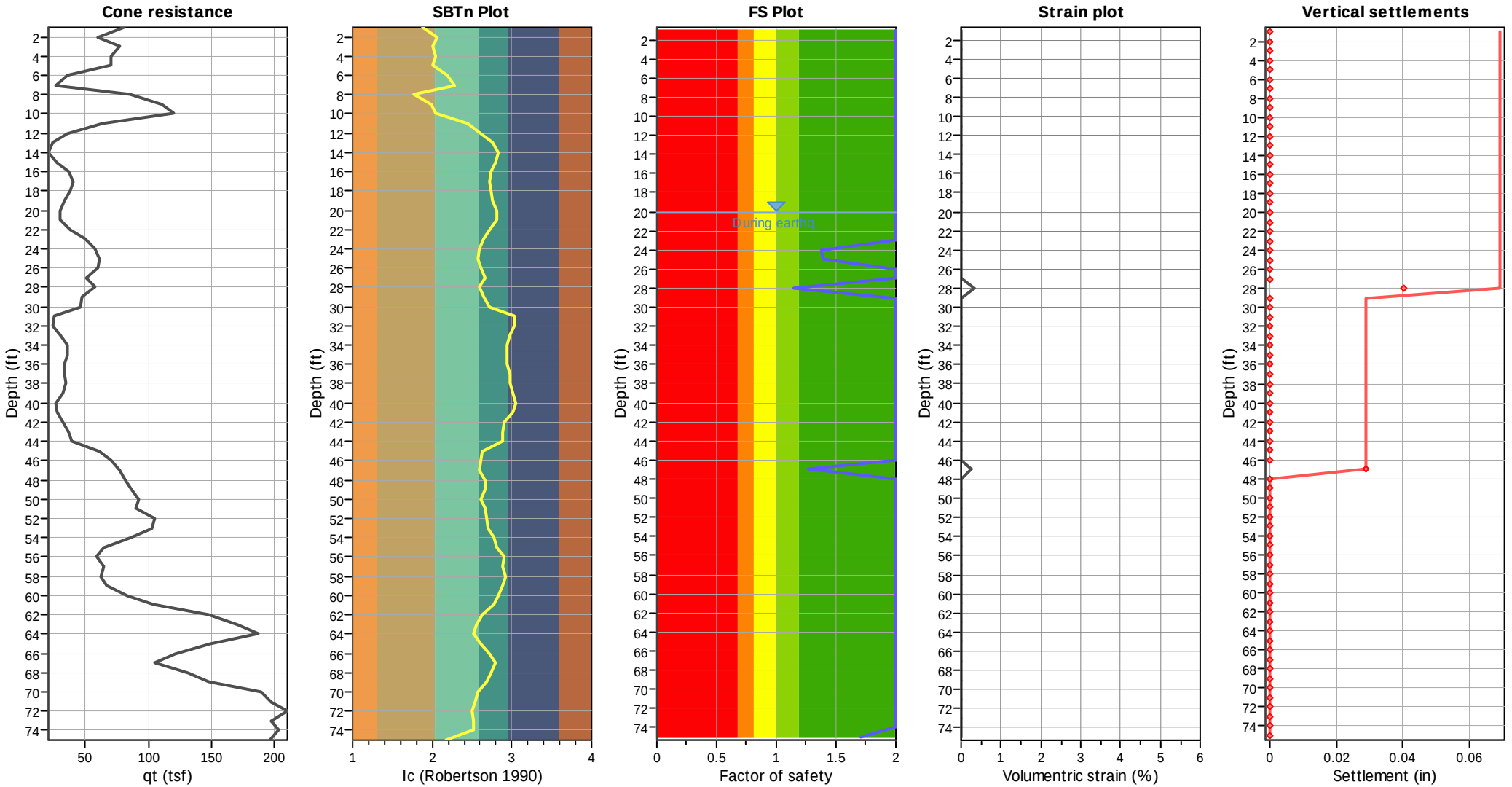
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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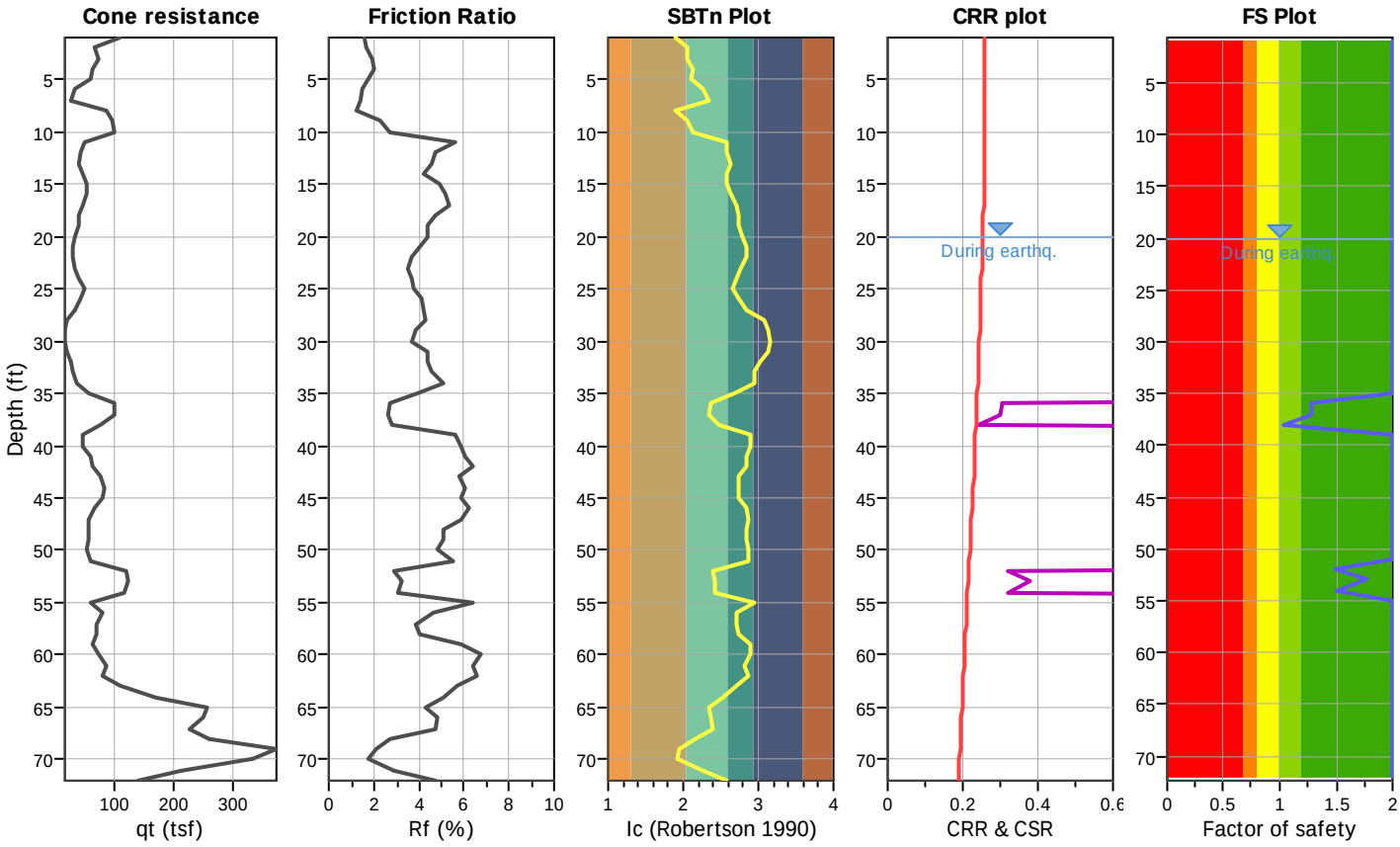
LIQUEFACTION ANALYSIS REPORT

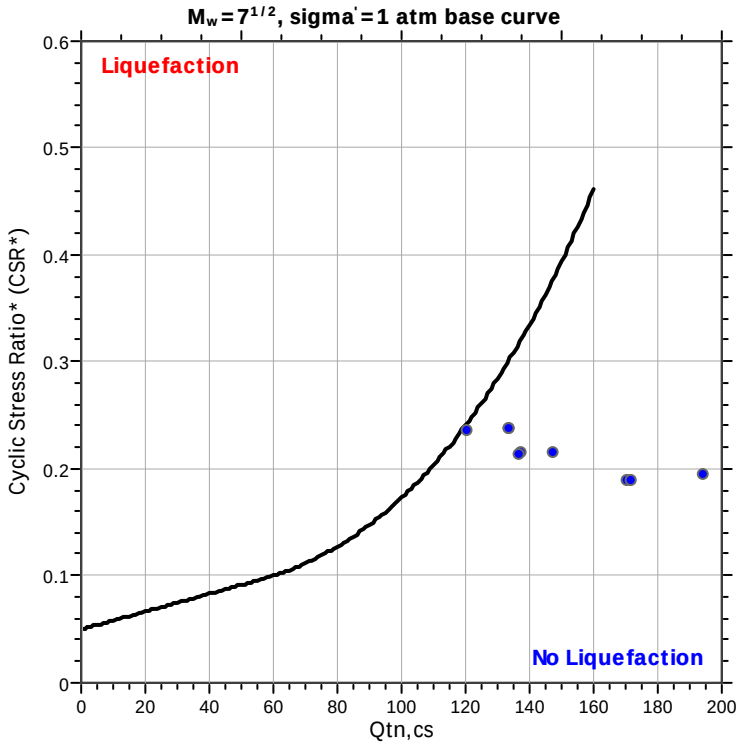
Project title : Kettner Substation **Location : San Diego, CA**

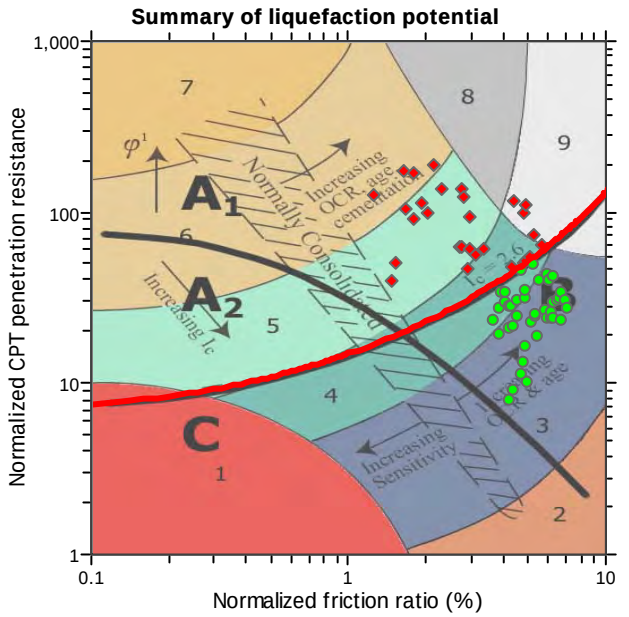
CPT file : CPT-4i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	75.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

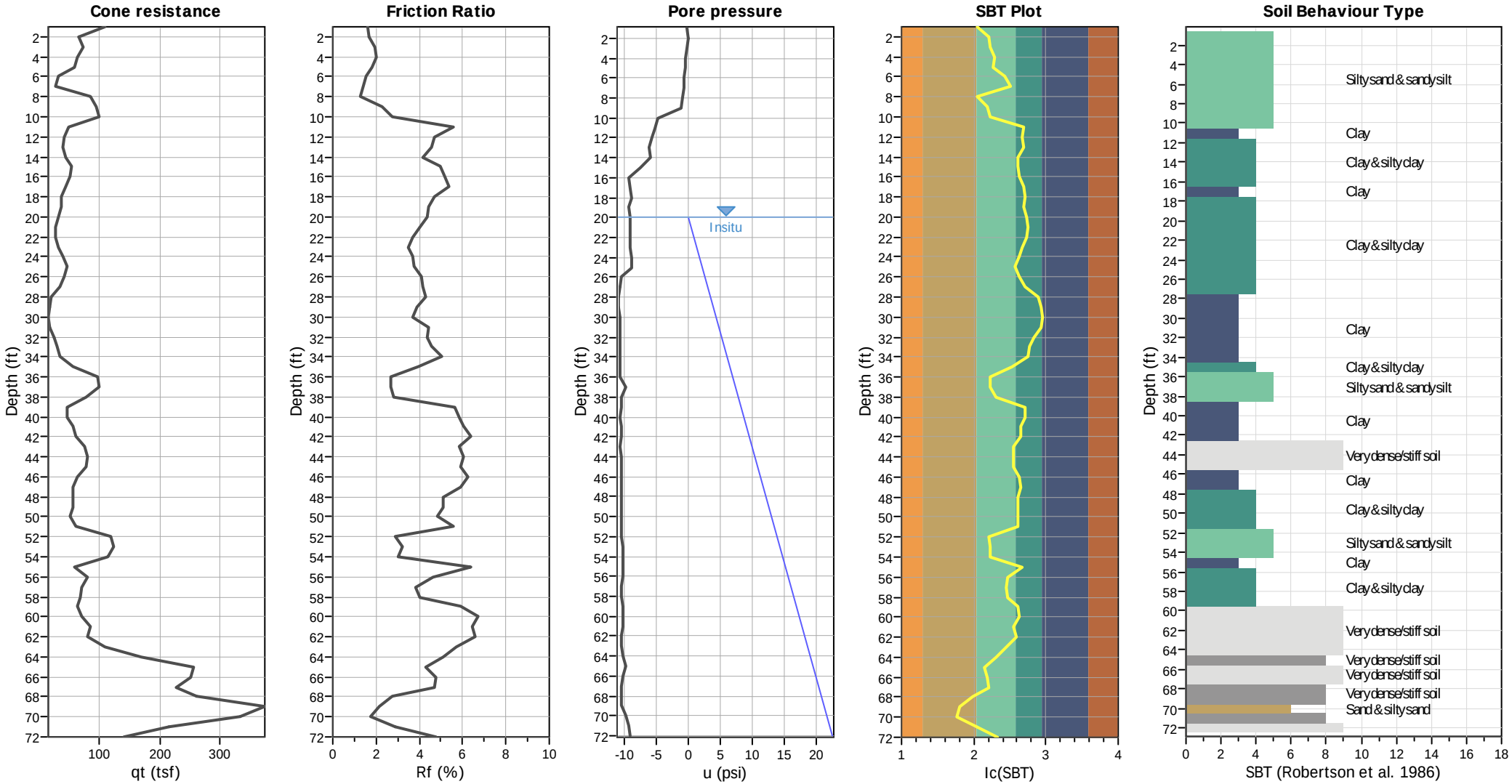






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



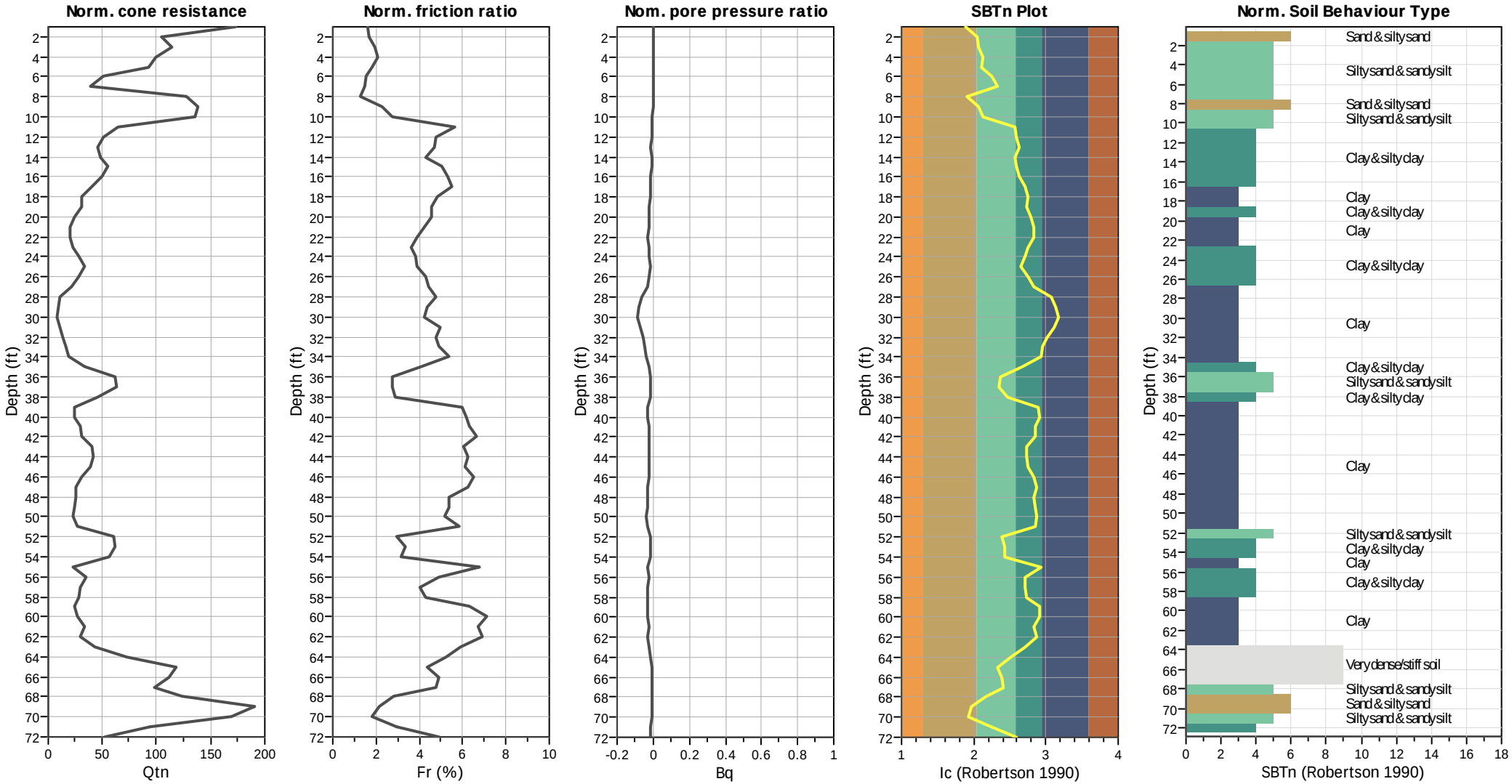
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



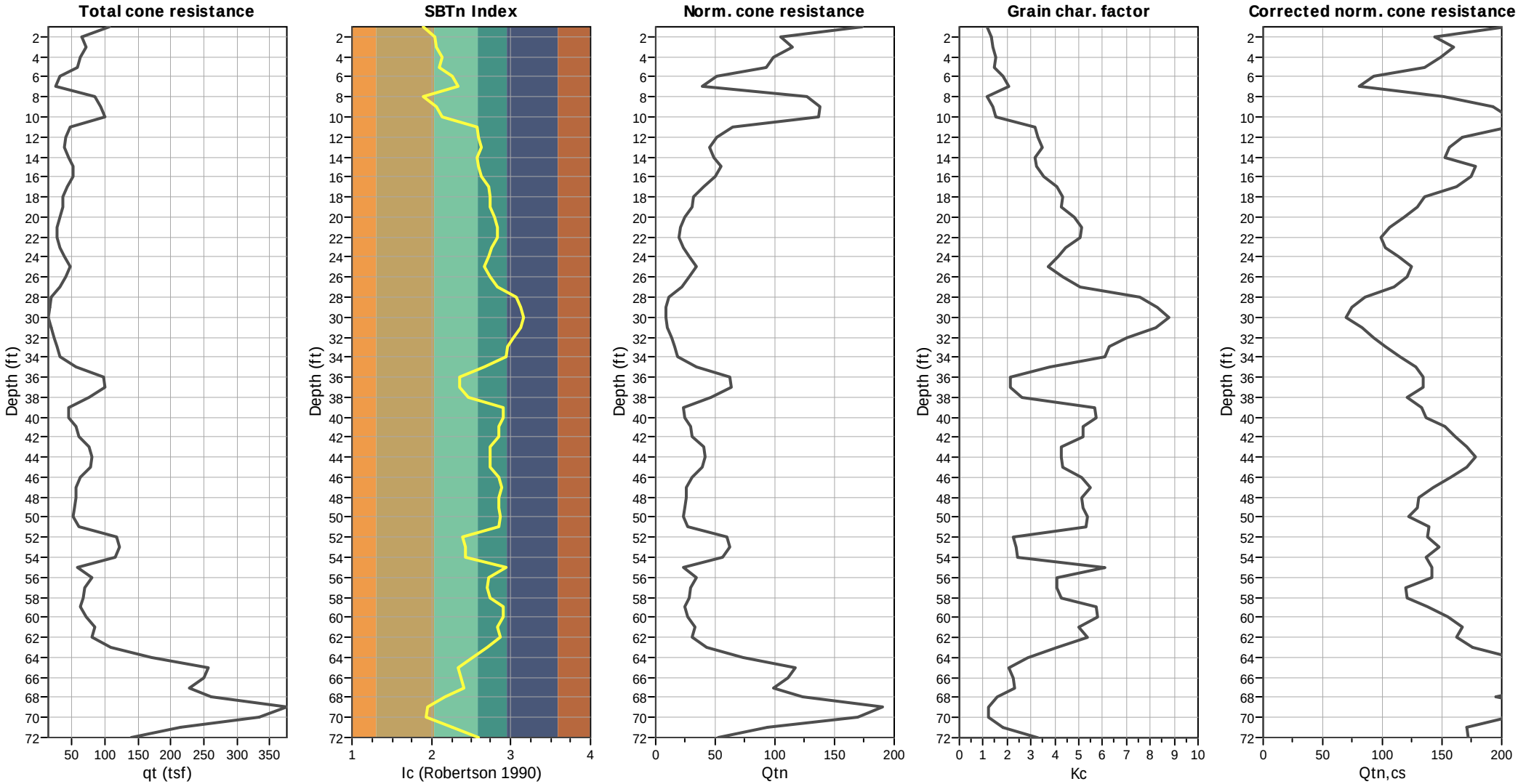
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

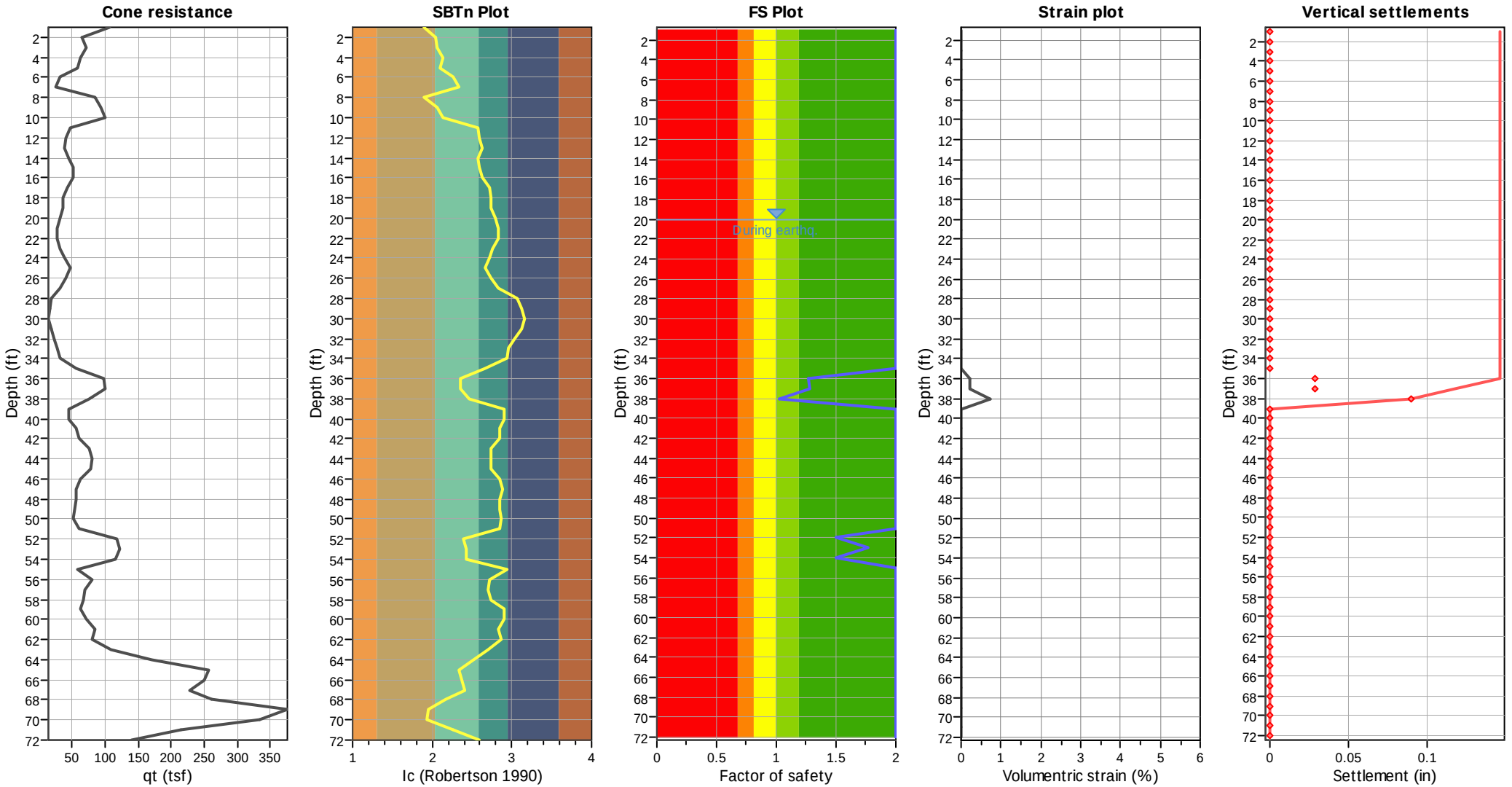
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	75.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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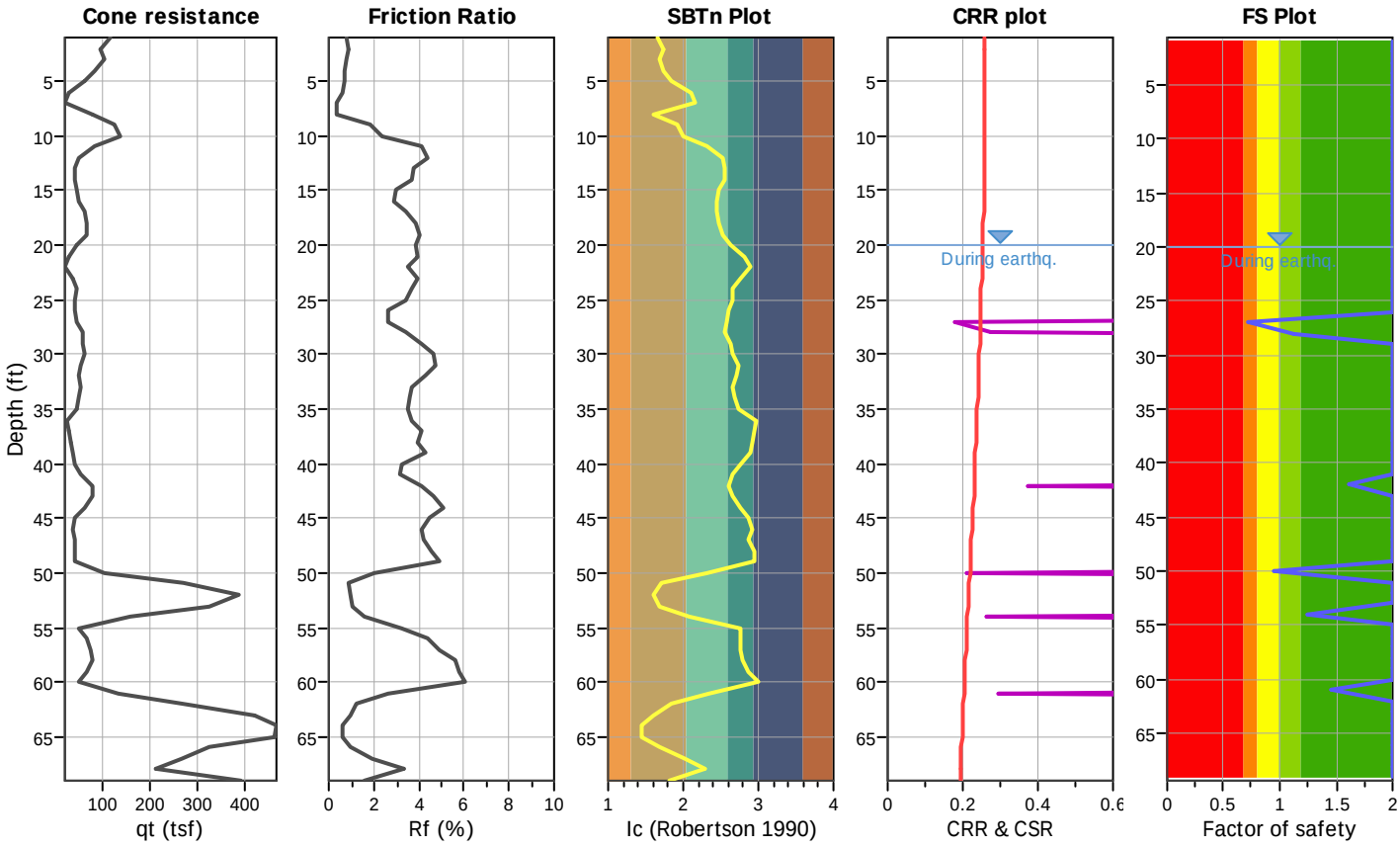
LIQUEFACTION ANALYSIS REPORT

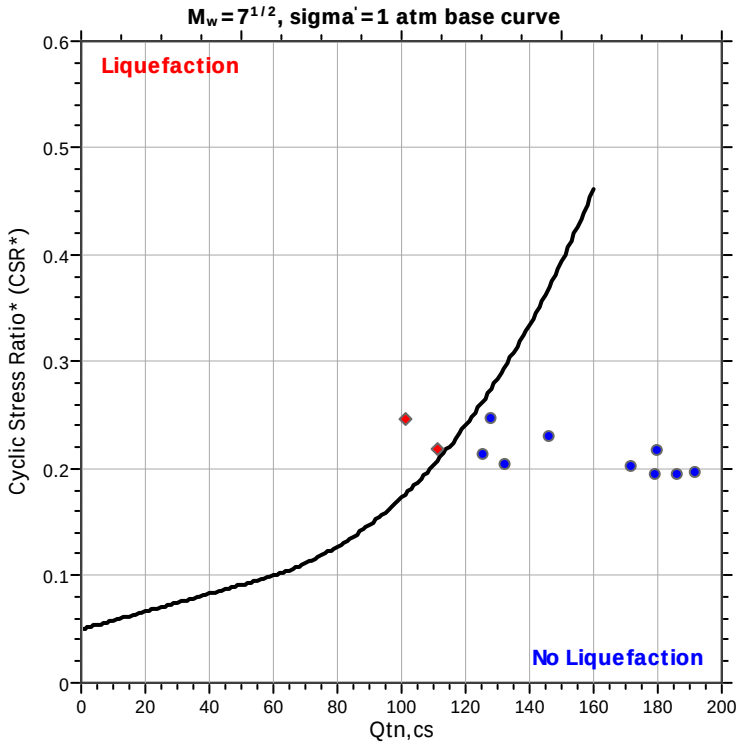
Project title : Kettner Substation **Location : San Diego, CA**

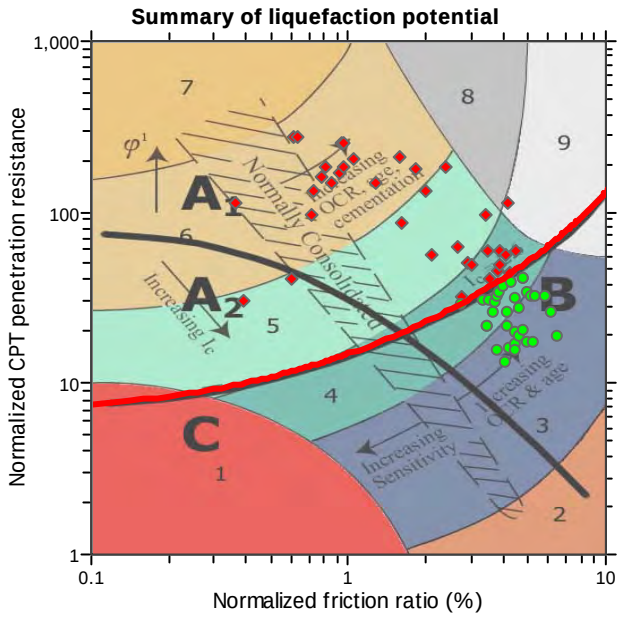
CPT file : CPT-5i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	70.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

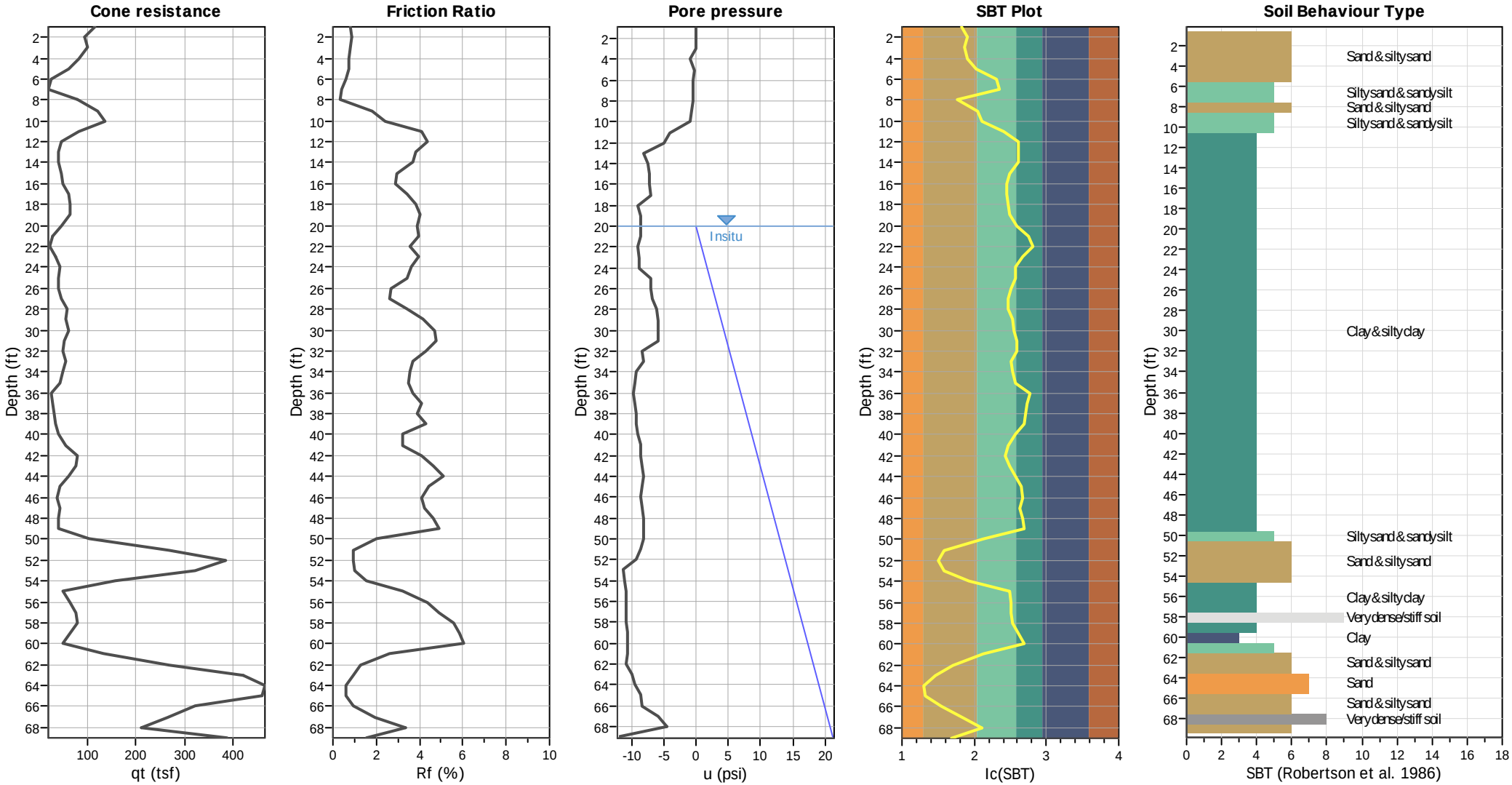






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



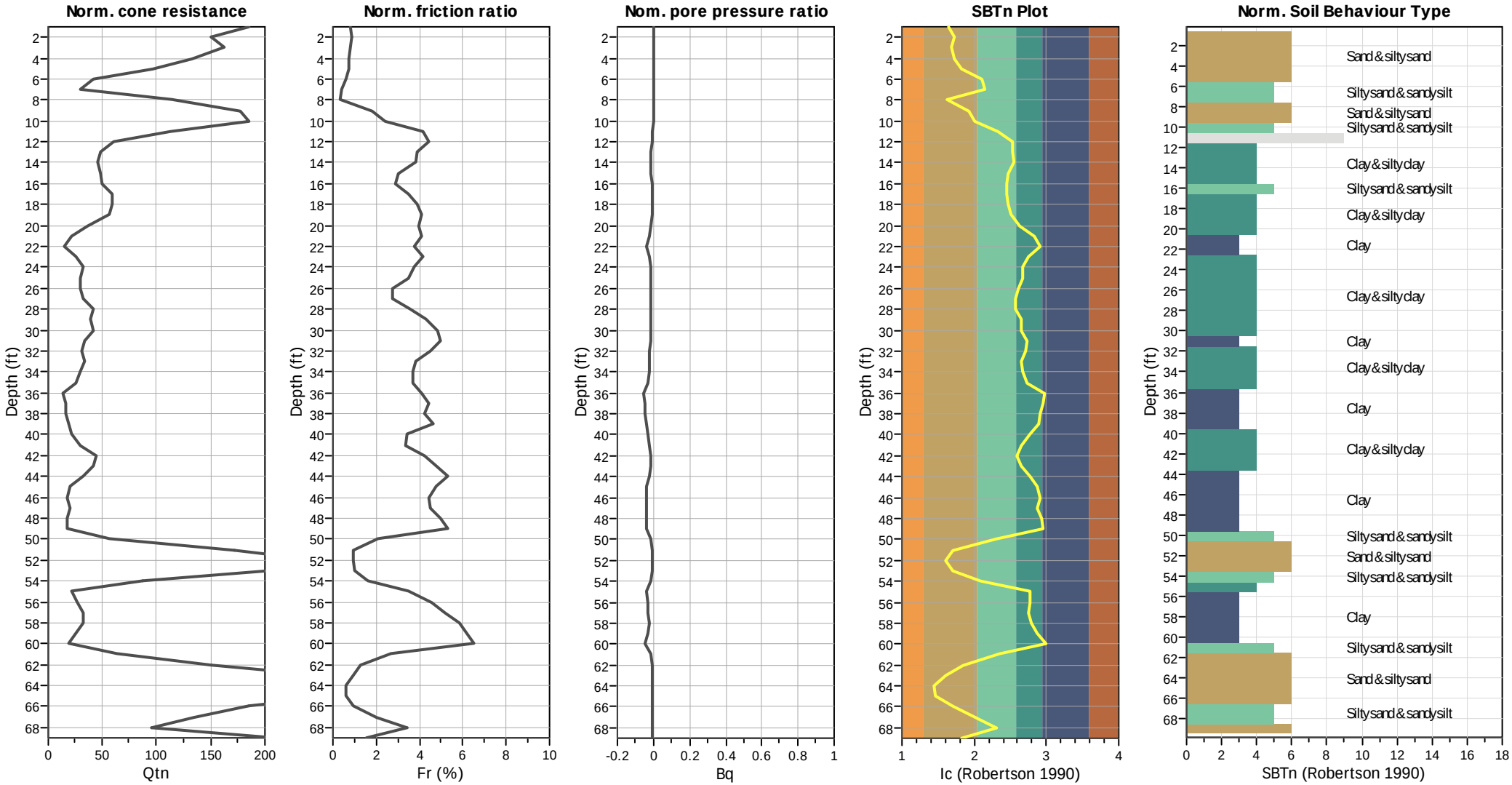
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	70.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



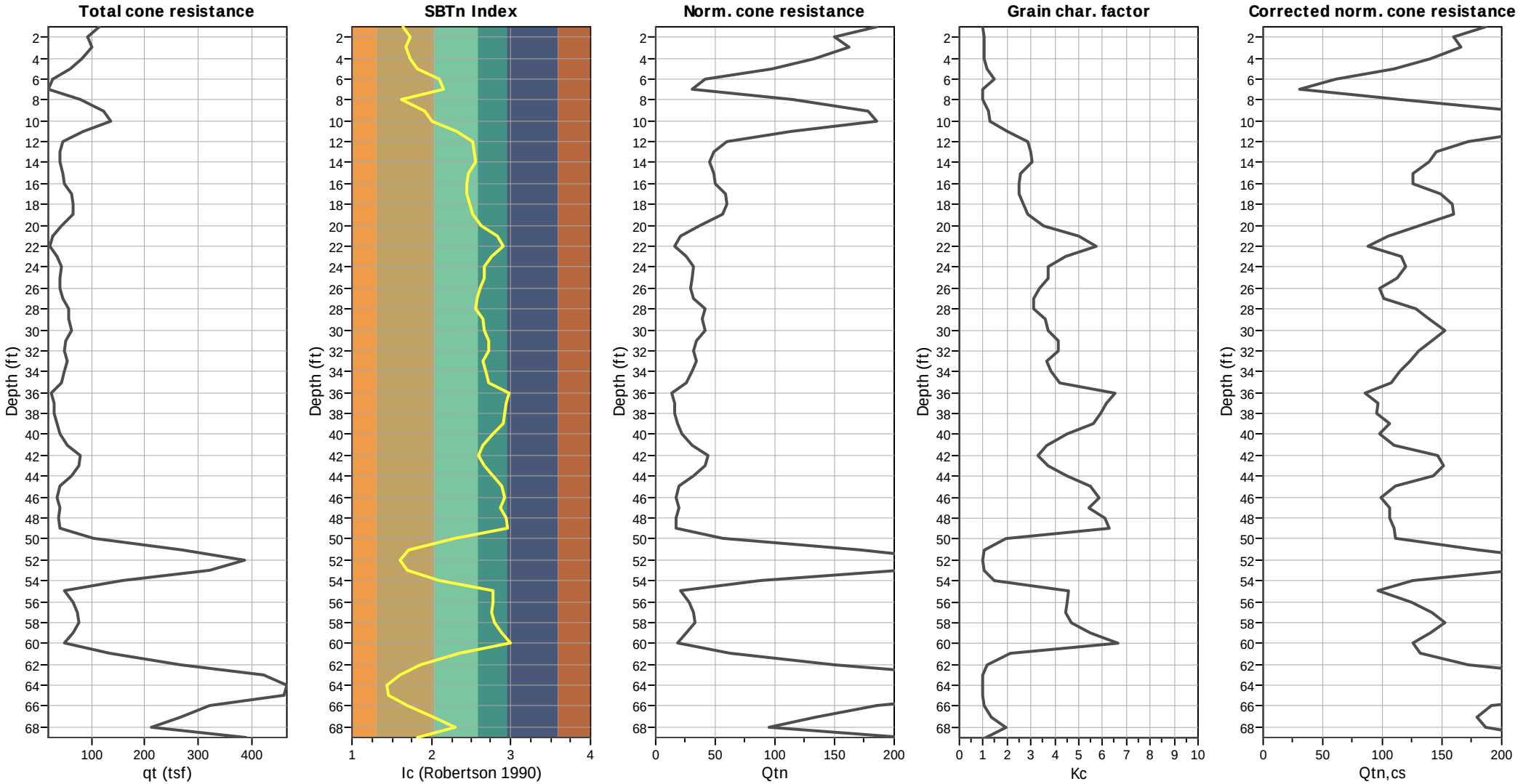
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	70.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

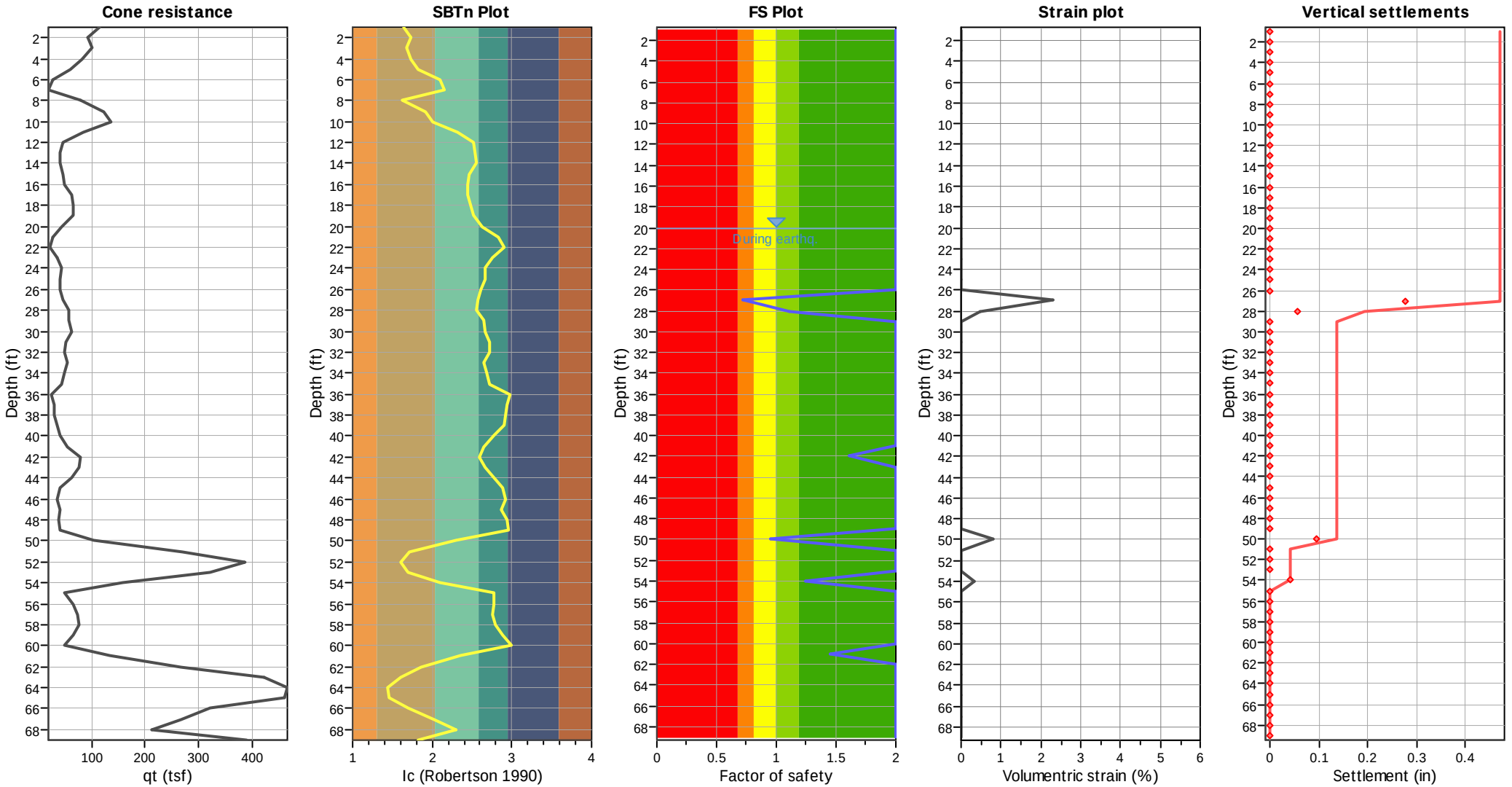
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	70.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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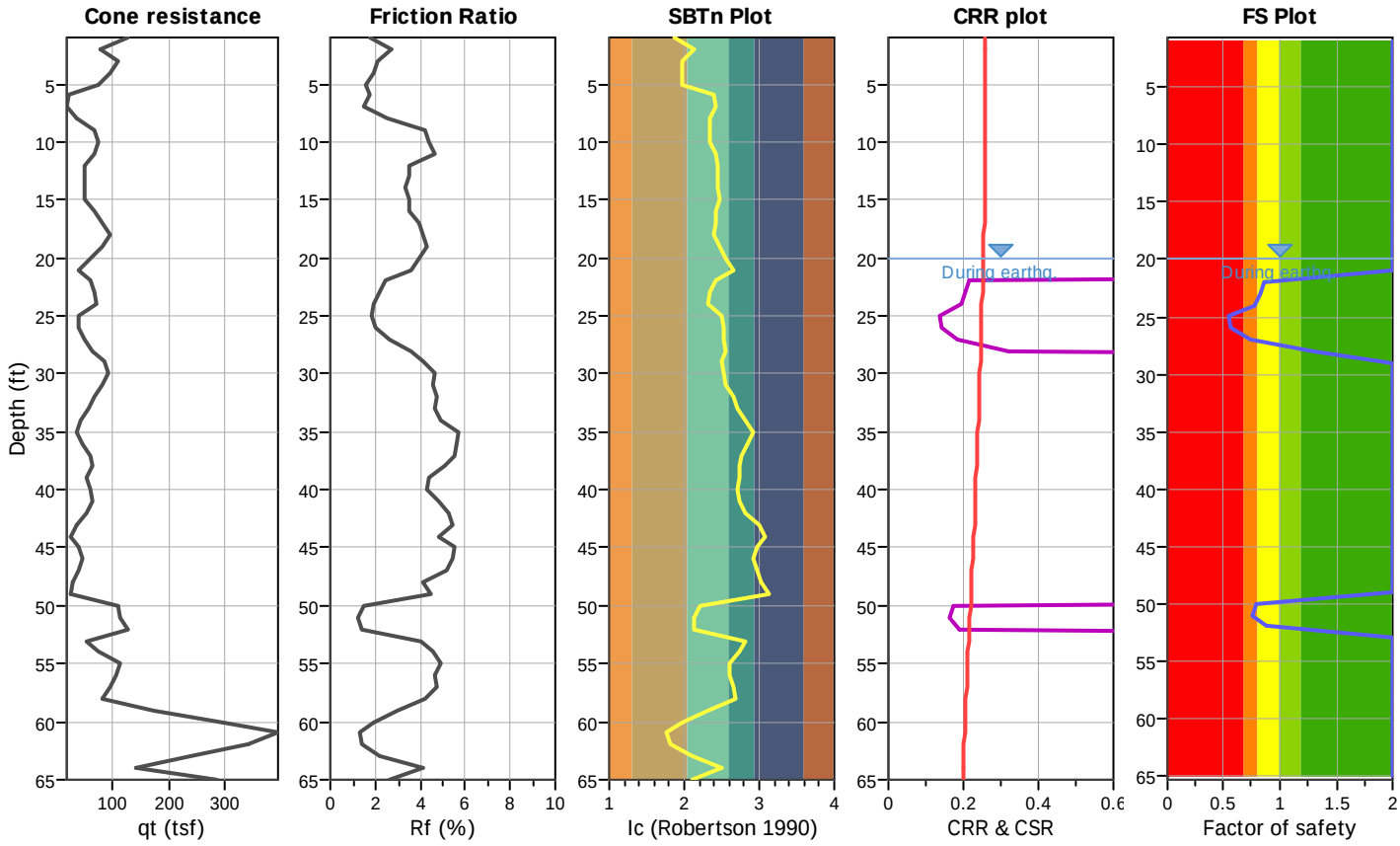
LIQUEFACTION ANALYSIS REPORT

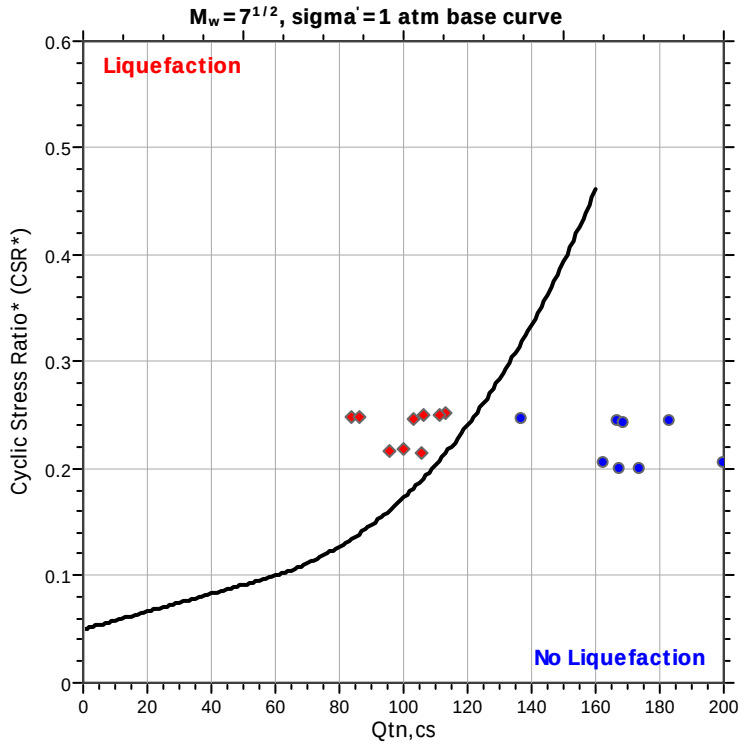
Project title : Kettner Substation **Location : San Diego, CA**

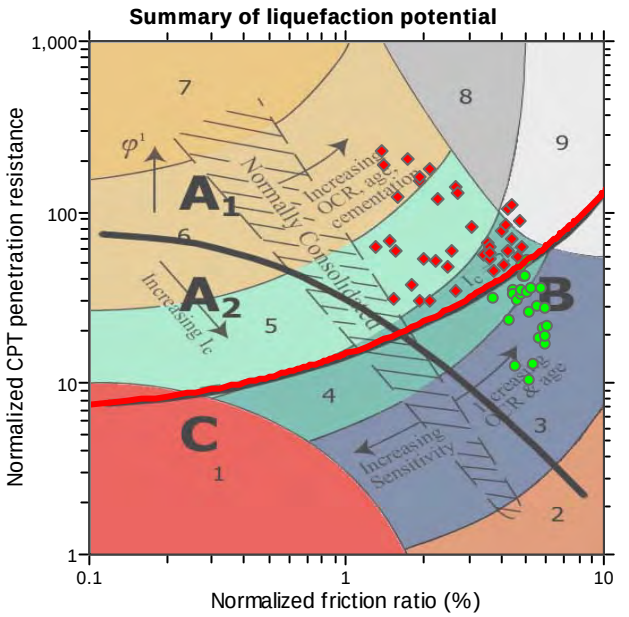
CPT file : CPT-6i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	65.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

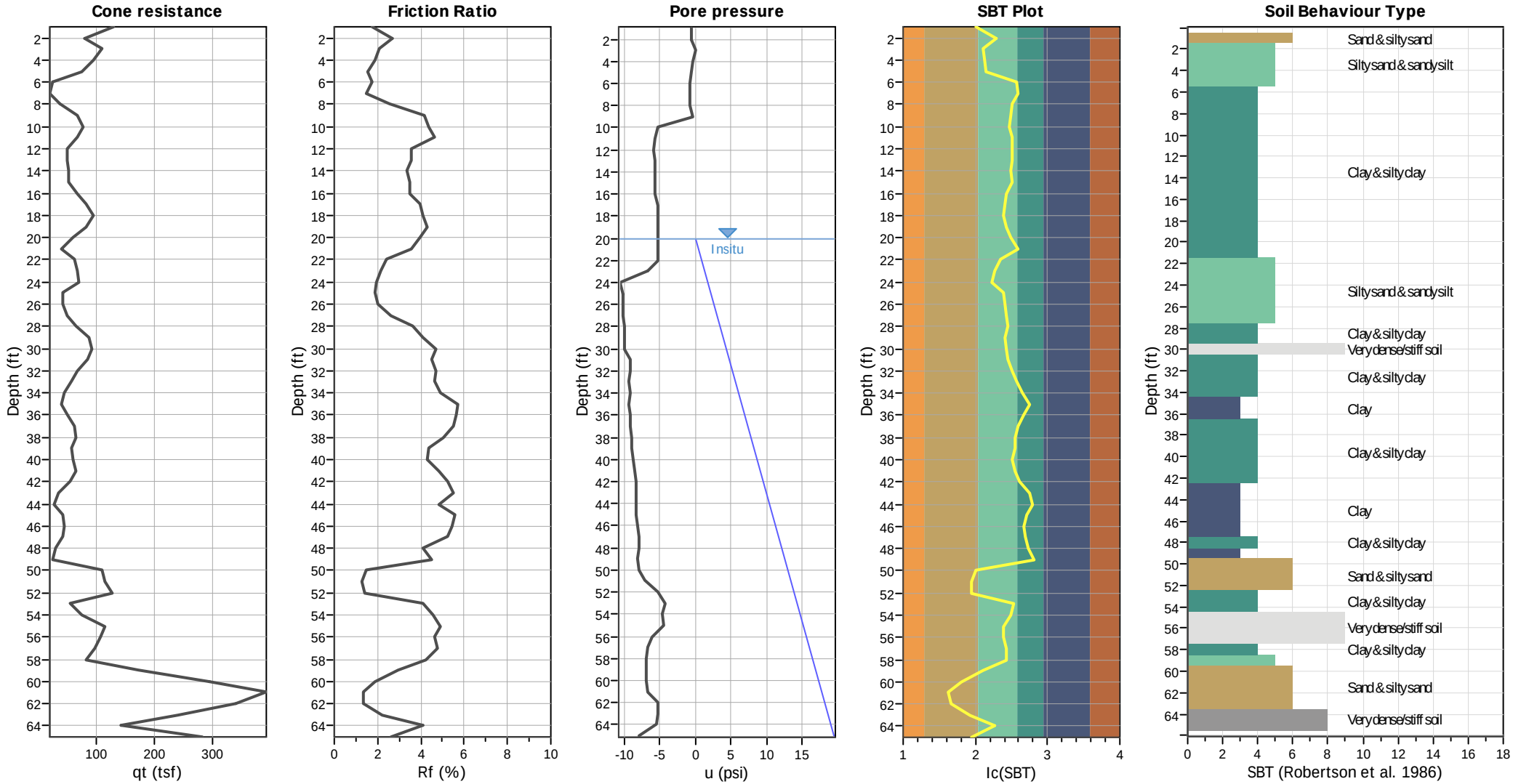






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



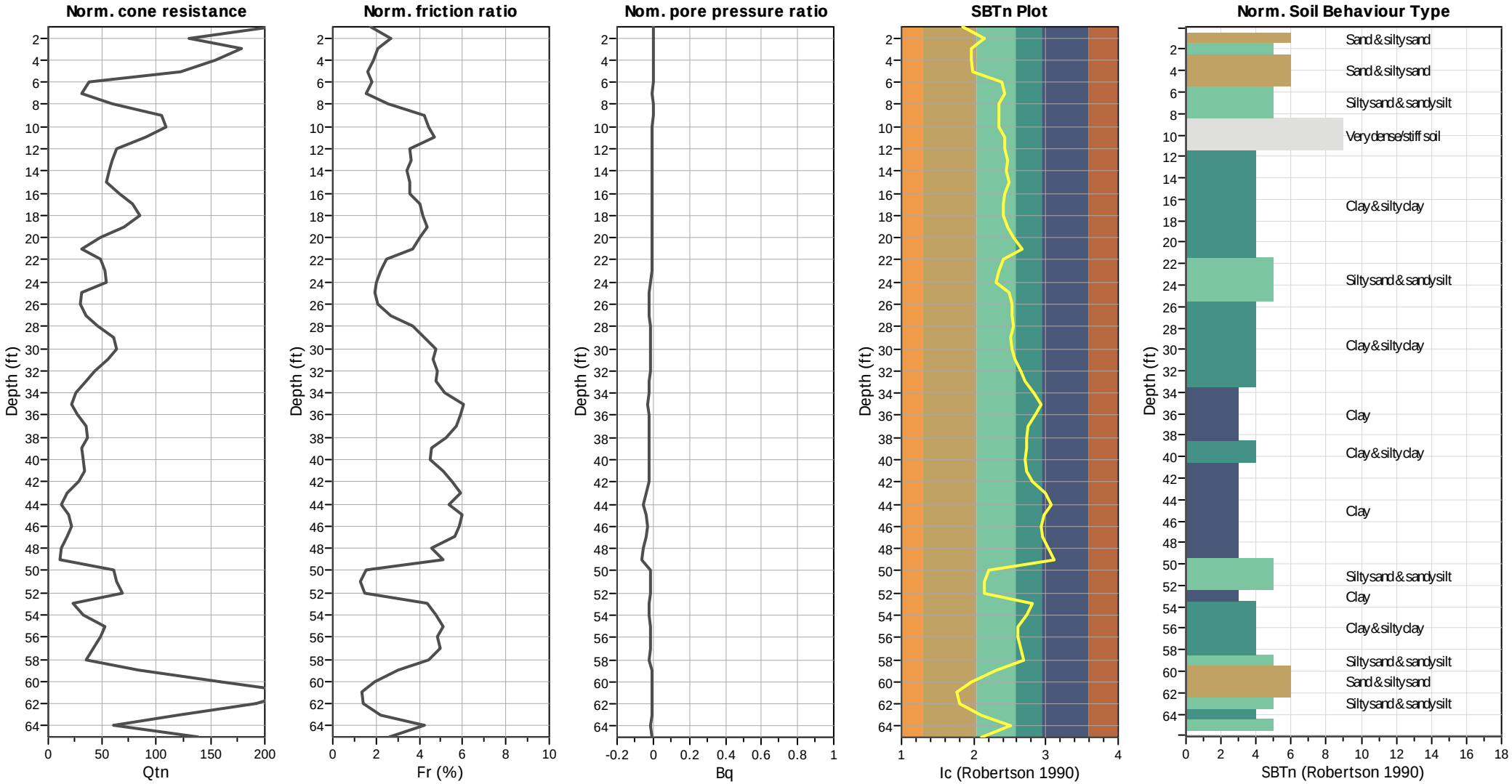
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



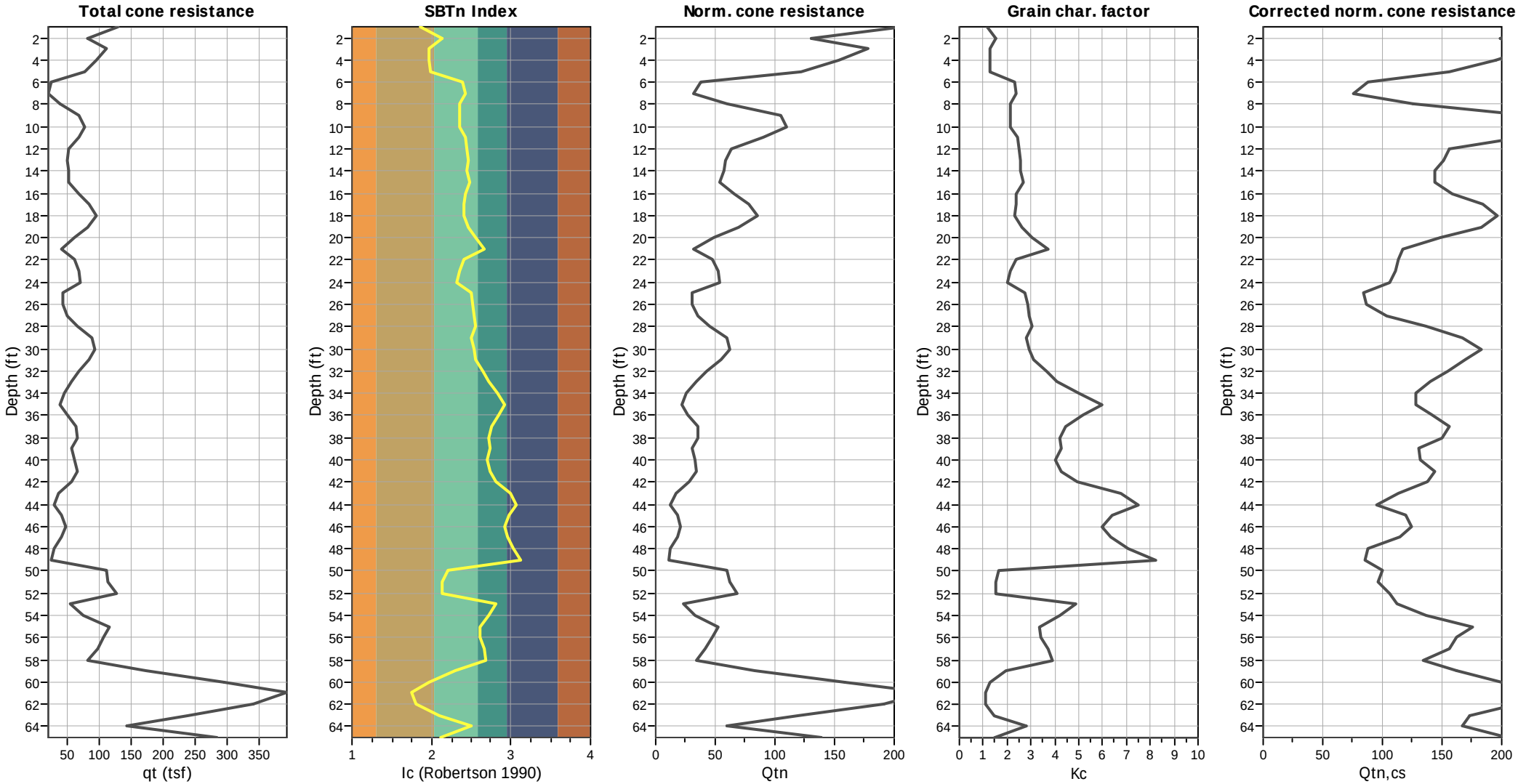
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

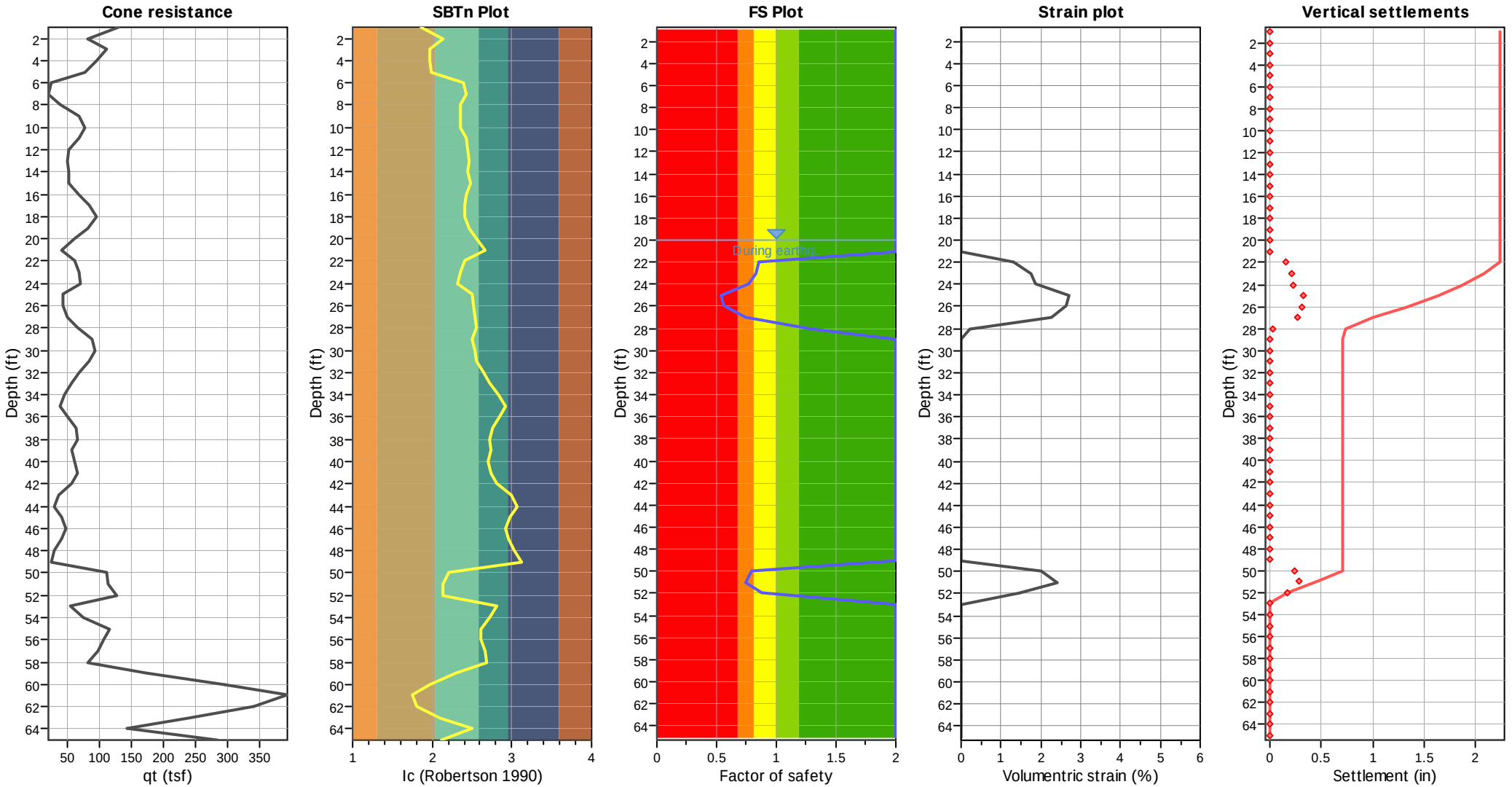
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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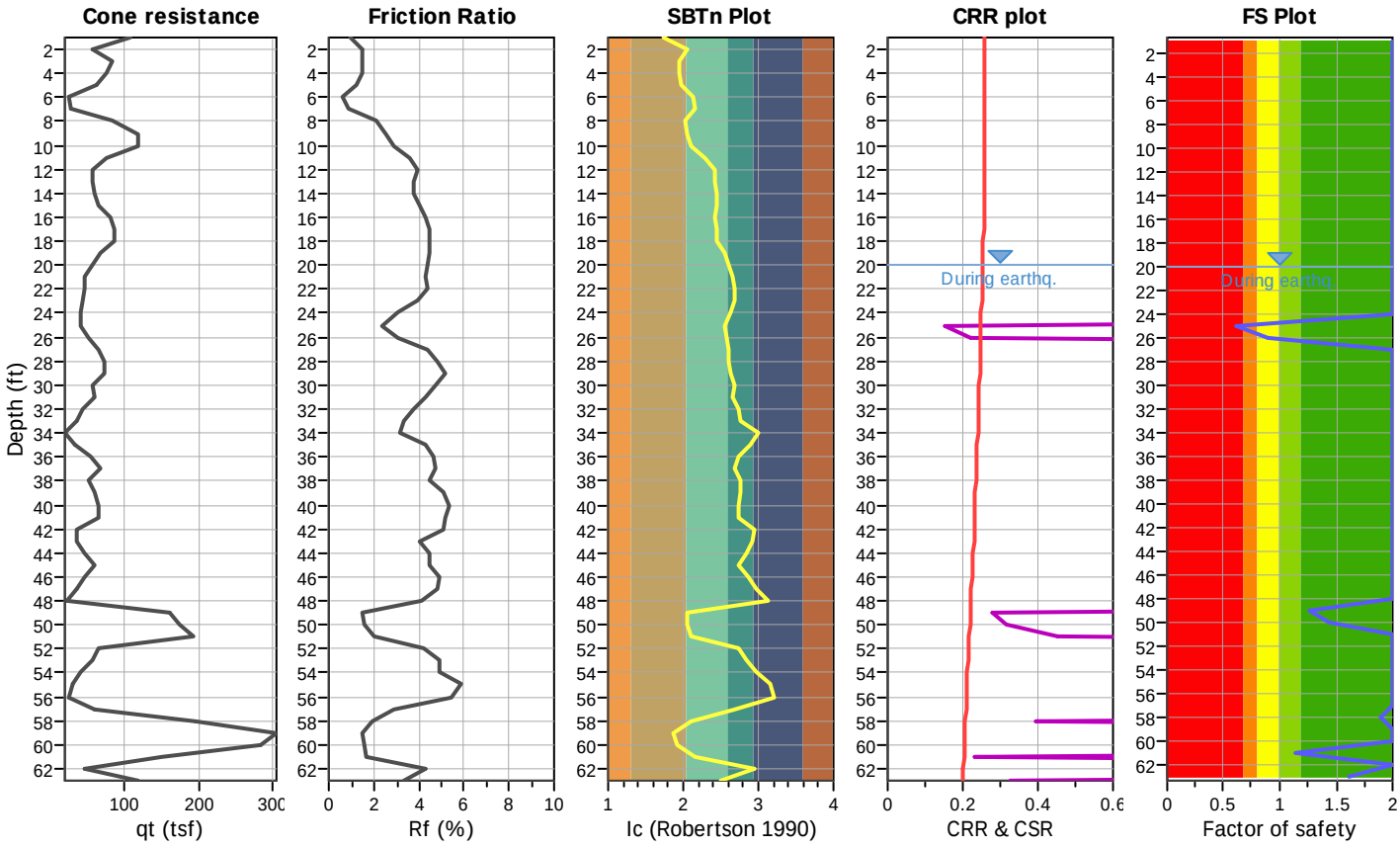
LIQUEFACTION ANALYSIS REPORT

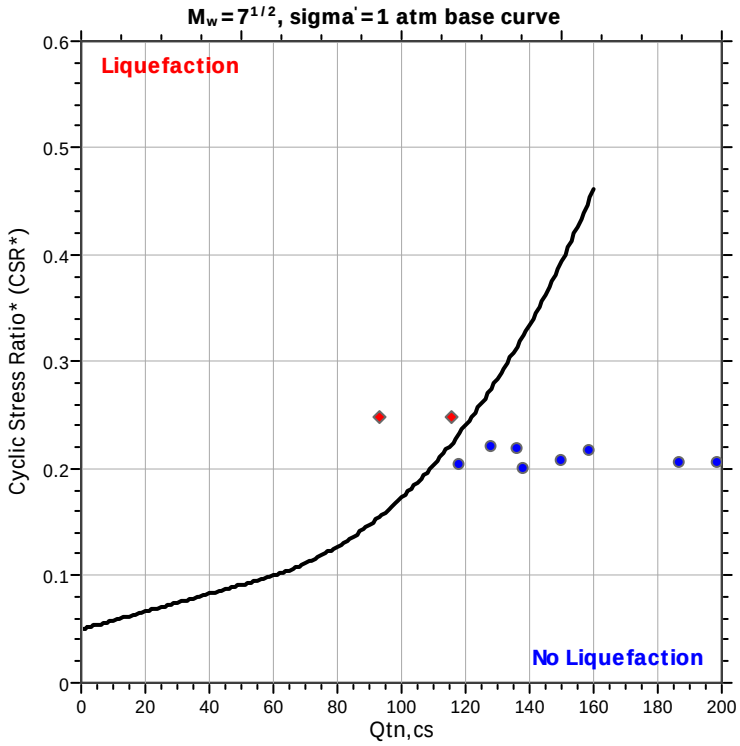
Project title : Kettner Substation **Location : San Diego, CA**

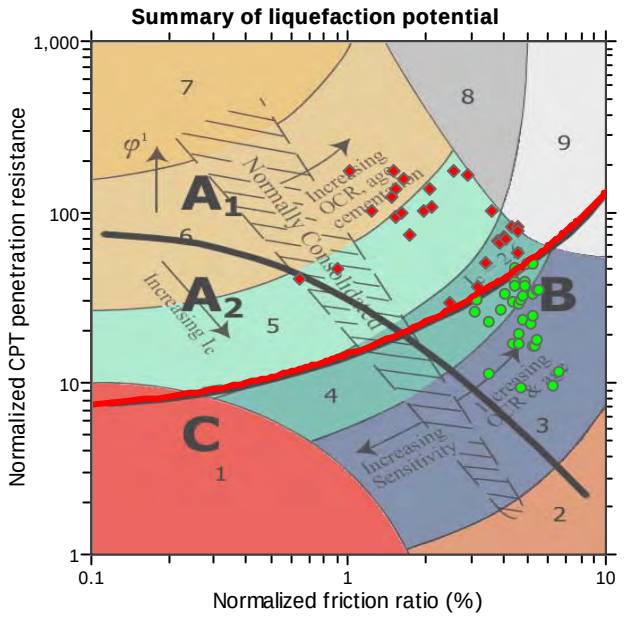
CPT file : CPT-7i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	65.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

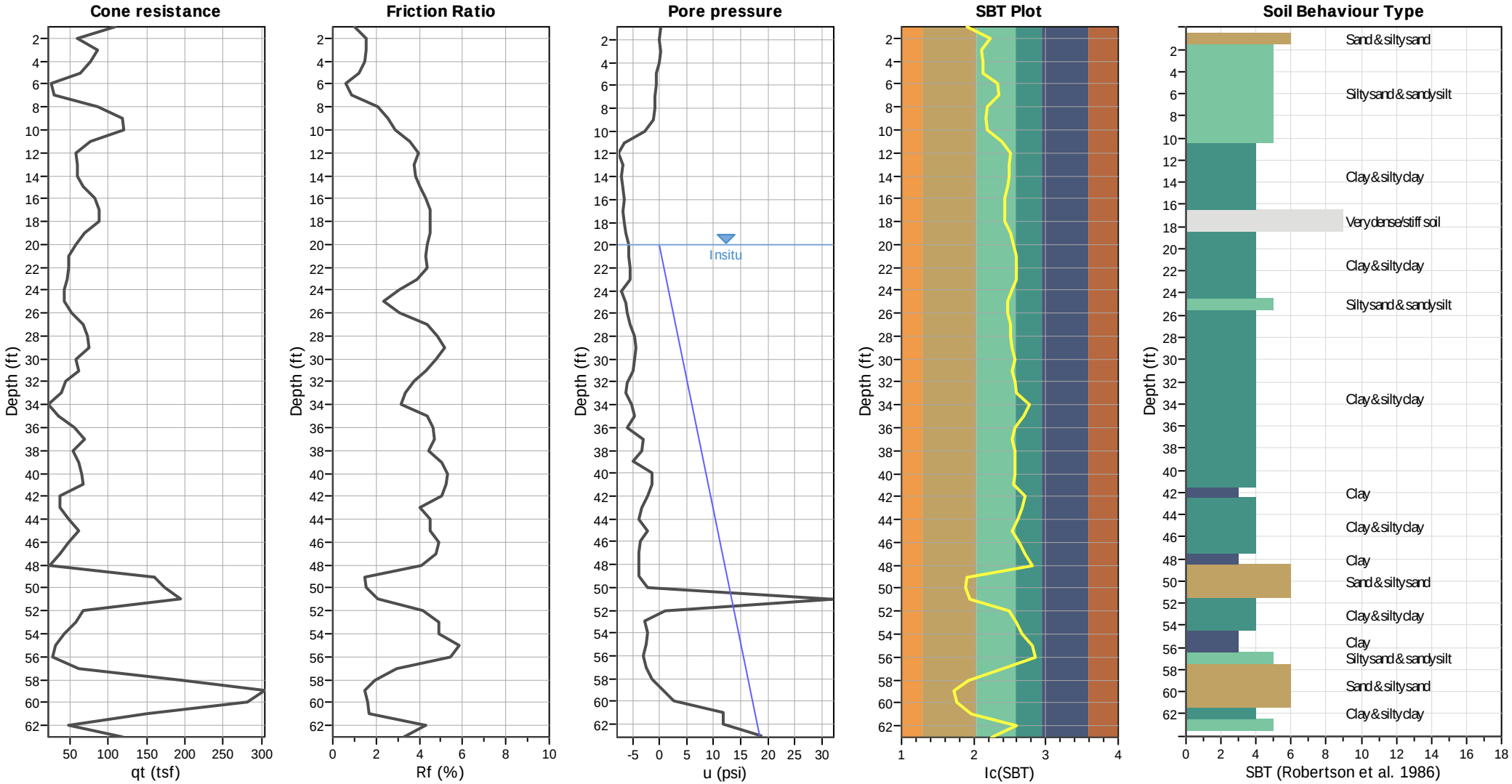






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



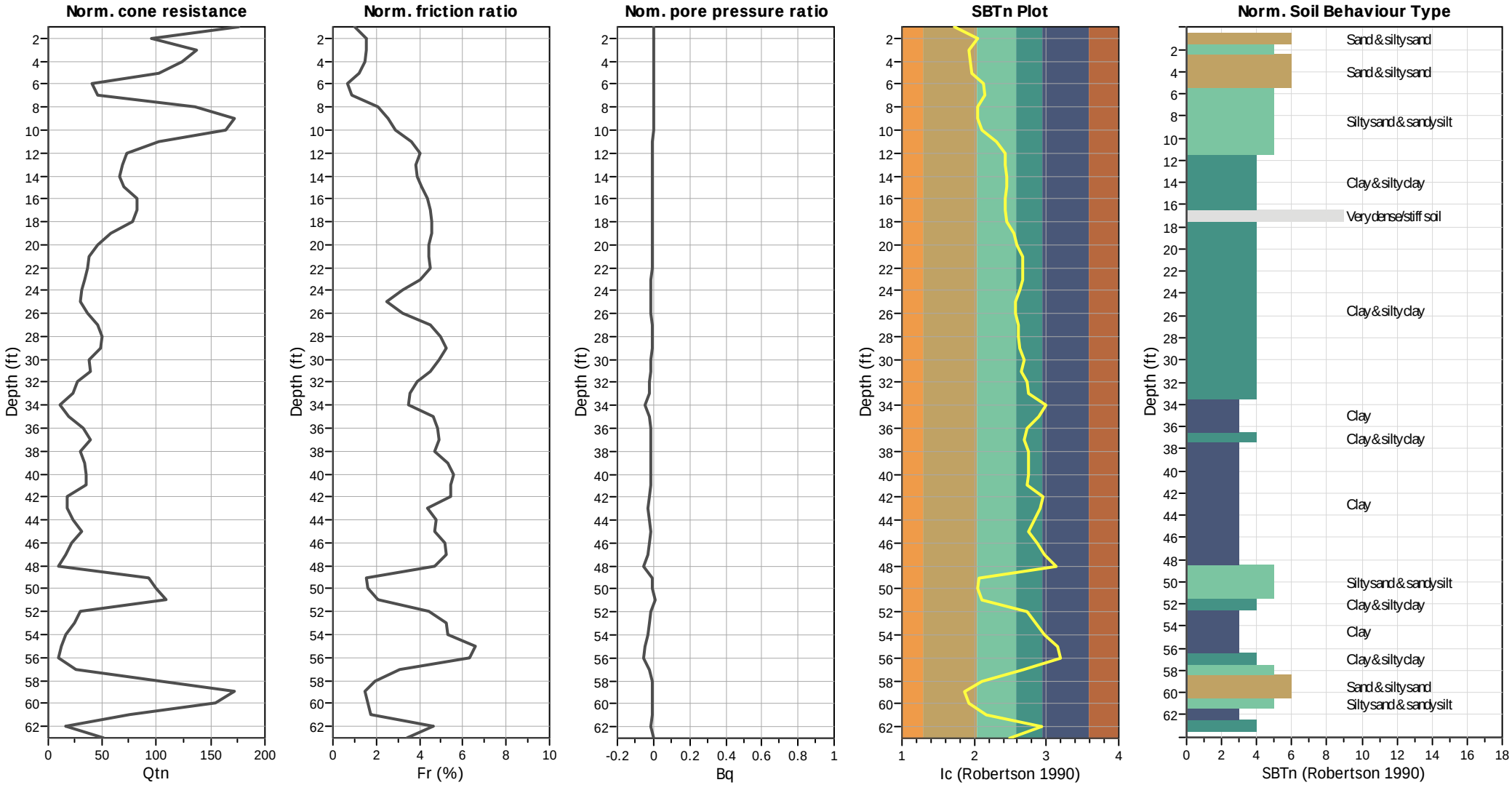
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



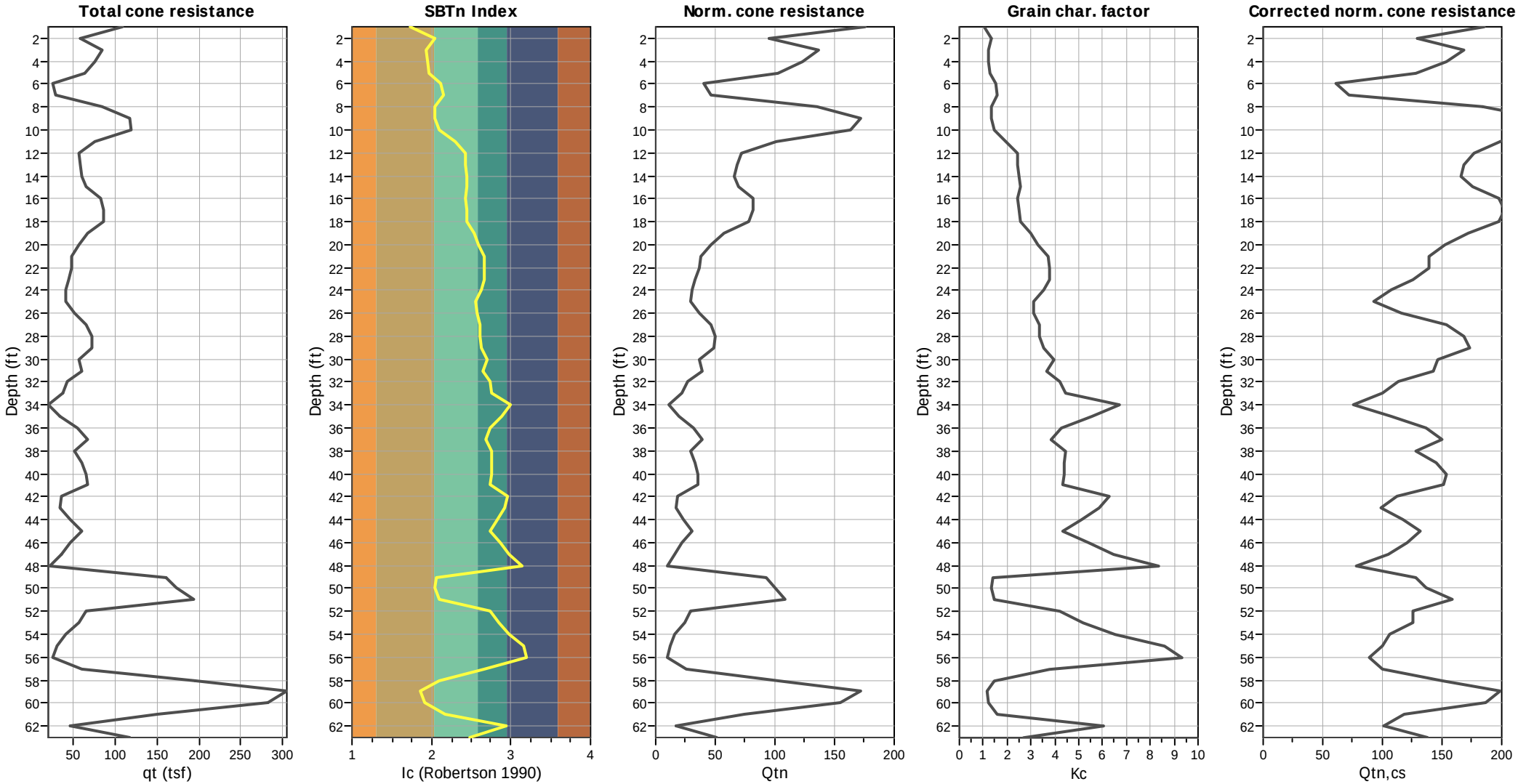
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

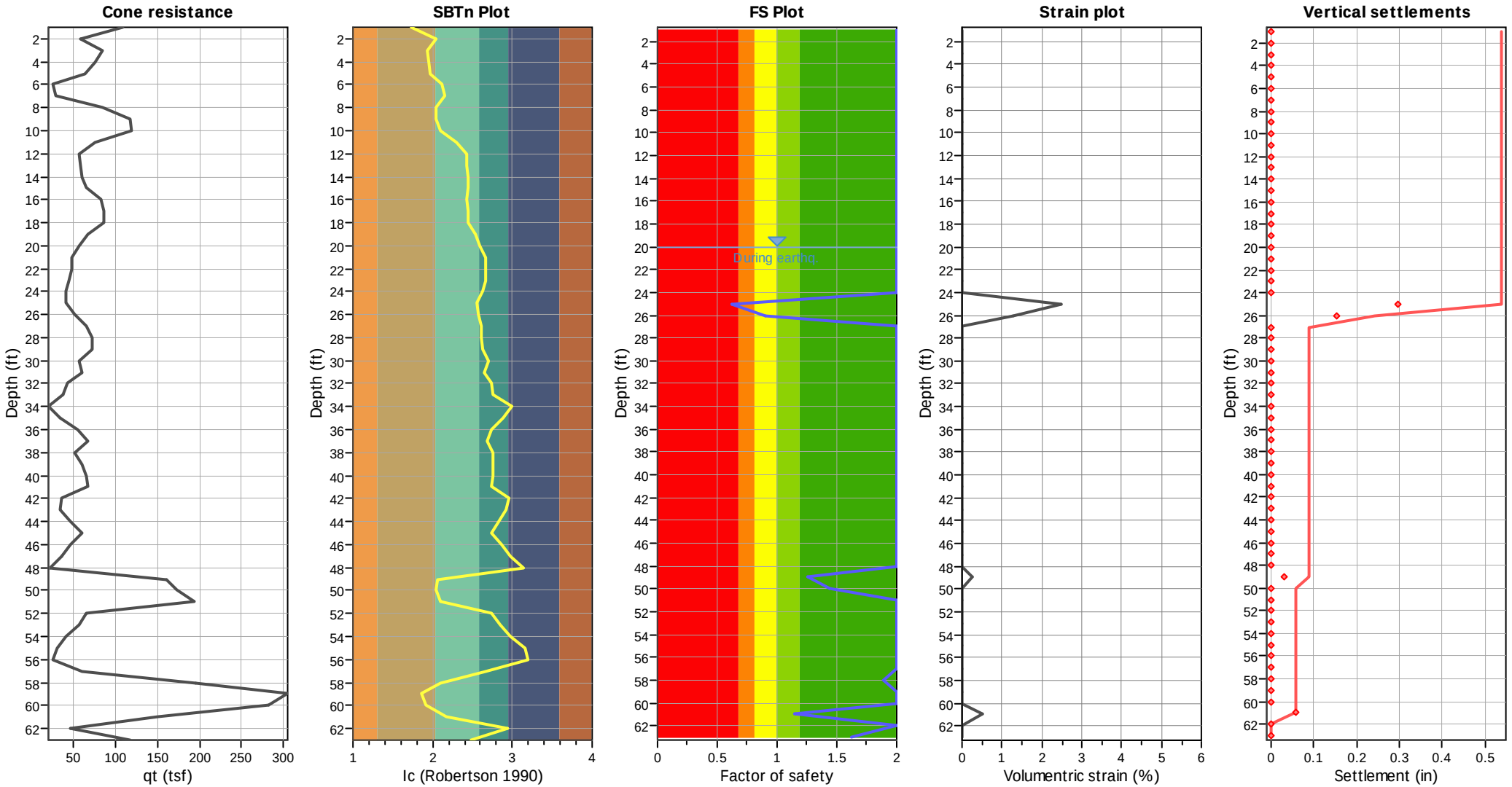
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	65.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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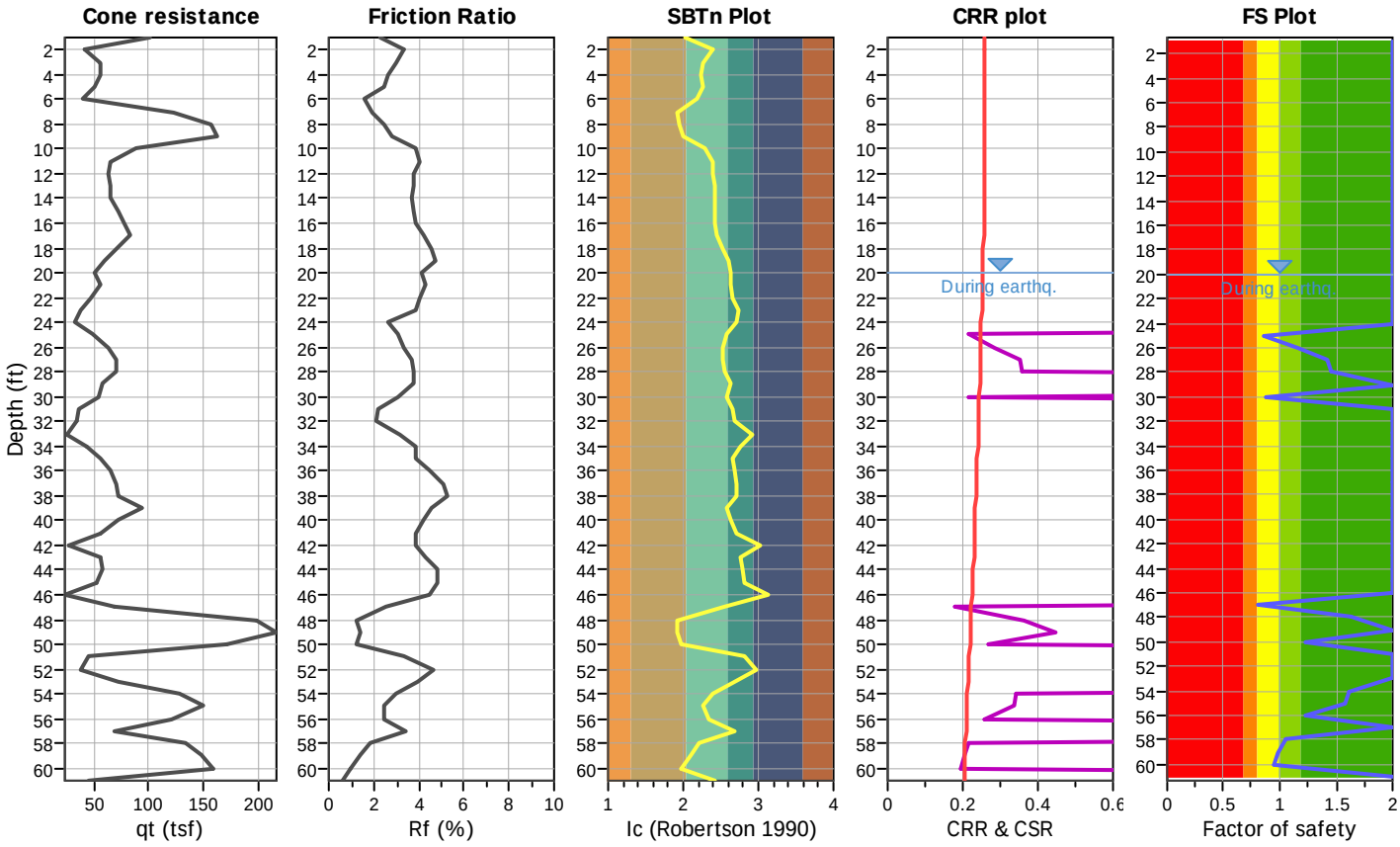
LIQUEFACTION ANALYSIS REPORT

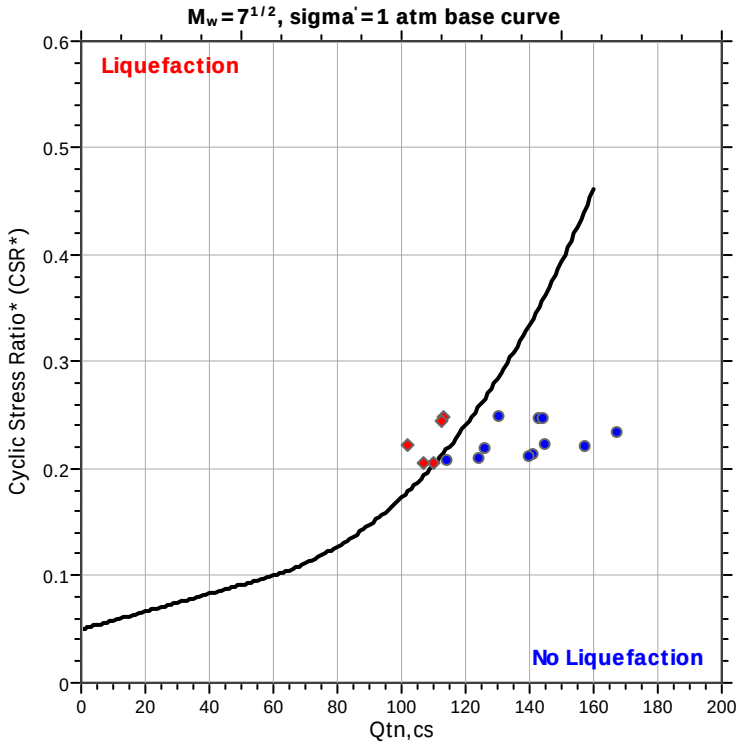
Project title : Kettner Substation **Location : San Diego, CA**

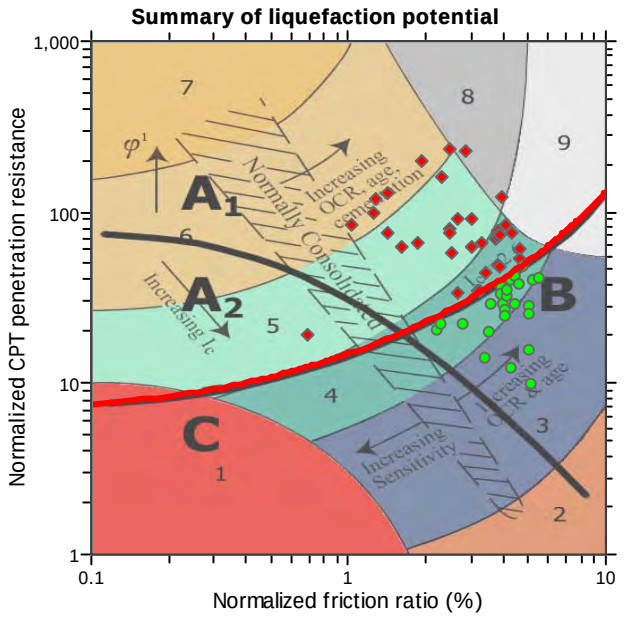
CPT file : CPT-8i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

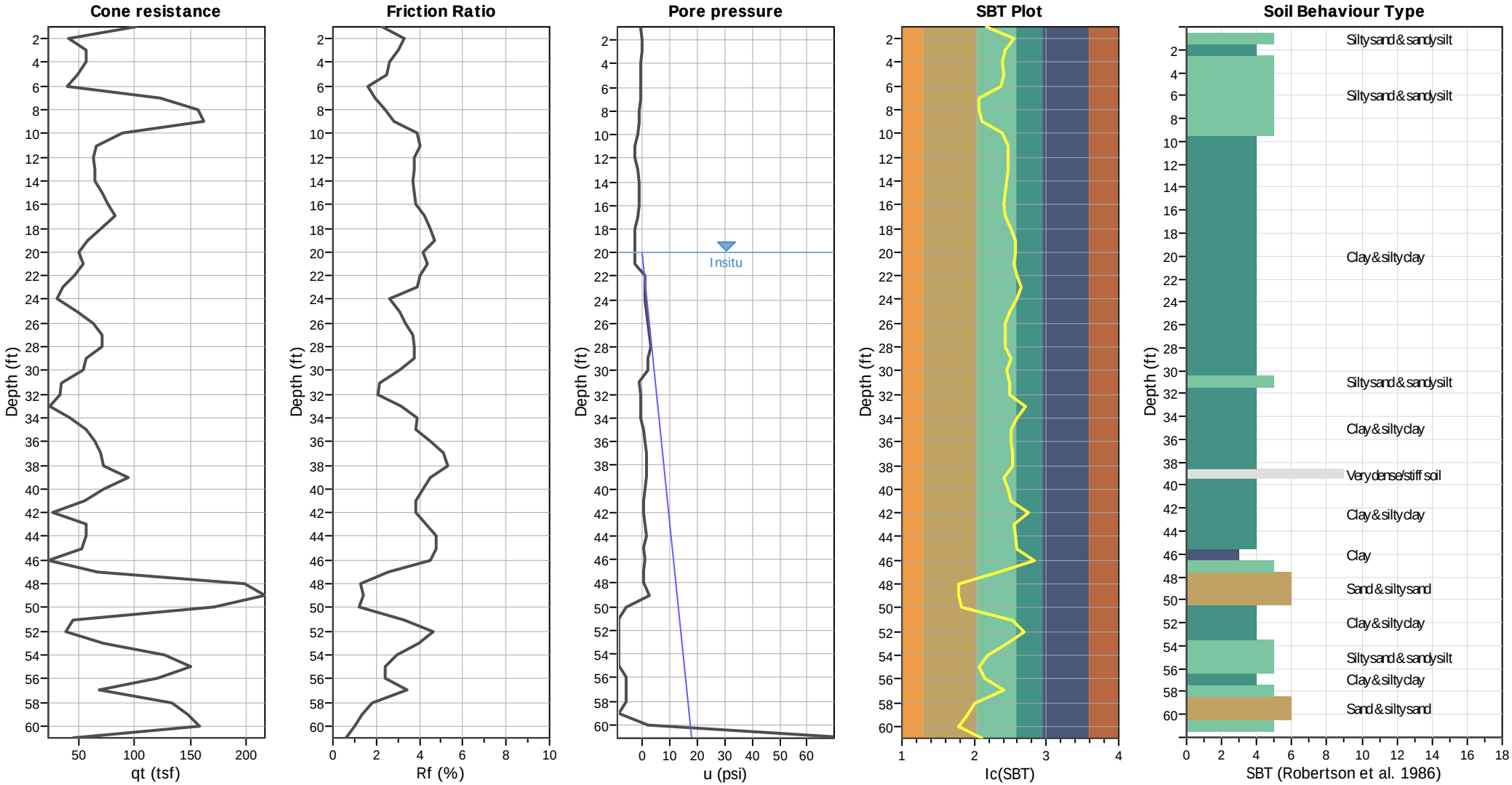






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



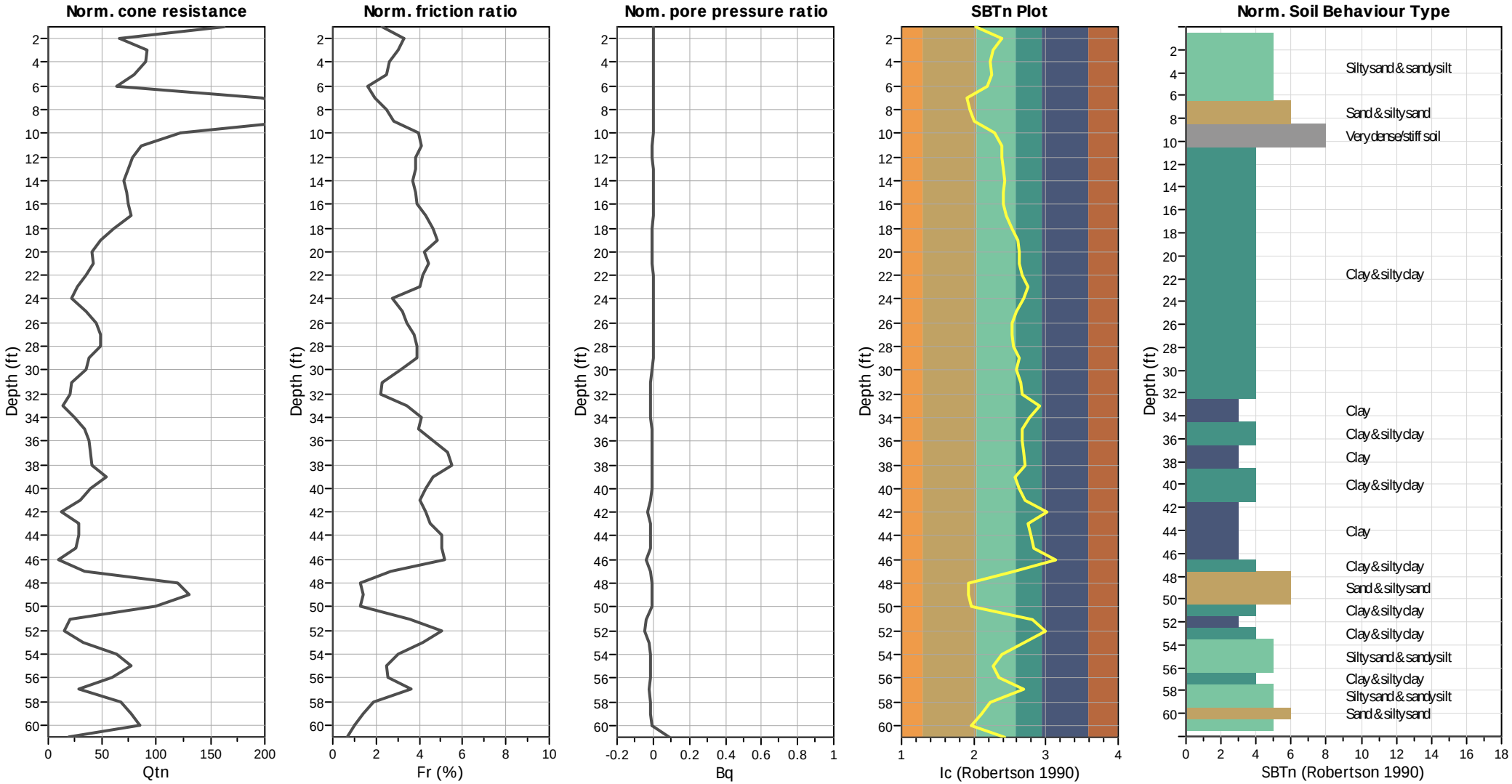
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



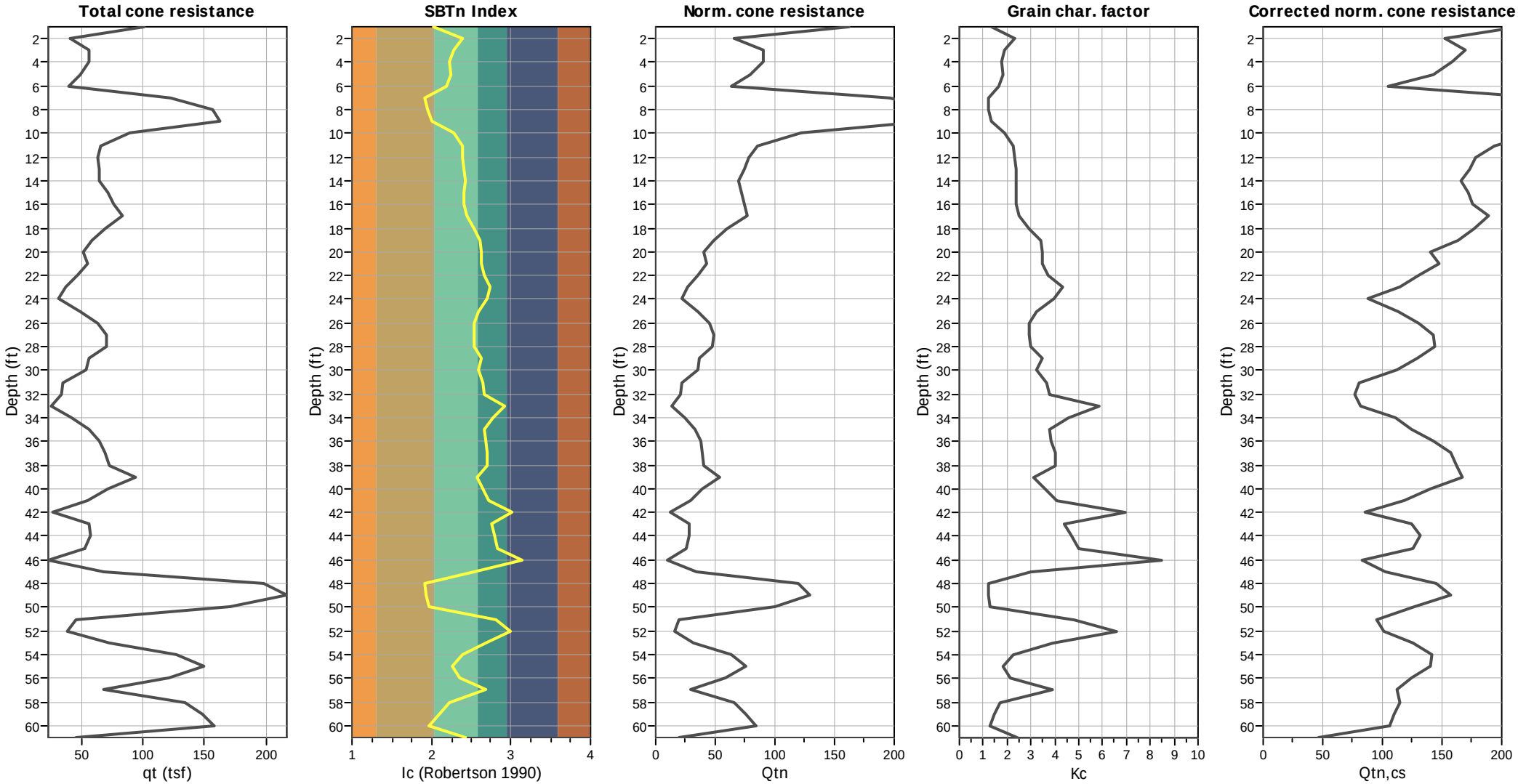
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

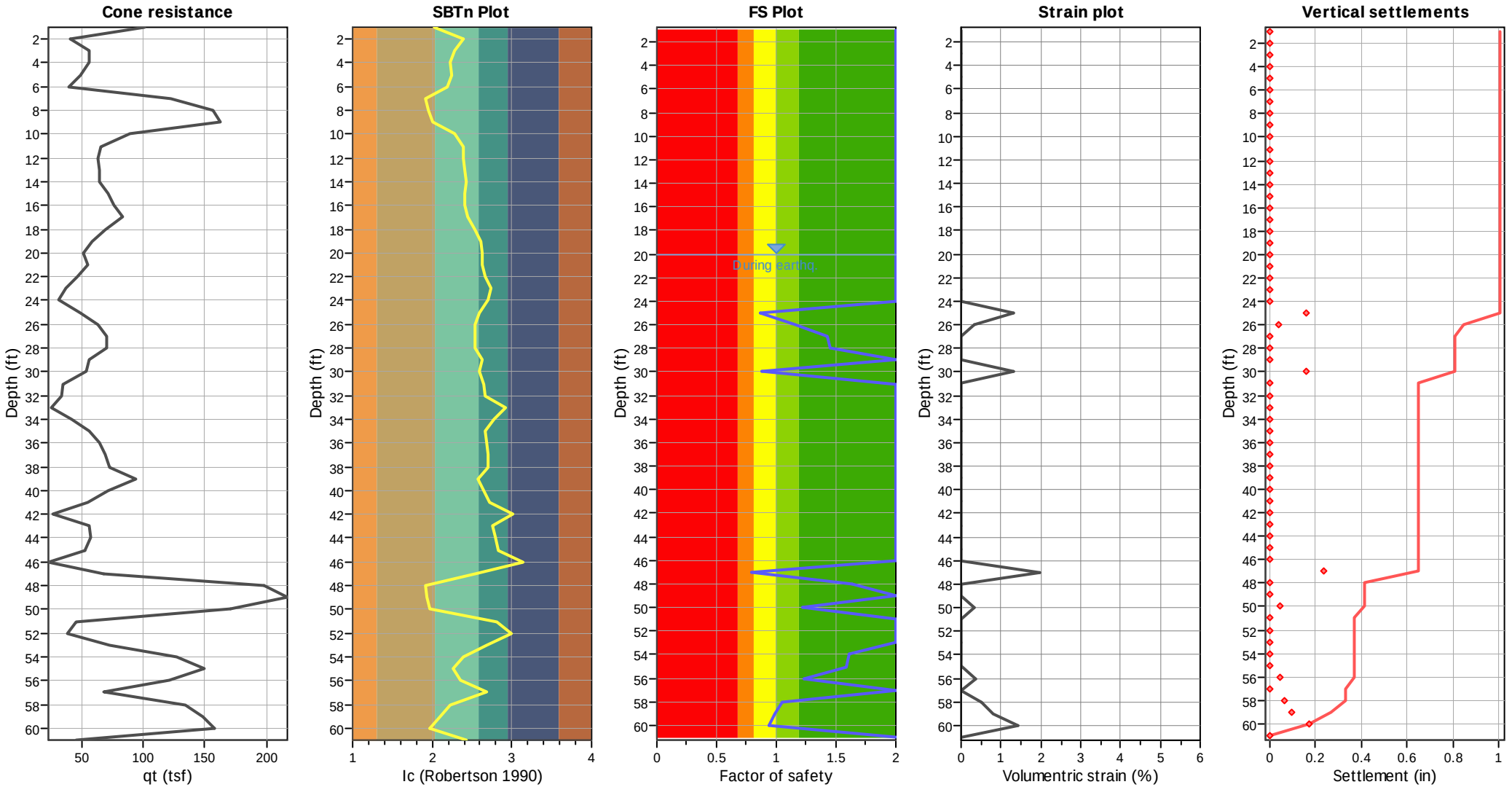
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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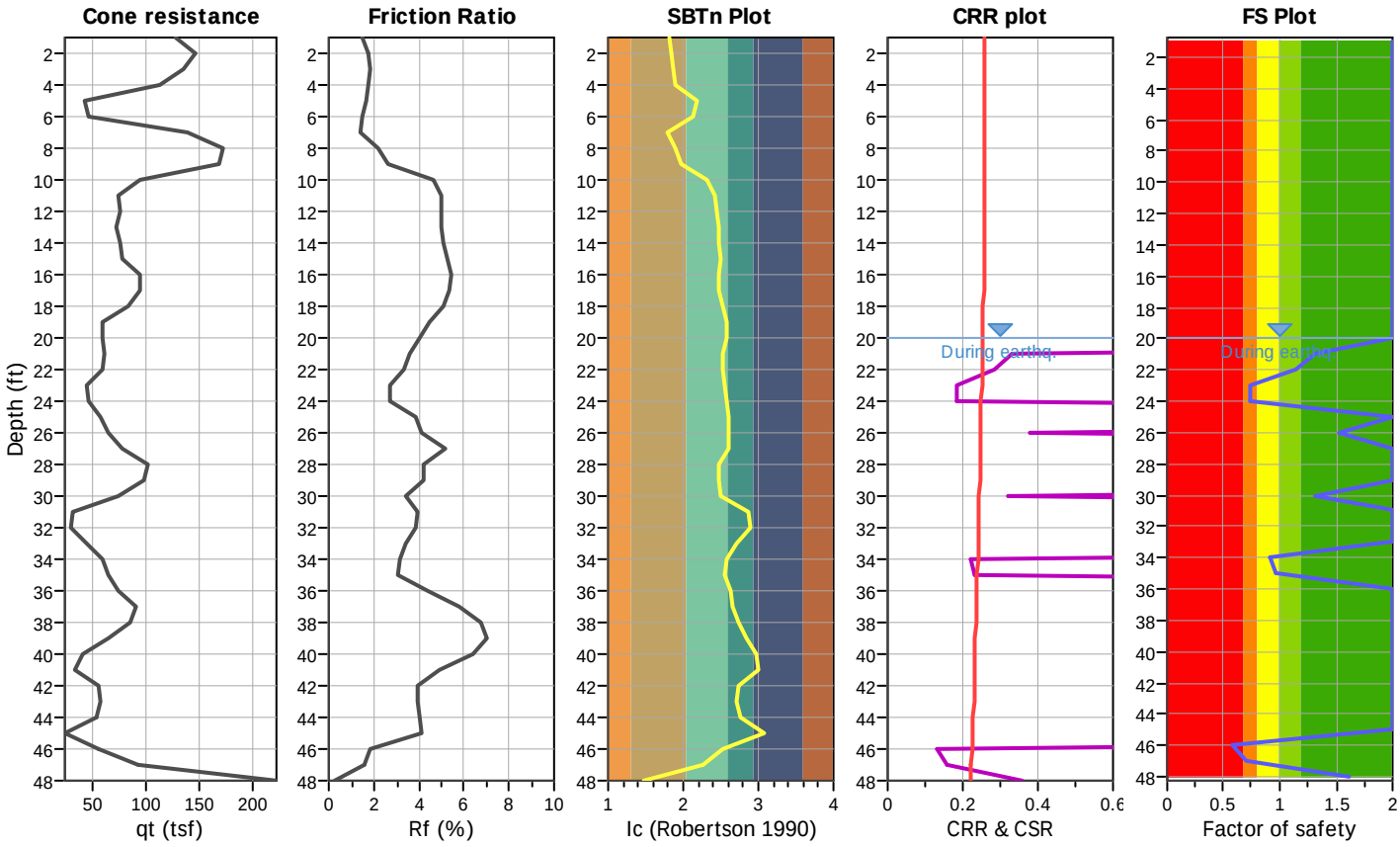
LIQUEFACTION ANALYSIS REPORT

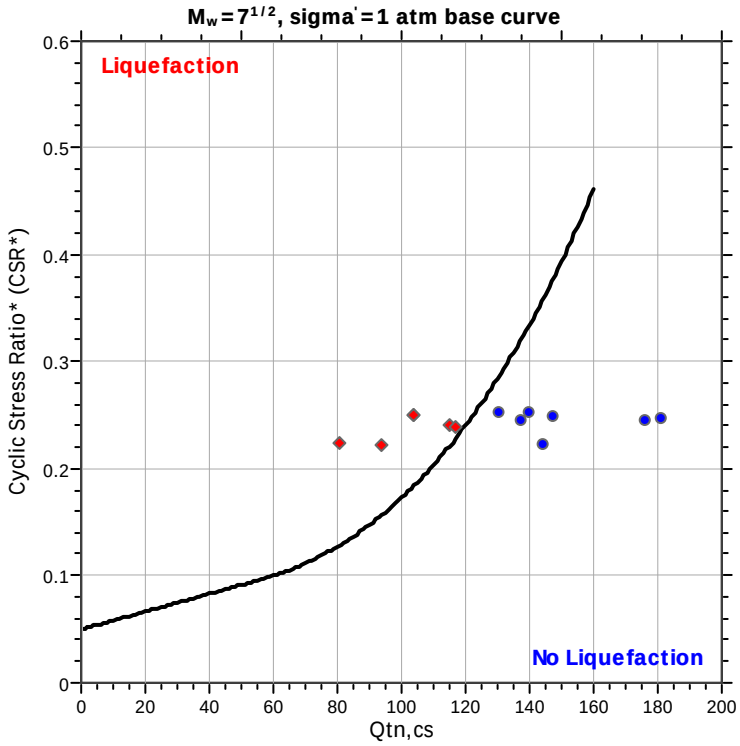
Project title : Kettner Substation **Location : San Diego, CA**

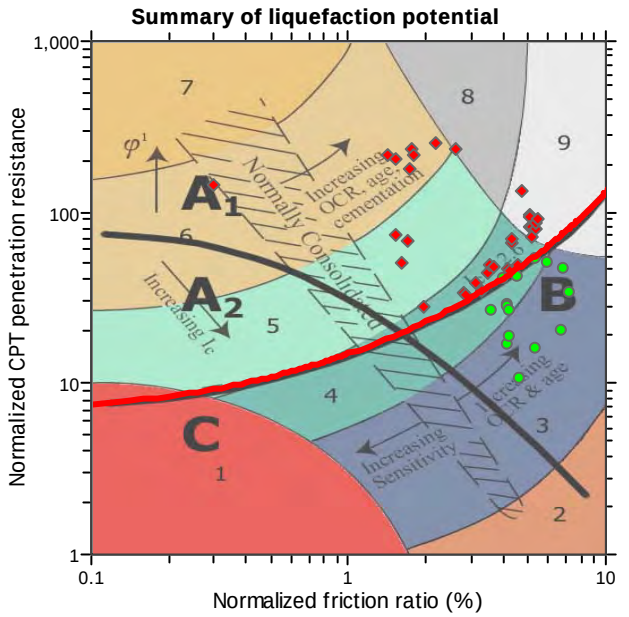
CPT file : CPT-9i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

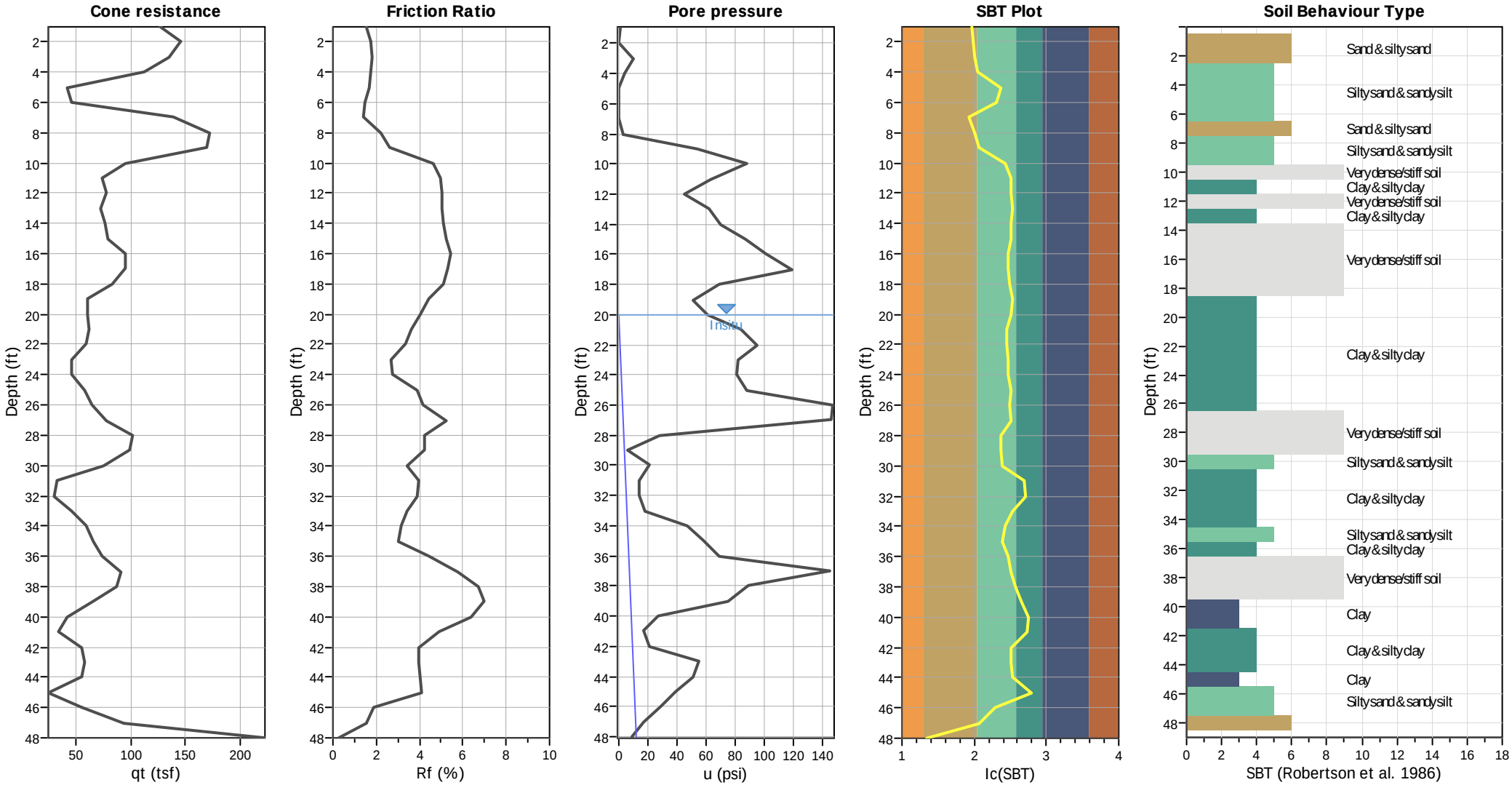






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



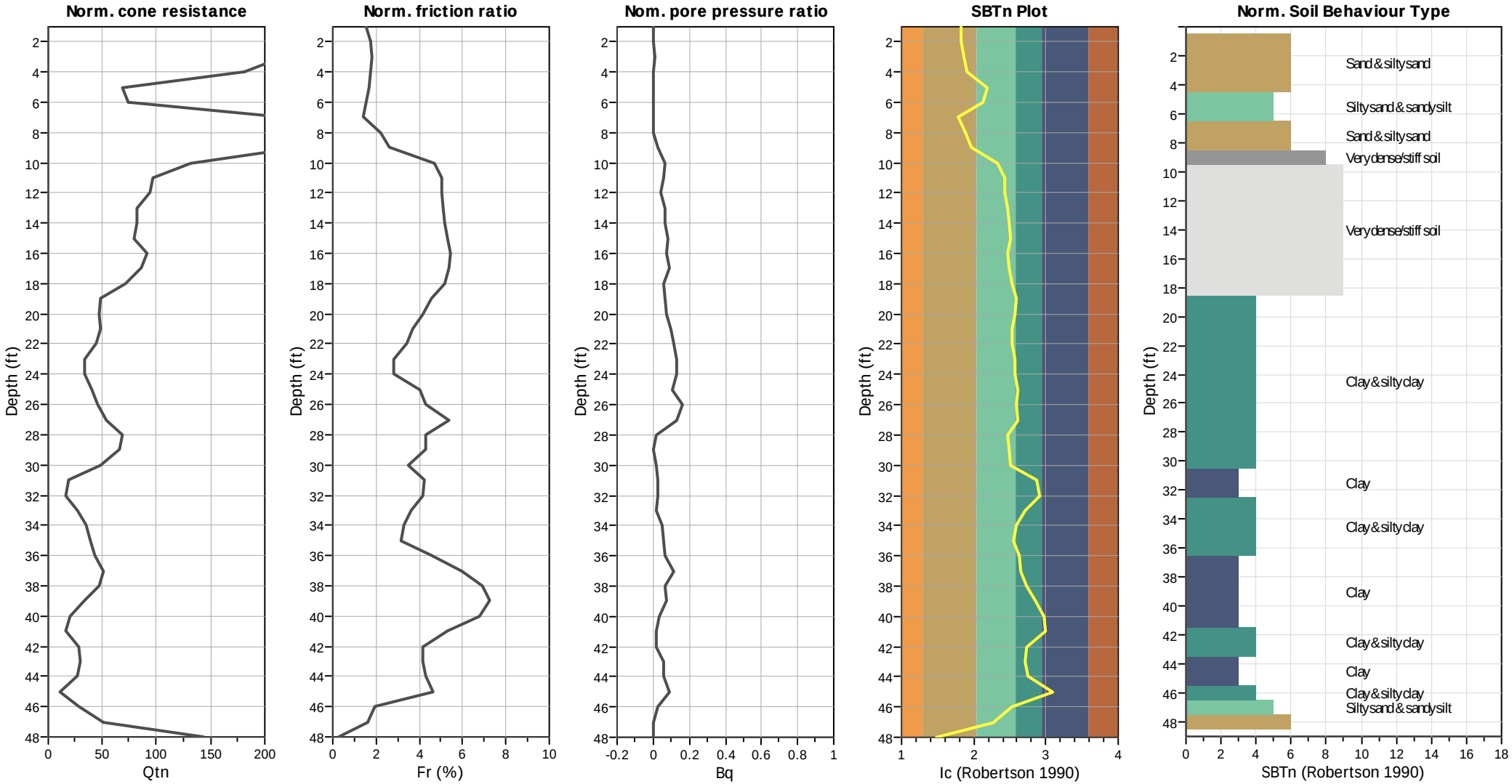
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
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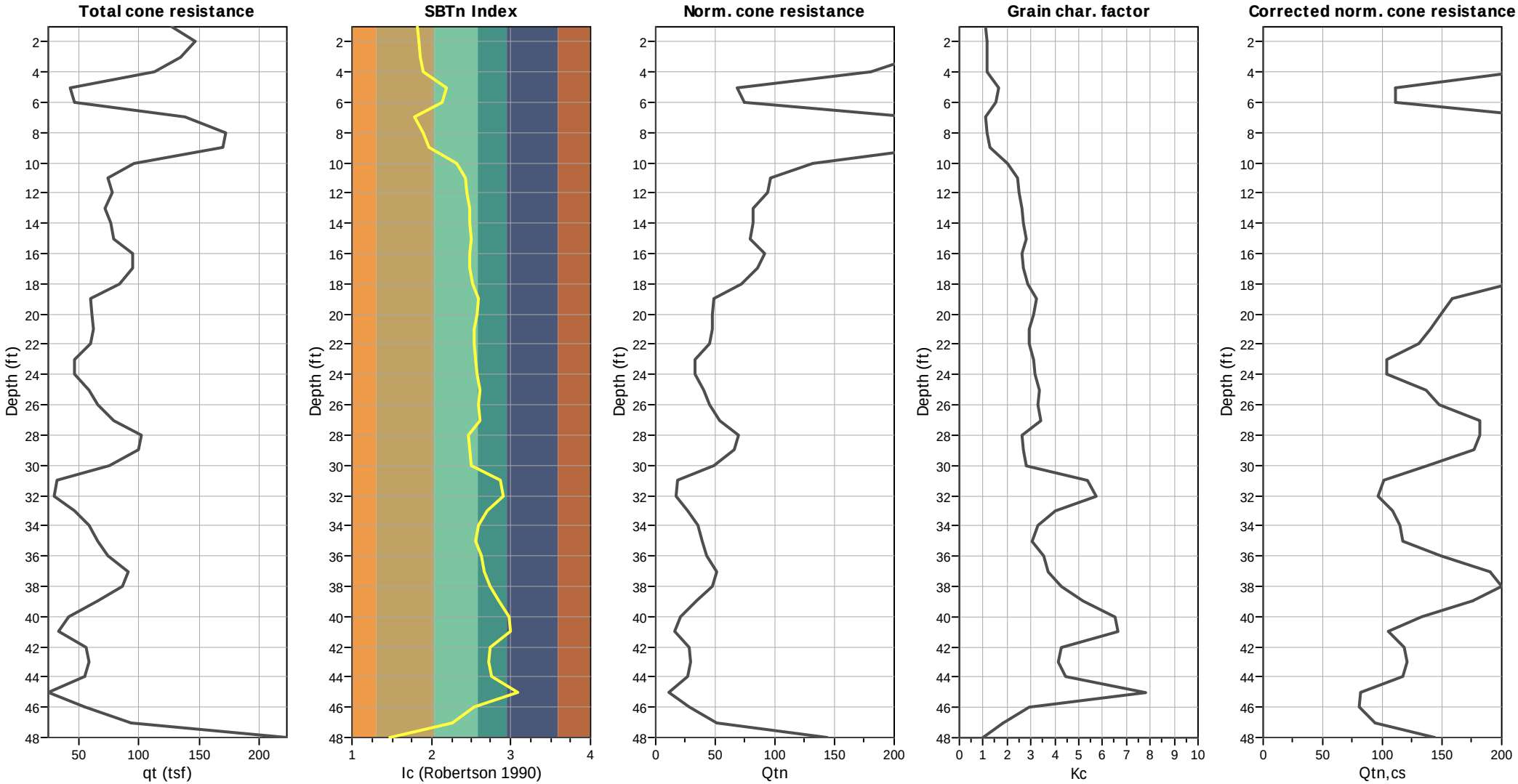
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

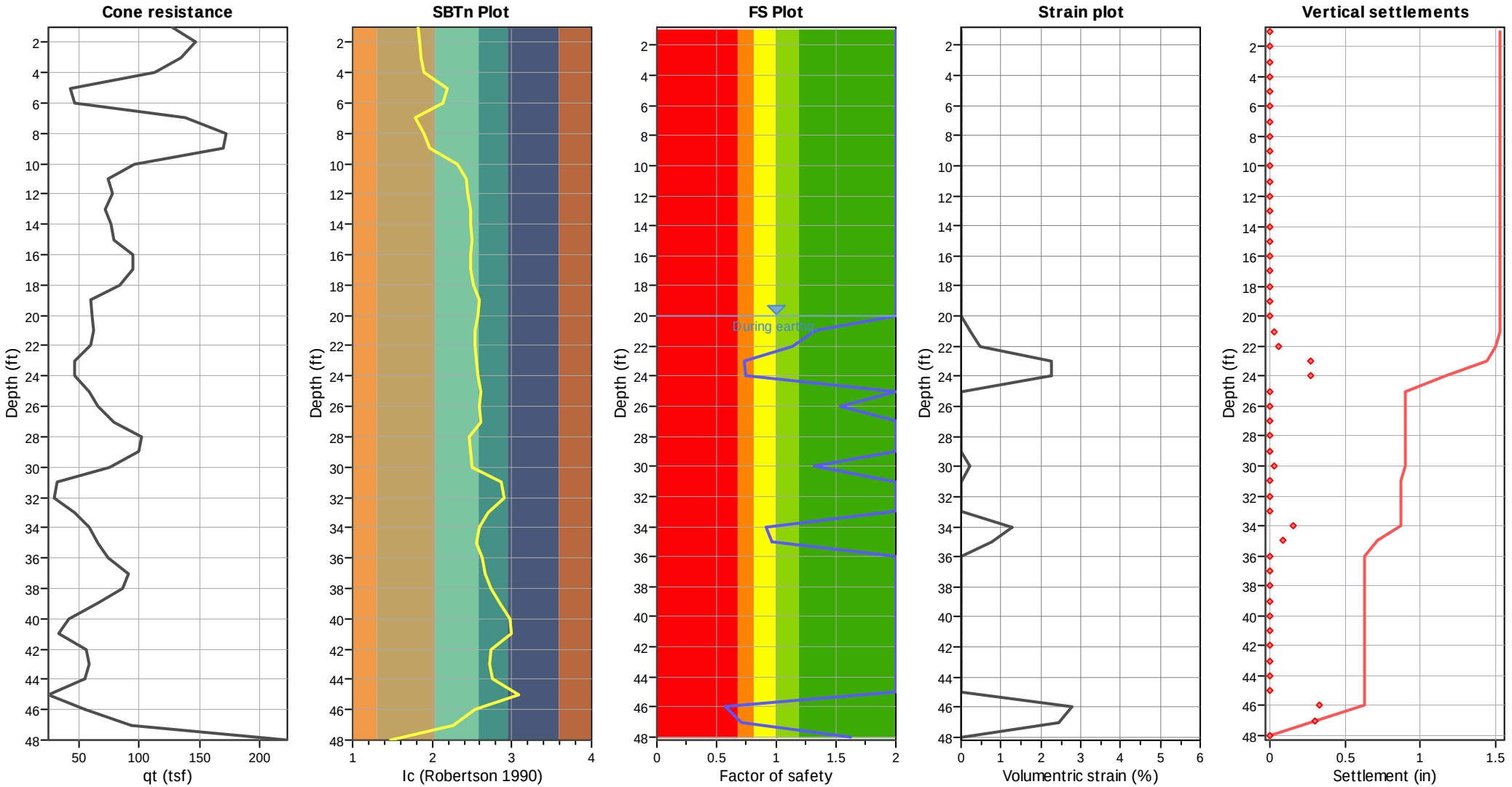
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
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Volumentric strain:	Post-liquefaction volumentric strain

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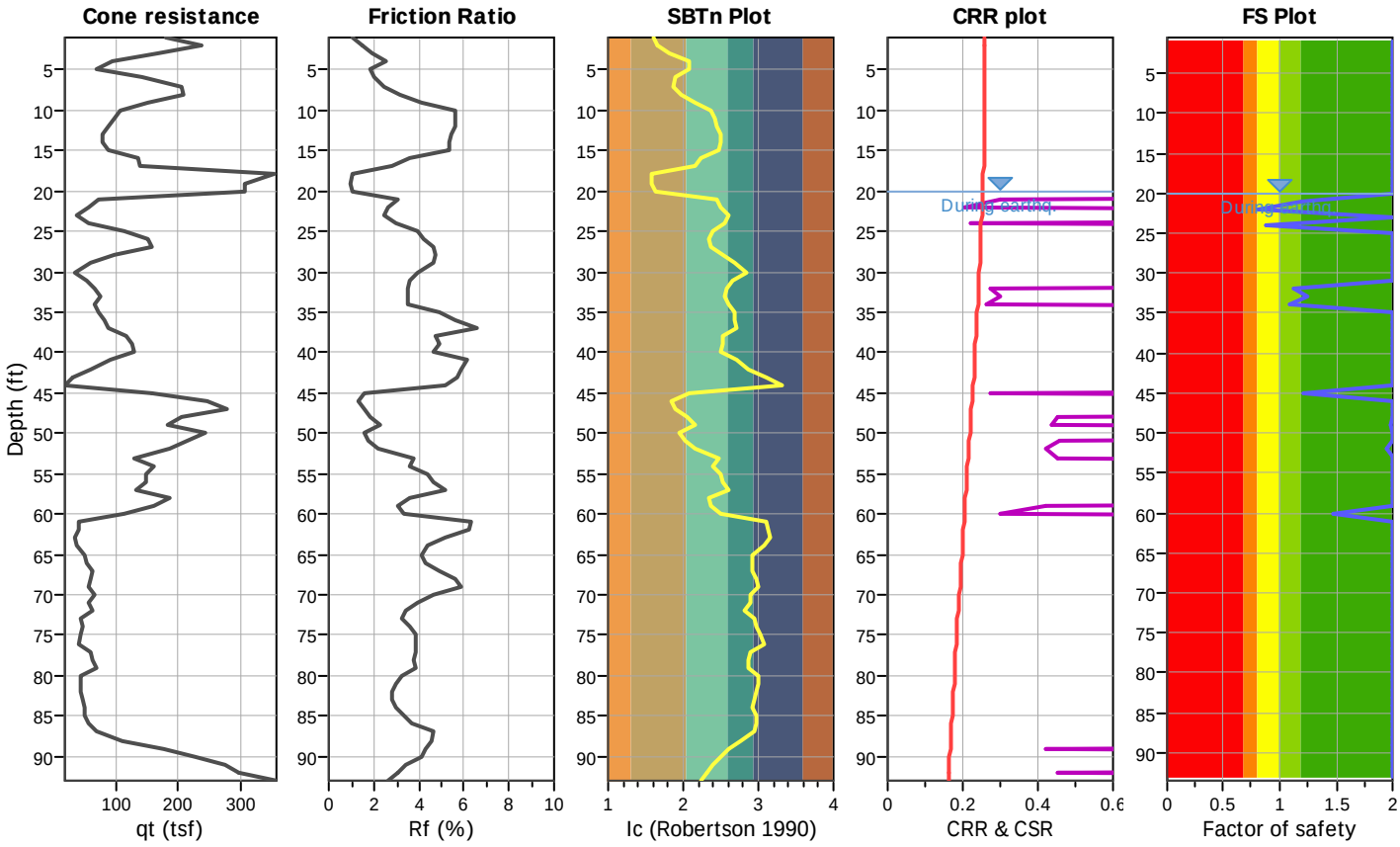
LIQUEFACTION ANALYSIS REPORT

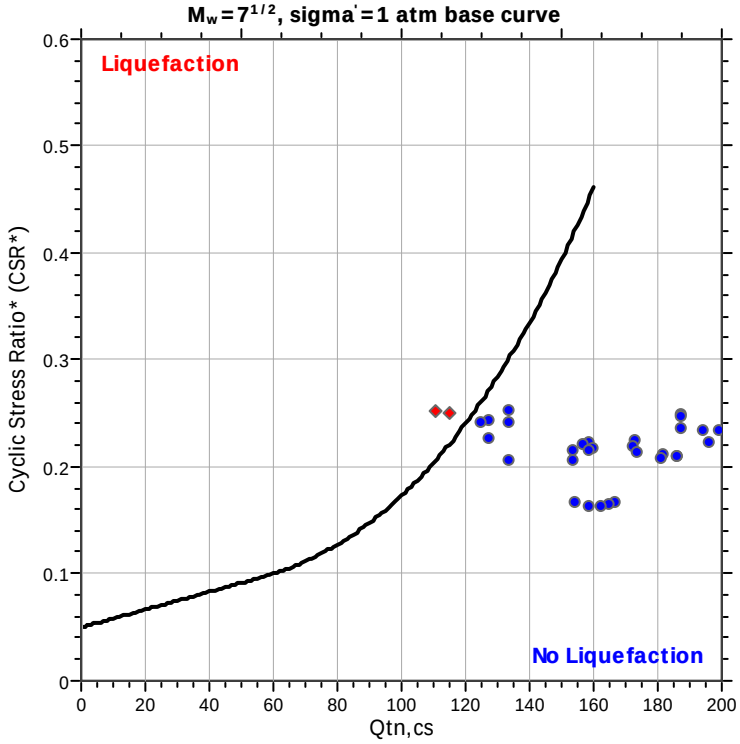
Project title : Kettner Substation **Location : San Diego, CA**

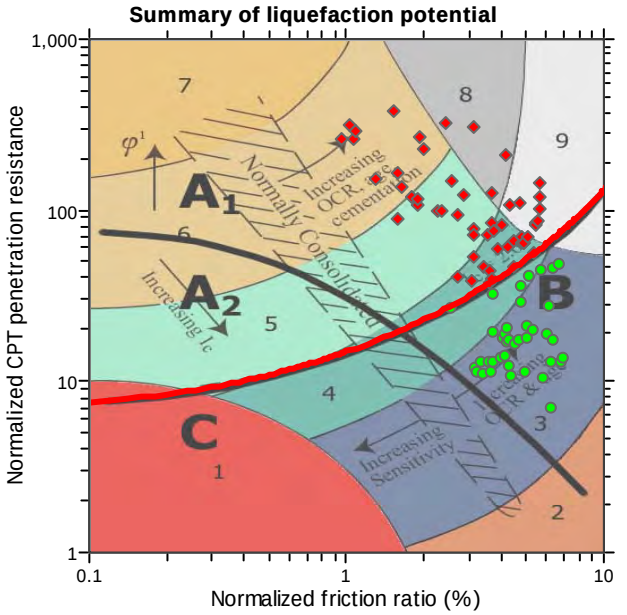
CPT file : CPT-10i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

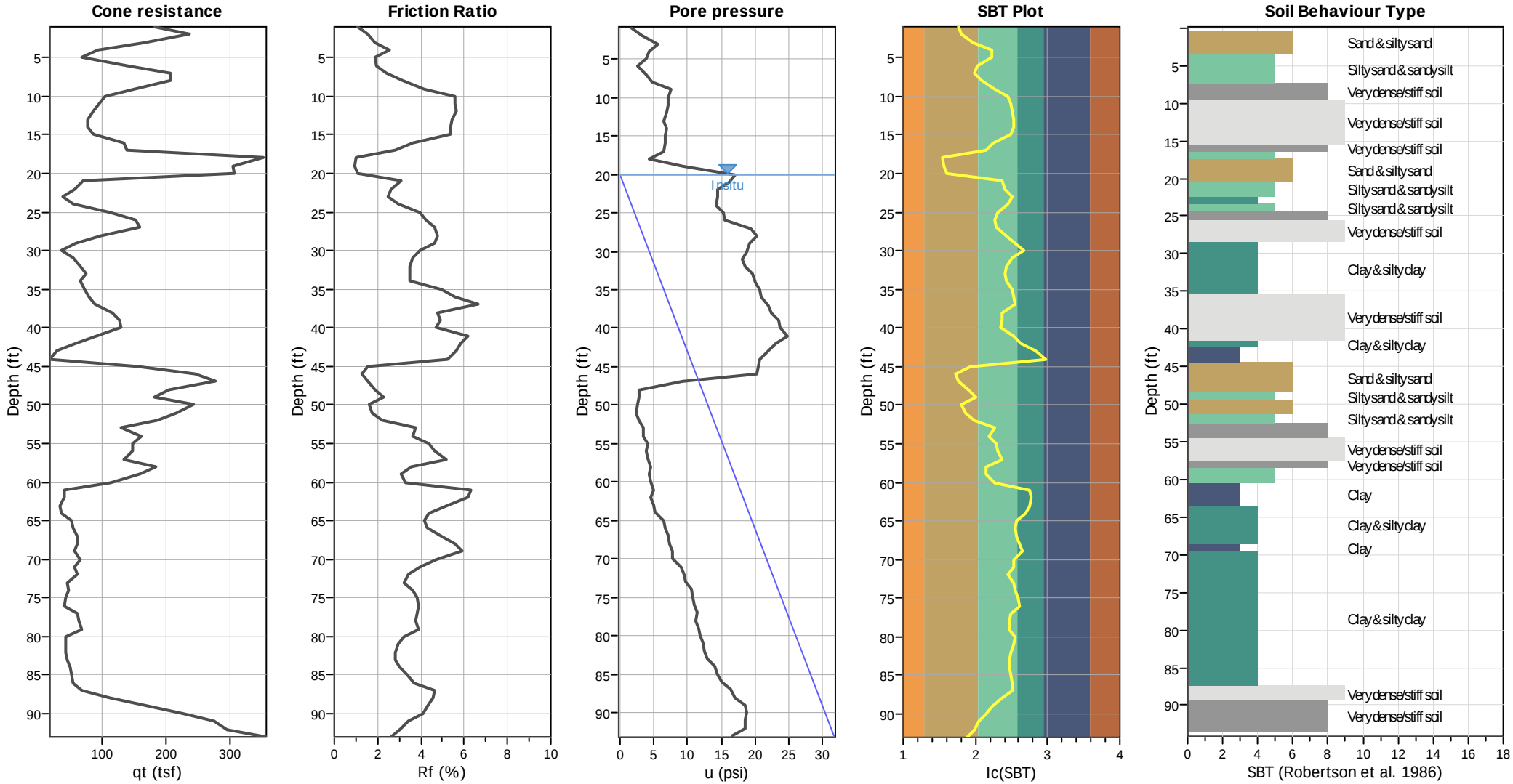






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



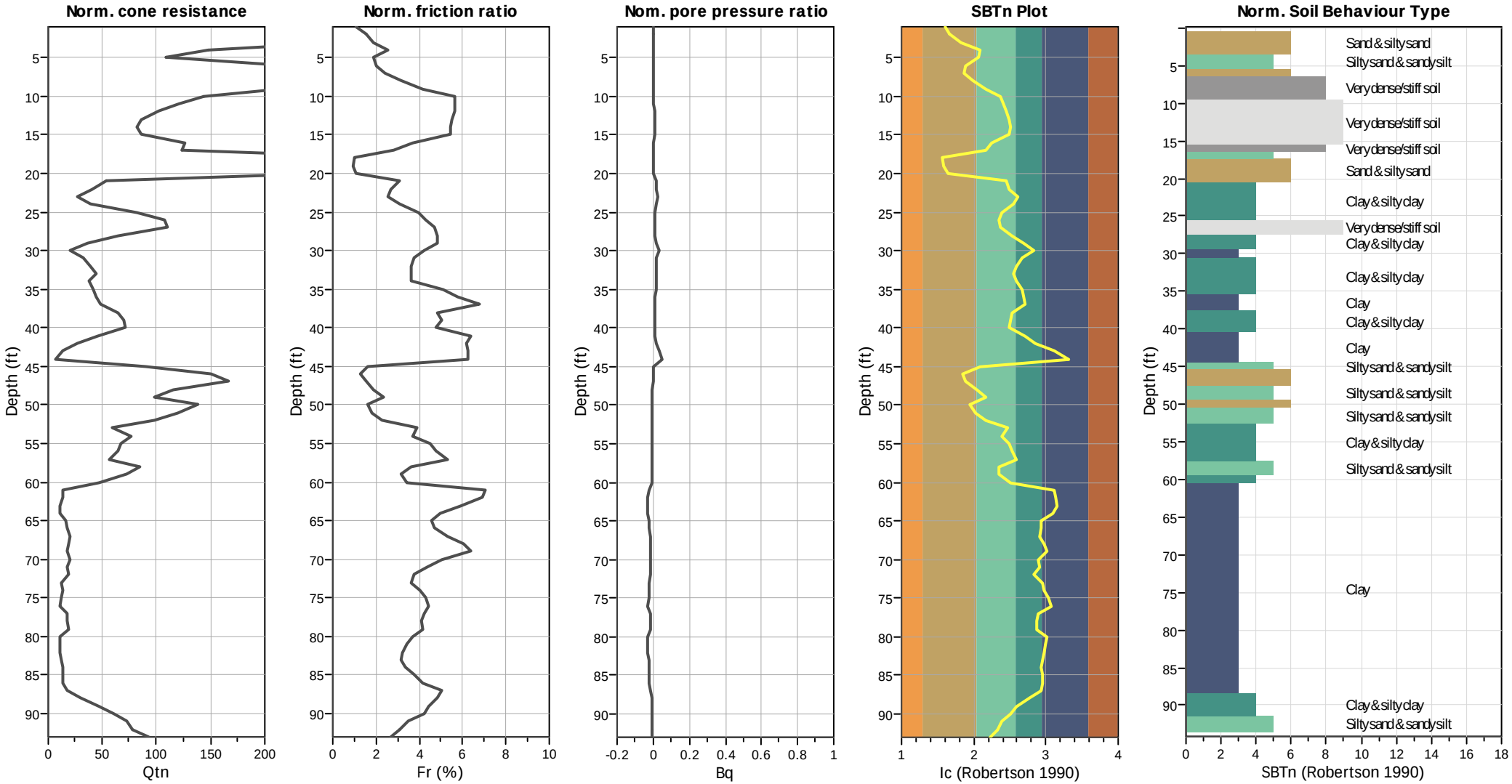
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
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3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
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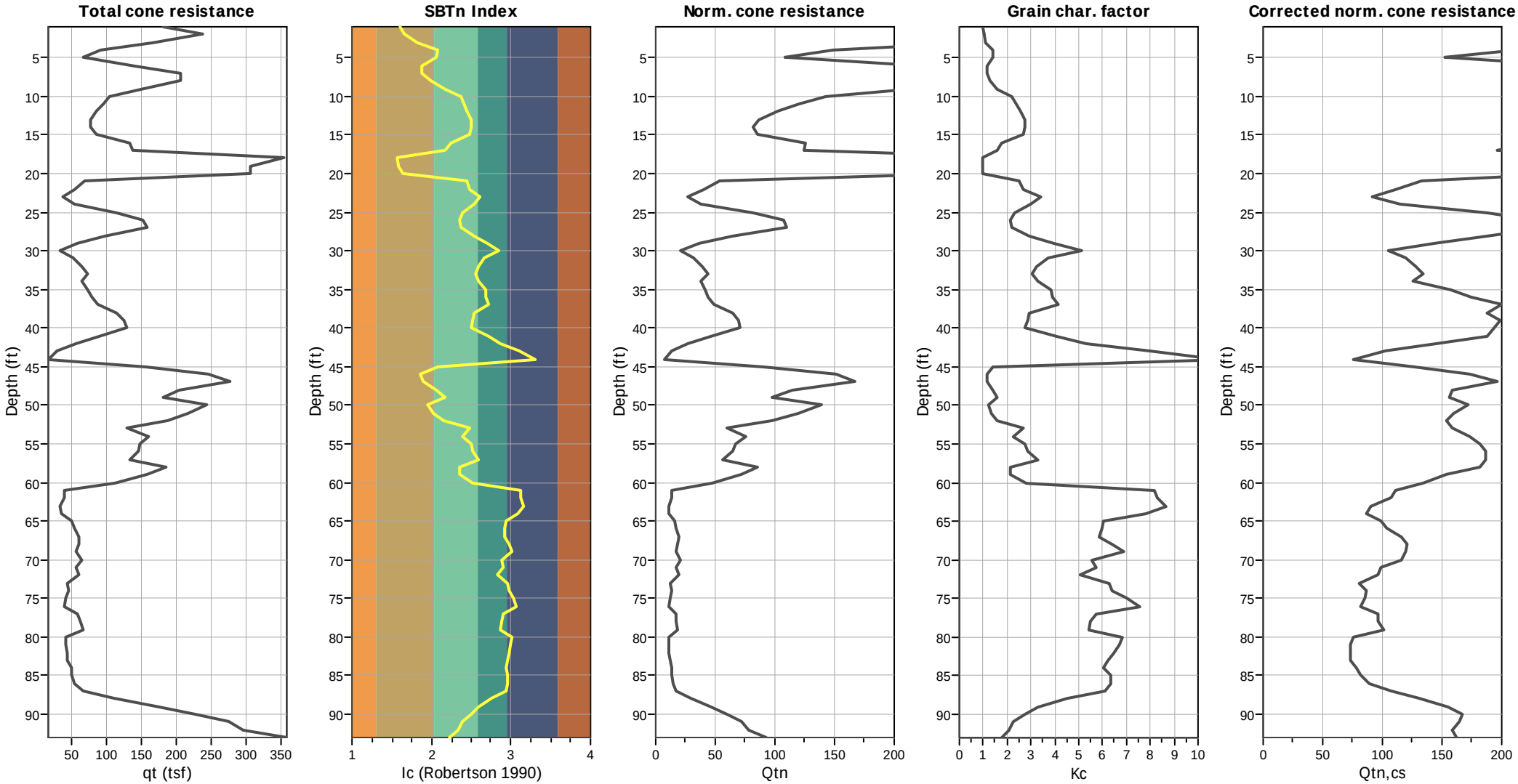
9. Very stiff fine grained

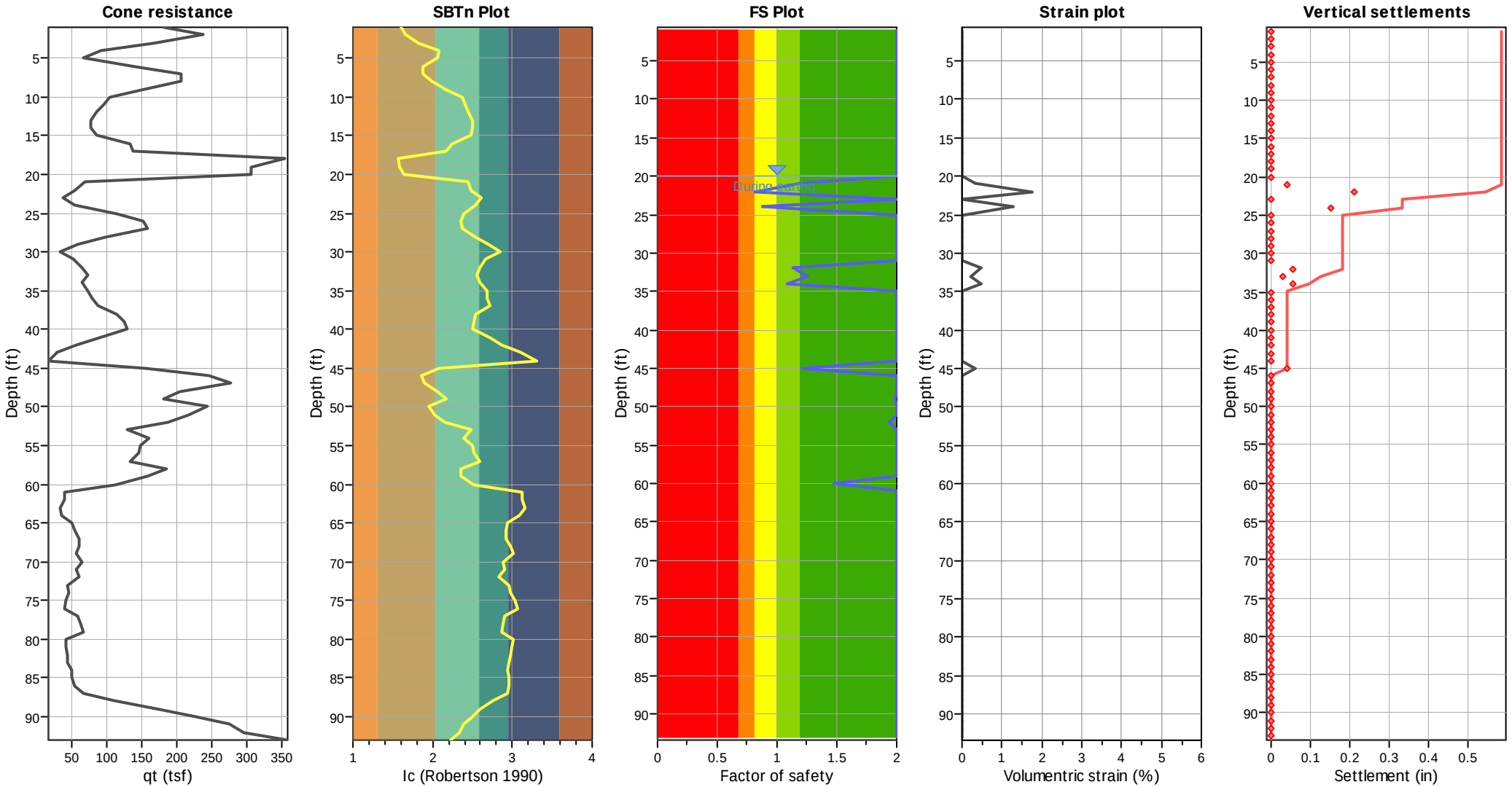
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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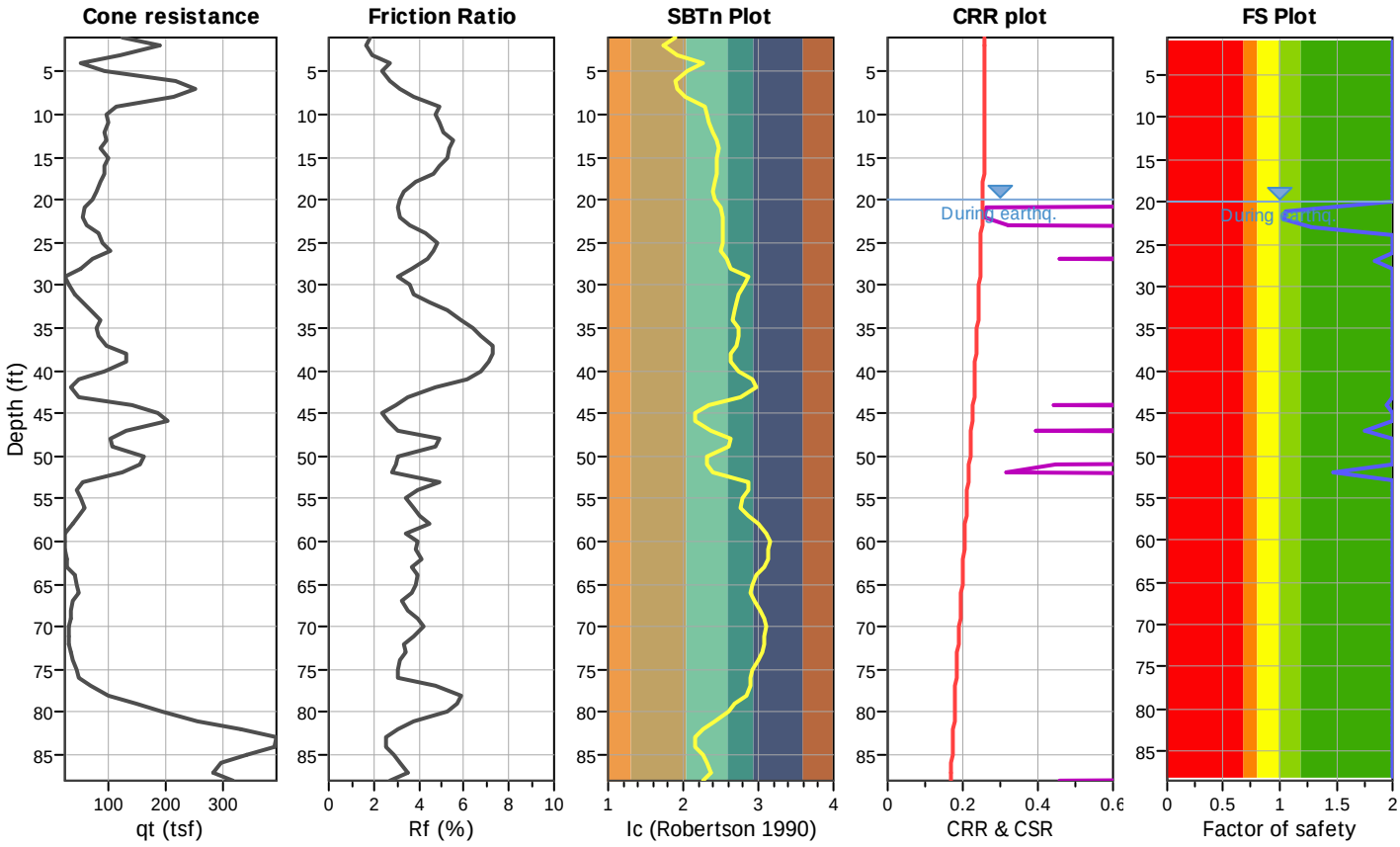
LIQUEFACTION ANALYSIS REPORT

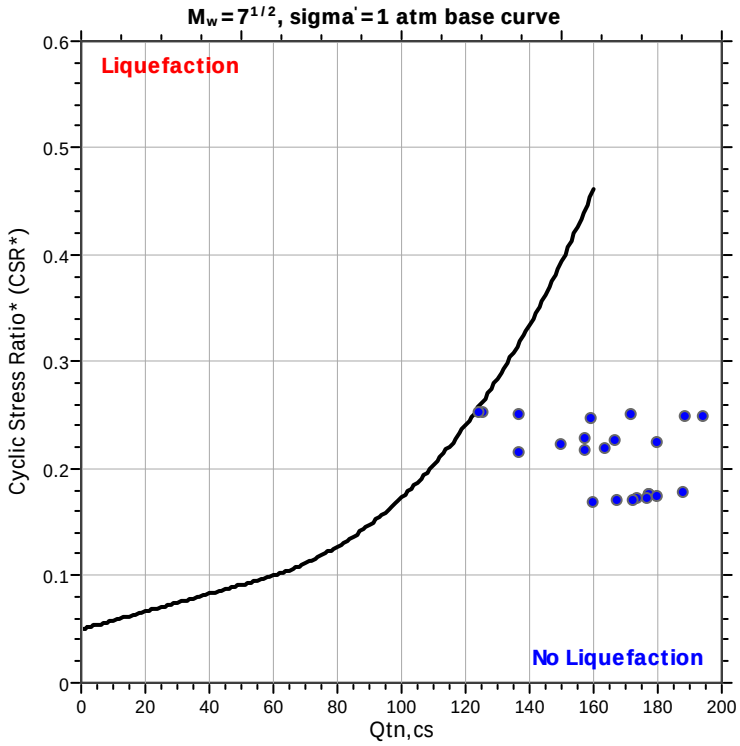
Project title : Kettner Substation **Location : San Diego, CA**

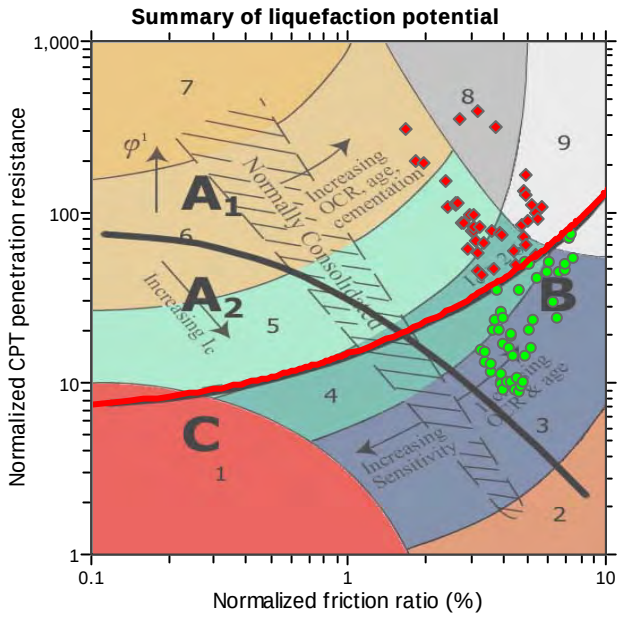
CPT file : CPT-11i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		







Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
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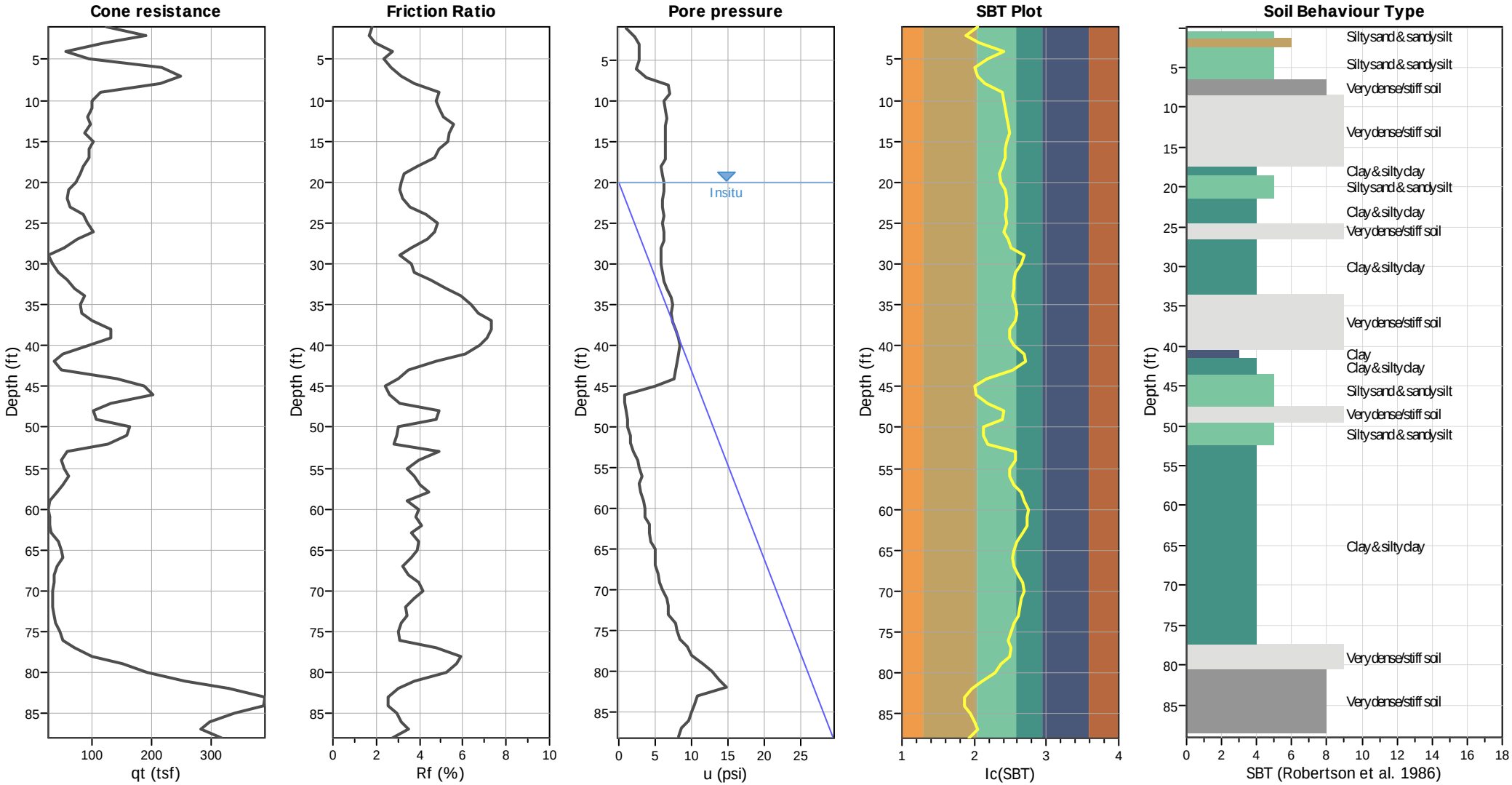
CPT basic interpretation plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
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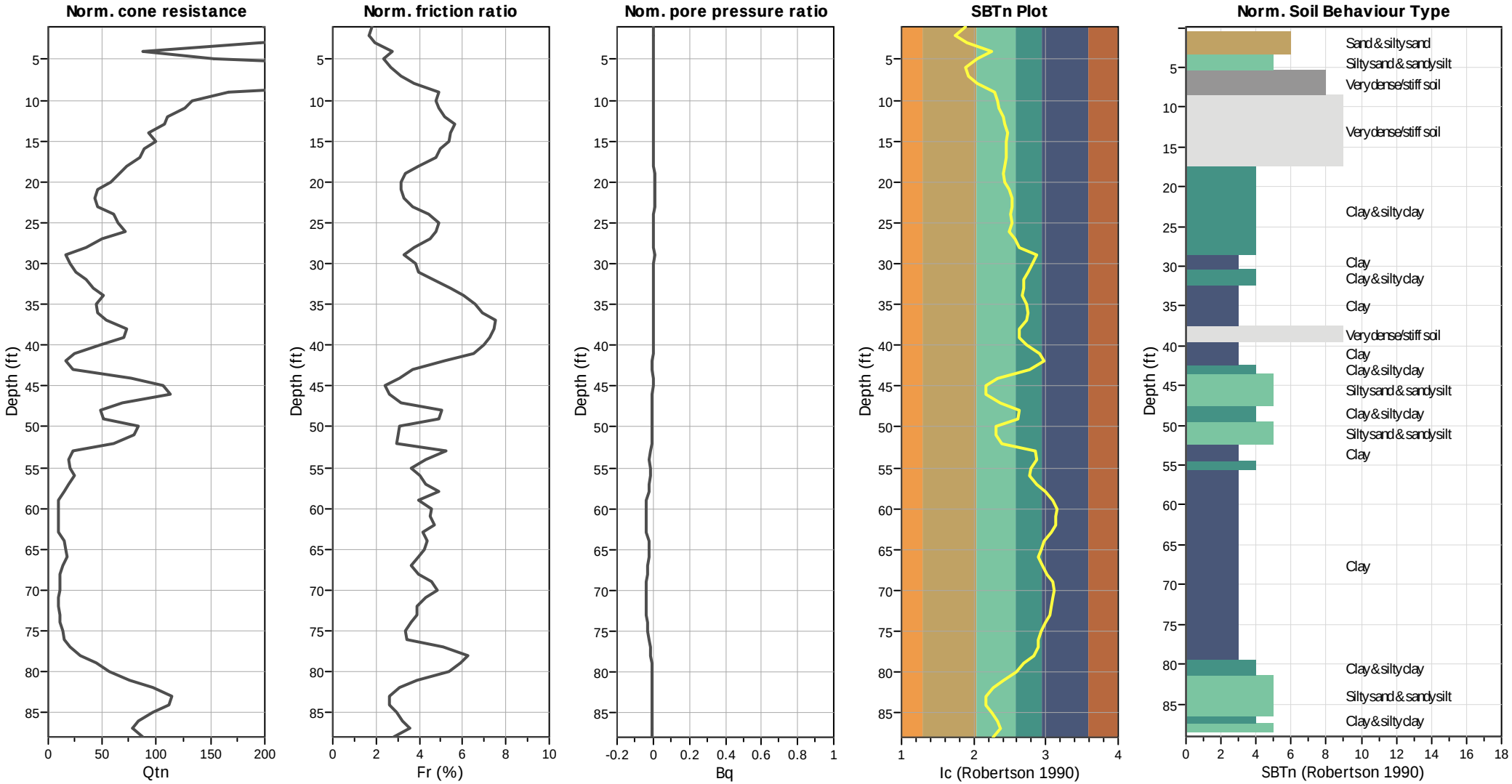
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



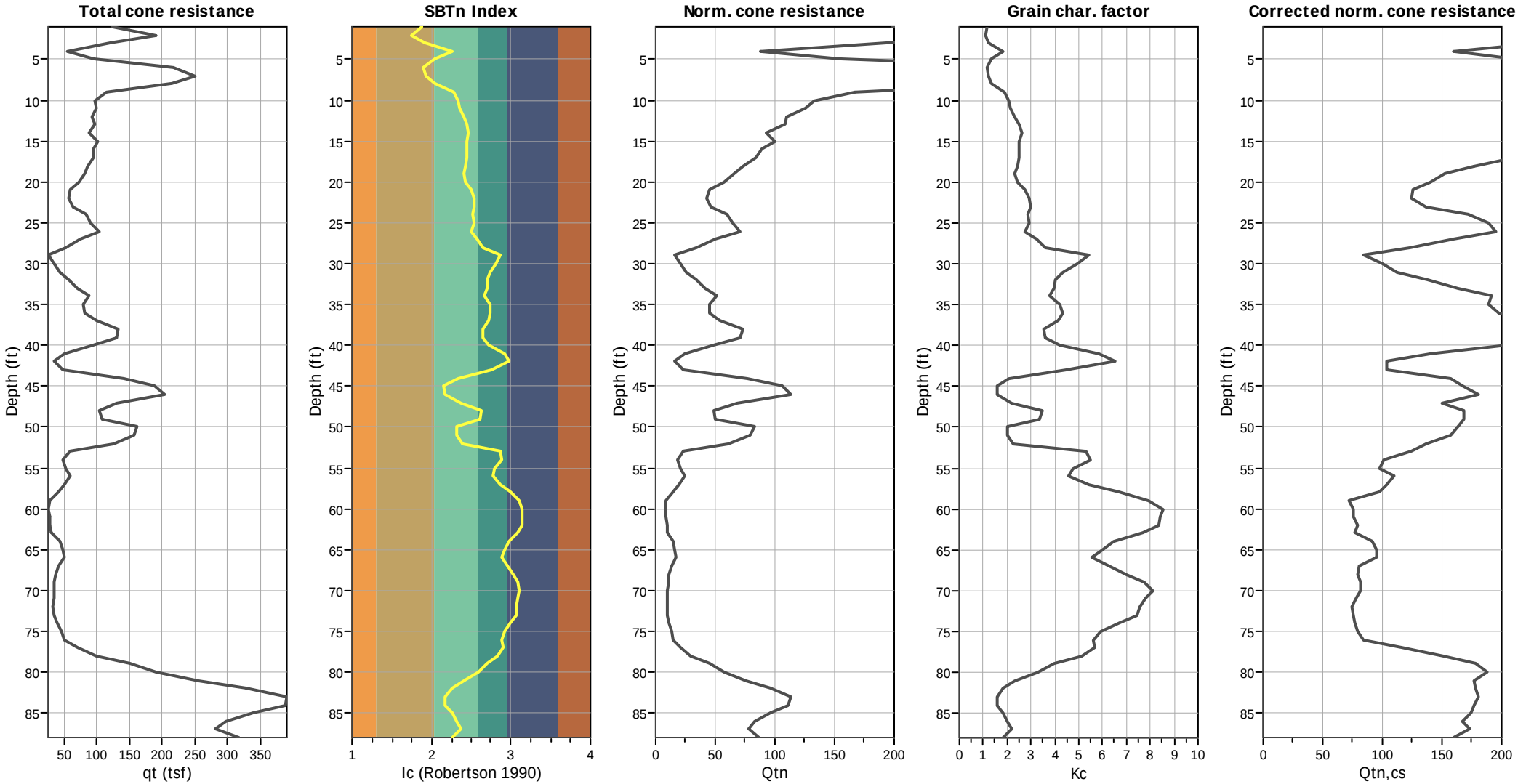
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

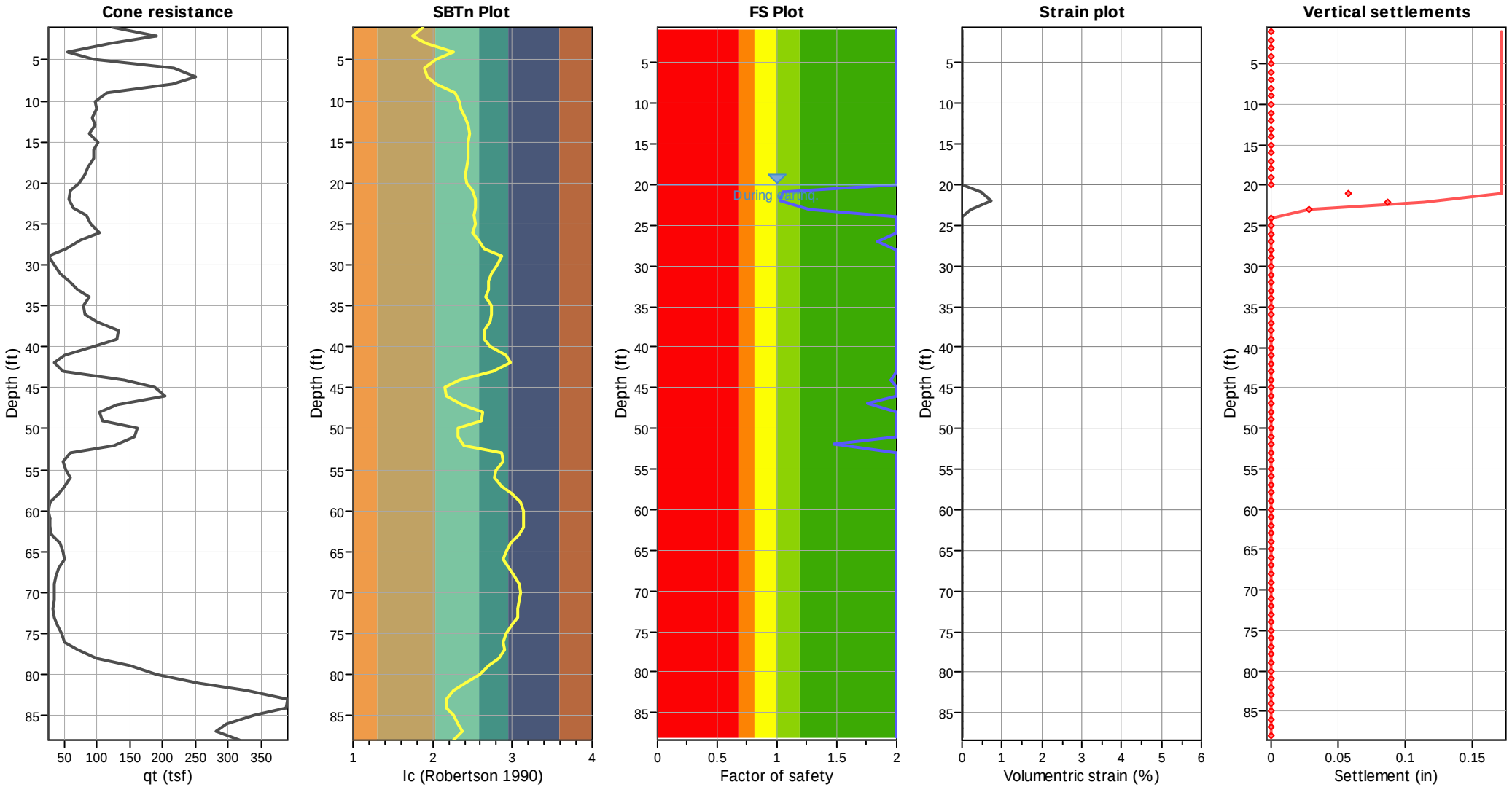
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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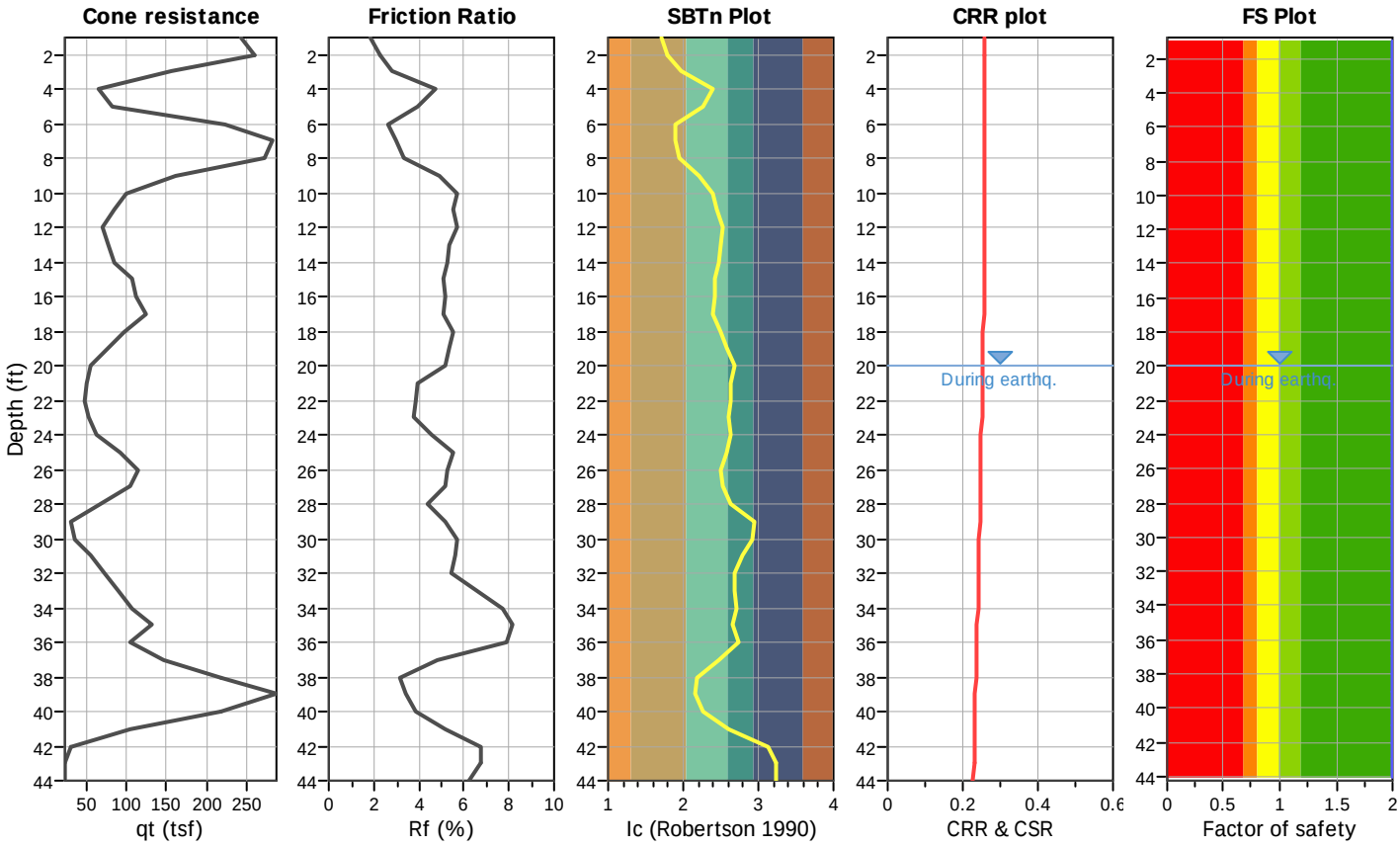
LIQUEFACTION ANALYSIS REPORT

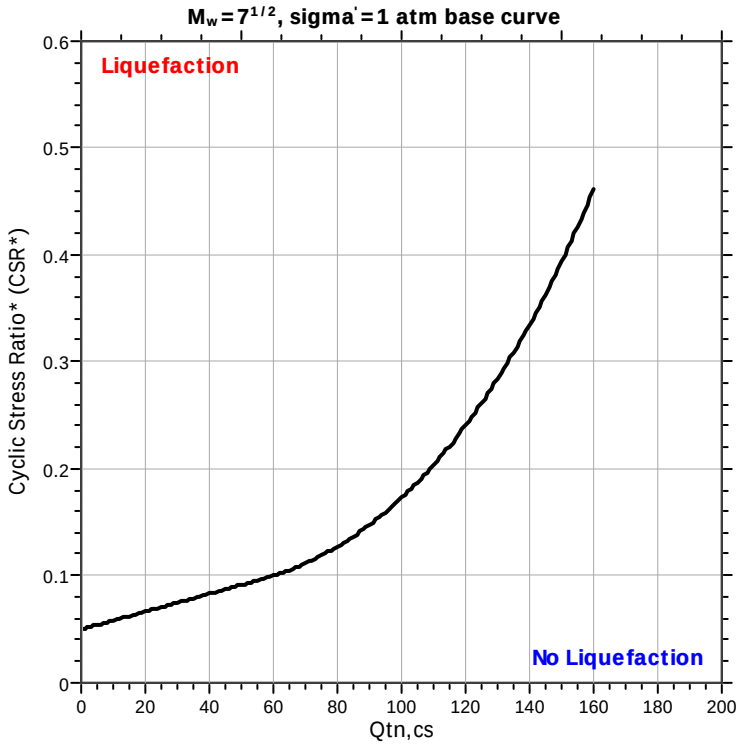
Project title : Kettner Substation **Location : San Diego, CA**

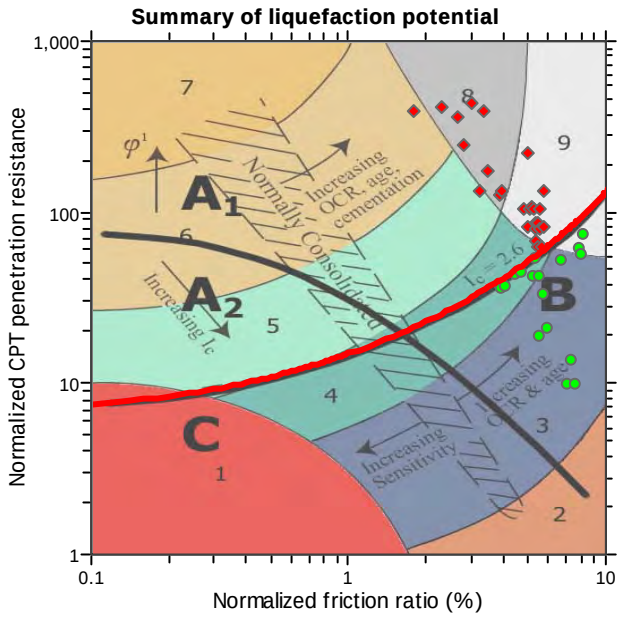
CPT file : CPT-12Bi

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

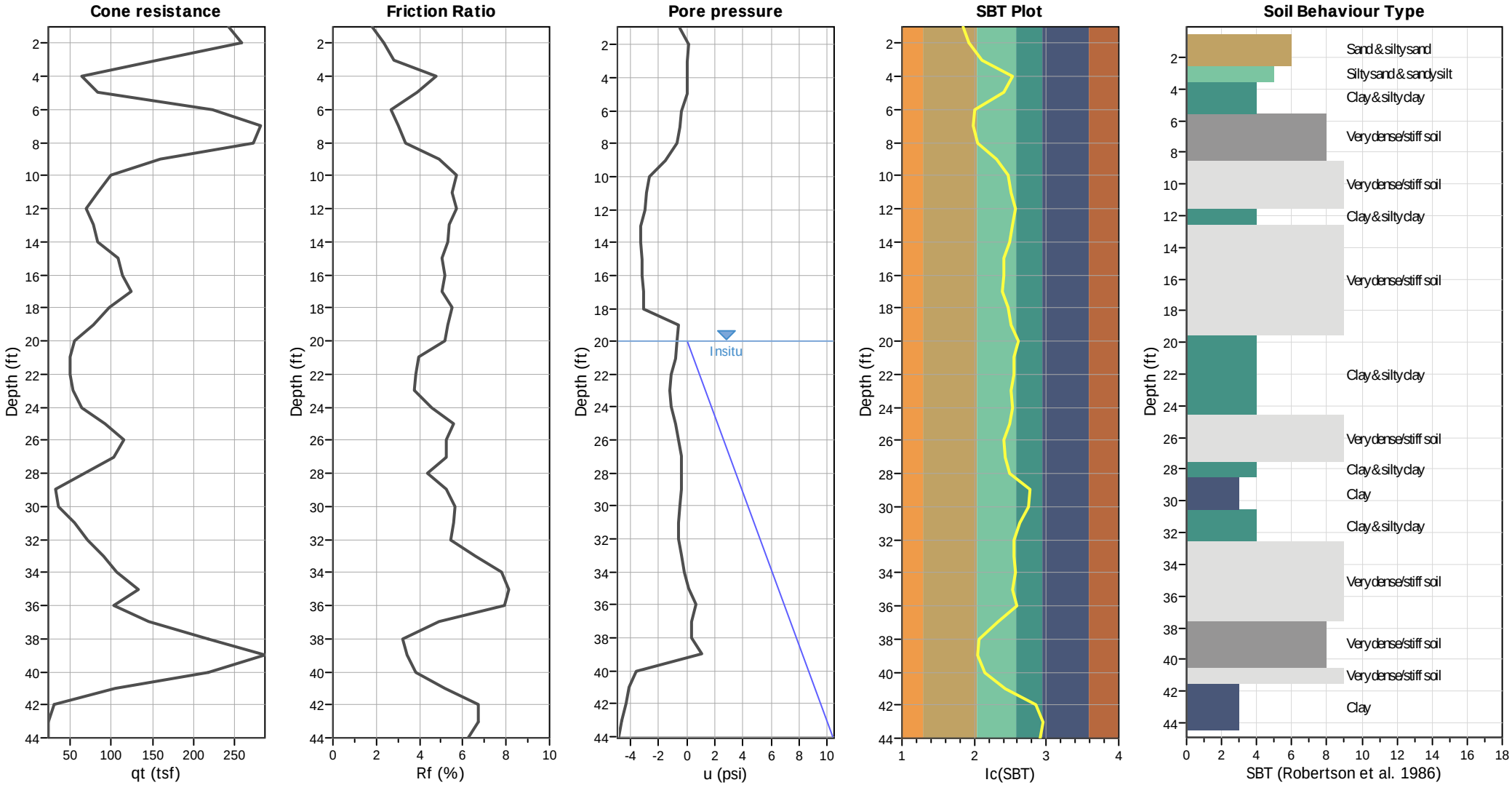






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



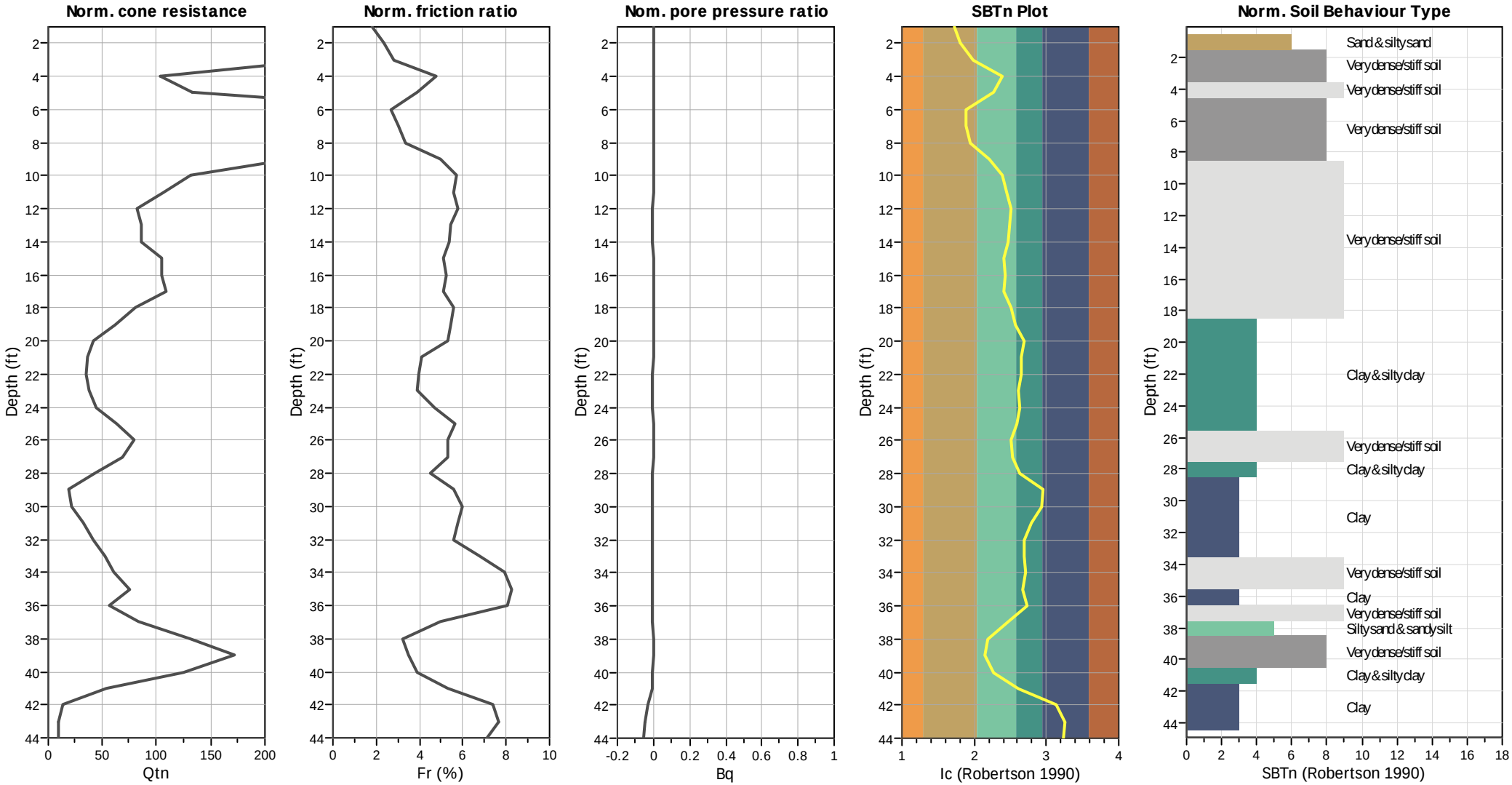
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



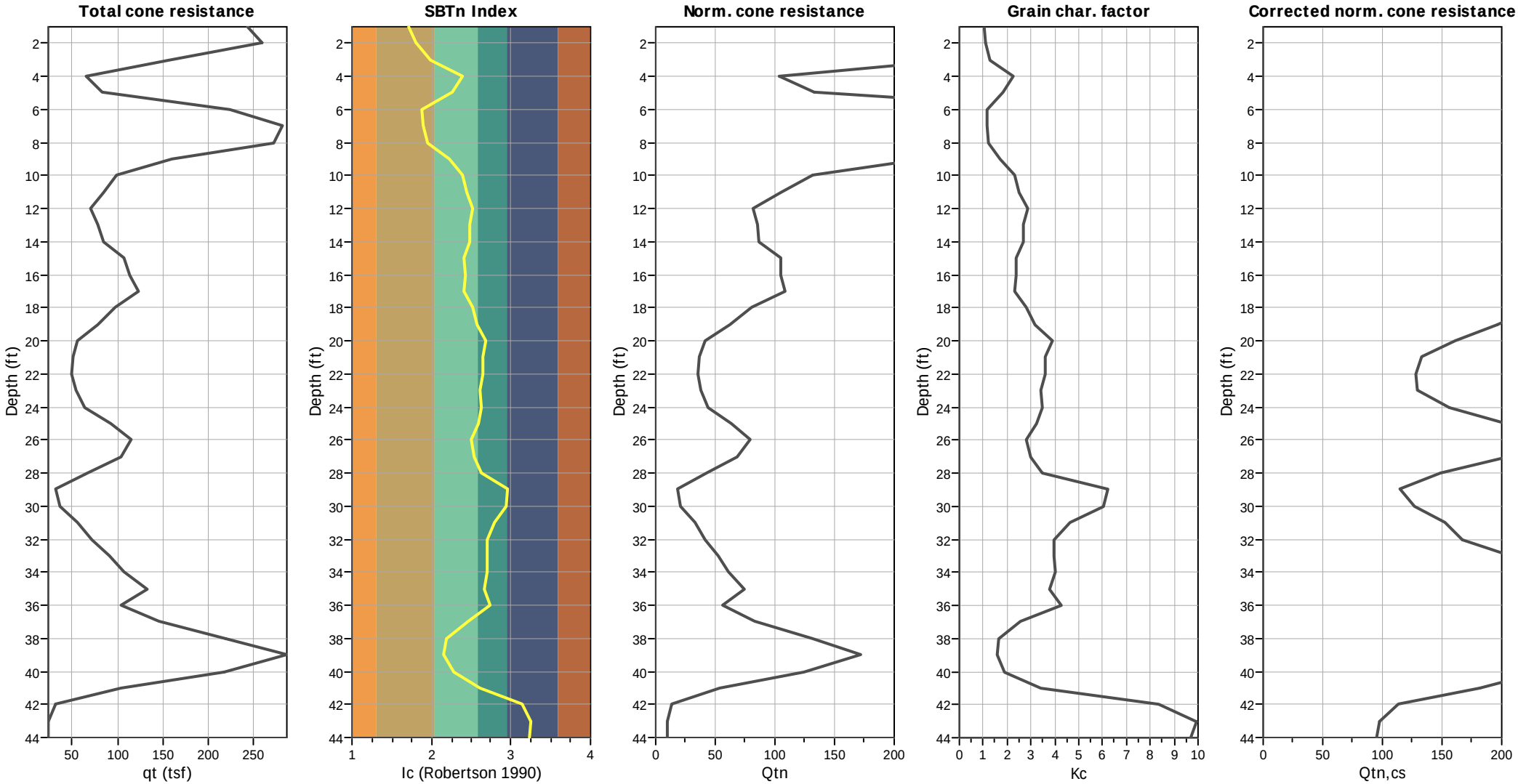
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

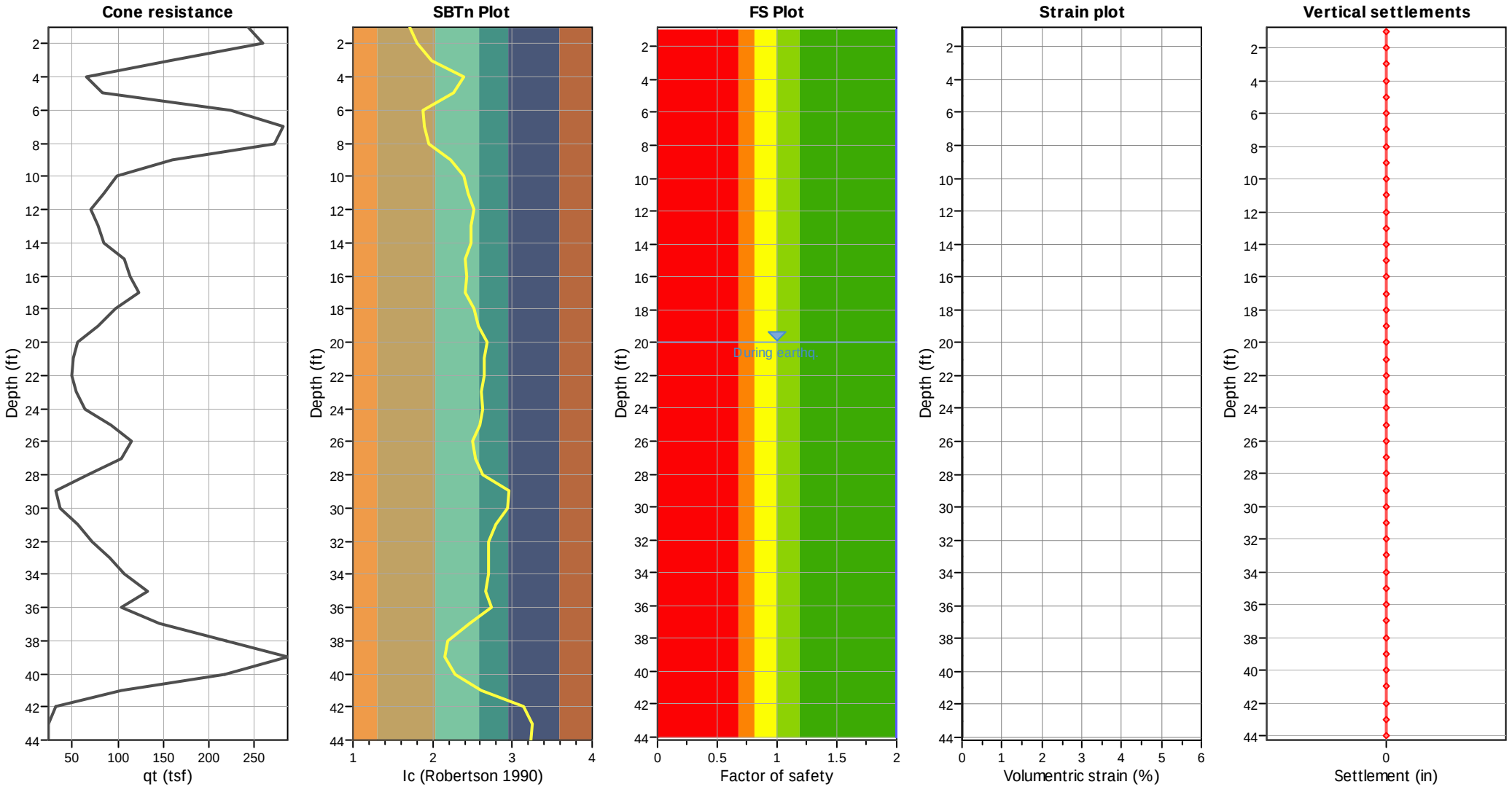
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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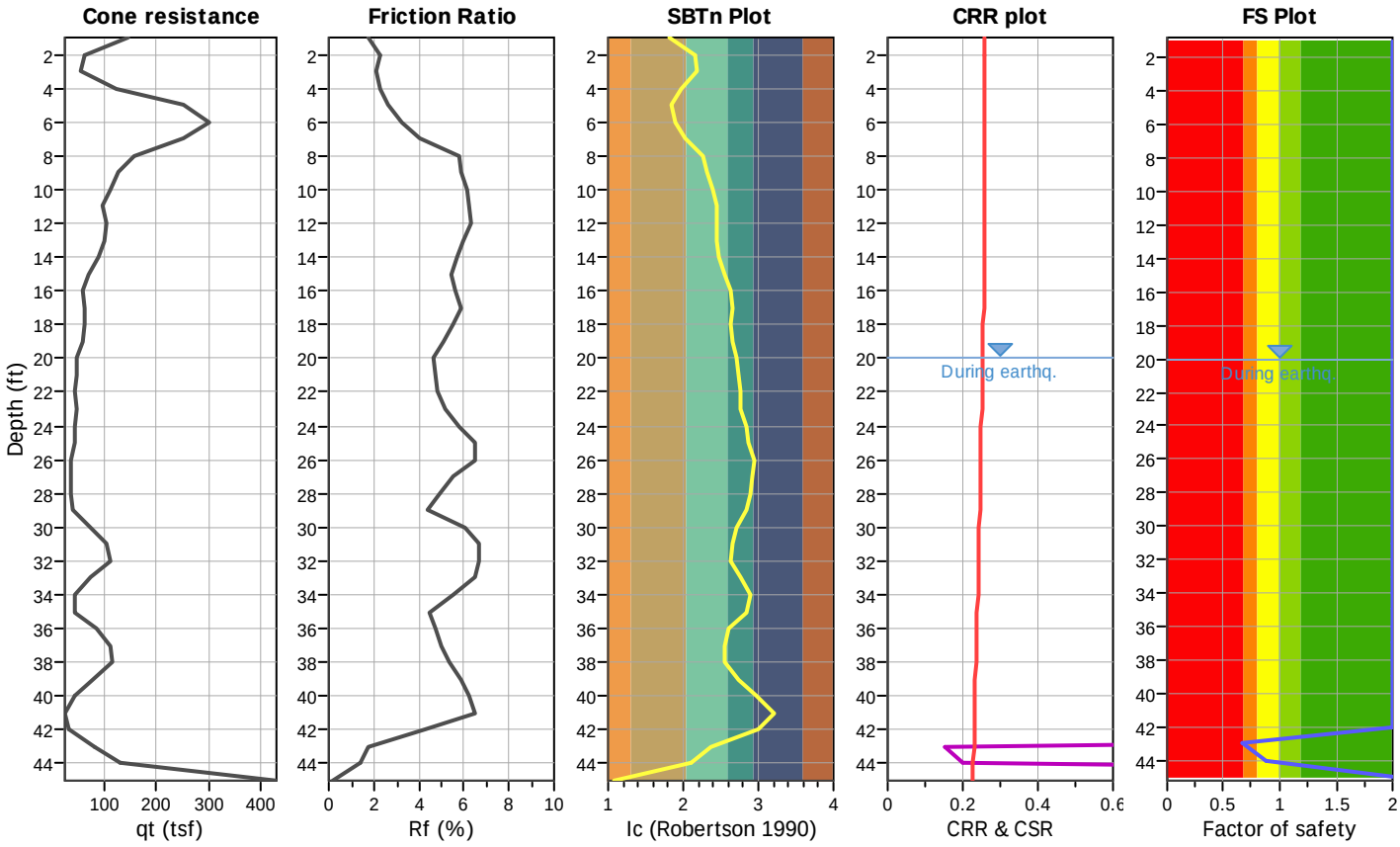
LIQUEFACTION ANALYSIS REPORT

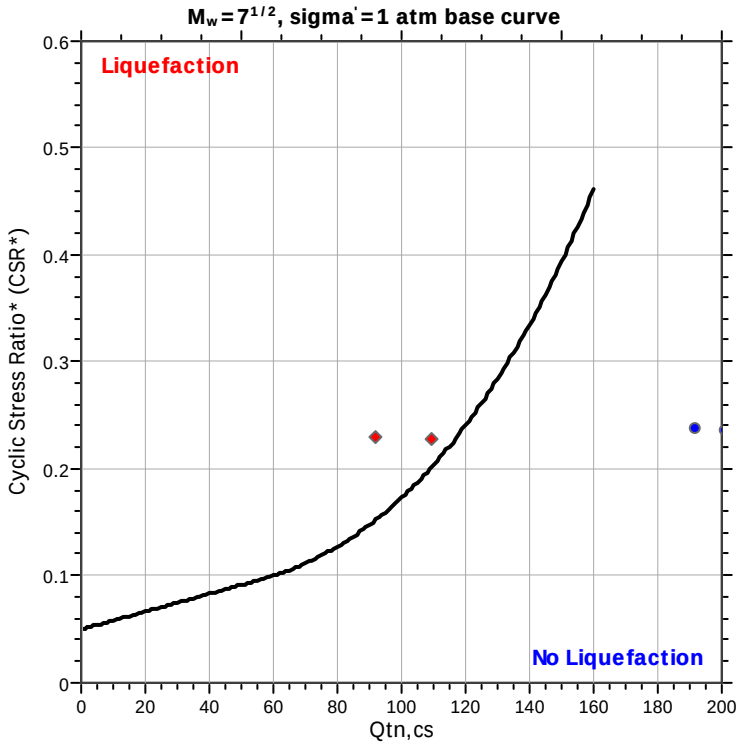
Project title : Kettner Substation **Location : San Diego, CA**

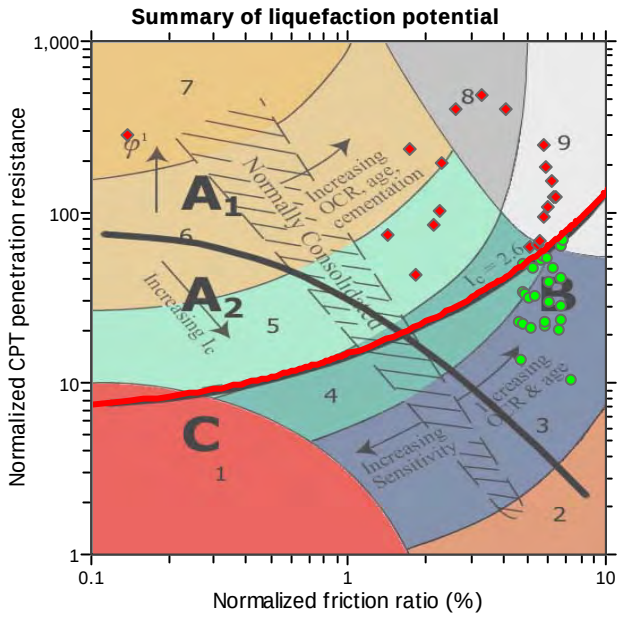
CPT file : CPT-12i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

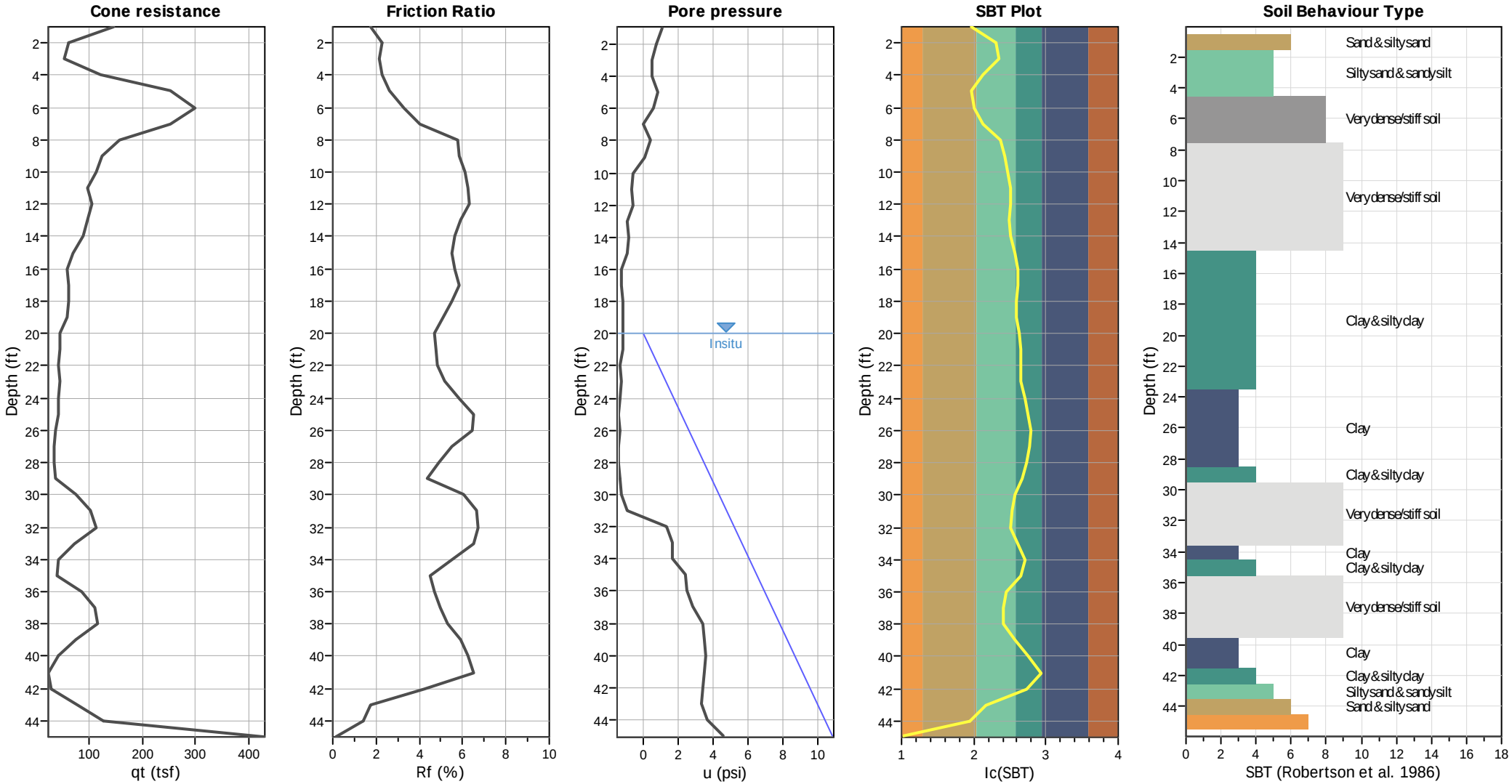






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



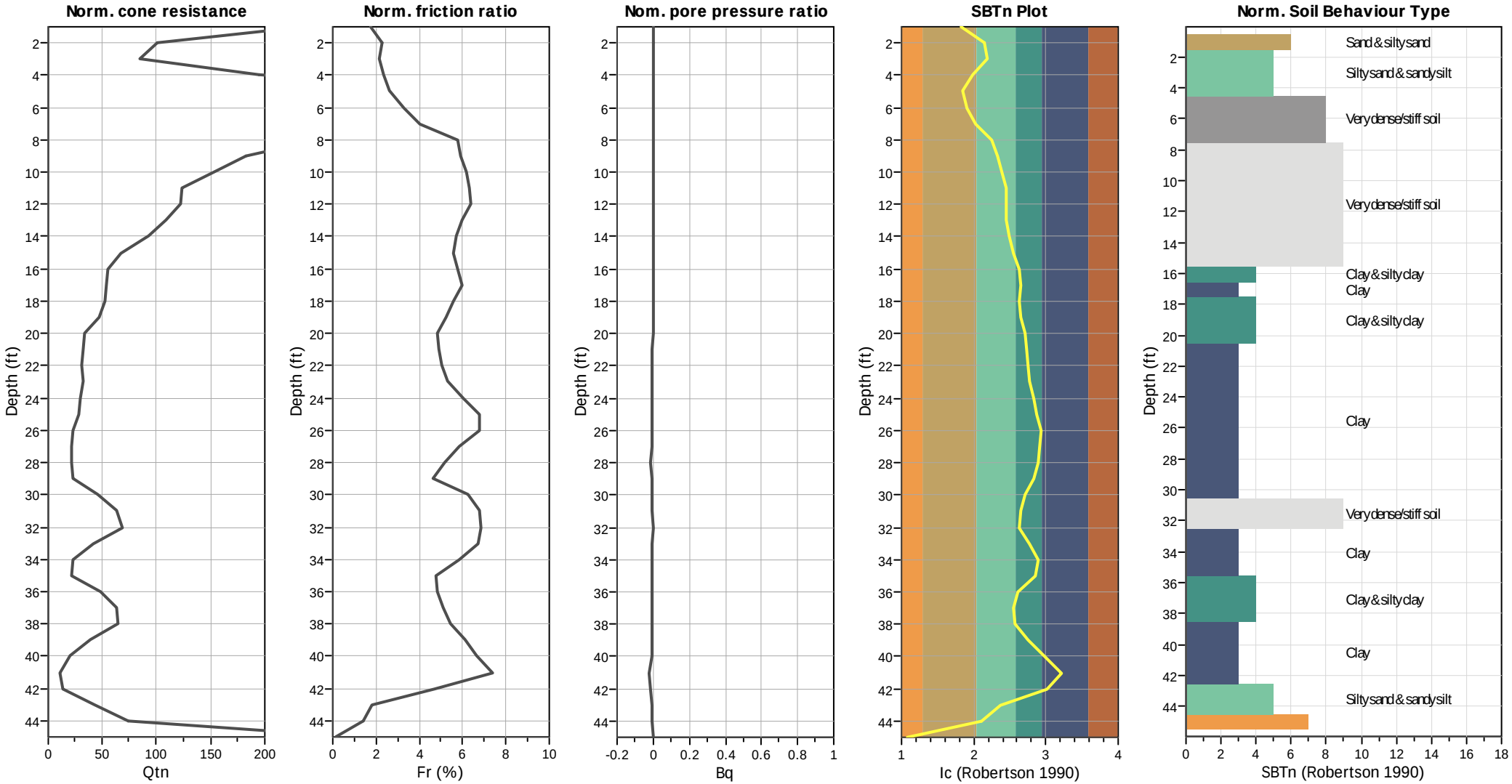
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



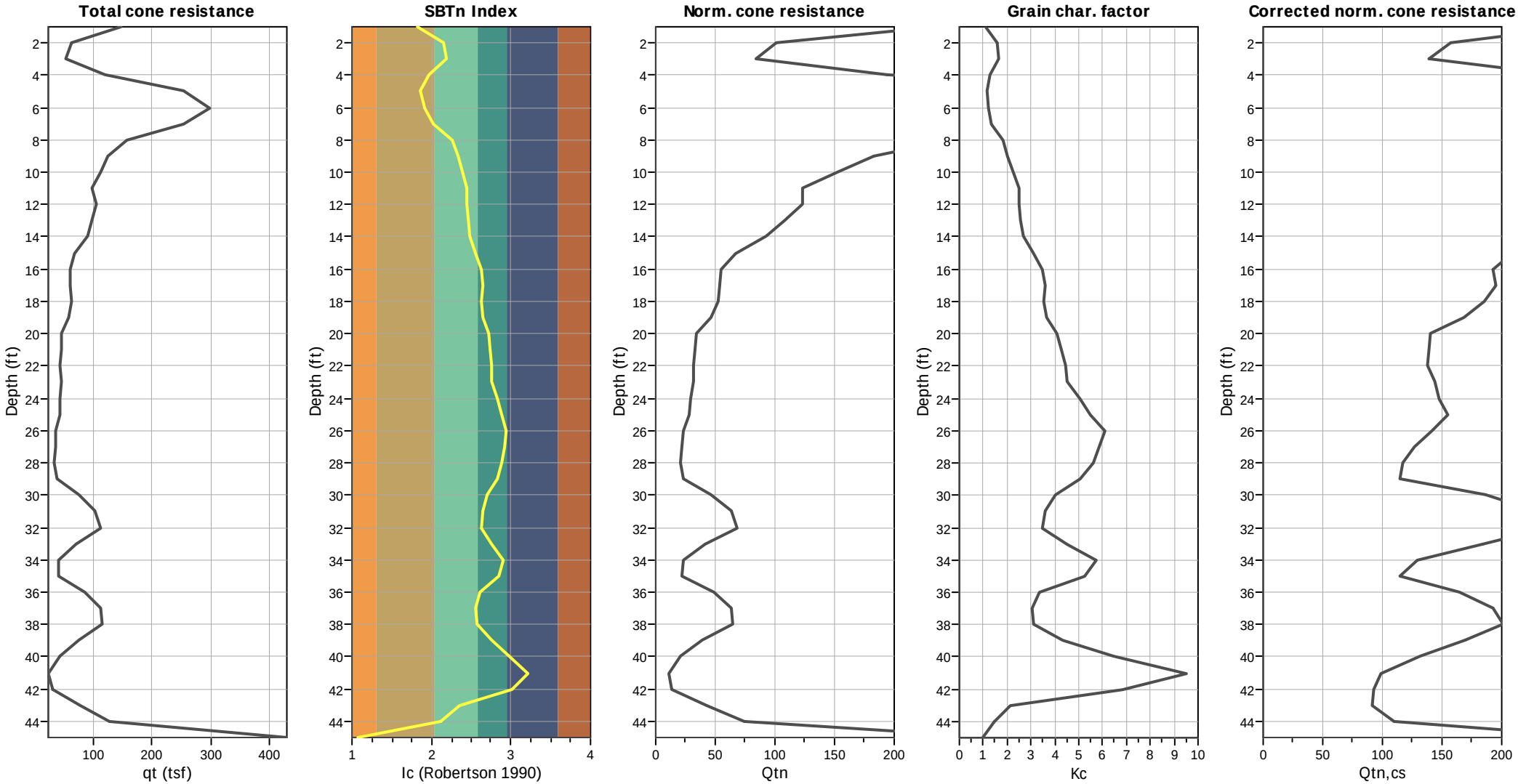
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

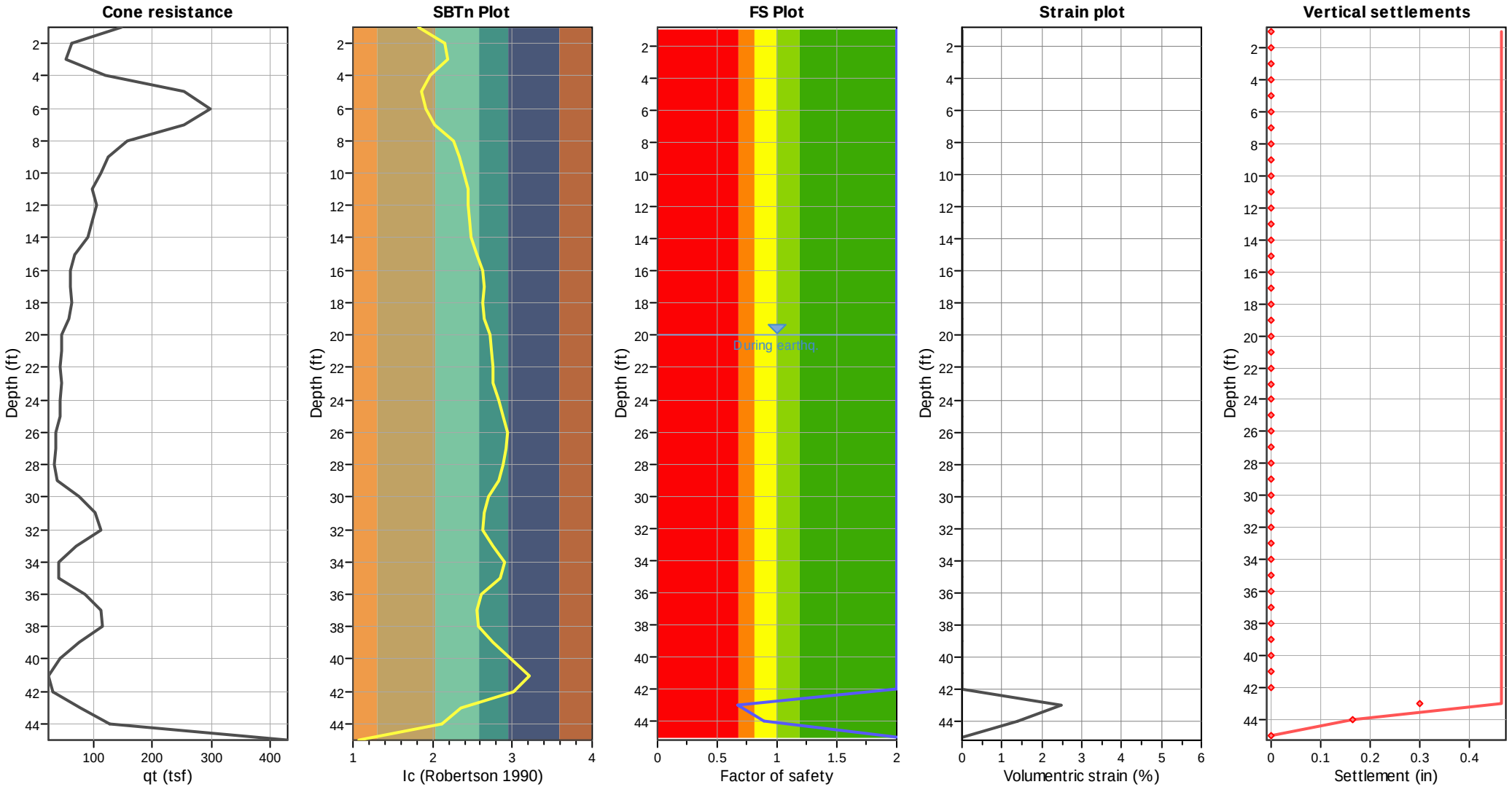
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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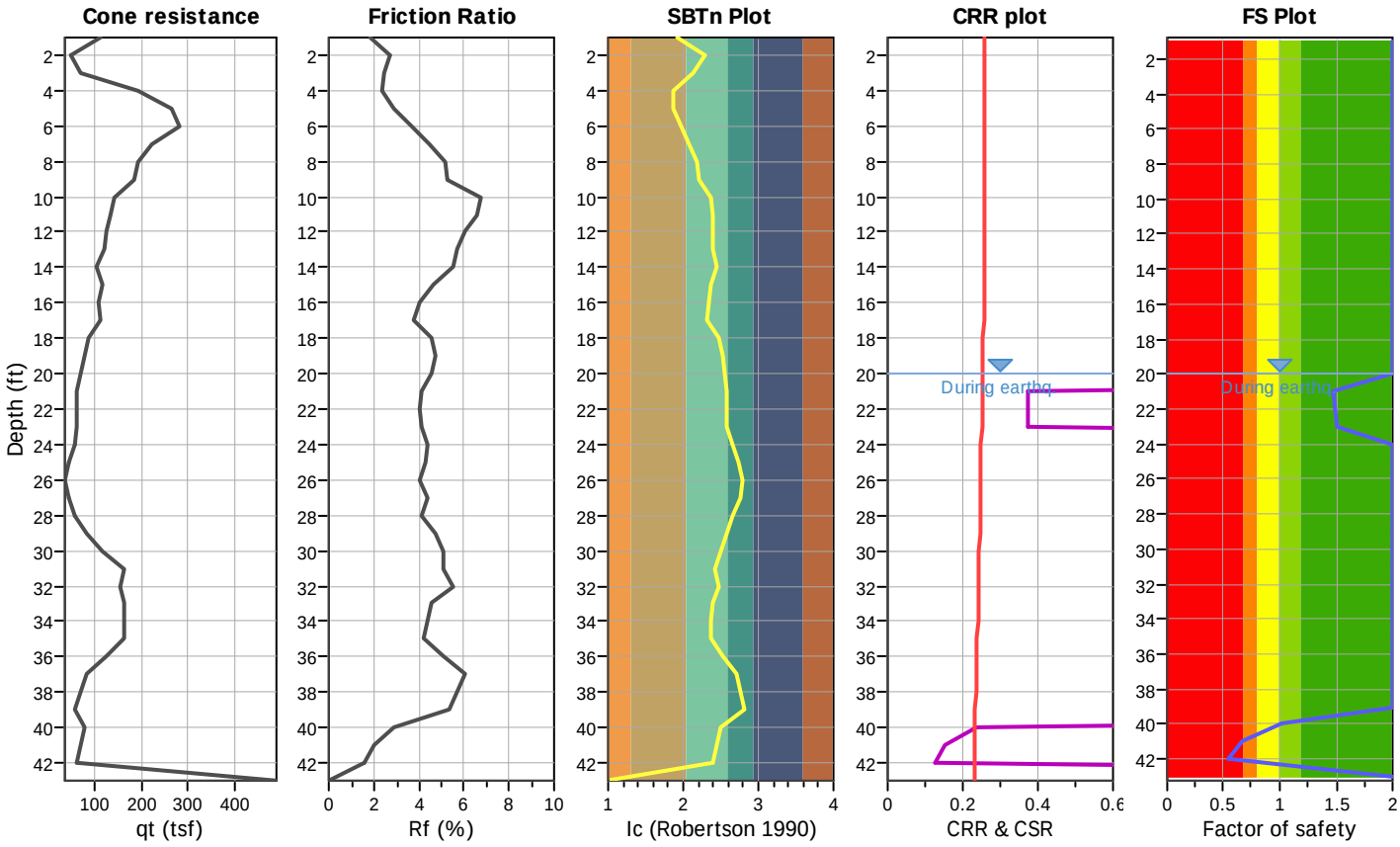
LIQUEFACTION ANALYSIS REPORT

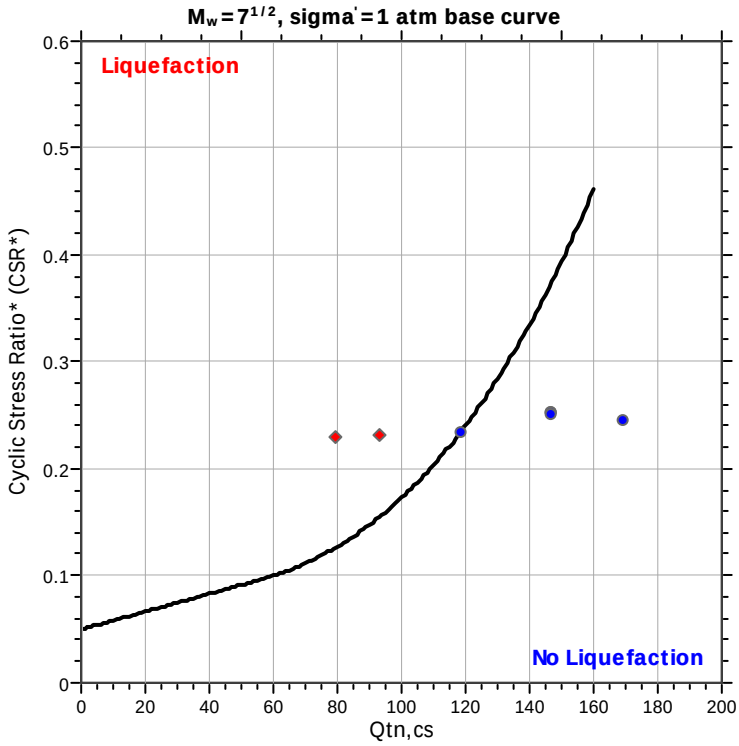
Project title : Kettner Substation **Location : San Diego, CA**

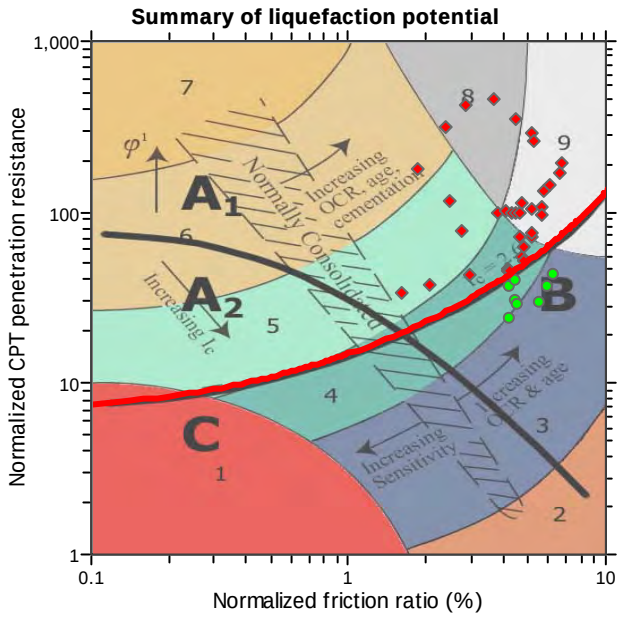
CPT file : CPT-13i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

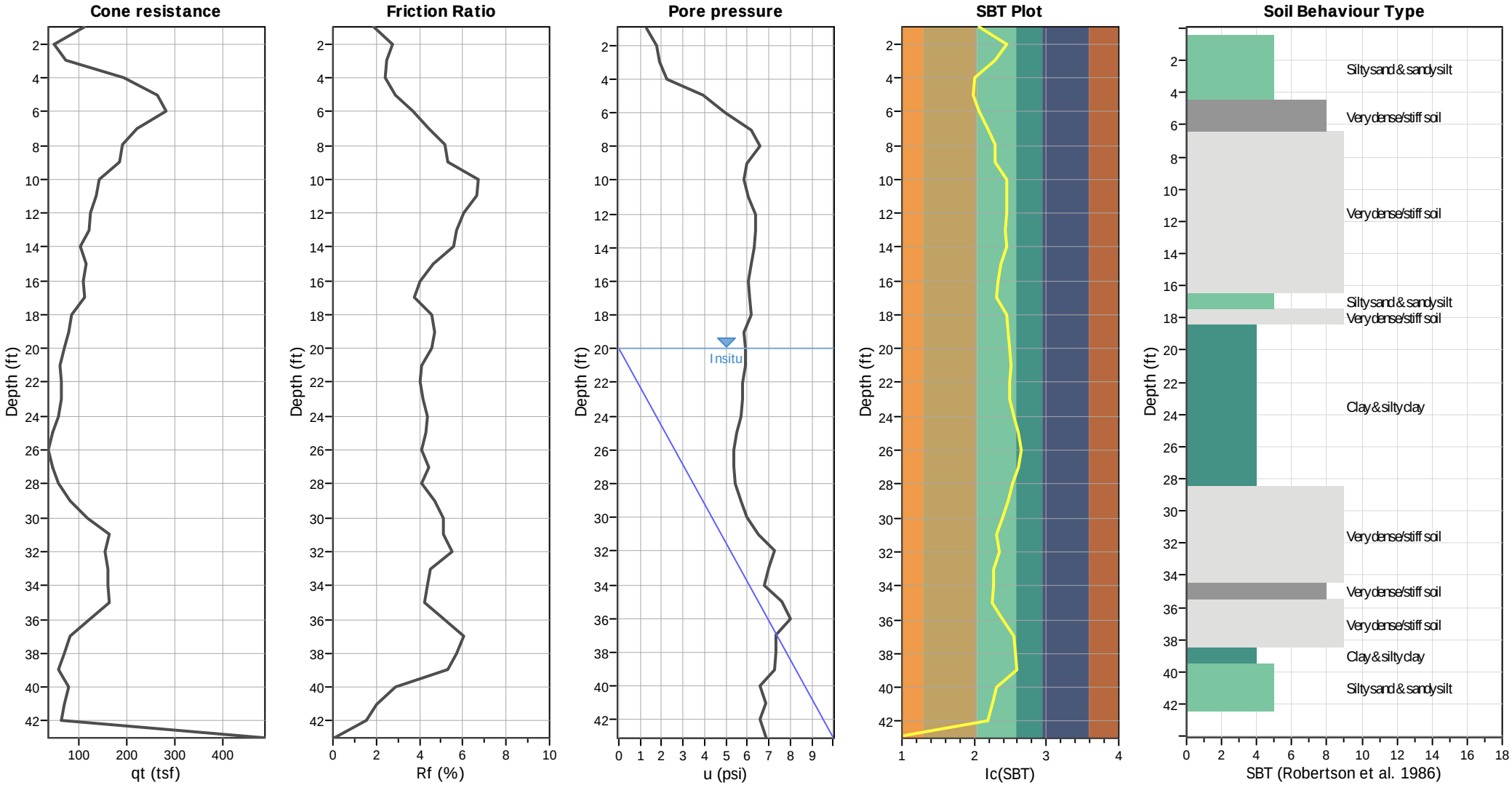






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



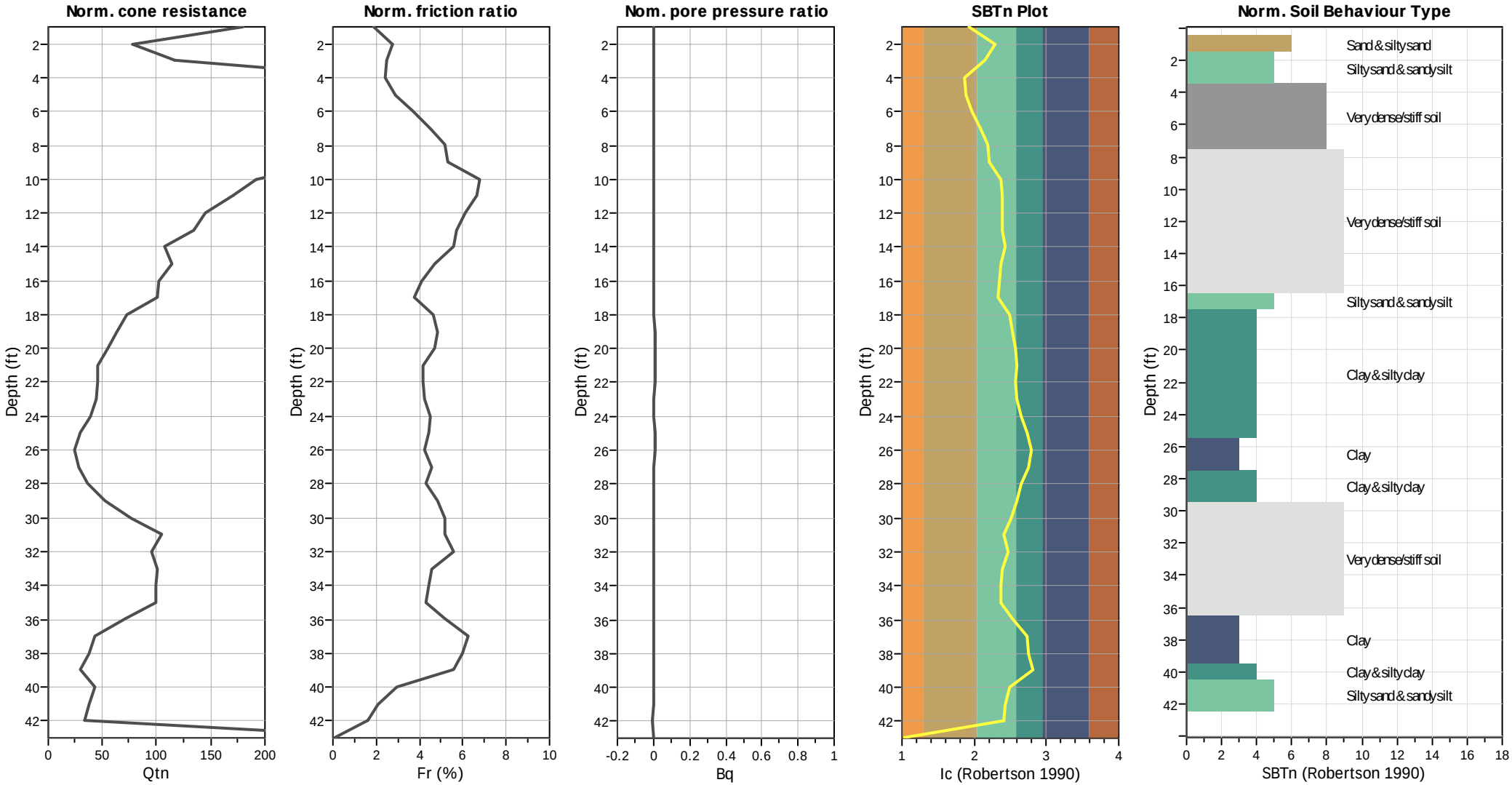
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



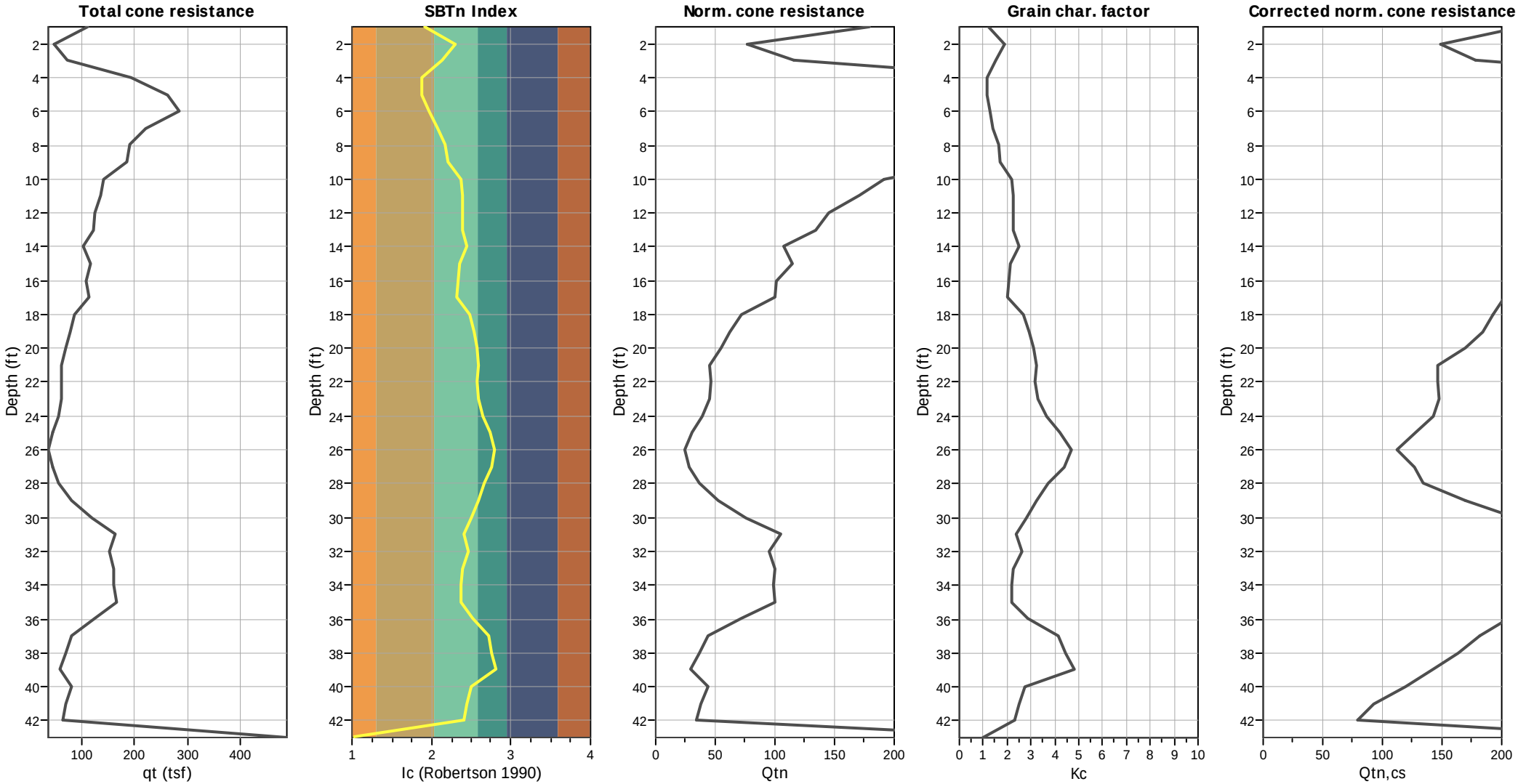
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

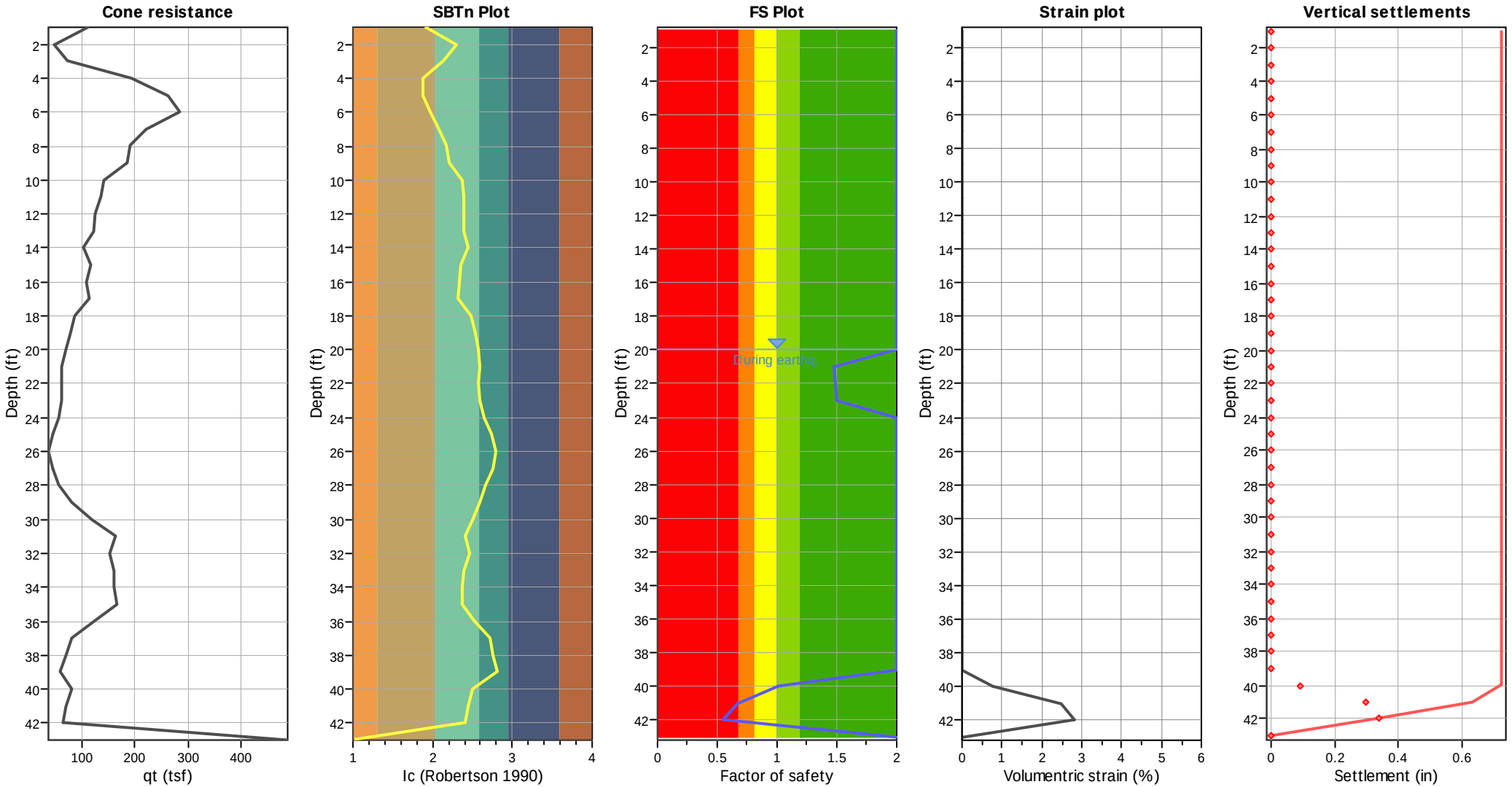
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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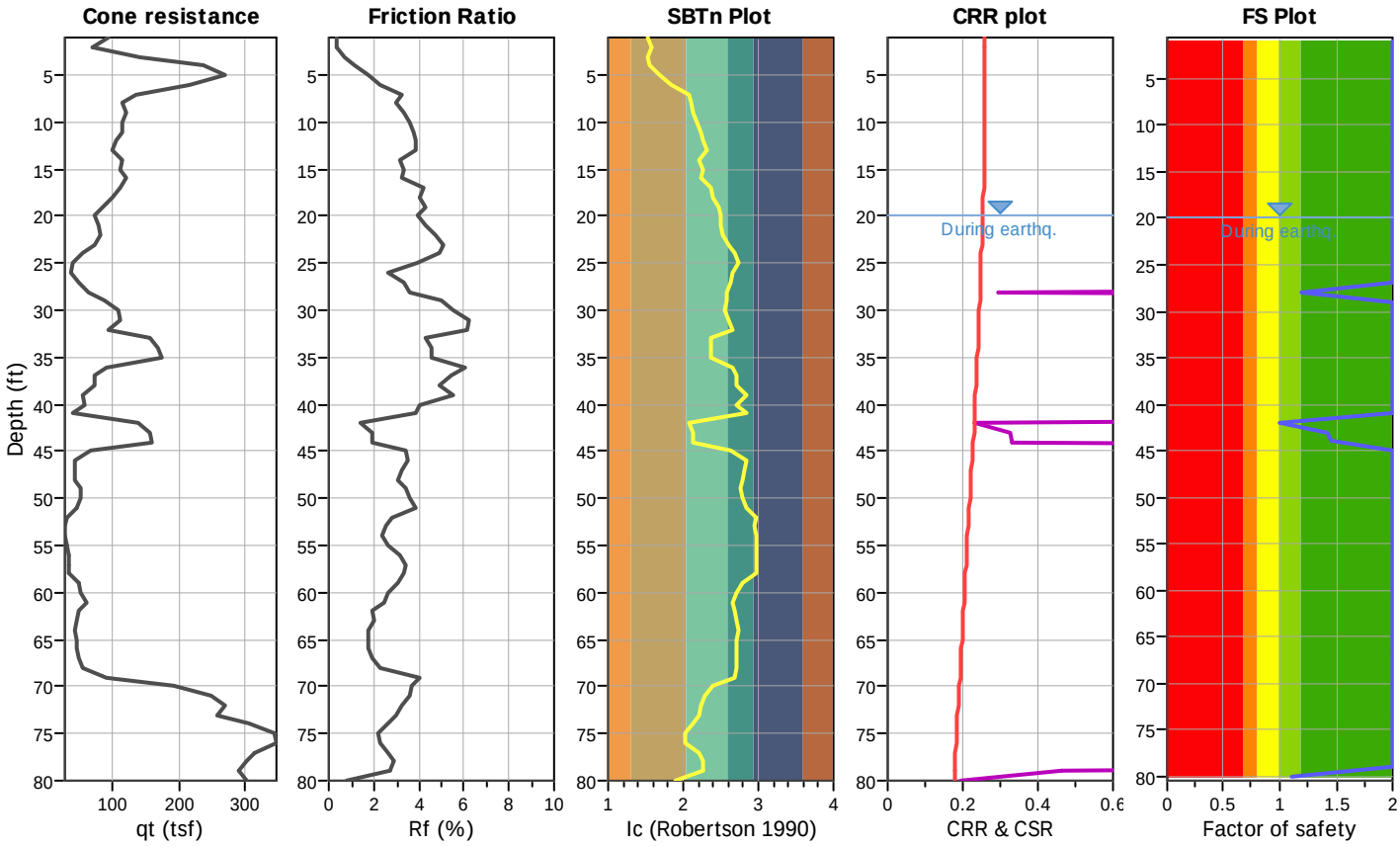
LIQUEFACTION ANALYSIS REPORT

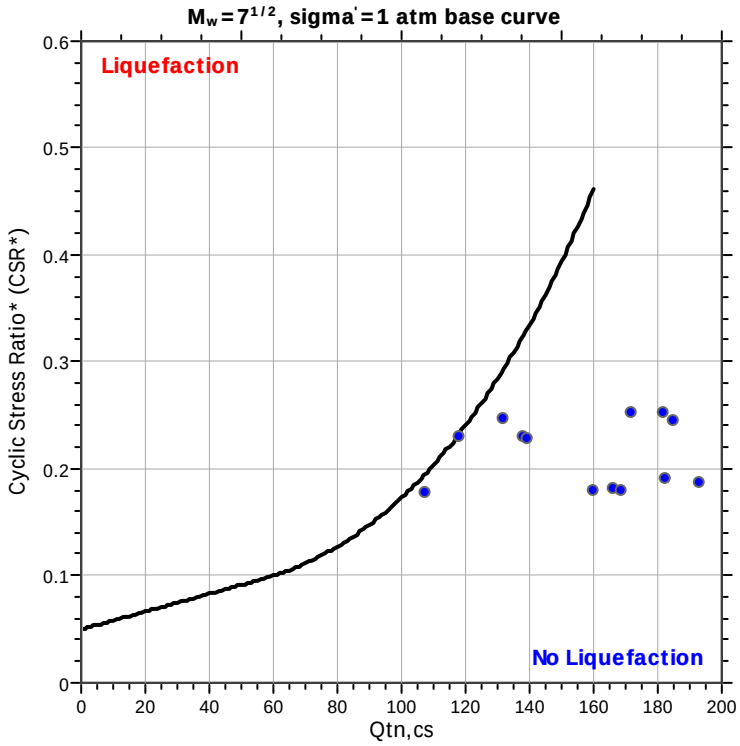
Project title : Kettner Substation **Location : San Diego, CA**

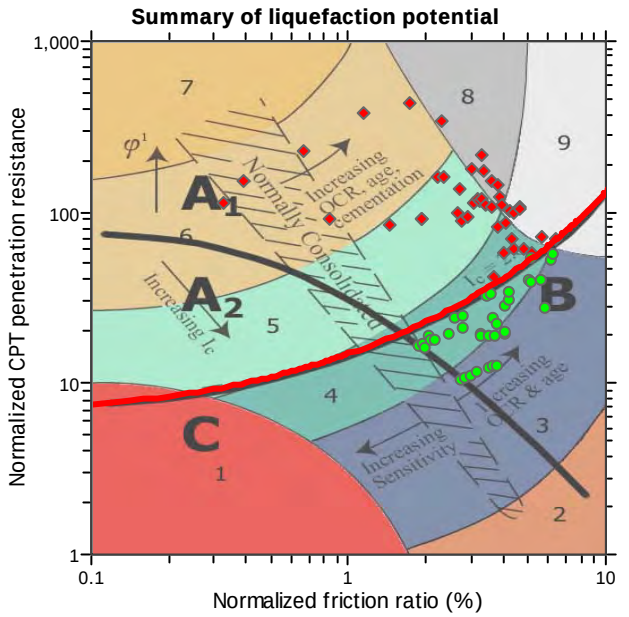
CPT file : CPT-13Ai

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

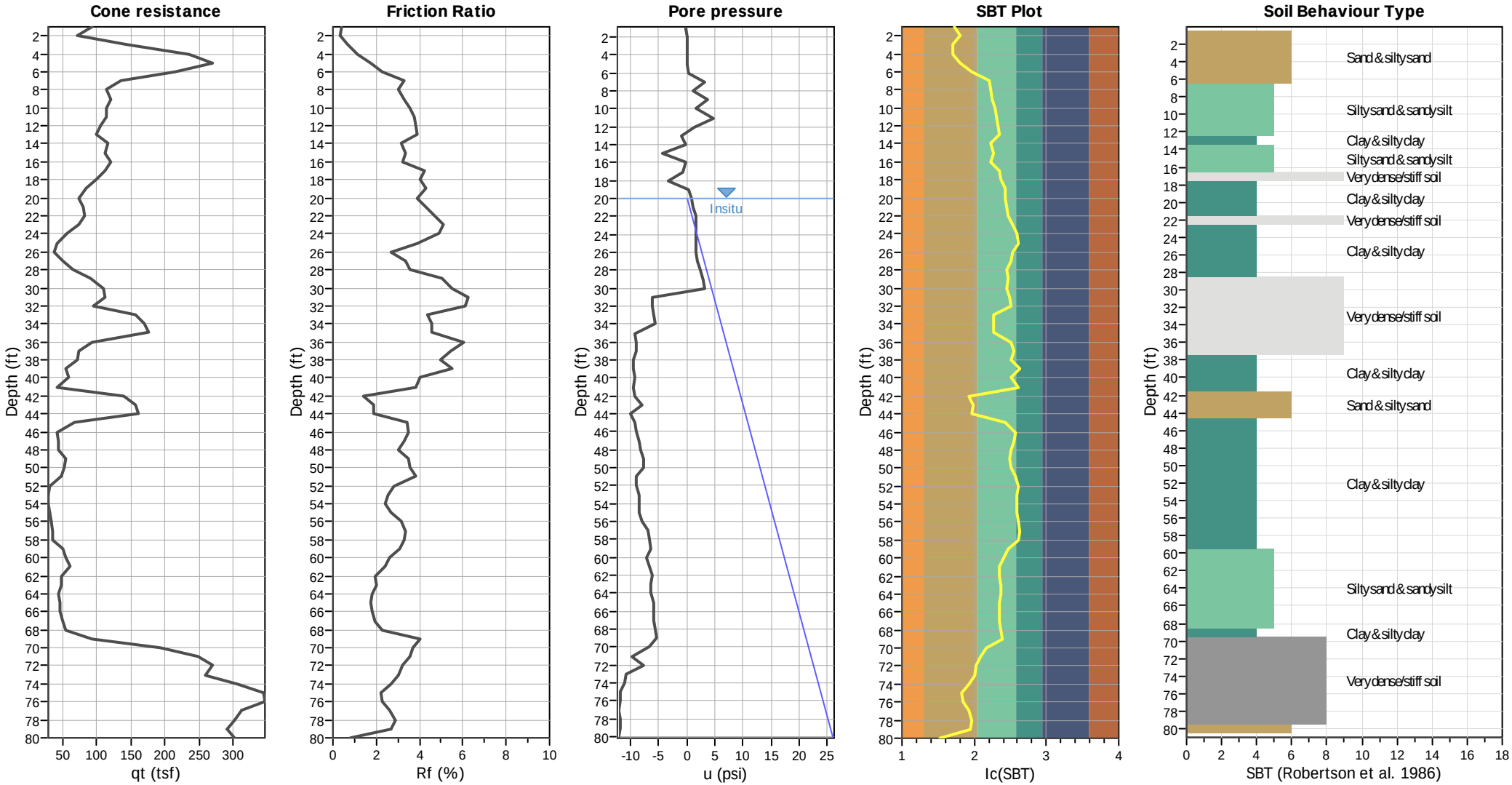






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



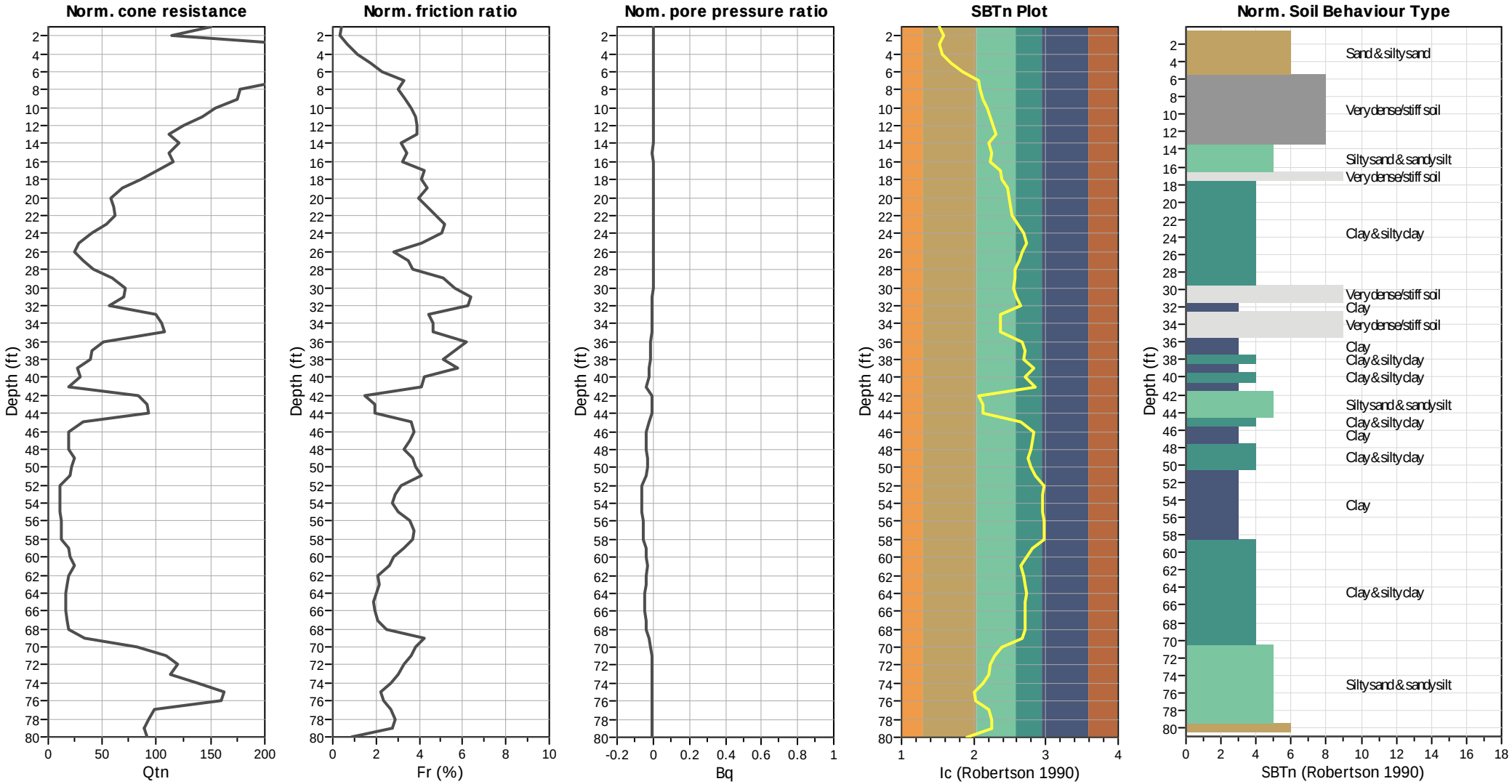
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



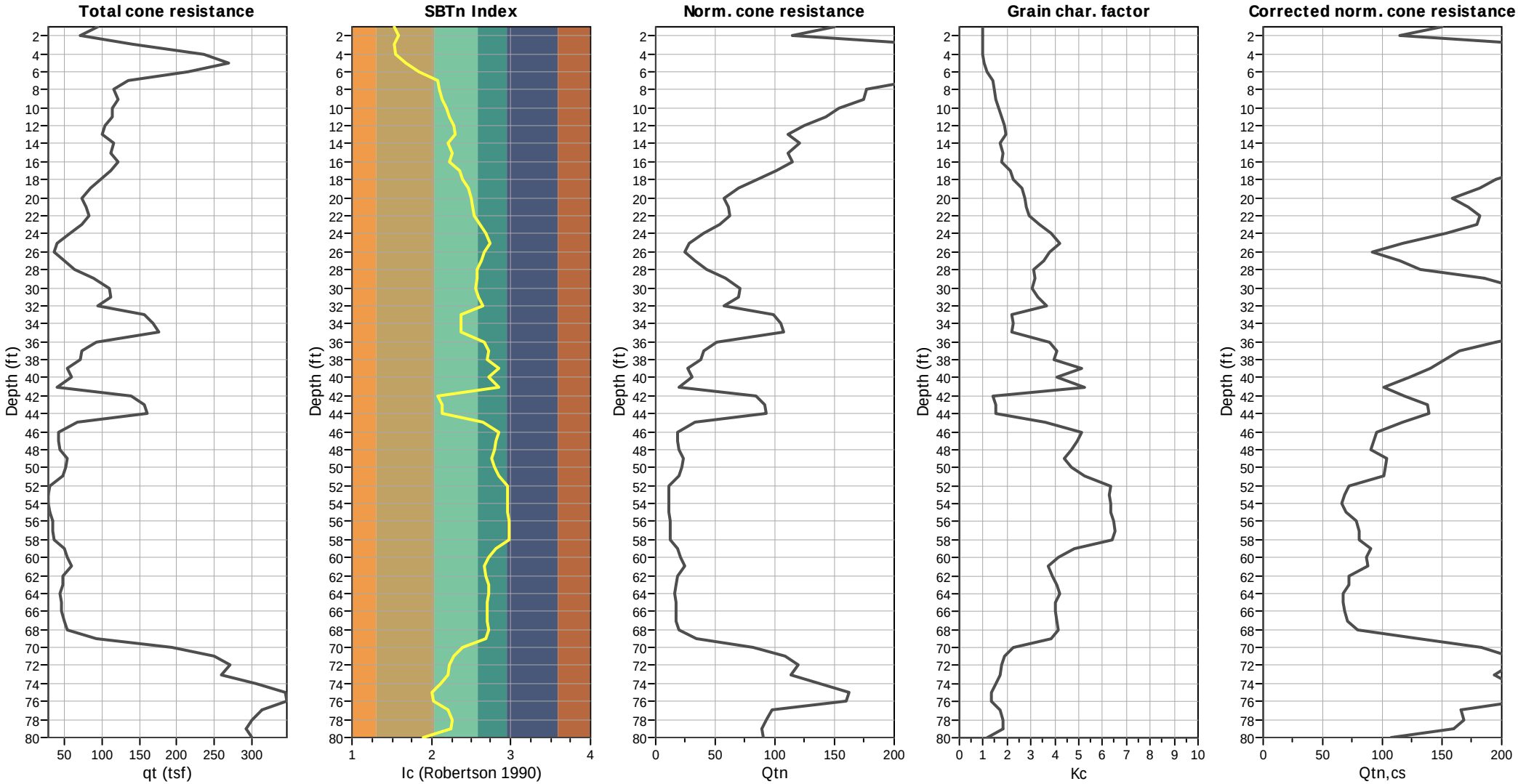
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

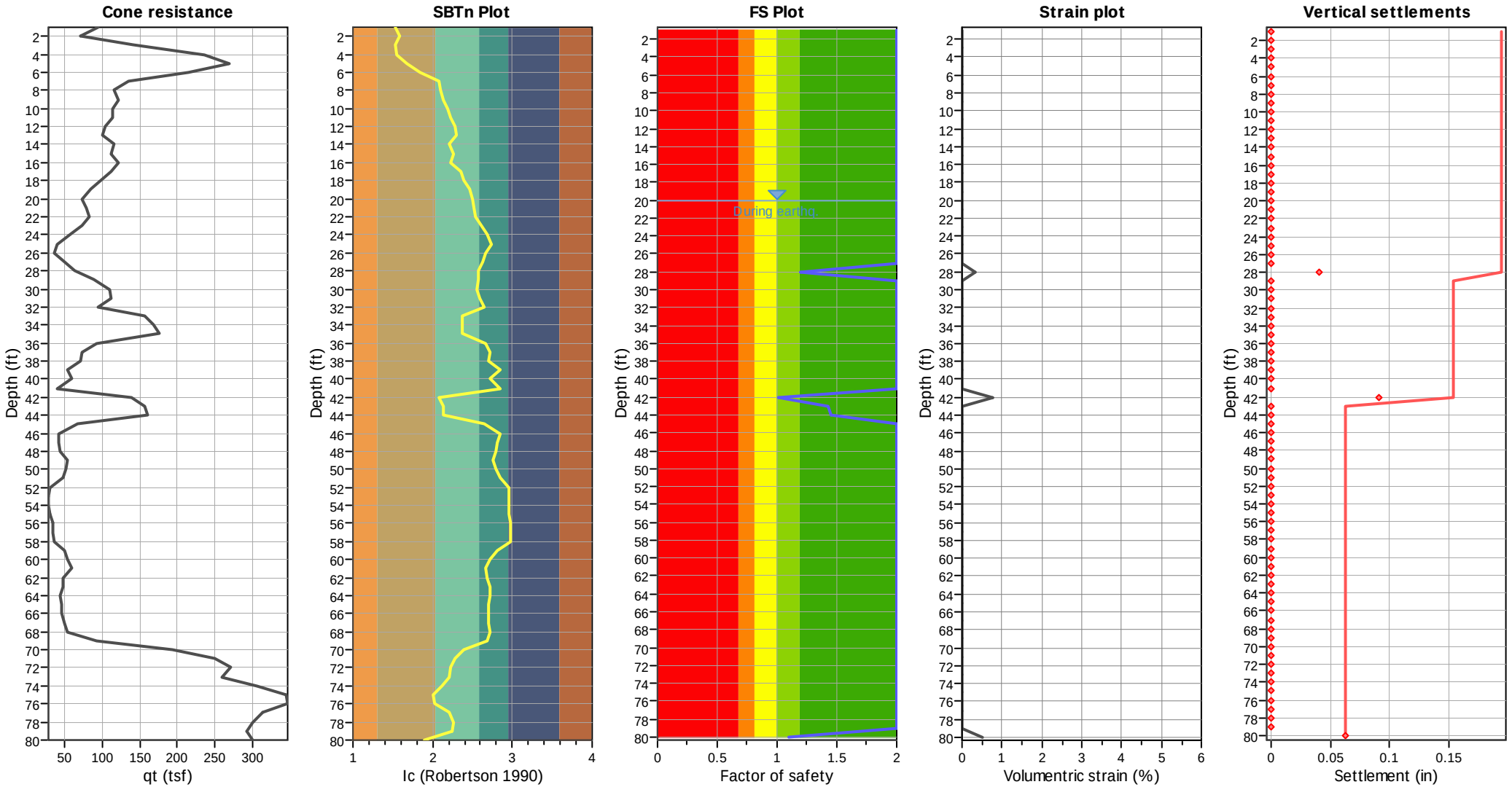
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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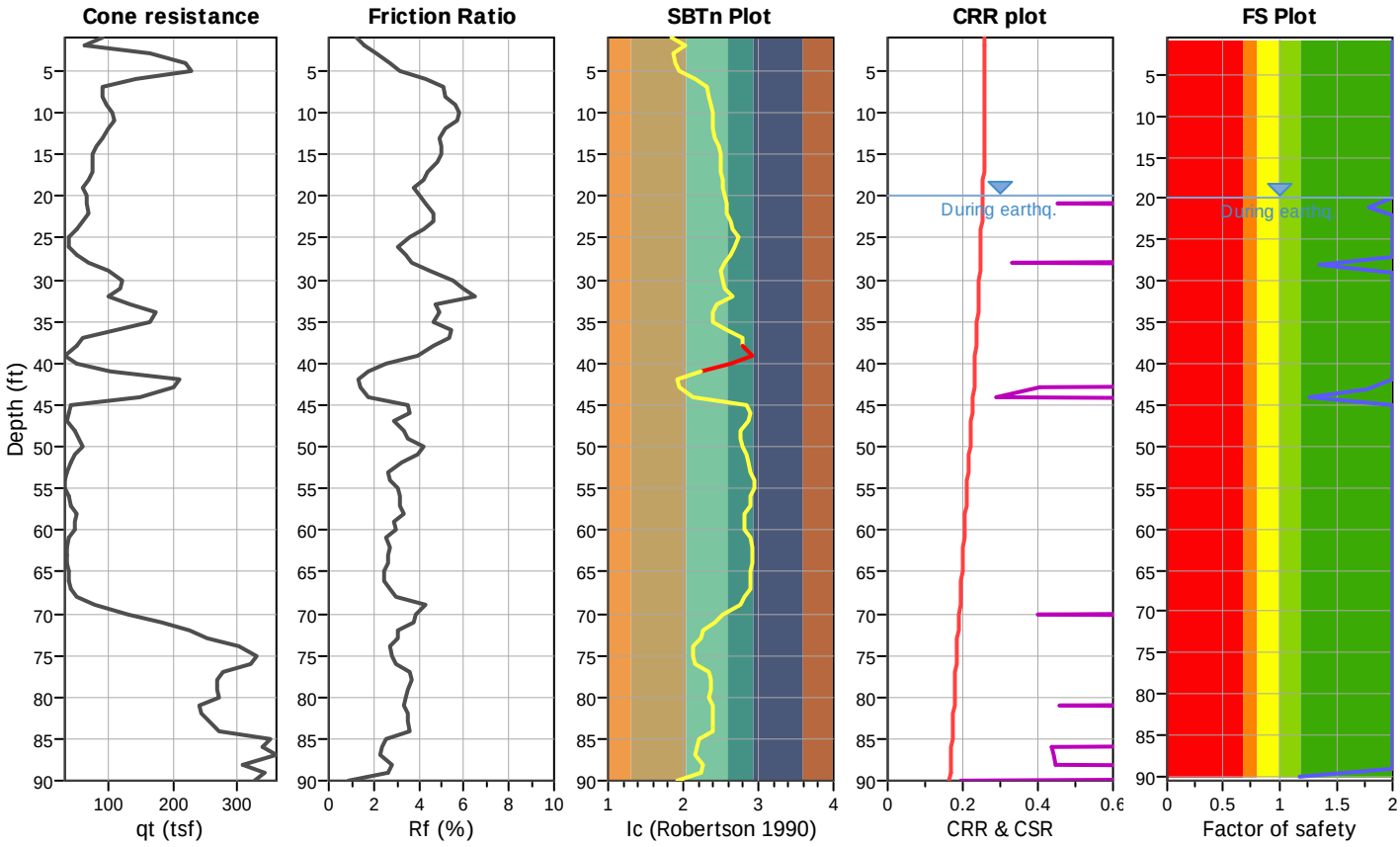
LIQUEFACTION ANALYSIS REPORT

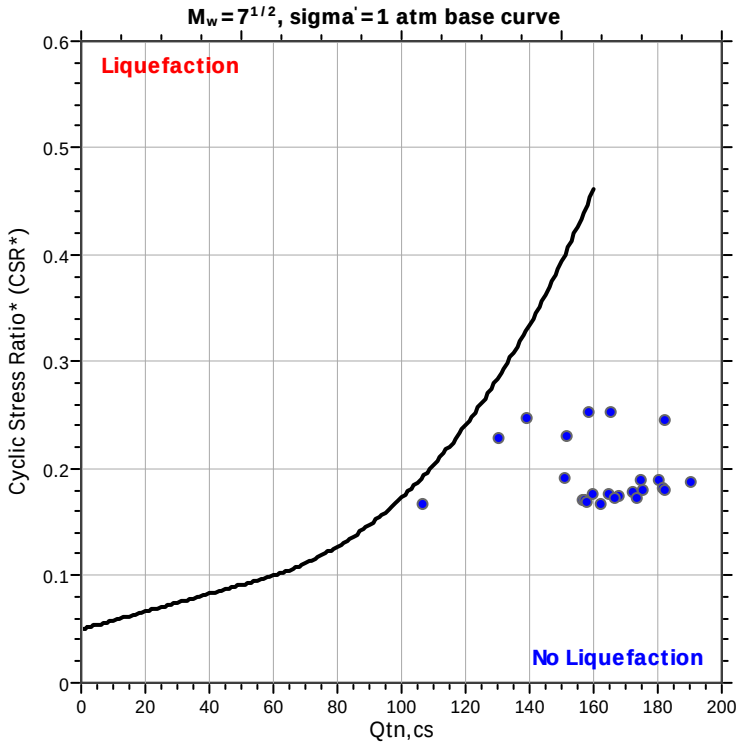
Project title : Kettner Substation **Location : San Diego, CA**

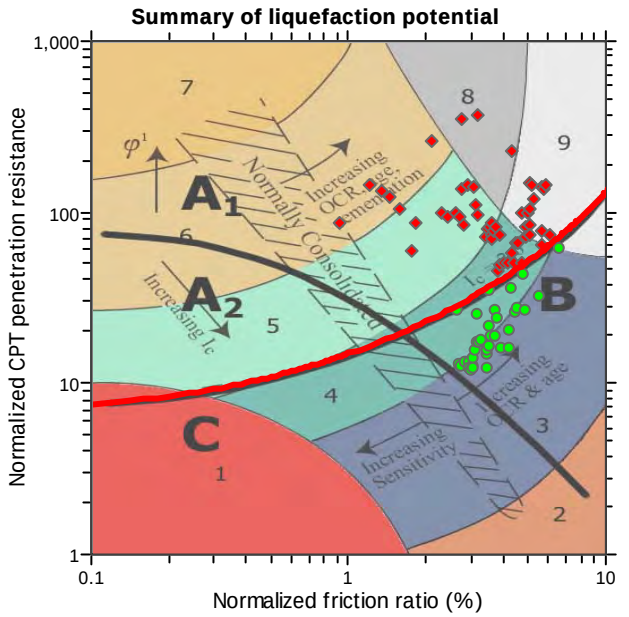
CPT file : CPT-14i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

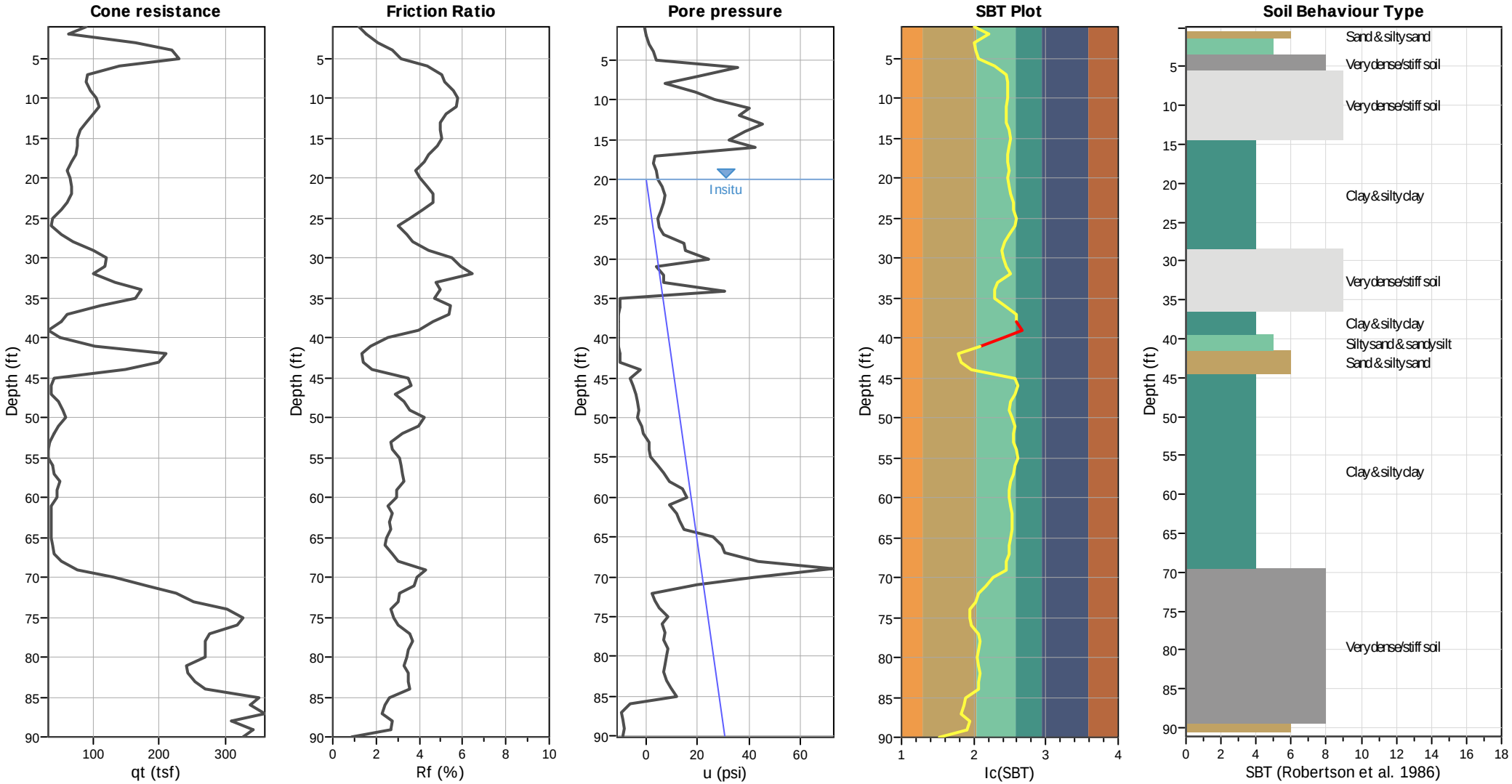






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



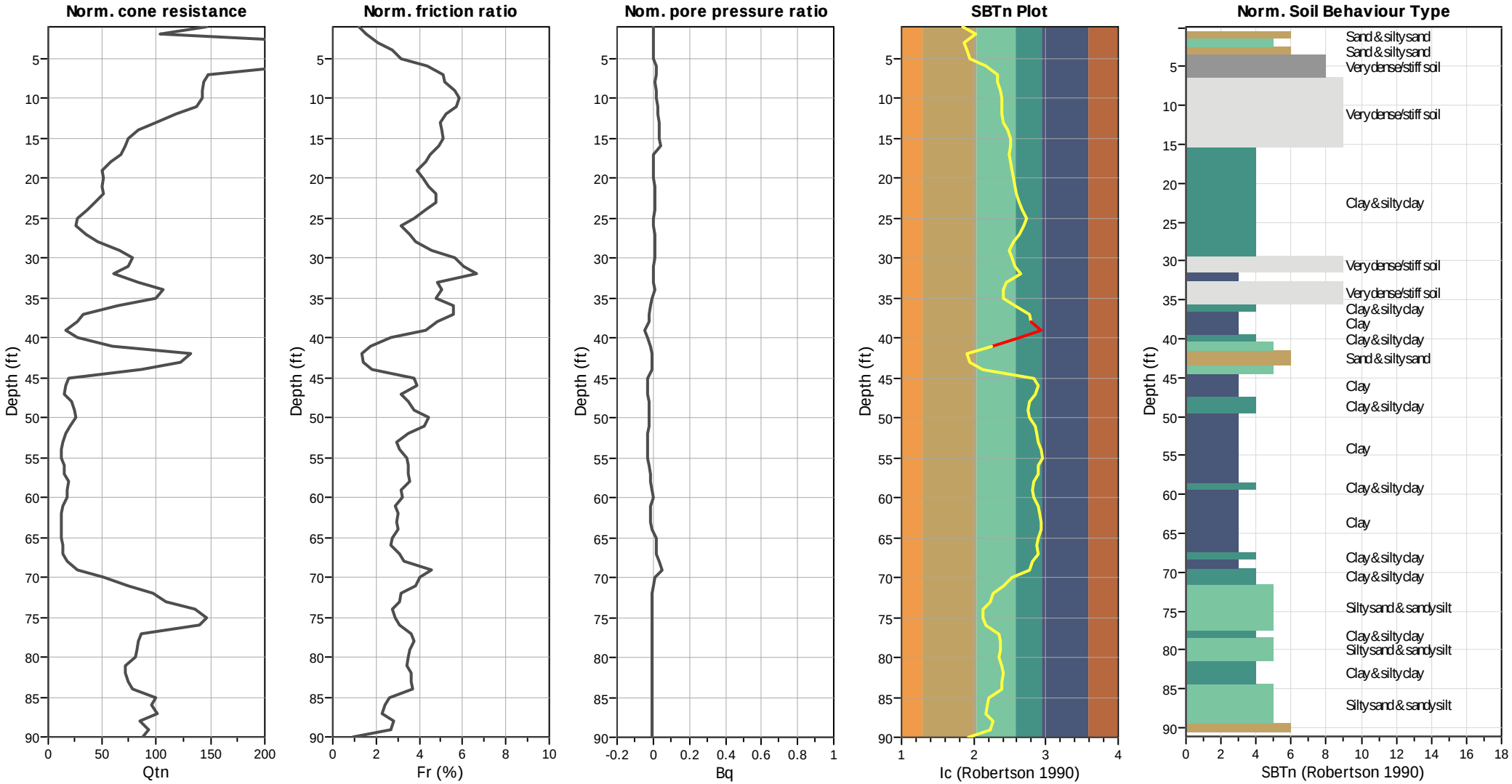
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



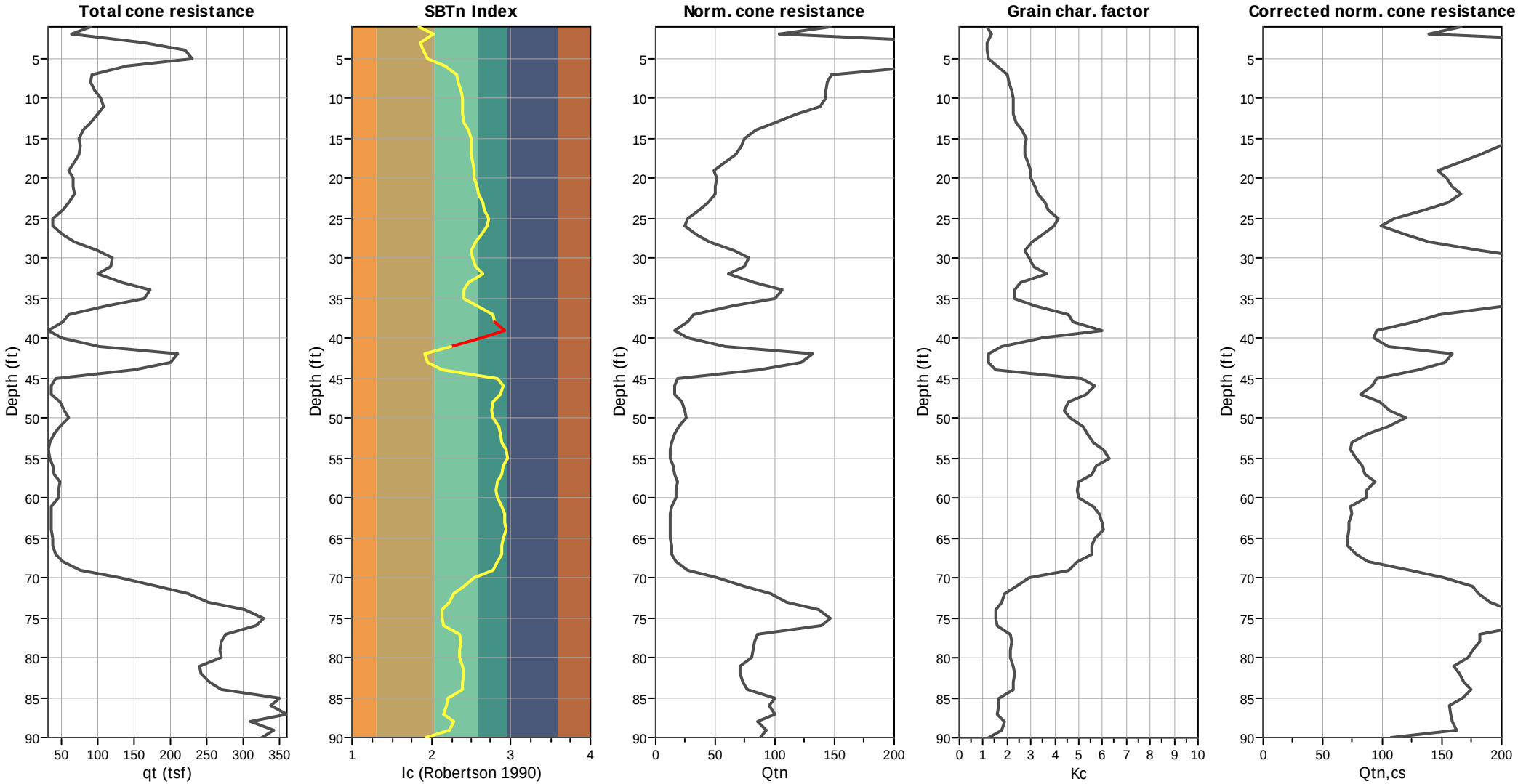
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

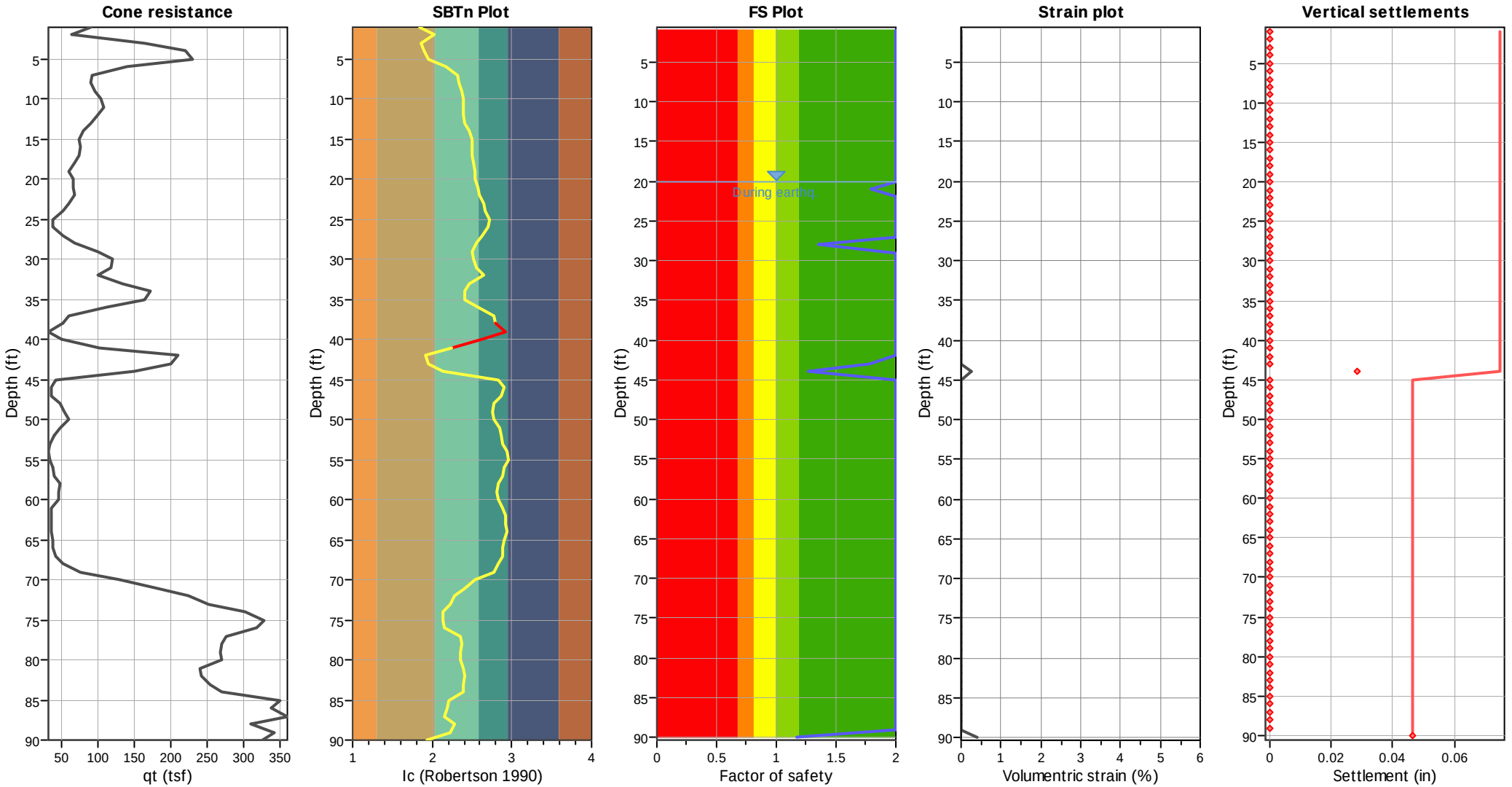
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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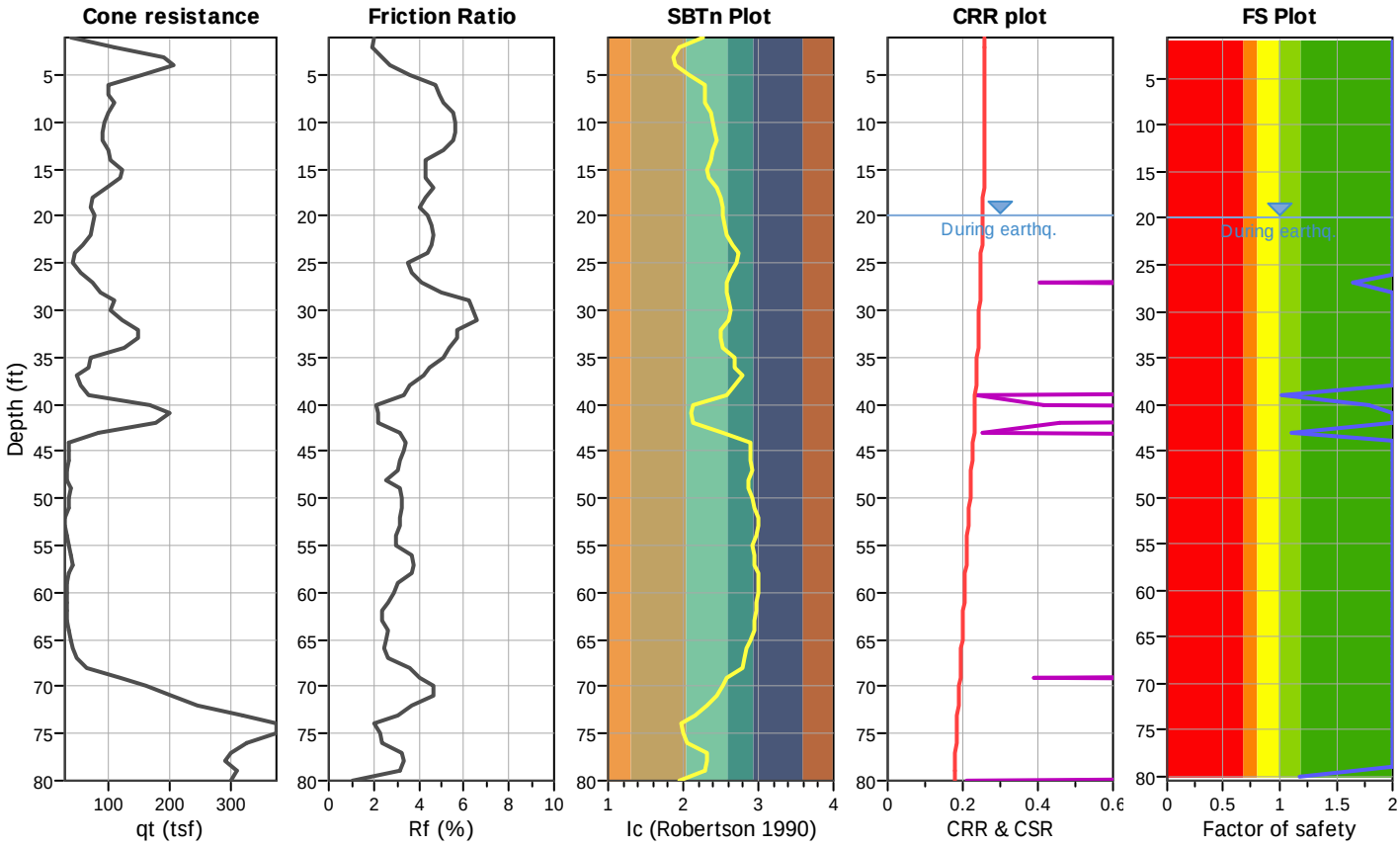
LIQUEFACTION ANALYSIS REPORT

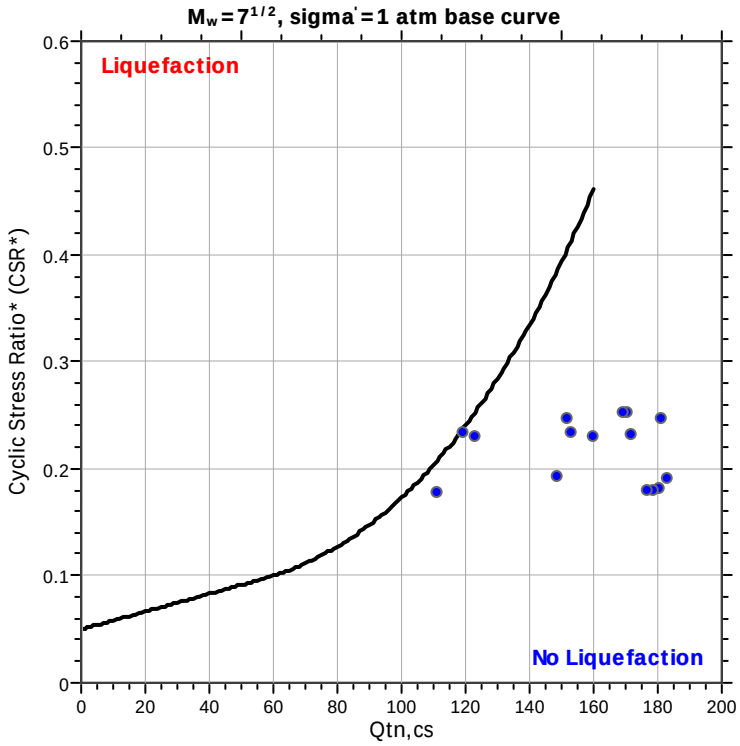
Project title : Kettner Substation **Location : San Diego, CA**

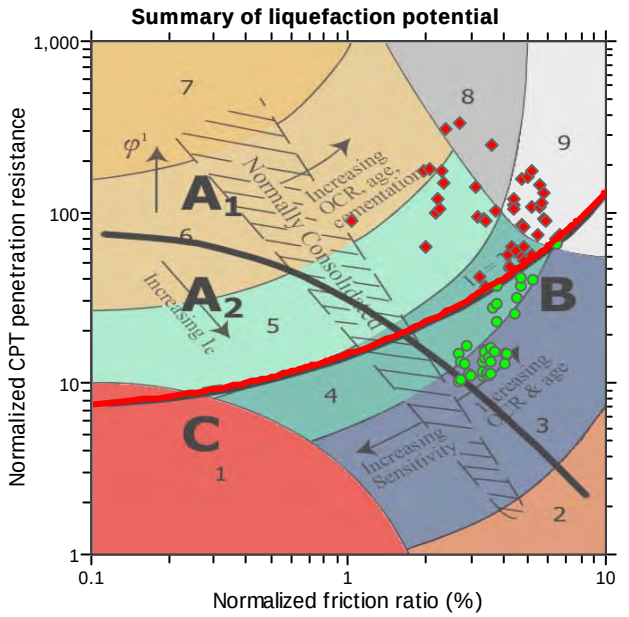
CPT file : CPT-15i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

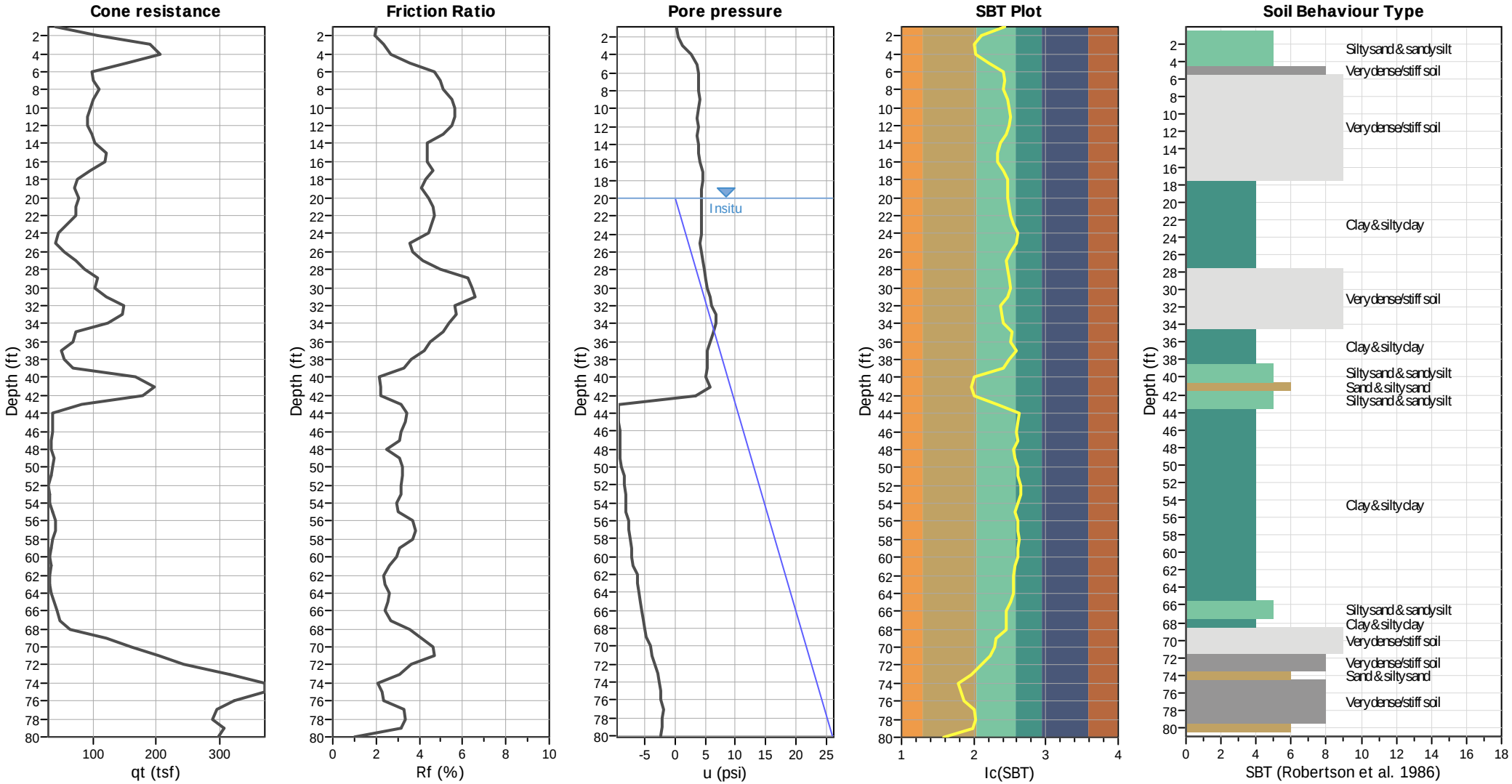






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



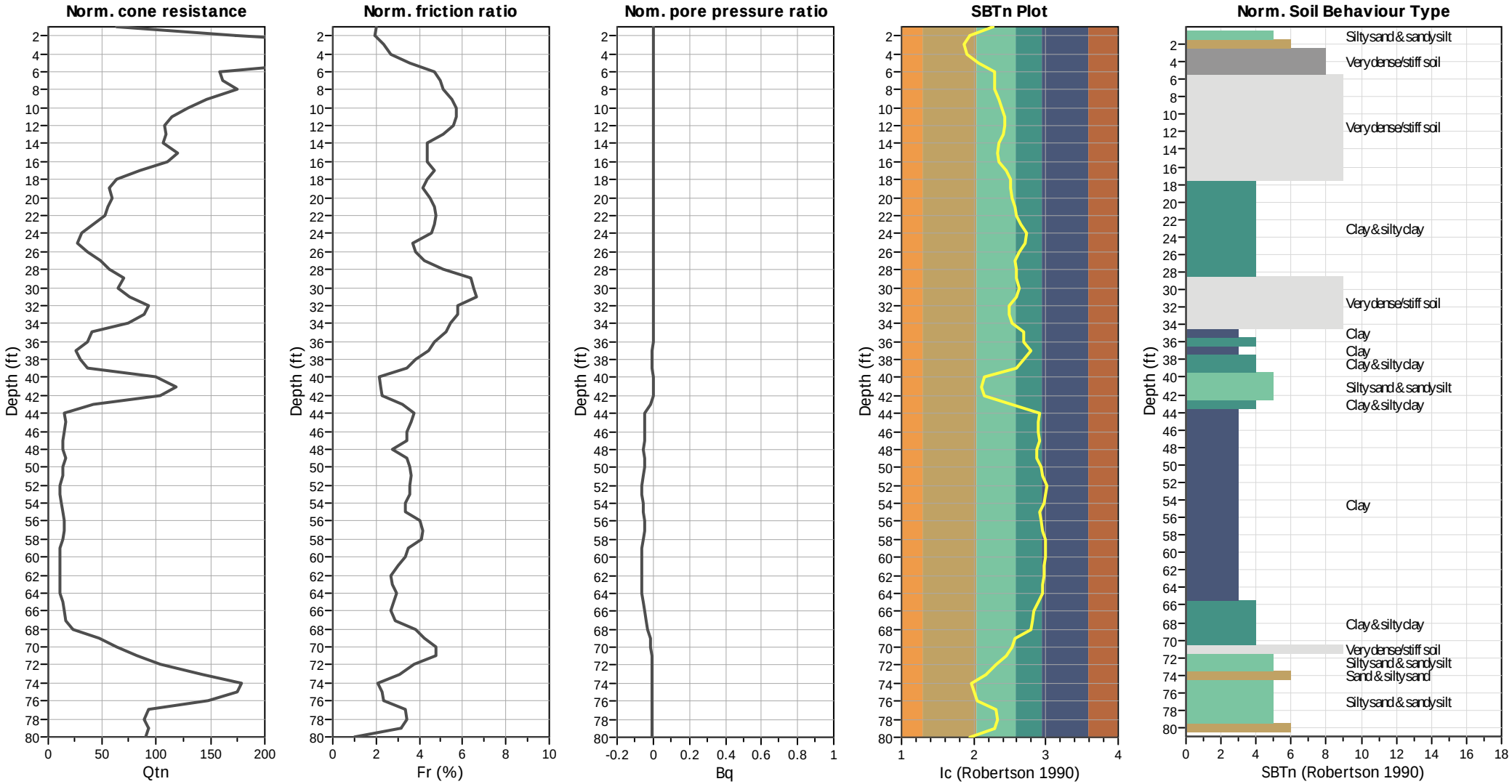
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



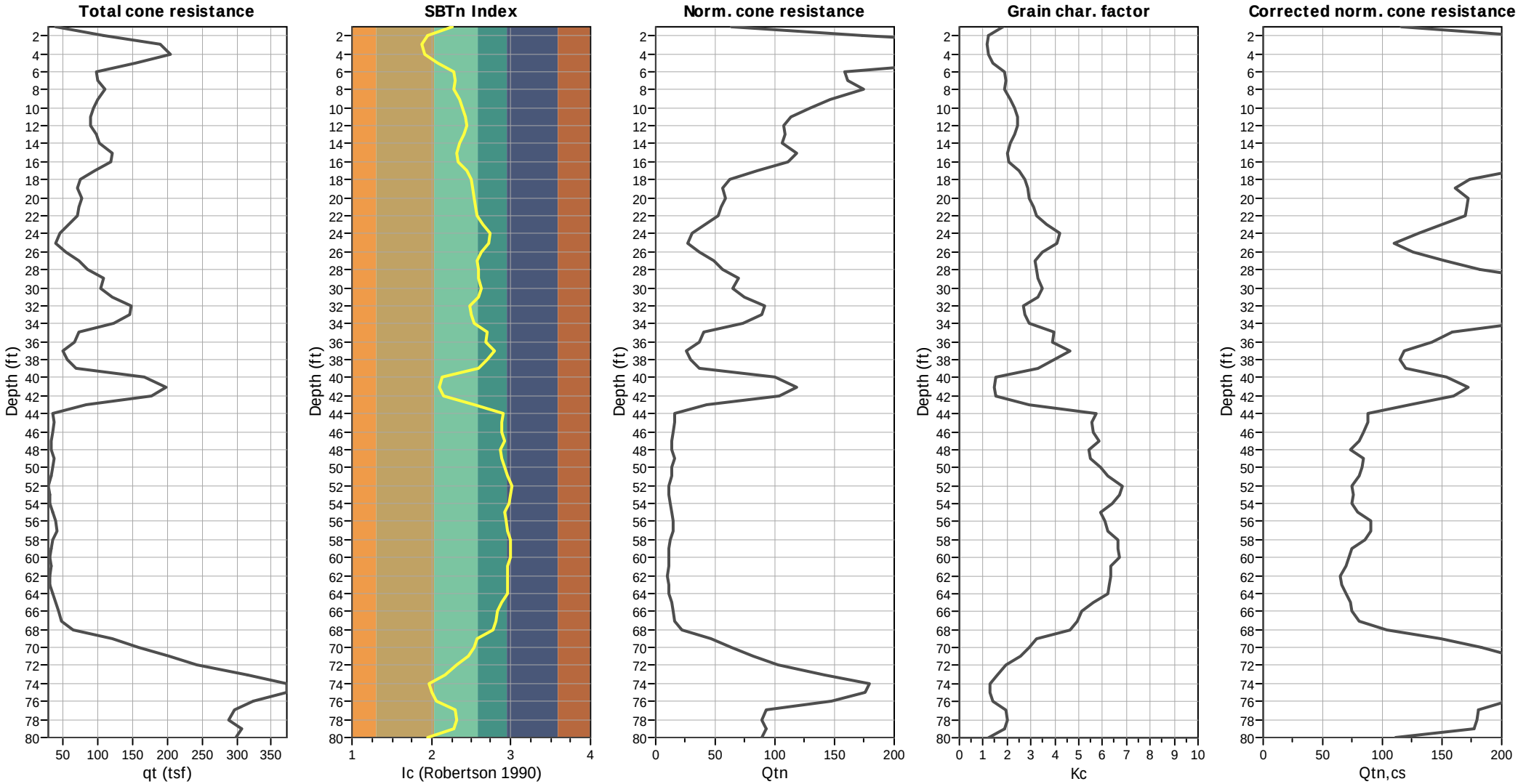
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

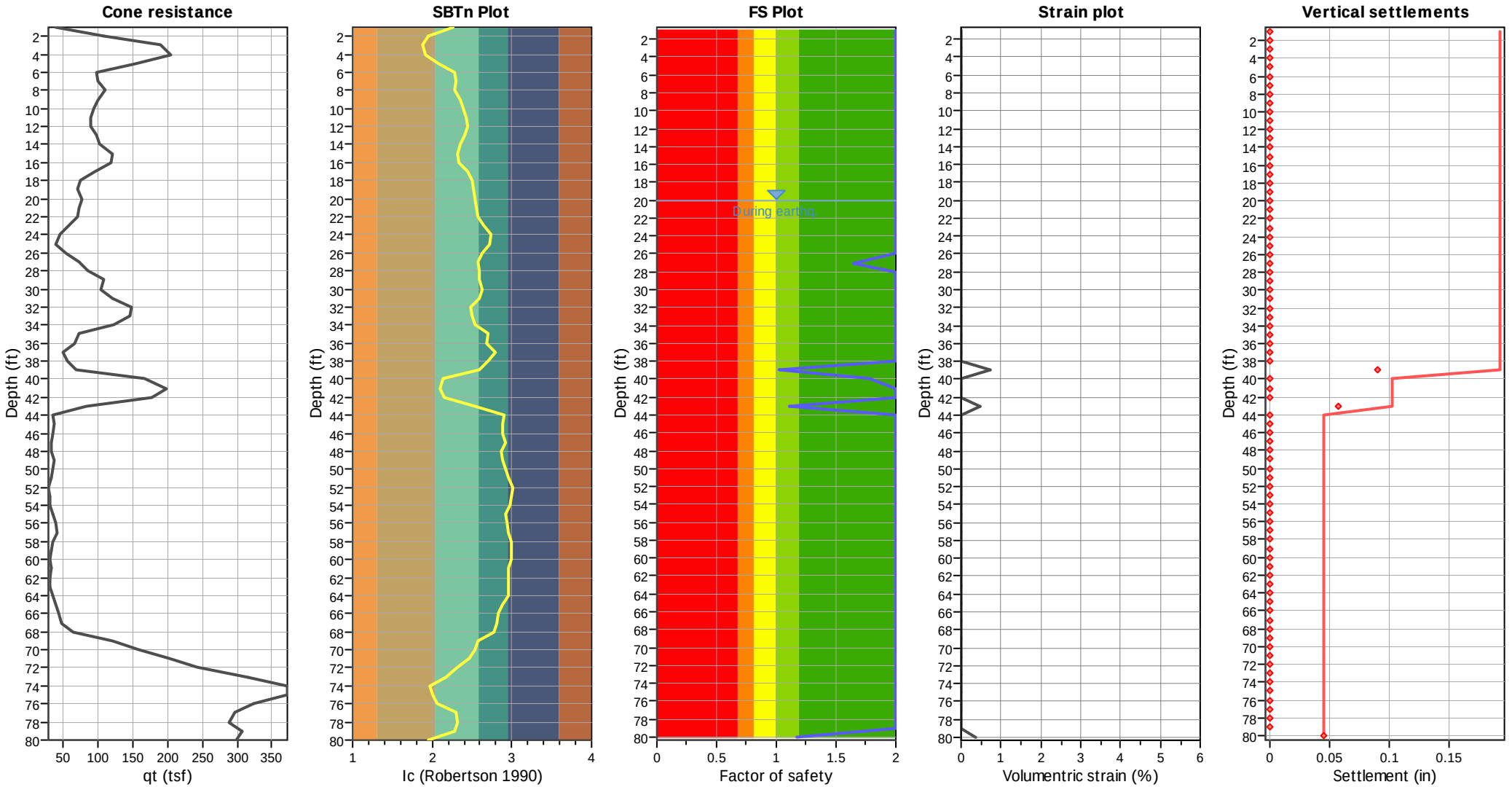
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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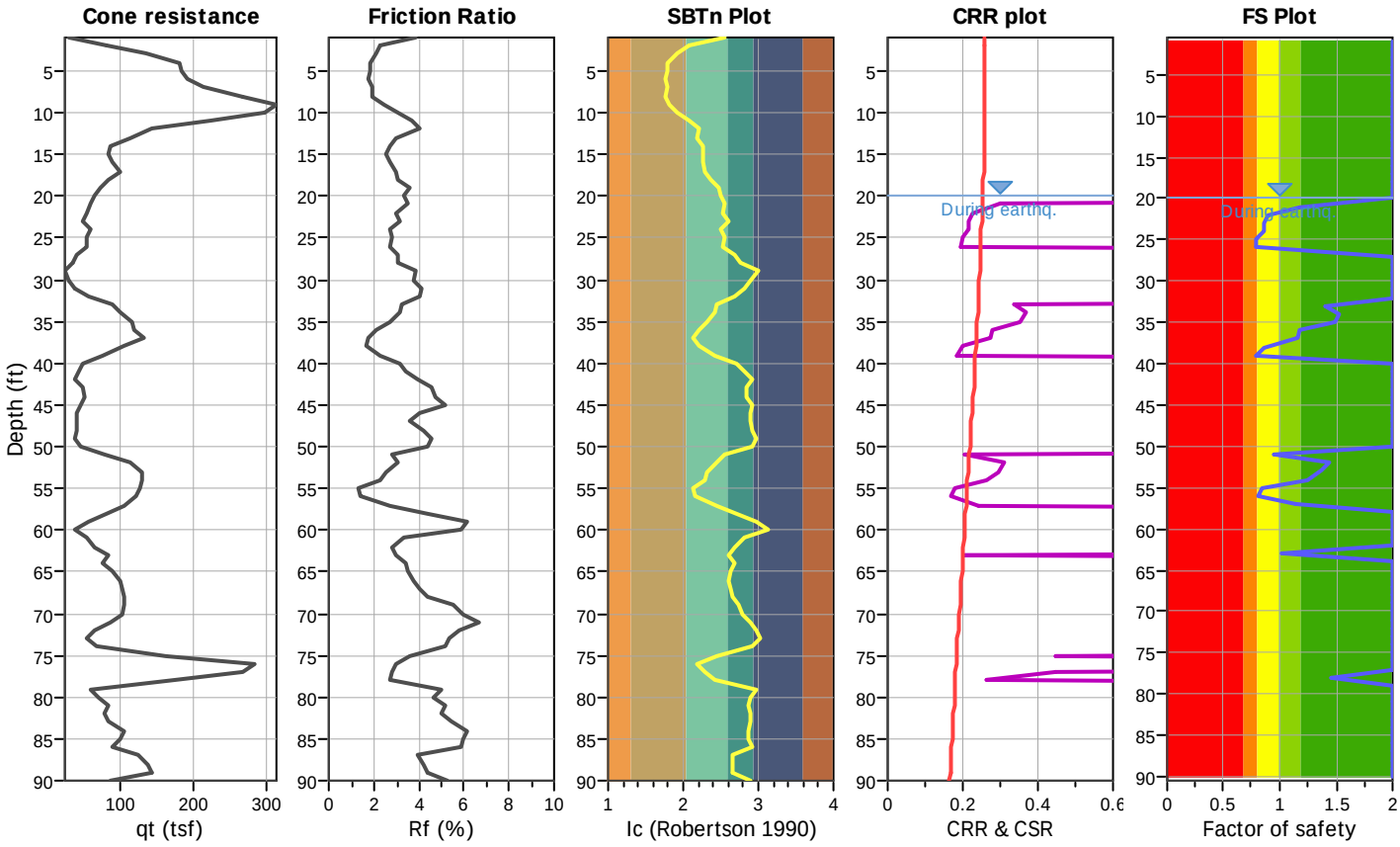
LIQUEFACTION ANALYSIS REPORT

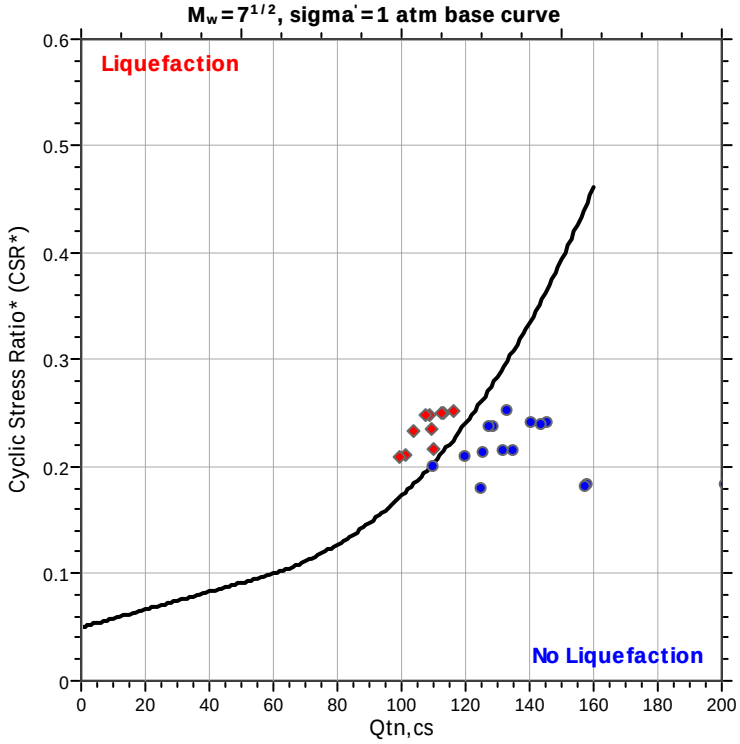
Project title : Kettner Substation **Location : San Diego, CA**

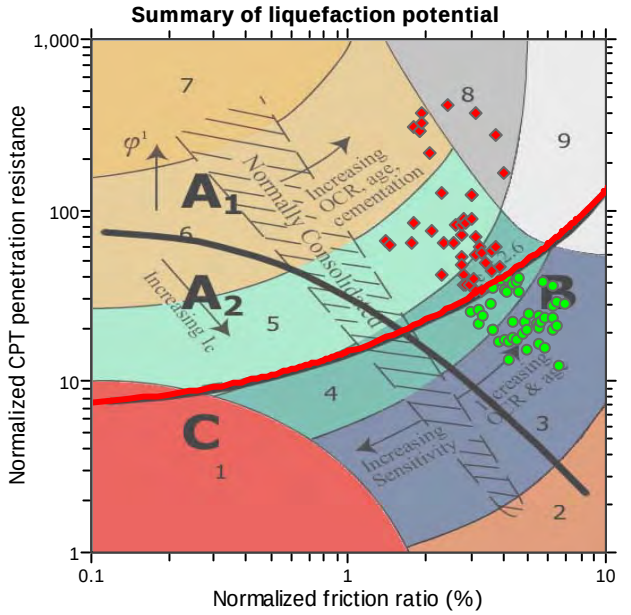
CPT file : CPT-16i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

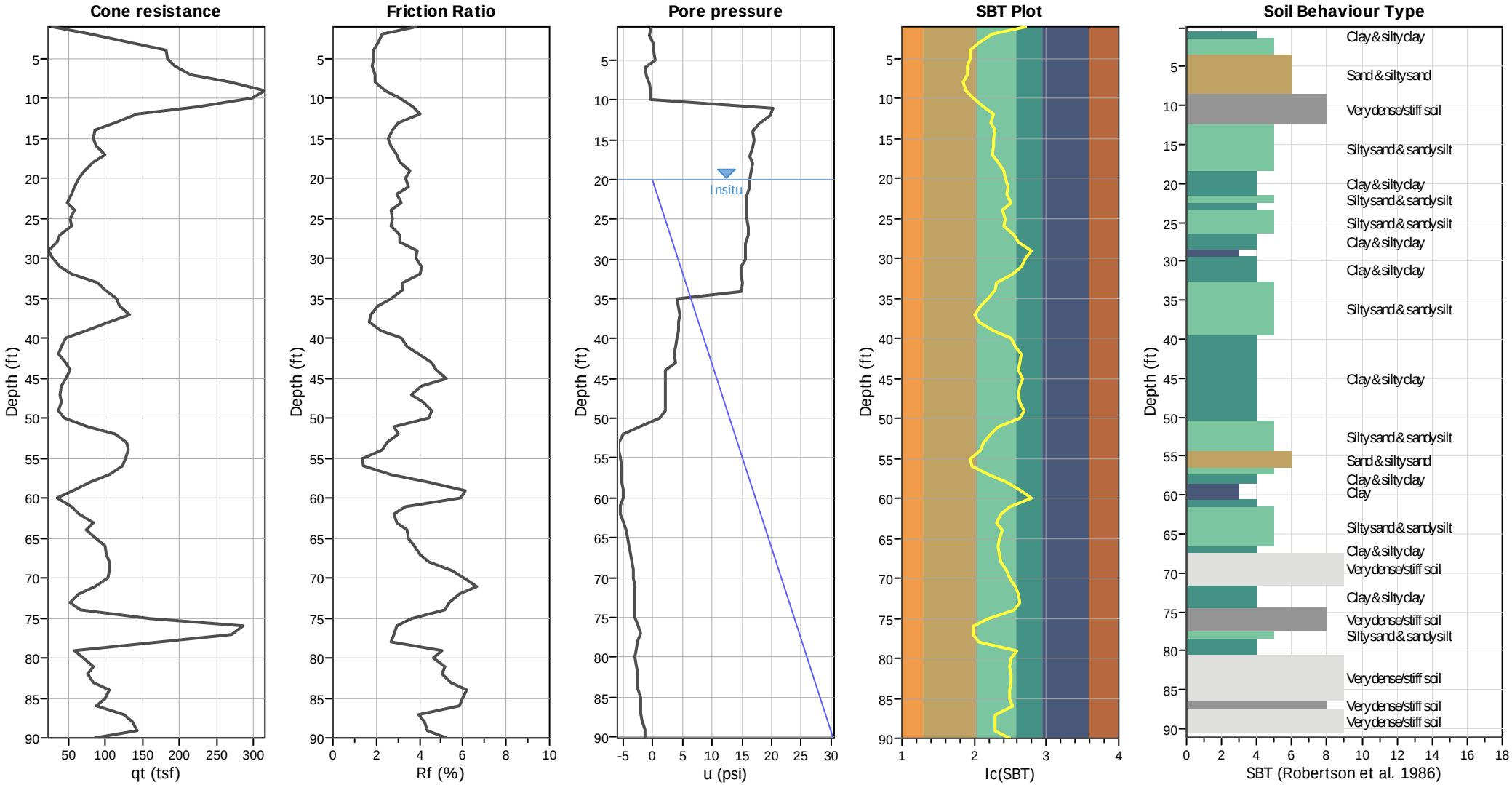






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



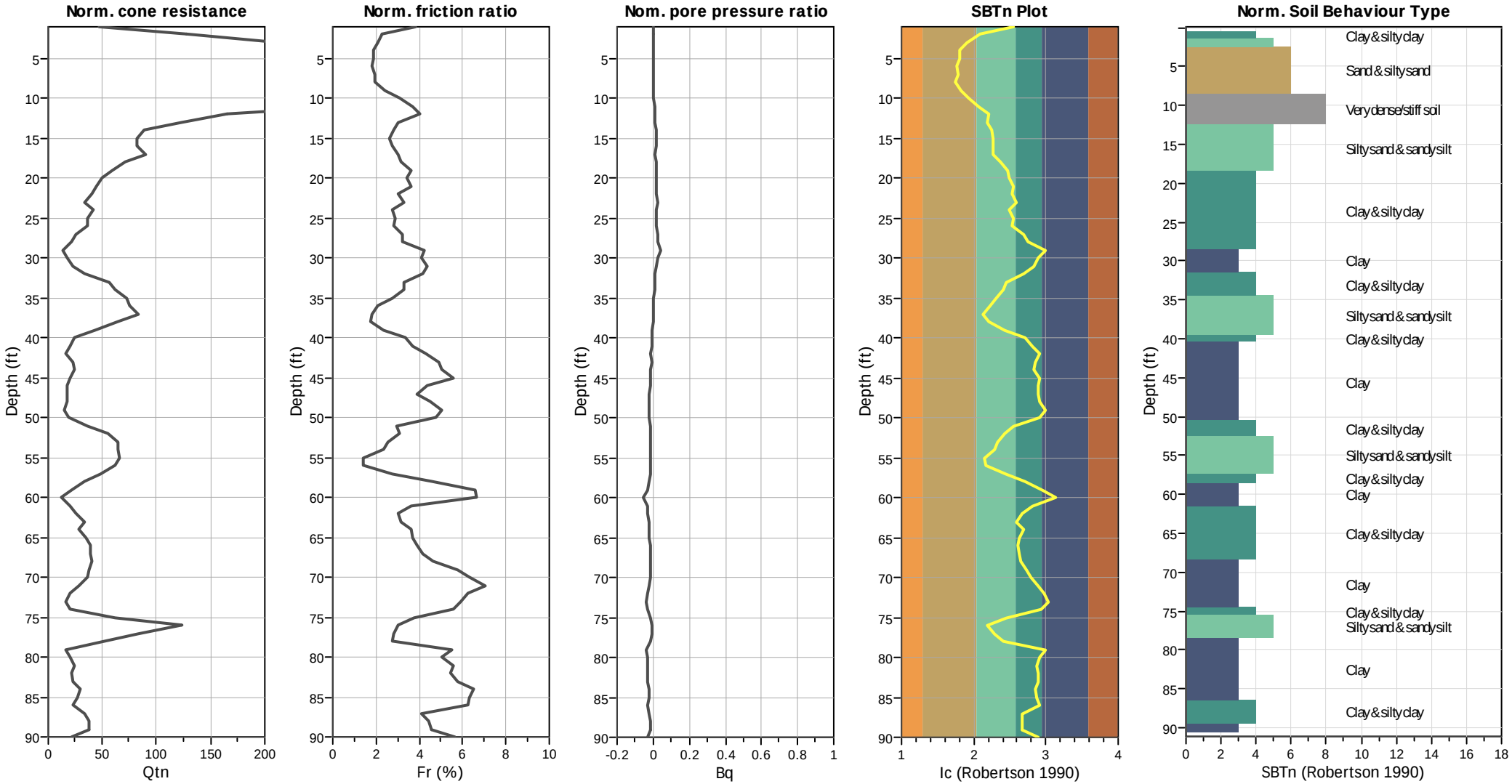
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
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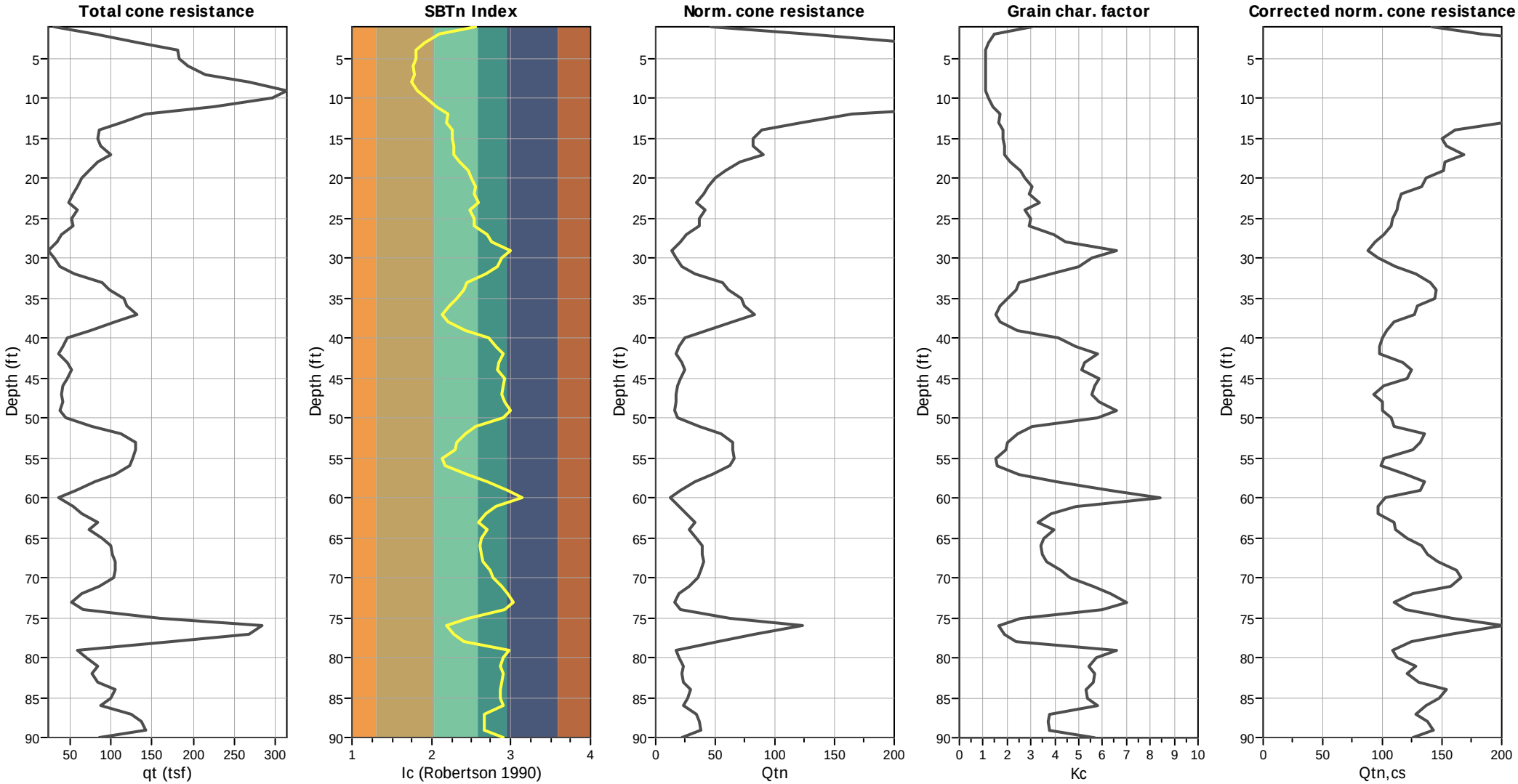
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

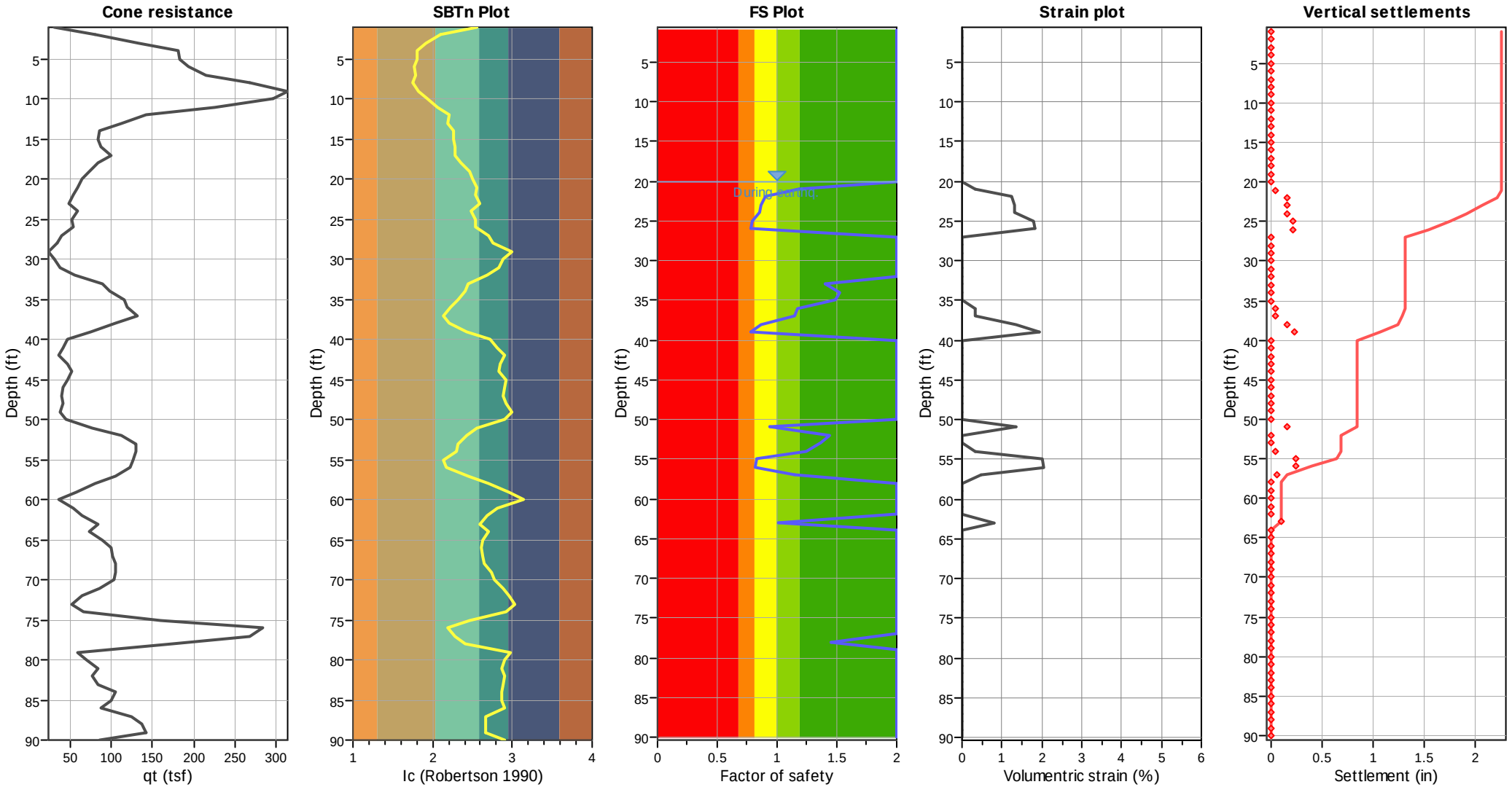
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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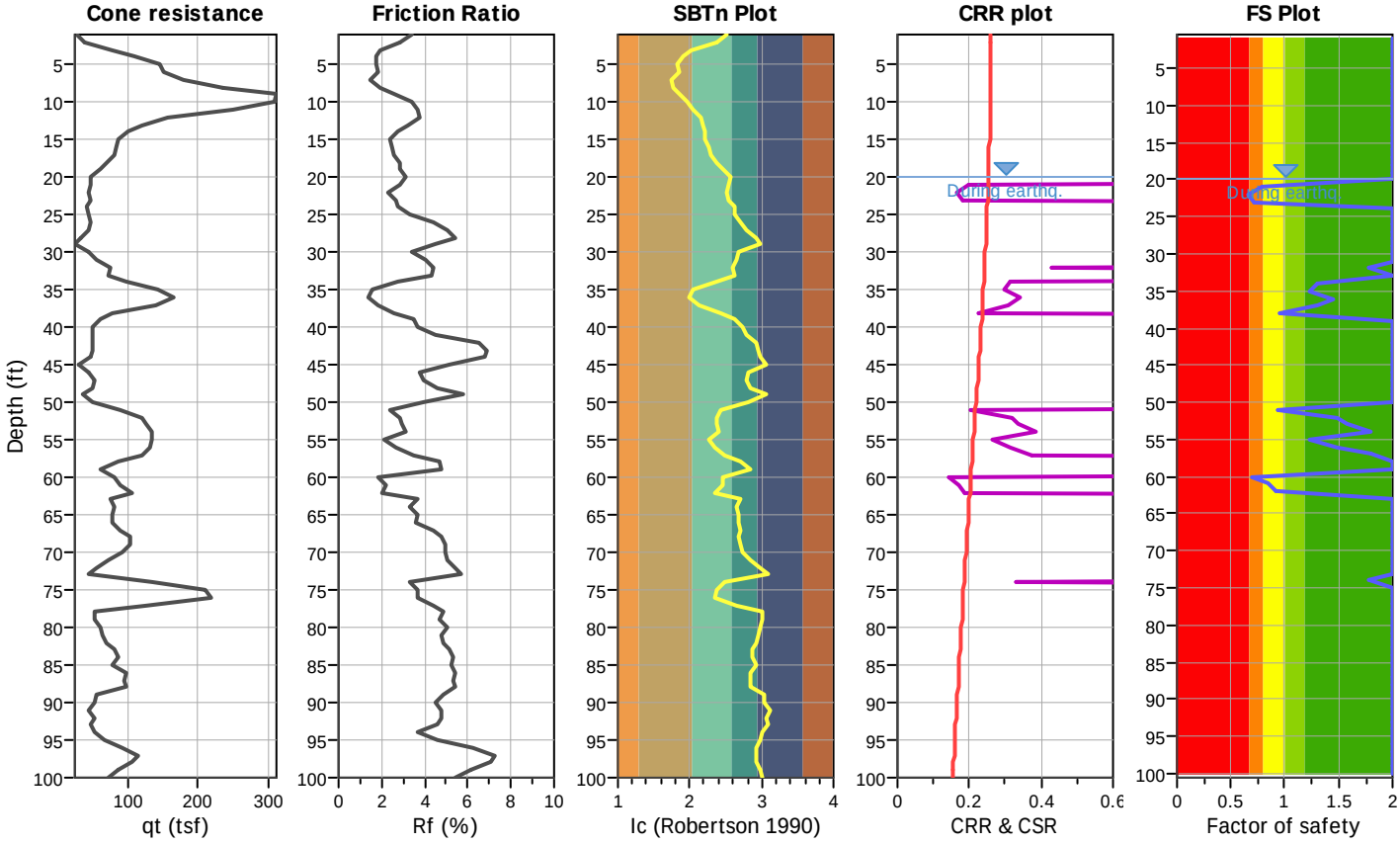
LIQUEFACTION ANALYSIS REPORT

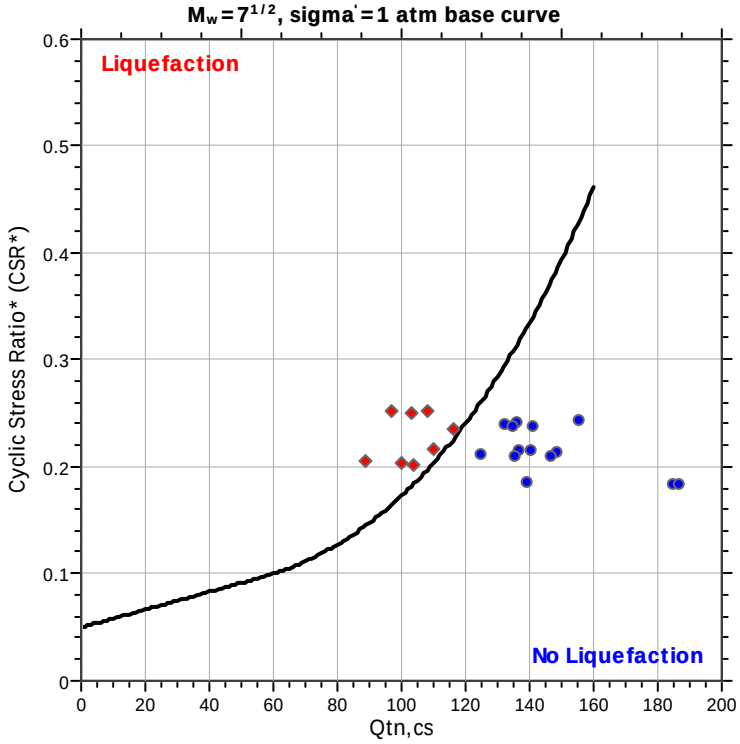
Project title : Kettner Substation **Location : San Diego, CA**

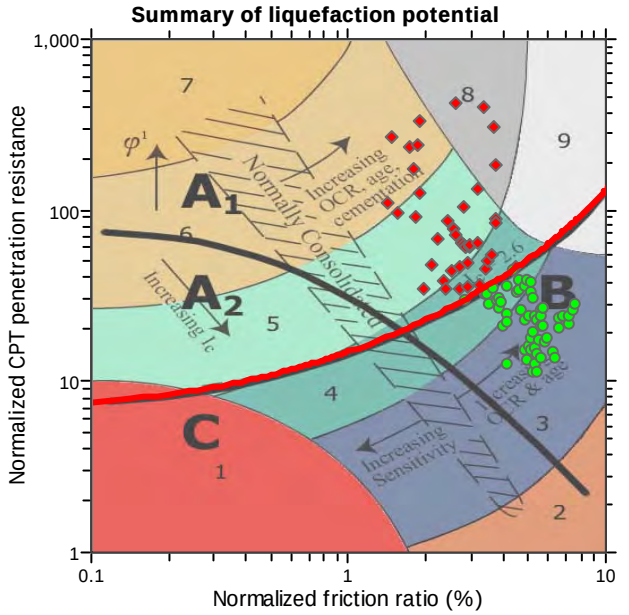
CPT file : CPT-17i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

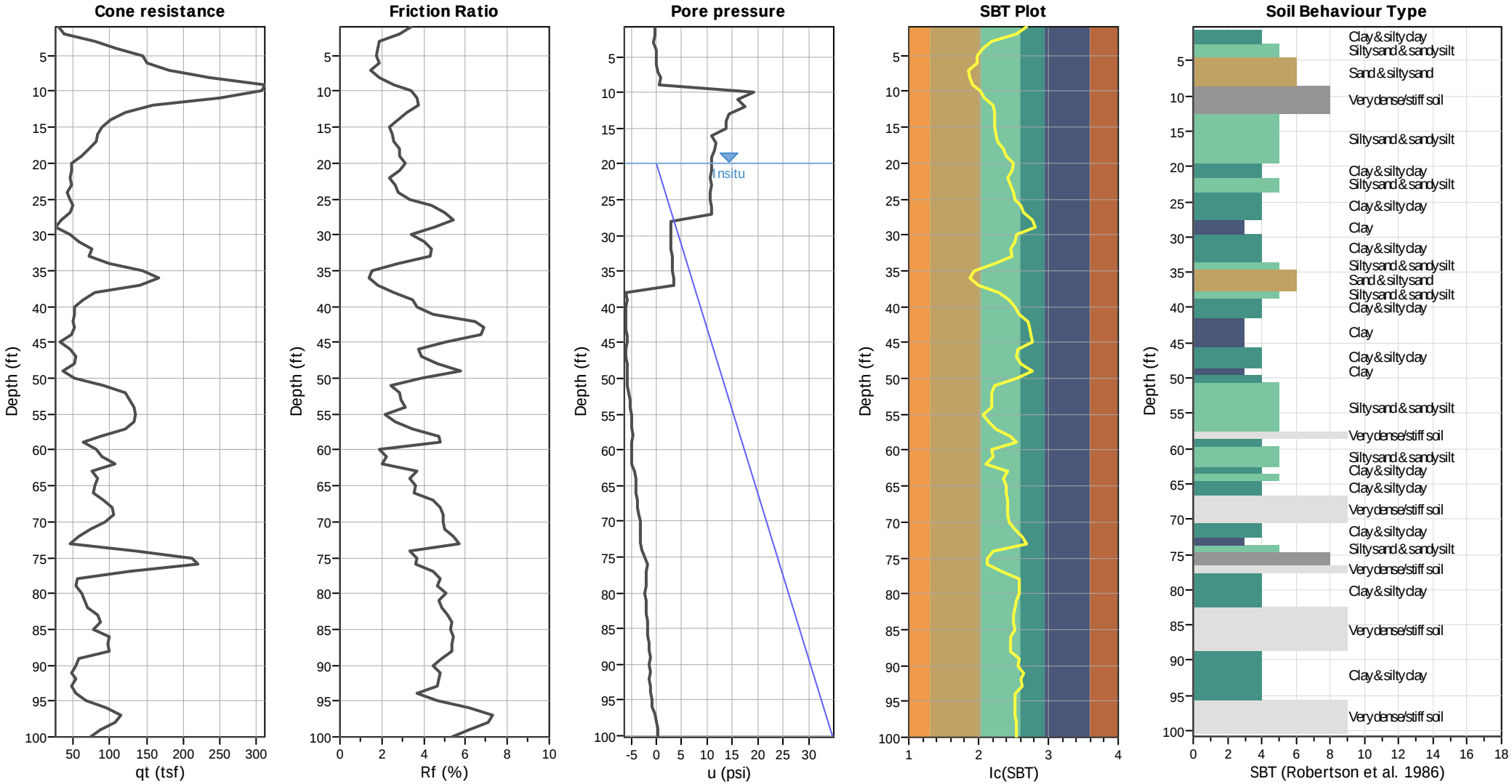






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



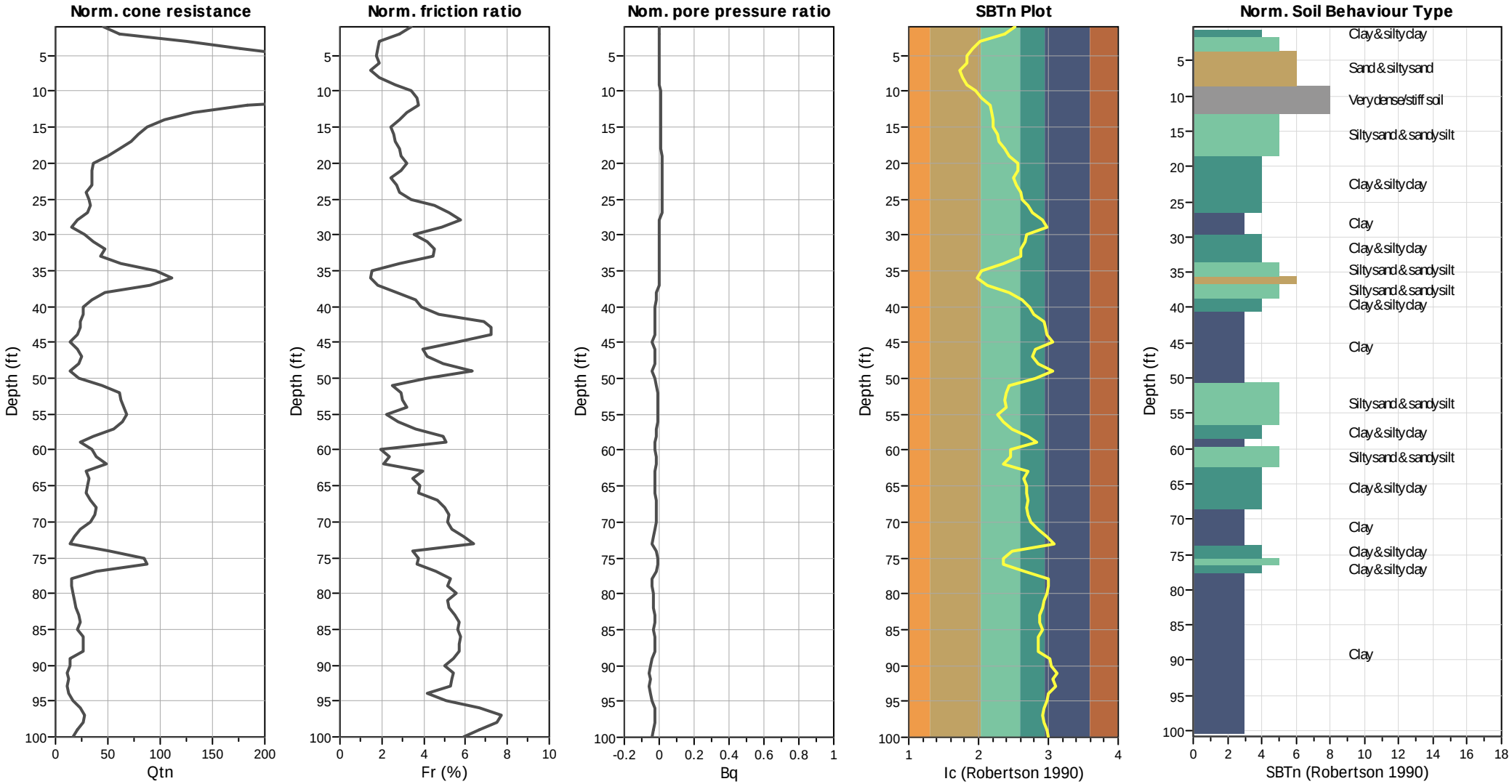
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



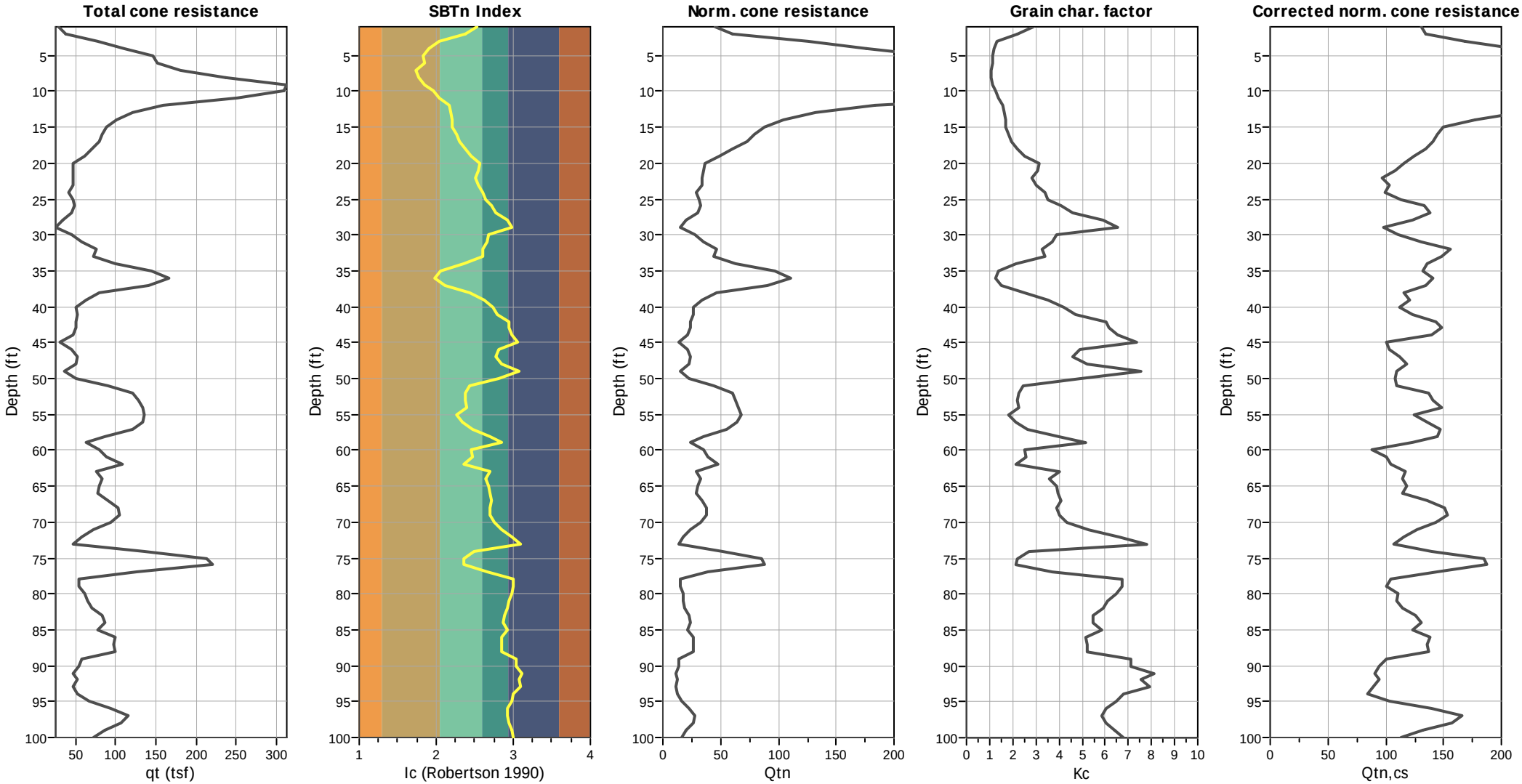
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

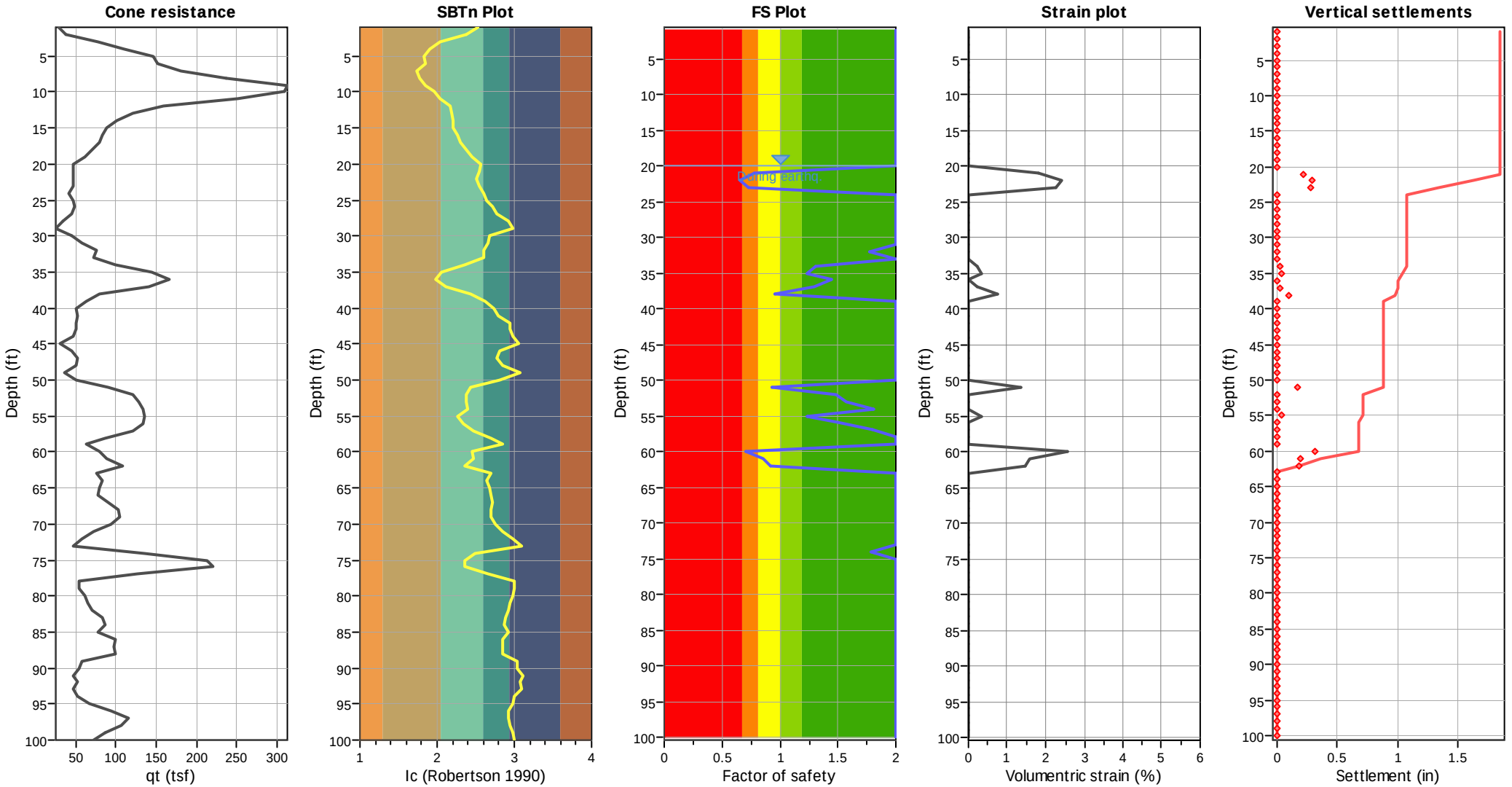
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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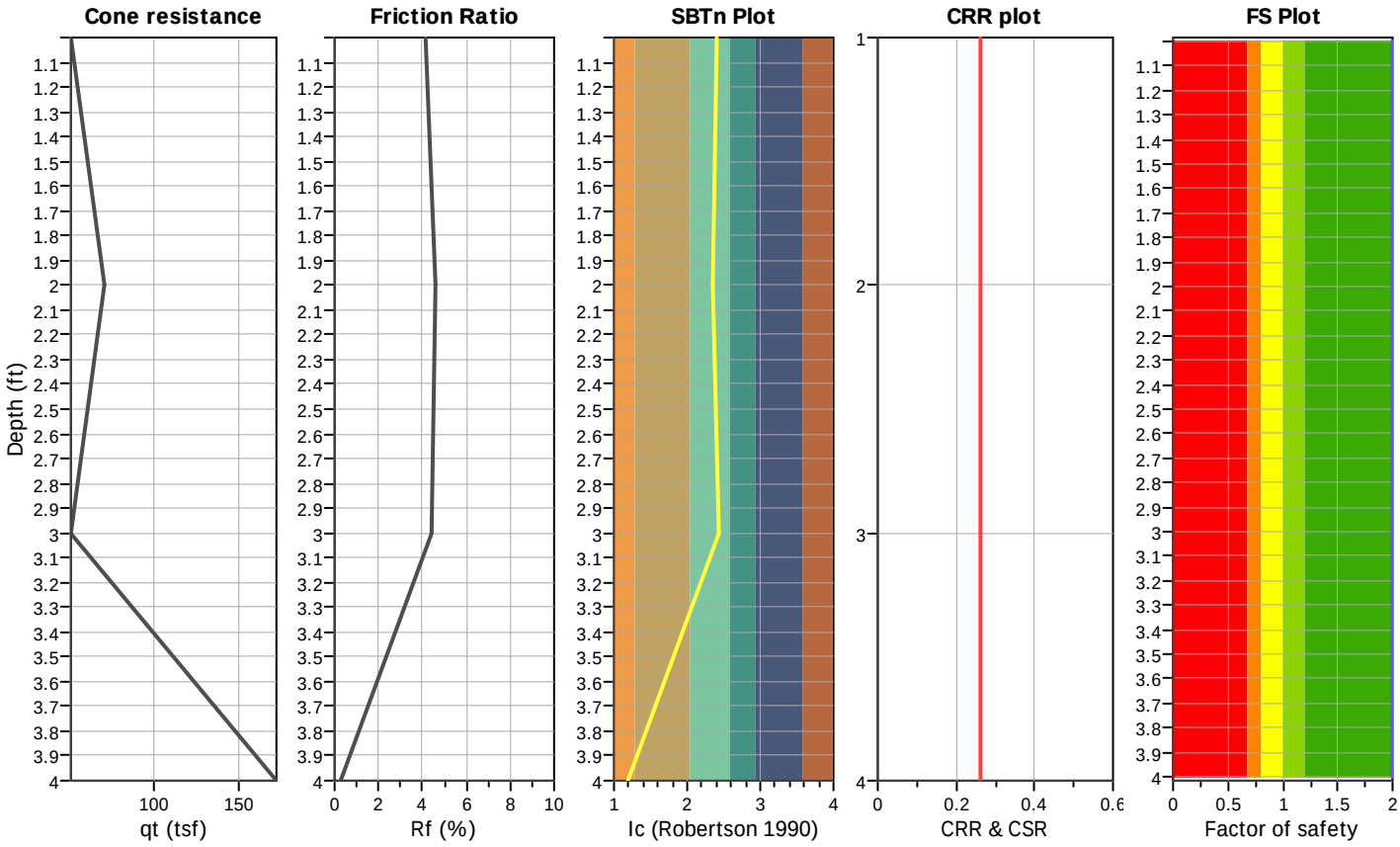
LIQUEFACTION ANALYSIS REPORT

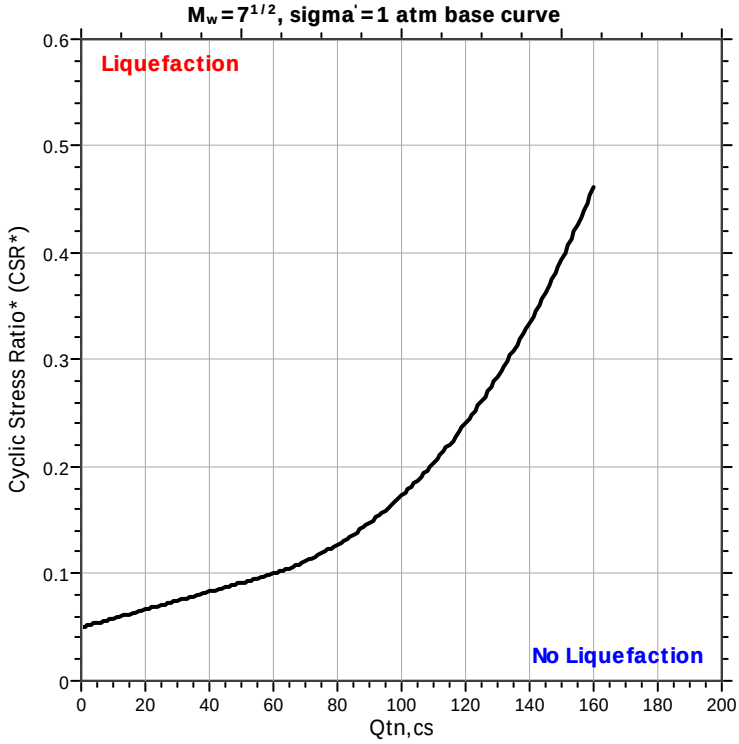
Project title : Kettner Substation **Location : San Diego, CA**

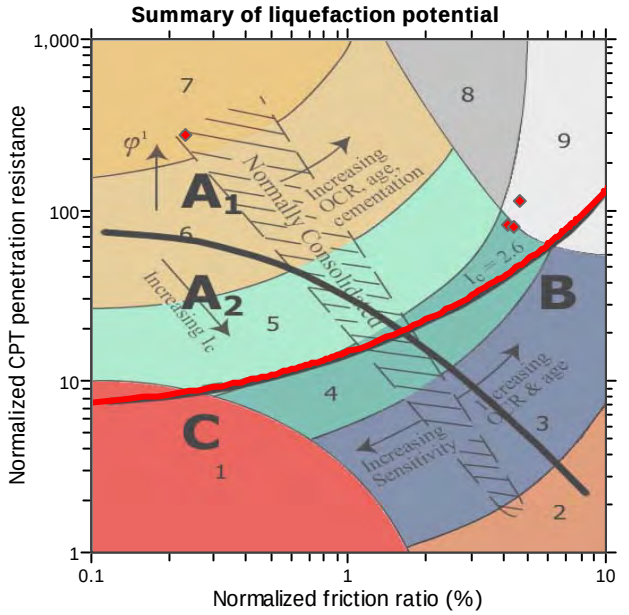
CPT file : CPT-18i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	4.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

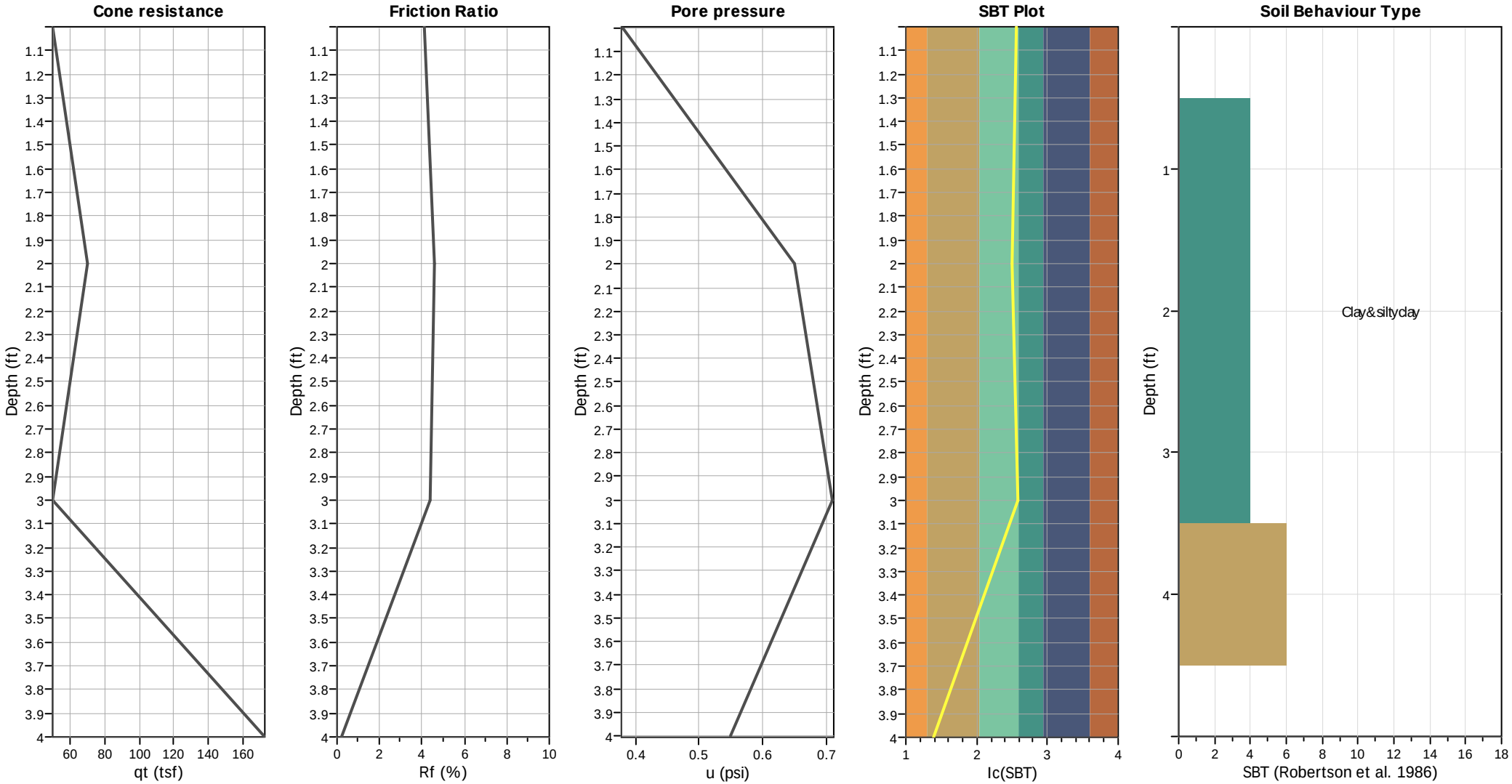






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



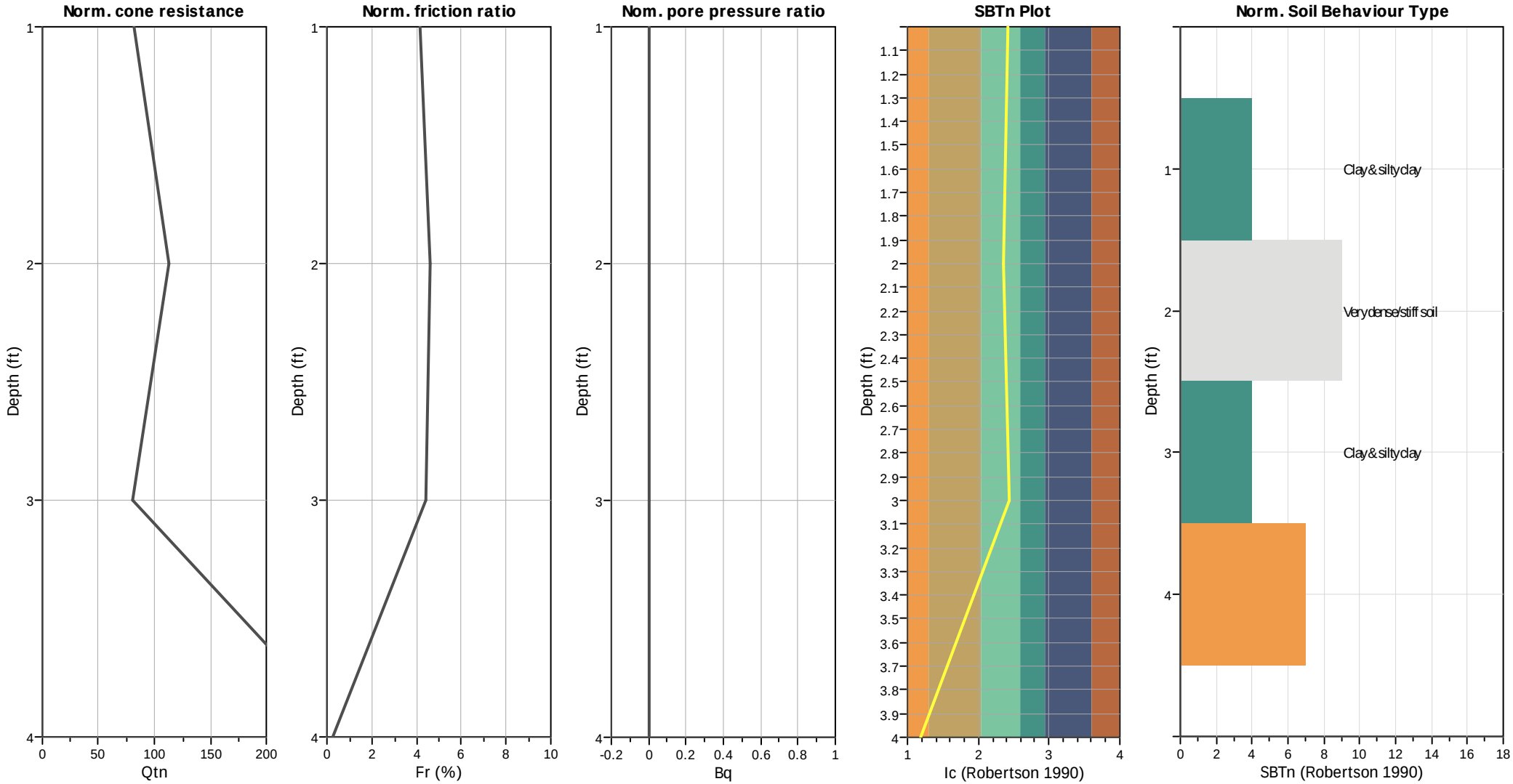
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	4.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



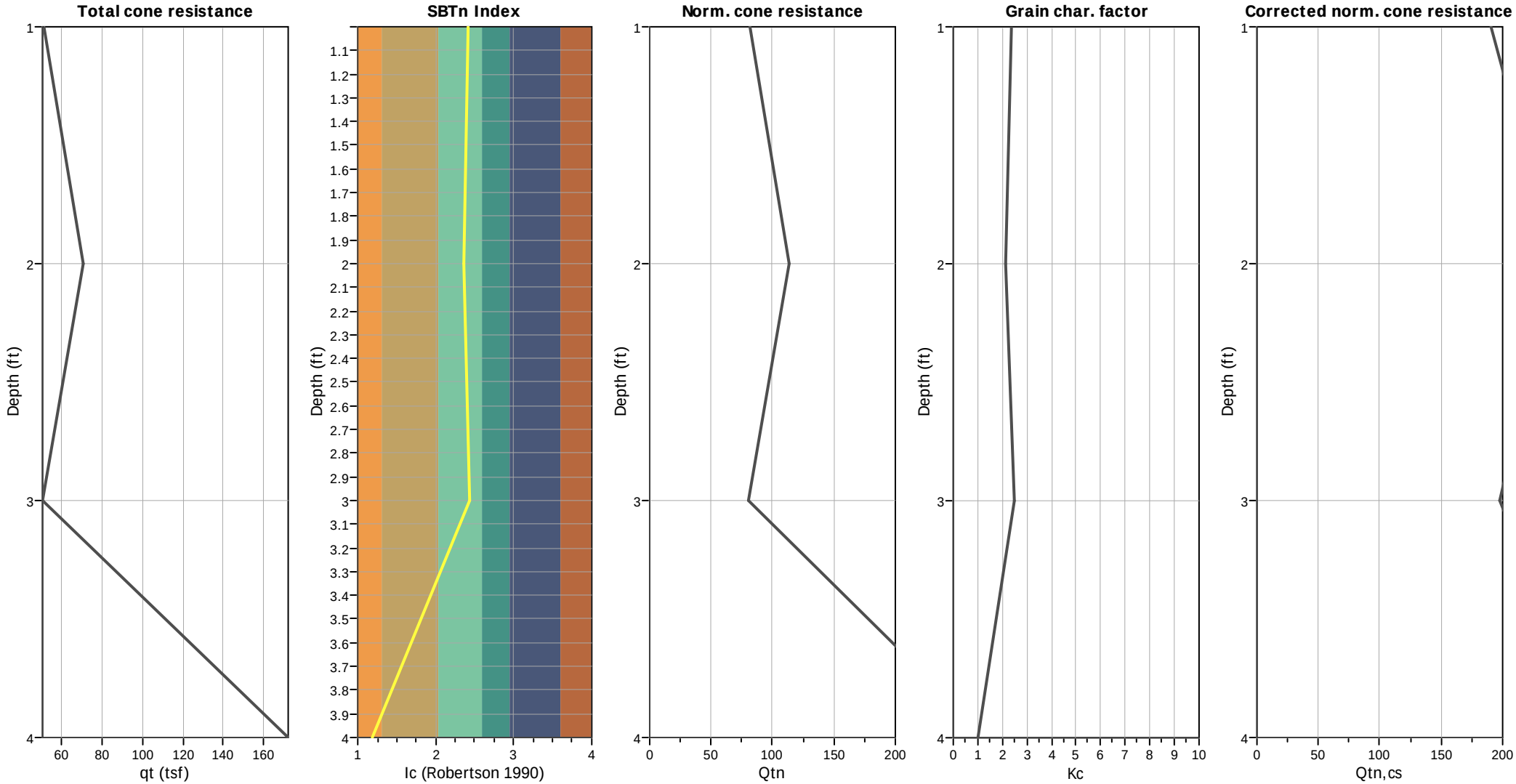
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	4.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

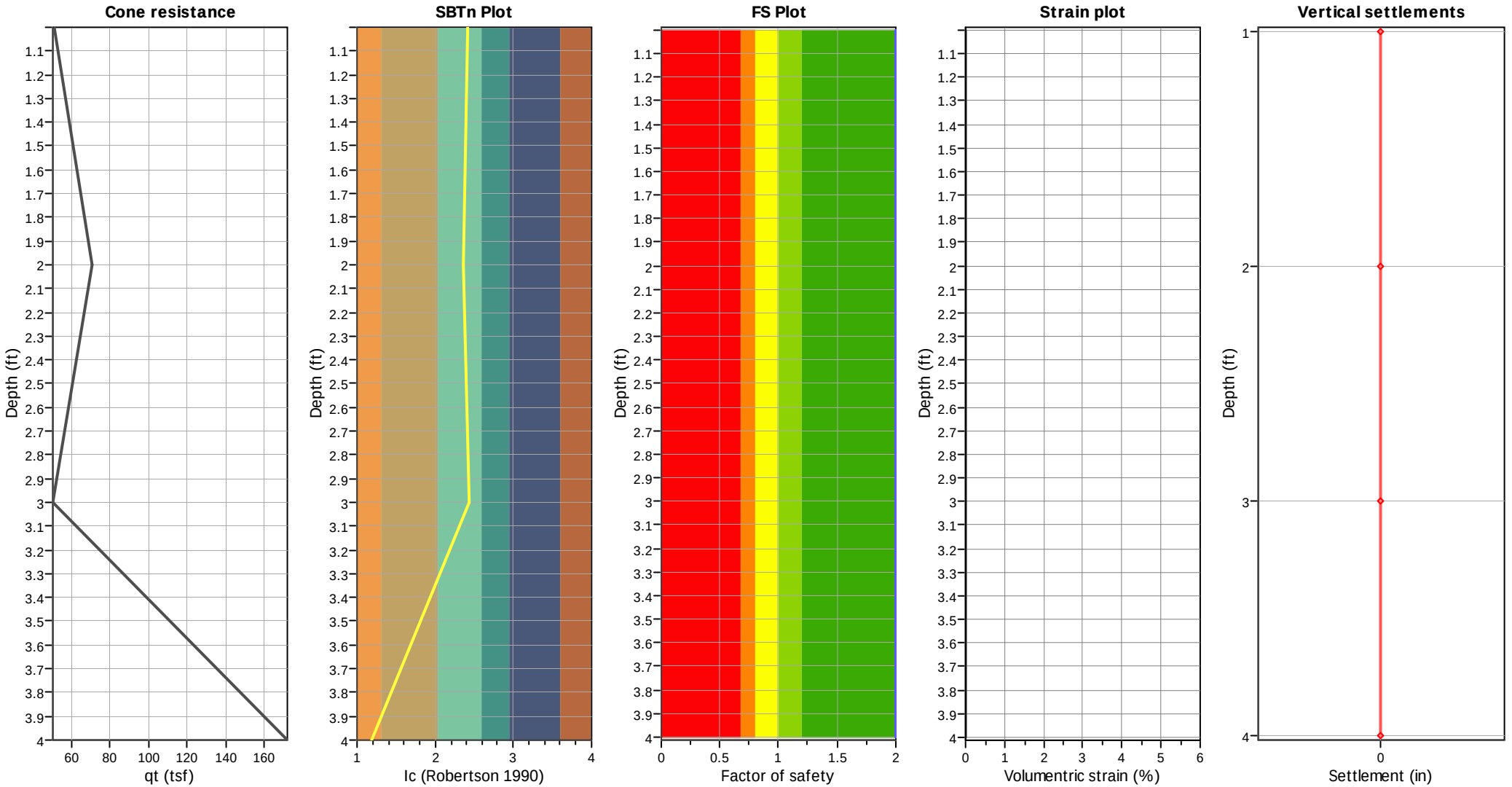
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	4.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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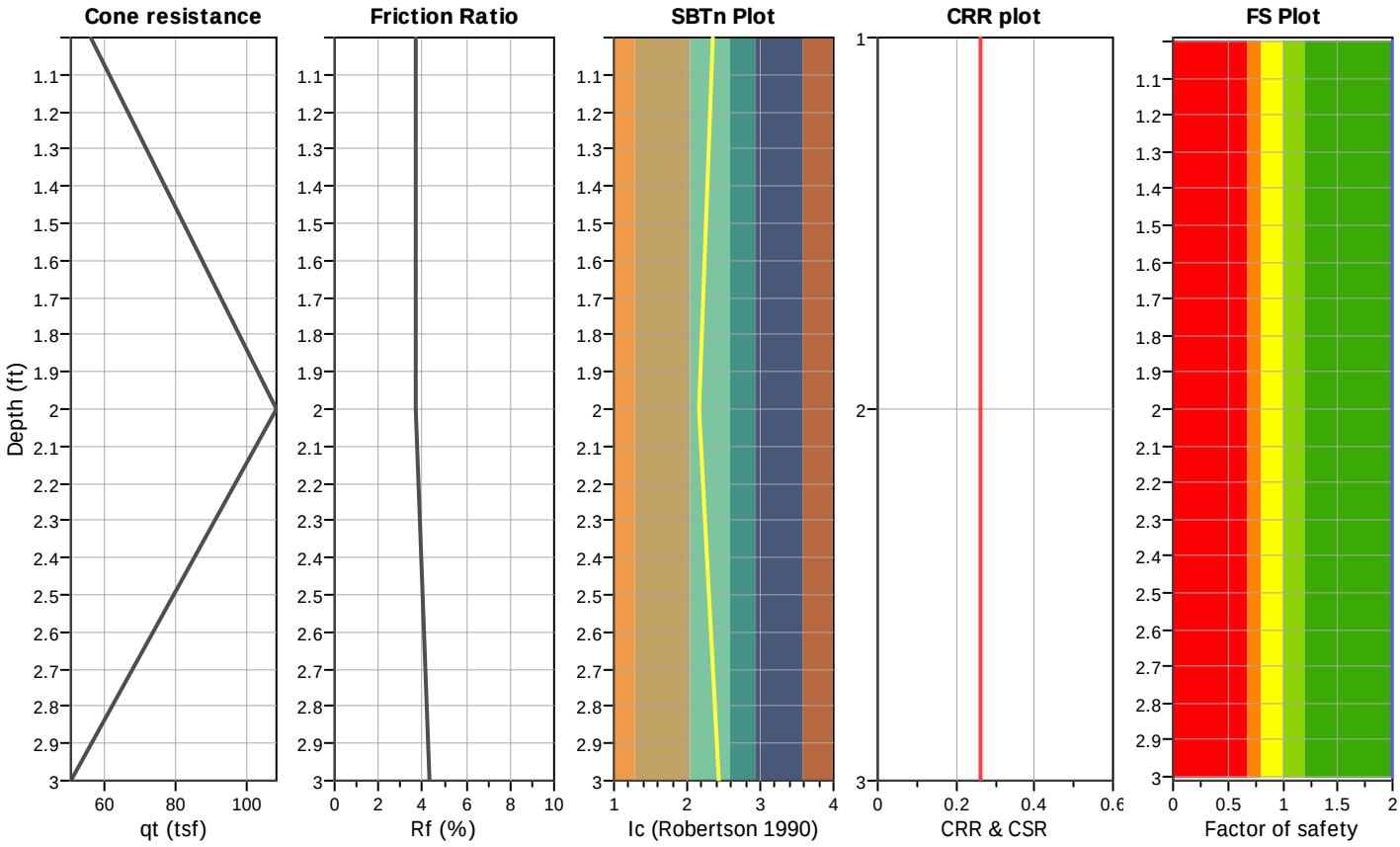
LIQUEFACTION ANALYSIS REPORT

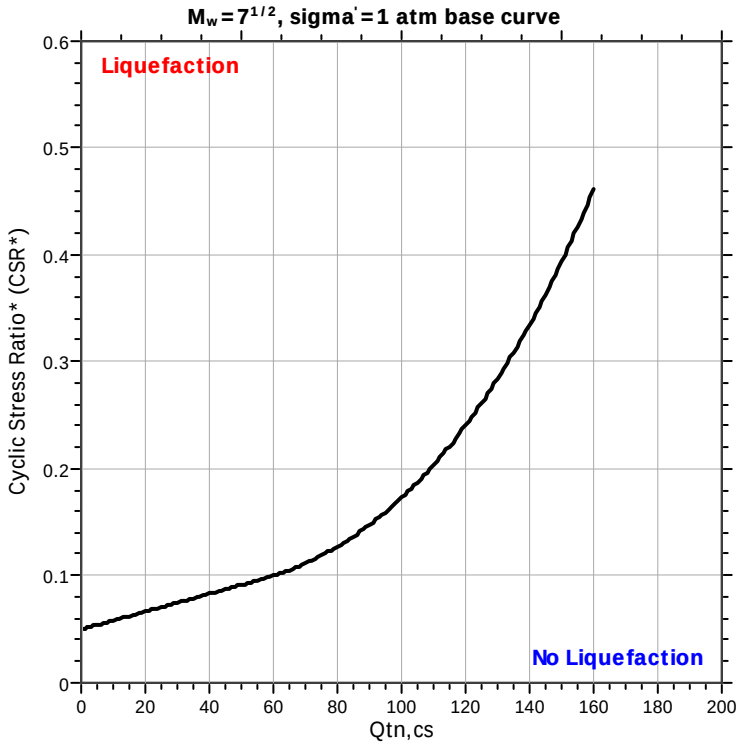
Project title : Kettner Substation **Location : San Diego, CA**

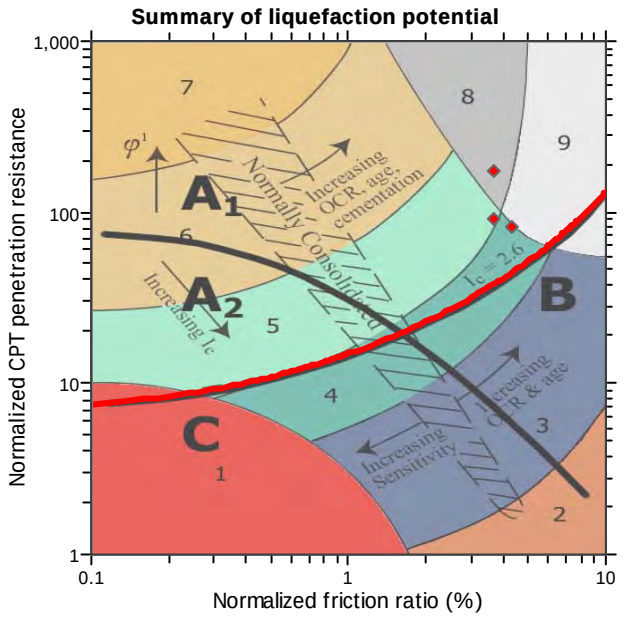
CPT file : CPT-18Ai

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	3.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

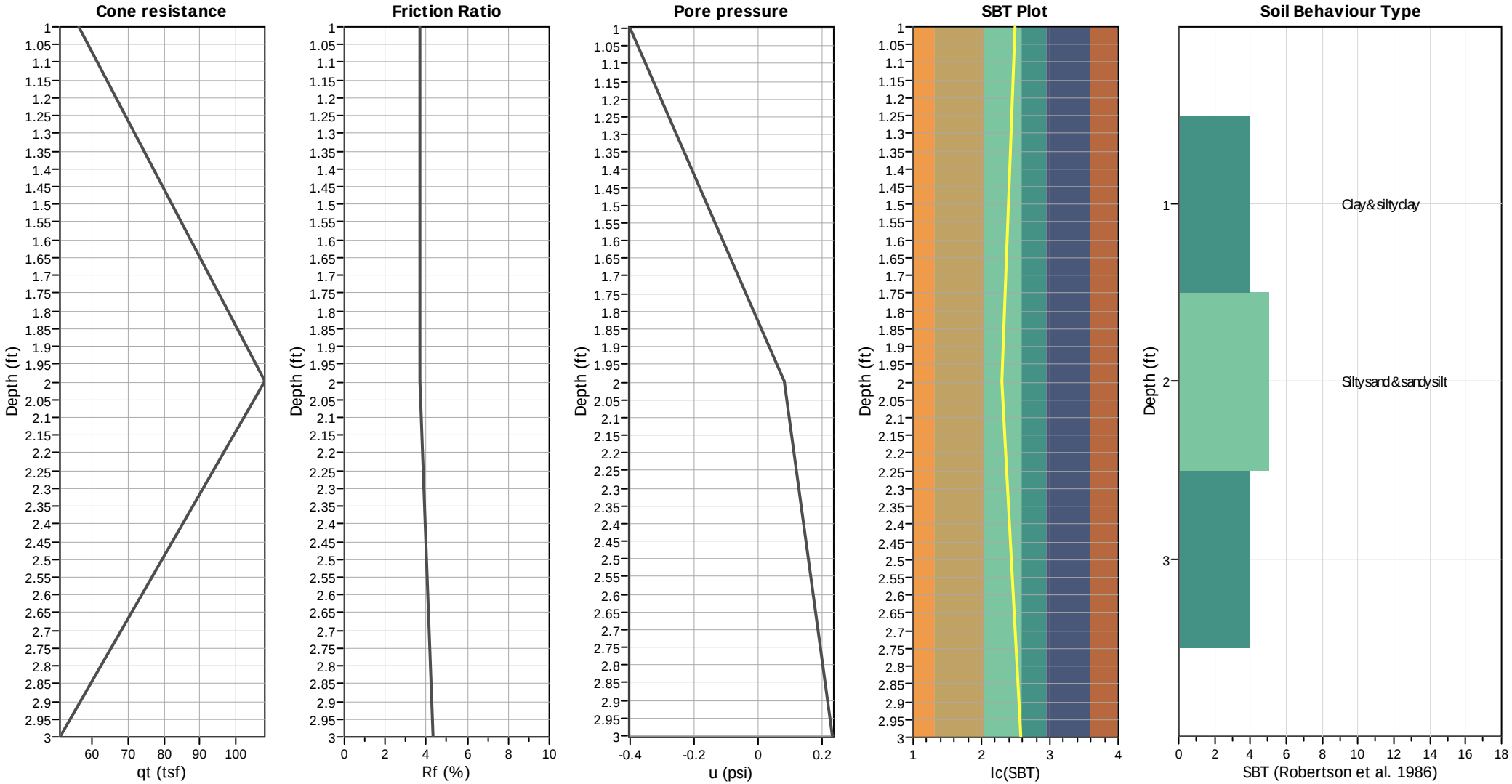






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



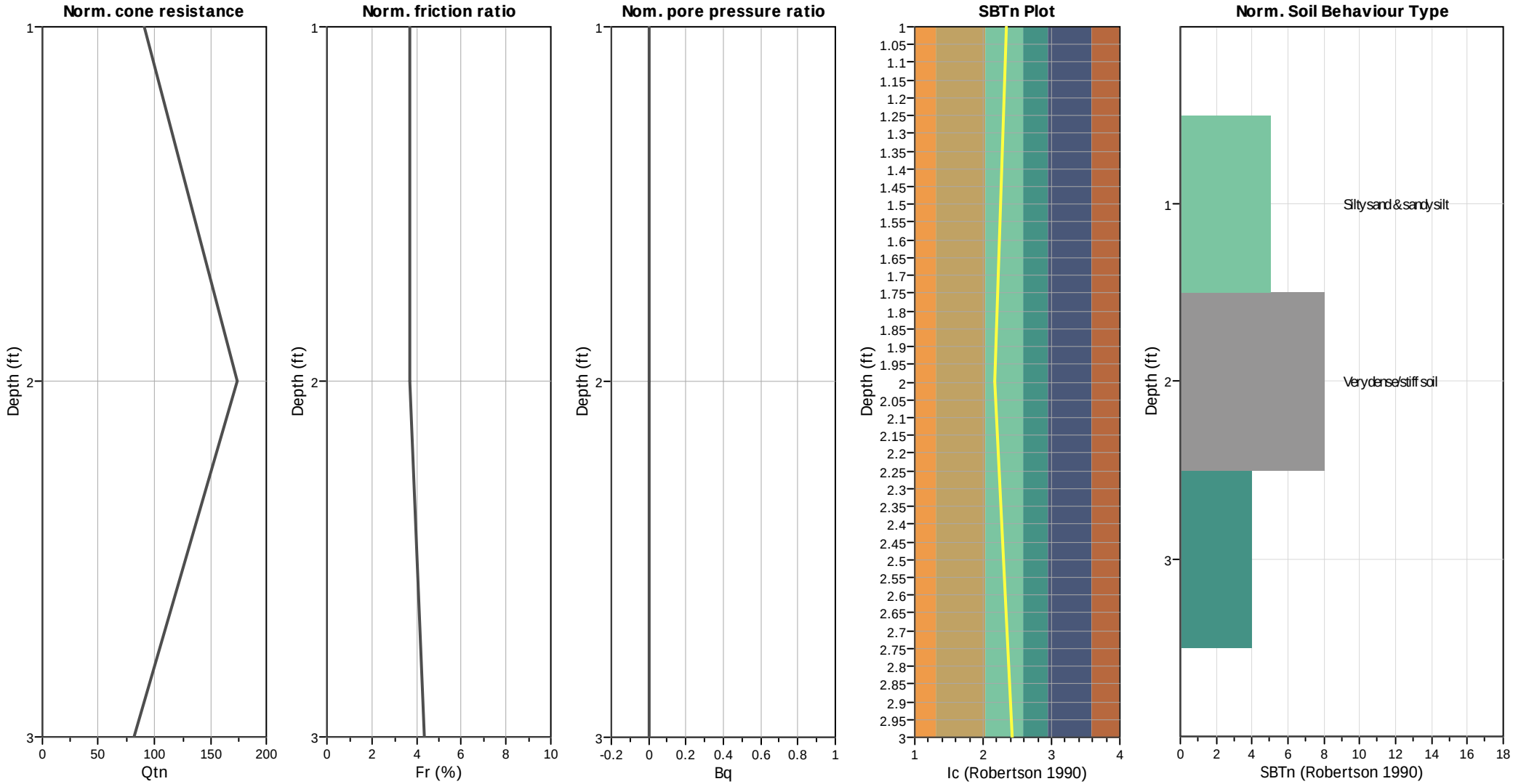
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	3.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



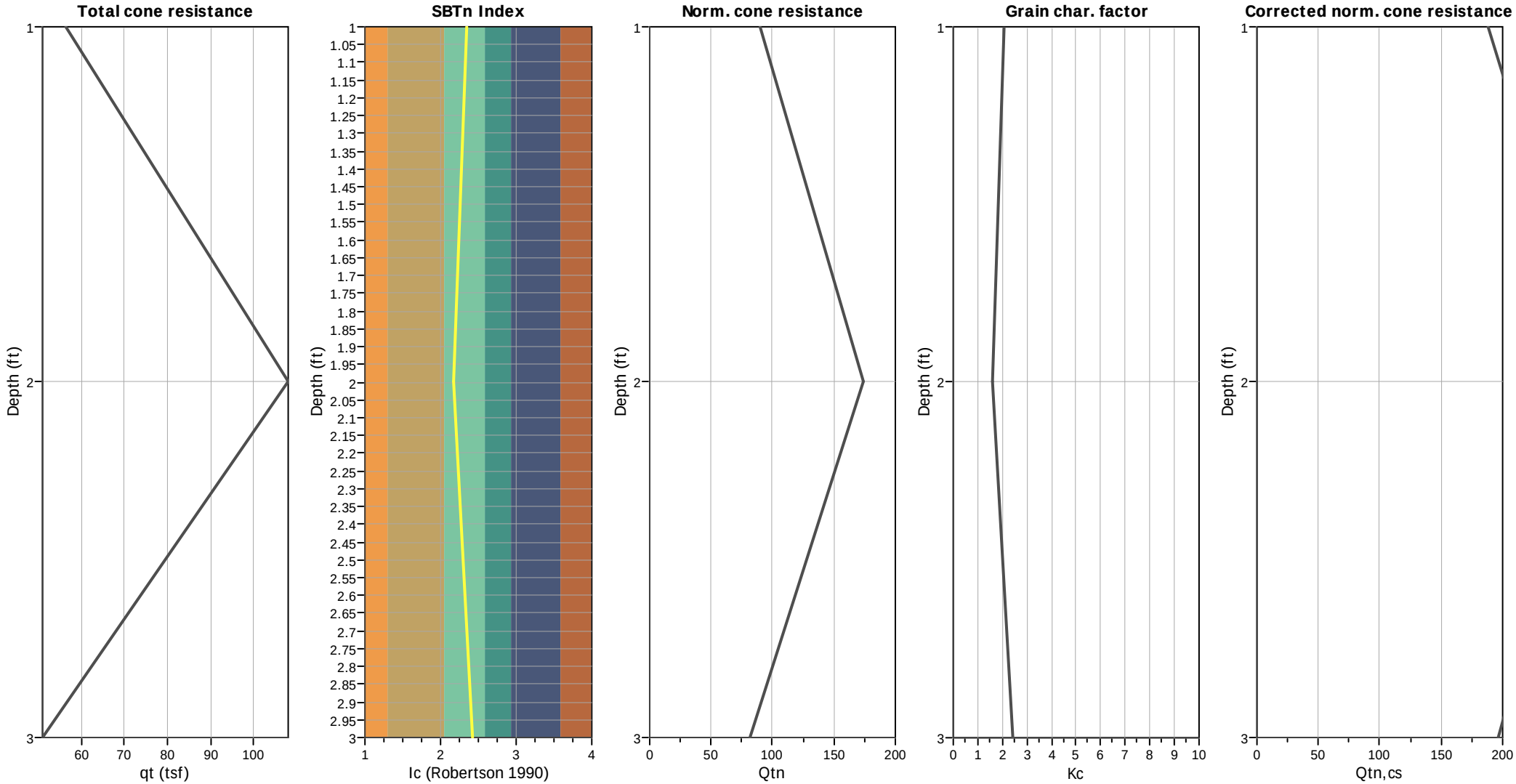
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	3.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

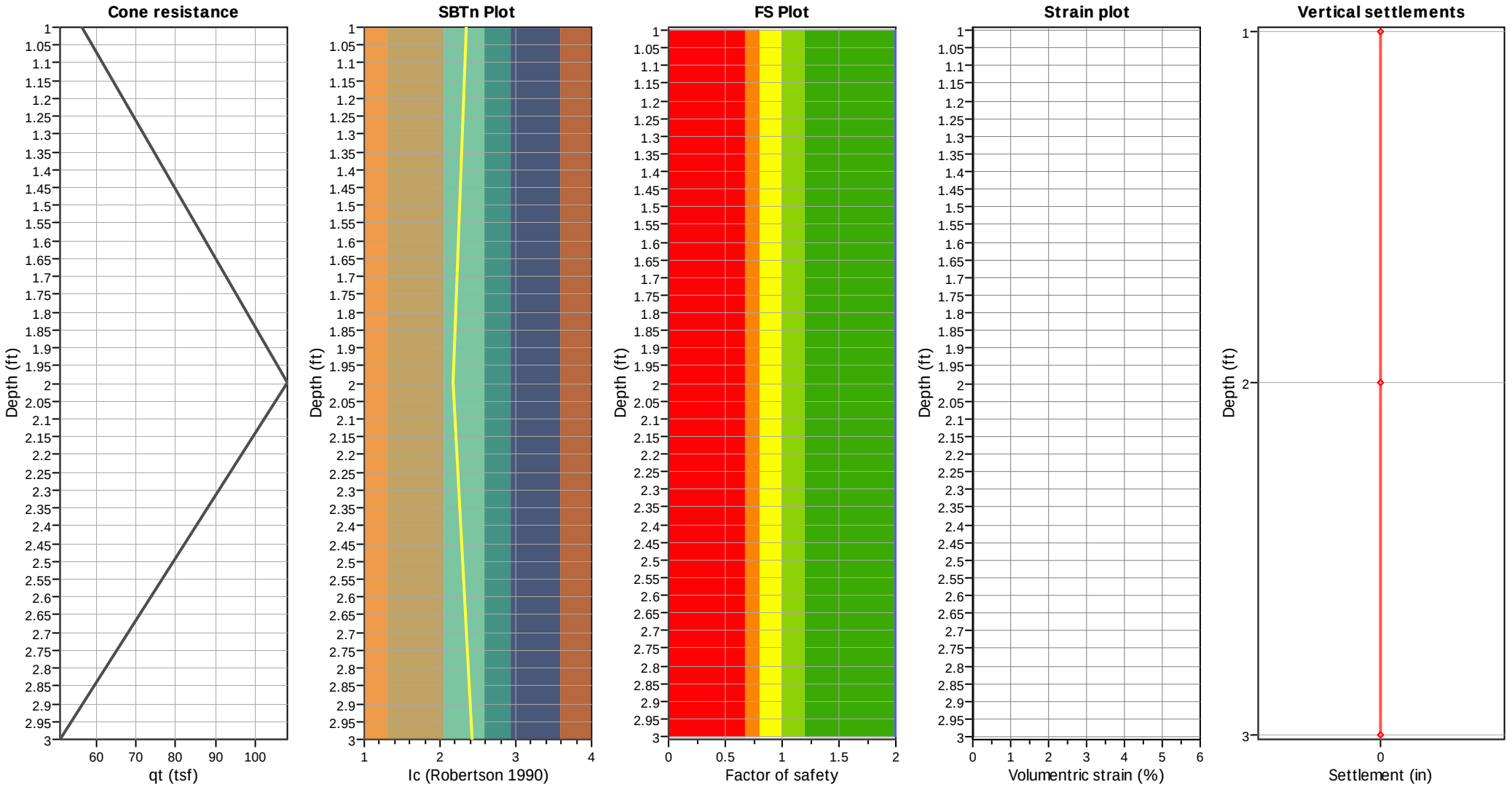
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	3.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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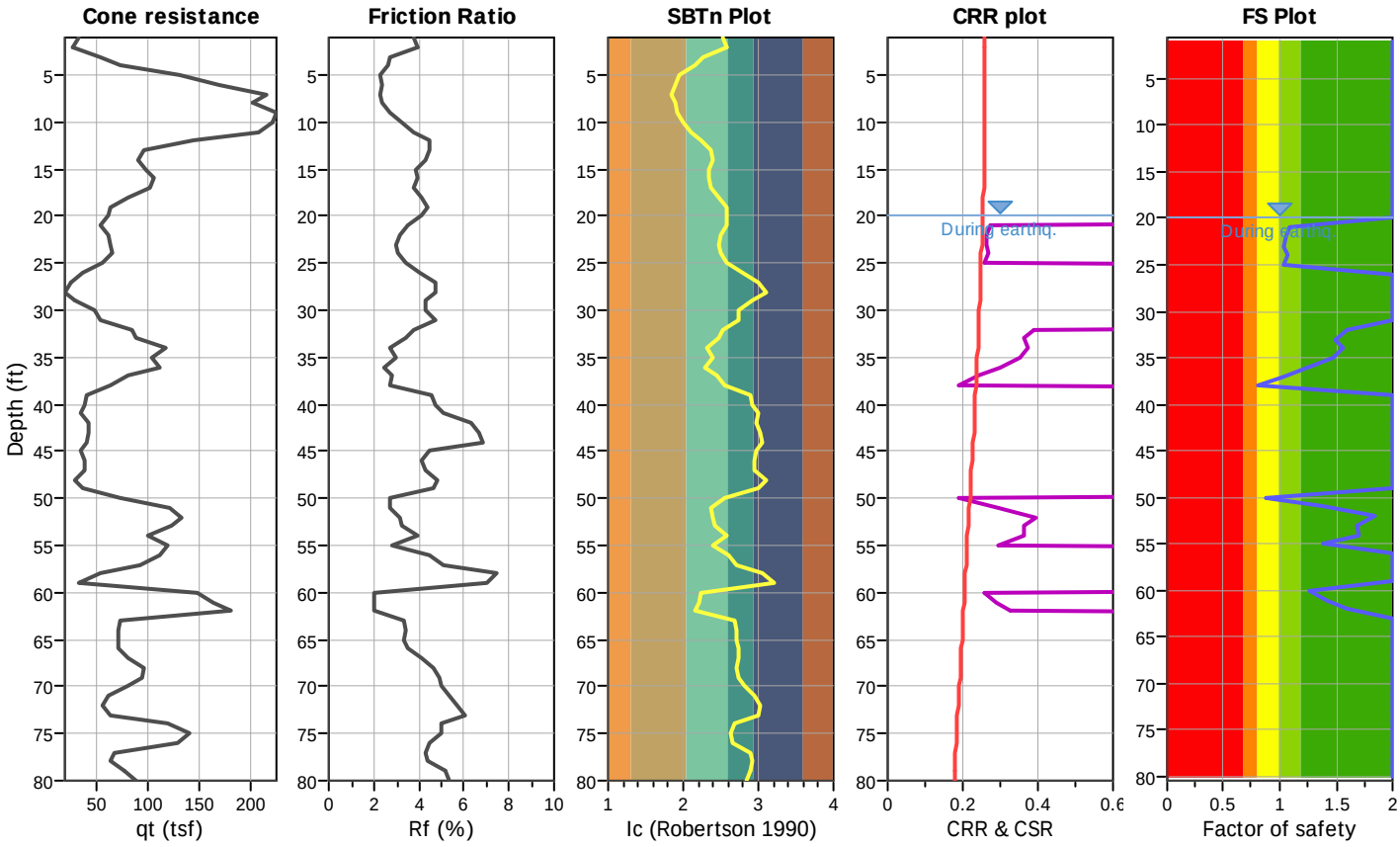
LIQUEFACTION ANALYSIS REPORT

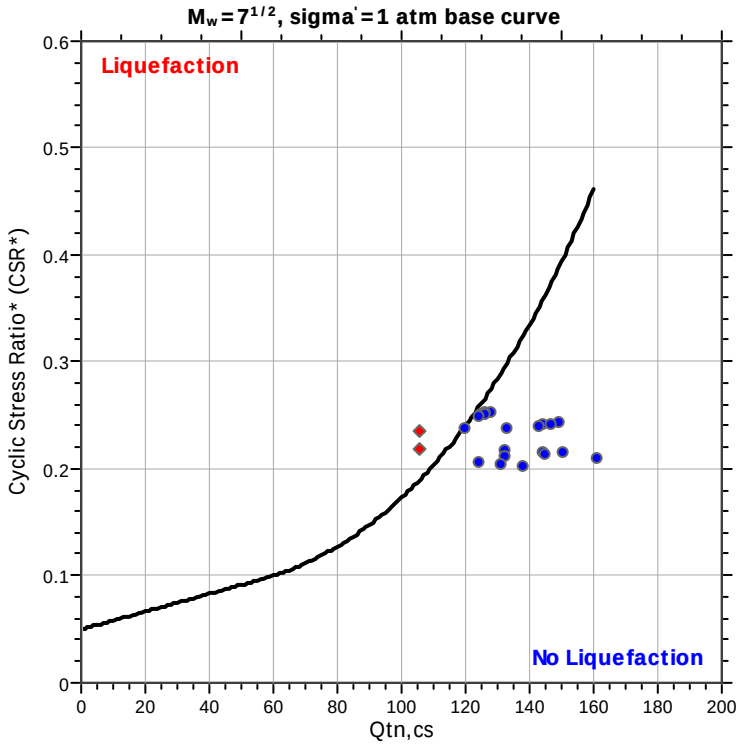
Project title : Kettner Substation **Location : San Diego, CA**

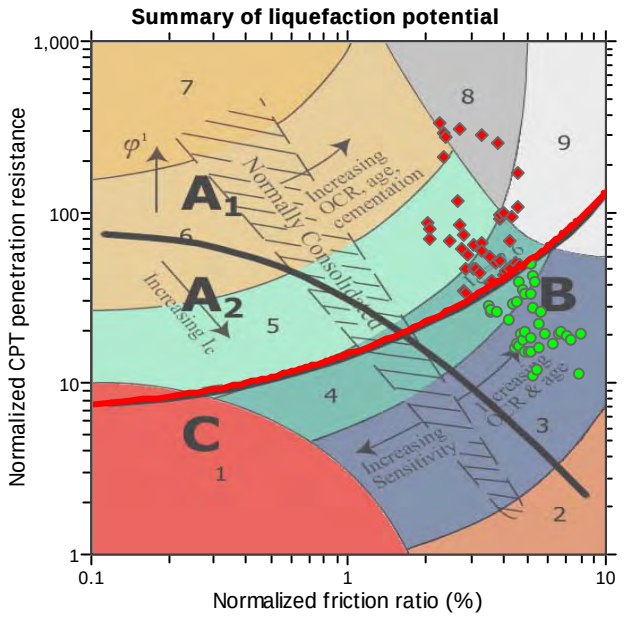
CPT file : CPT-18Ci

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	80.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

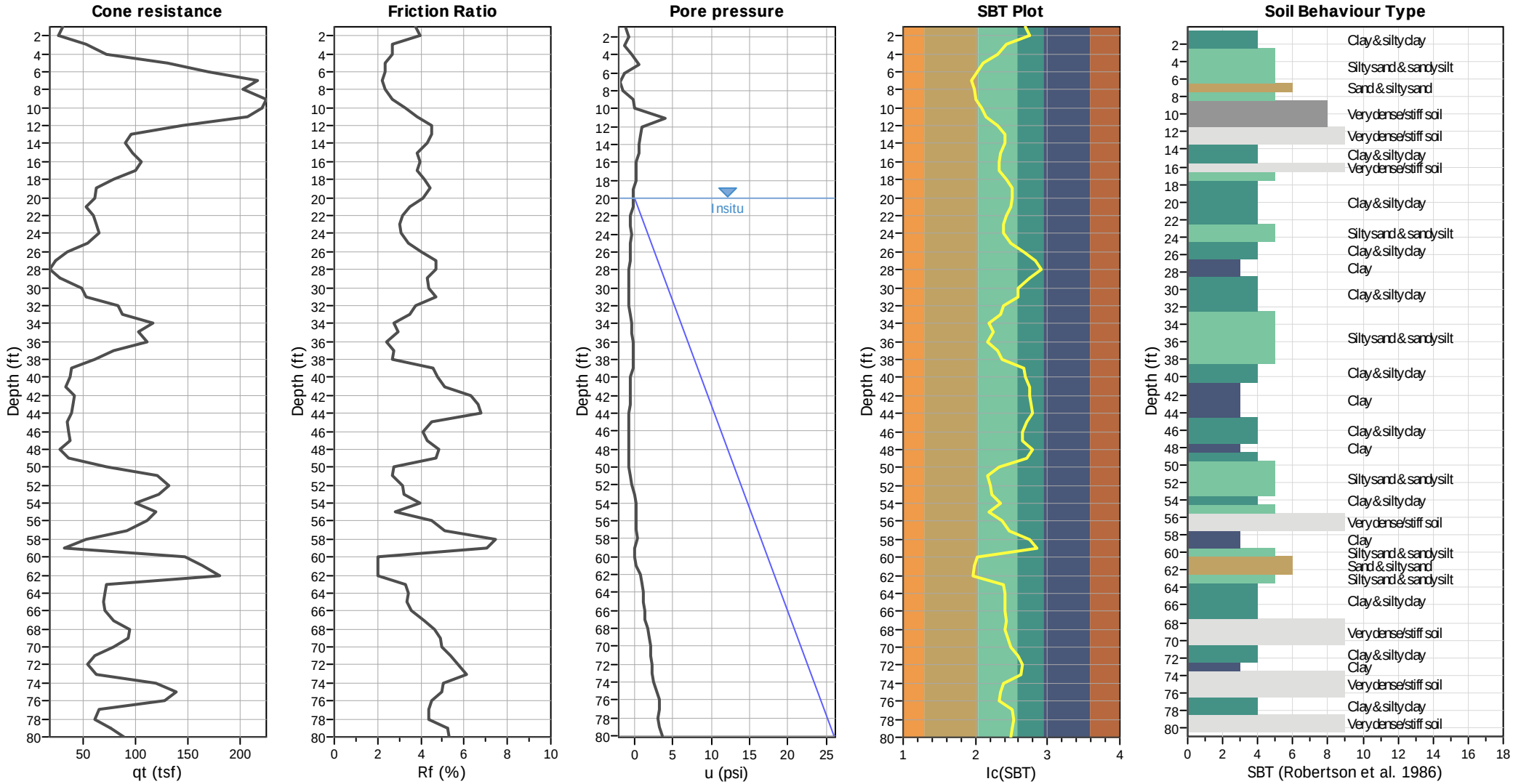






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



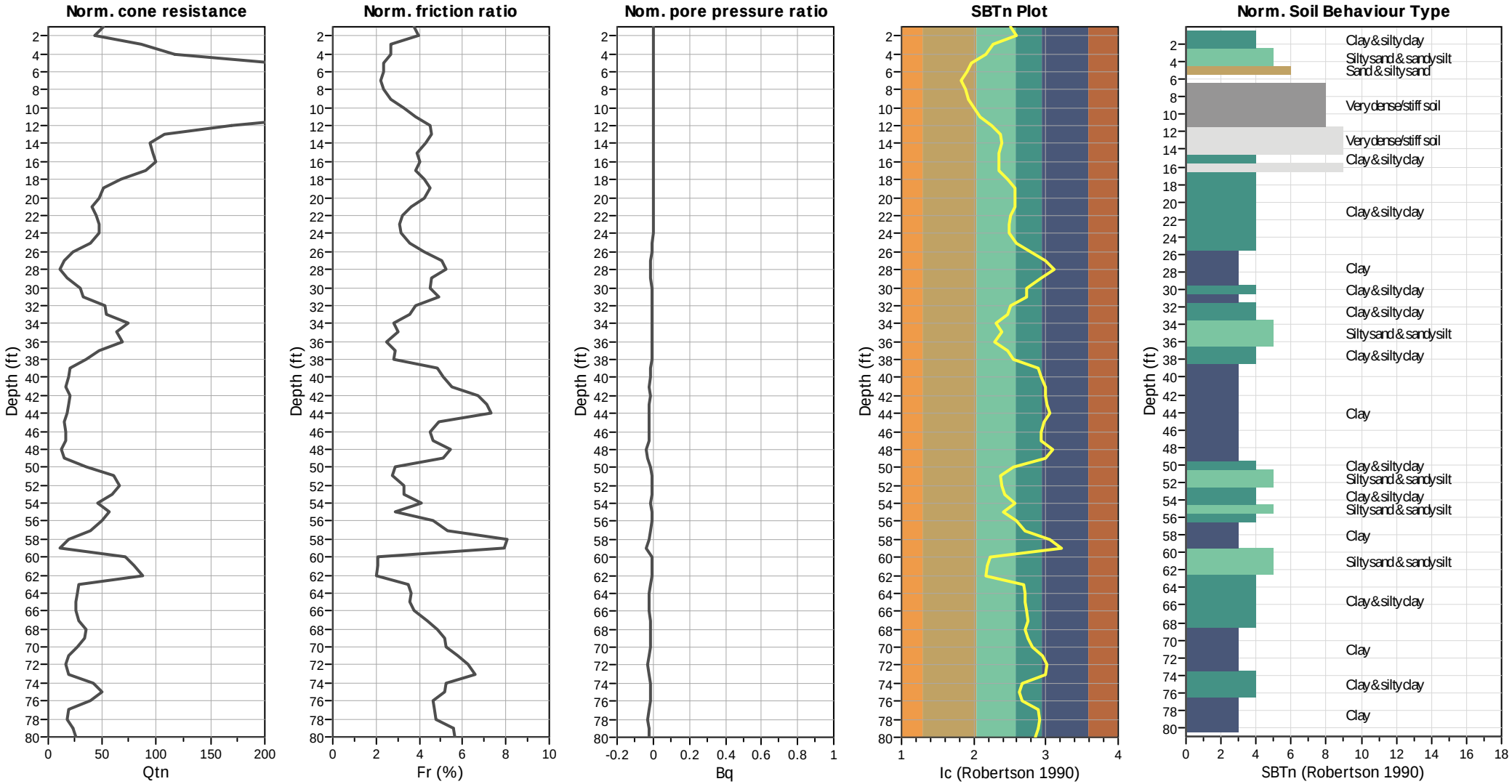
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



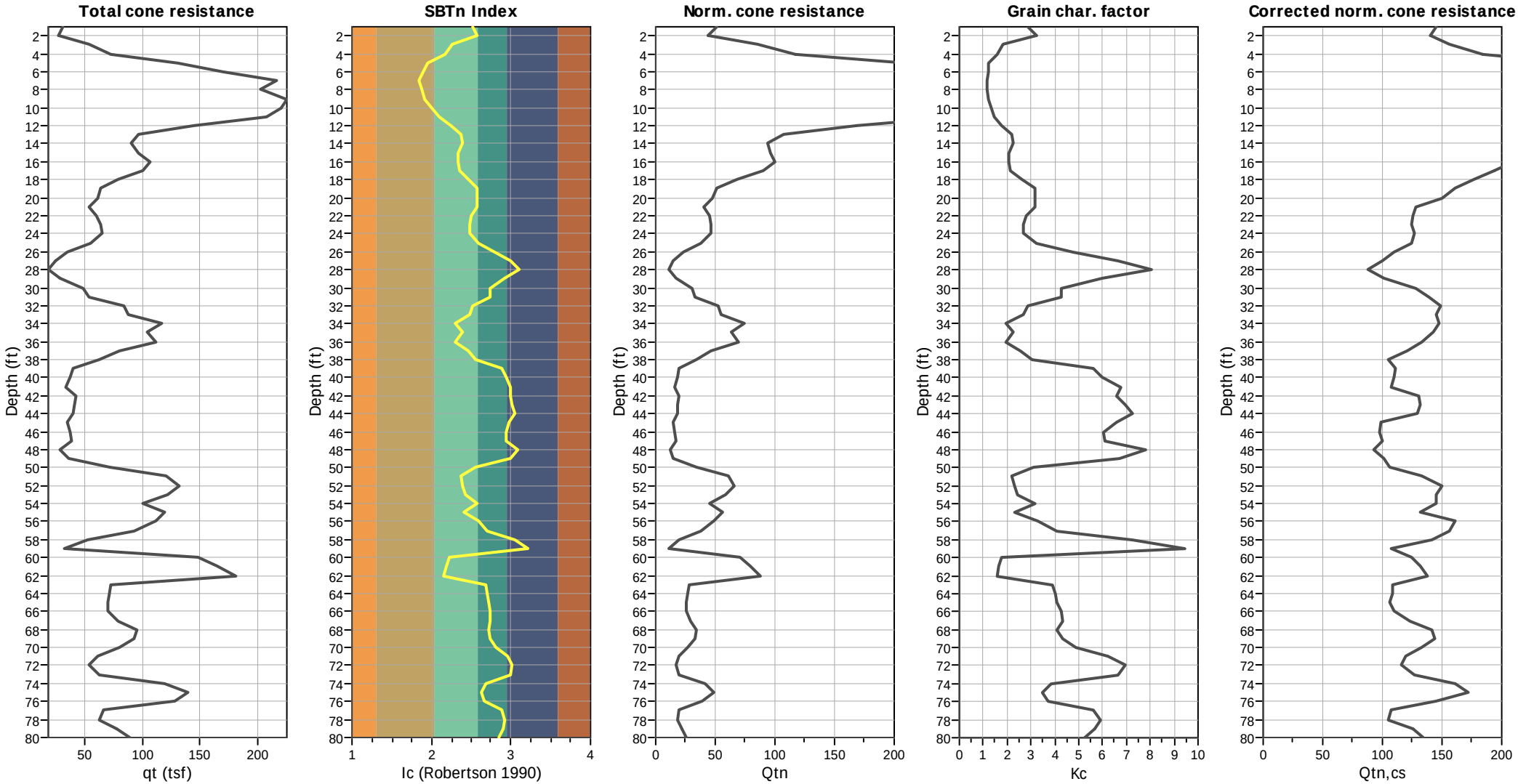
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

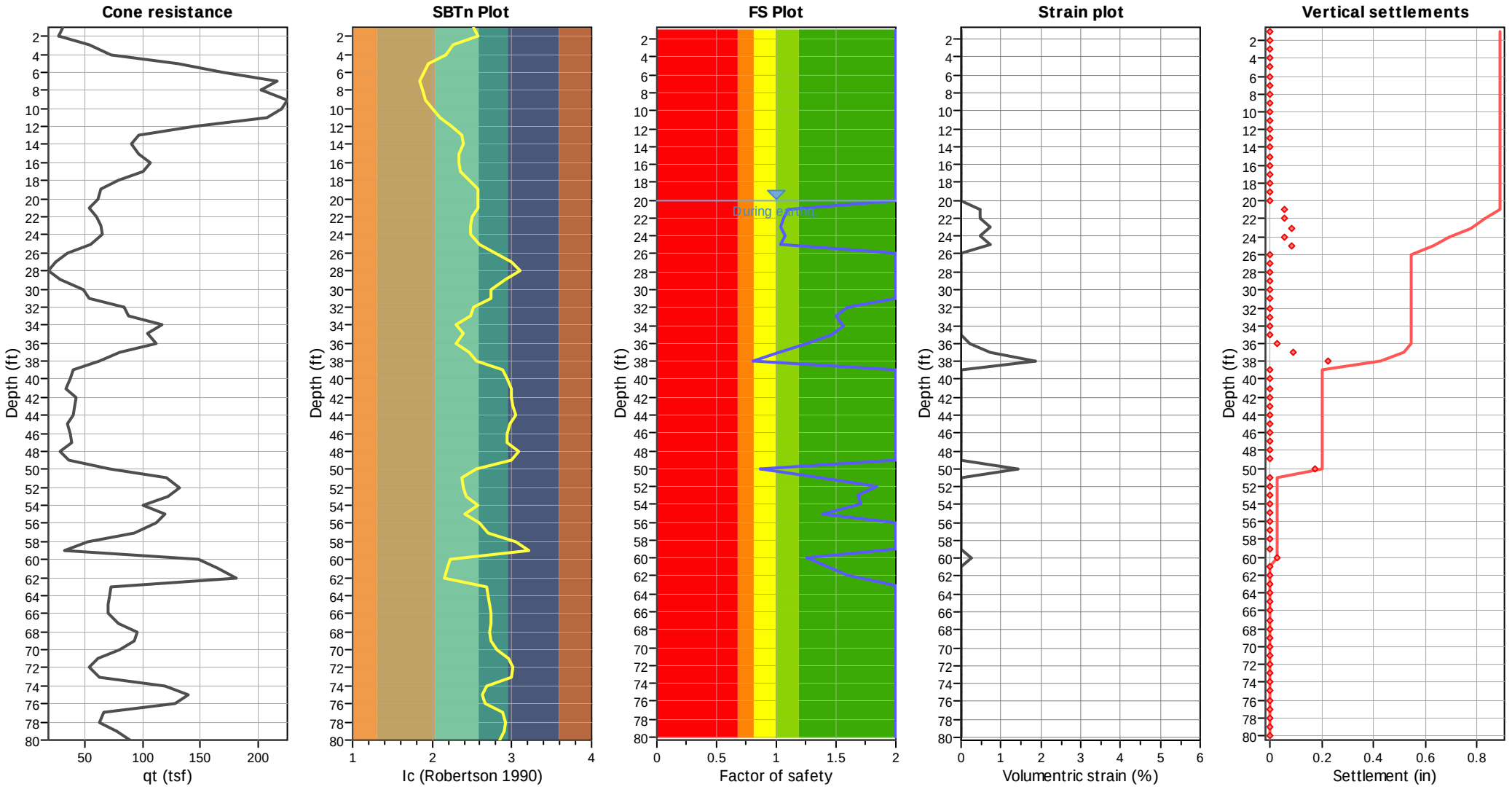
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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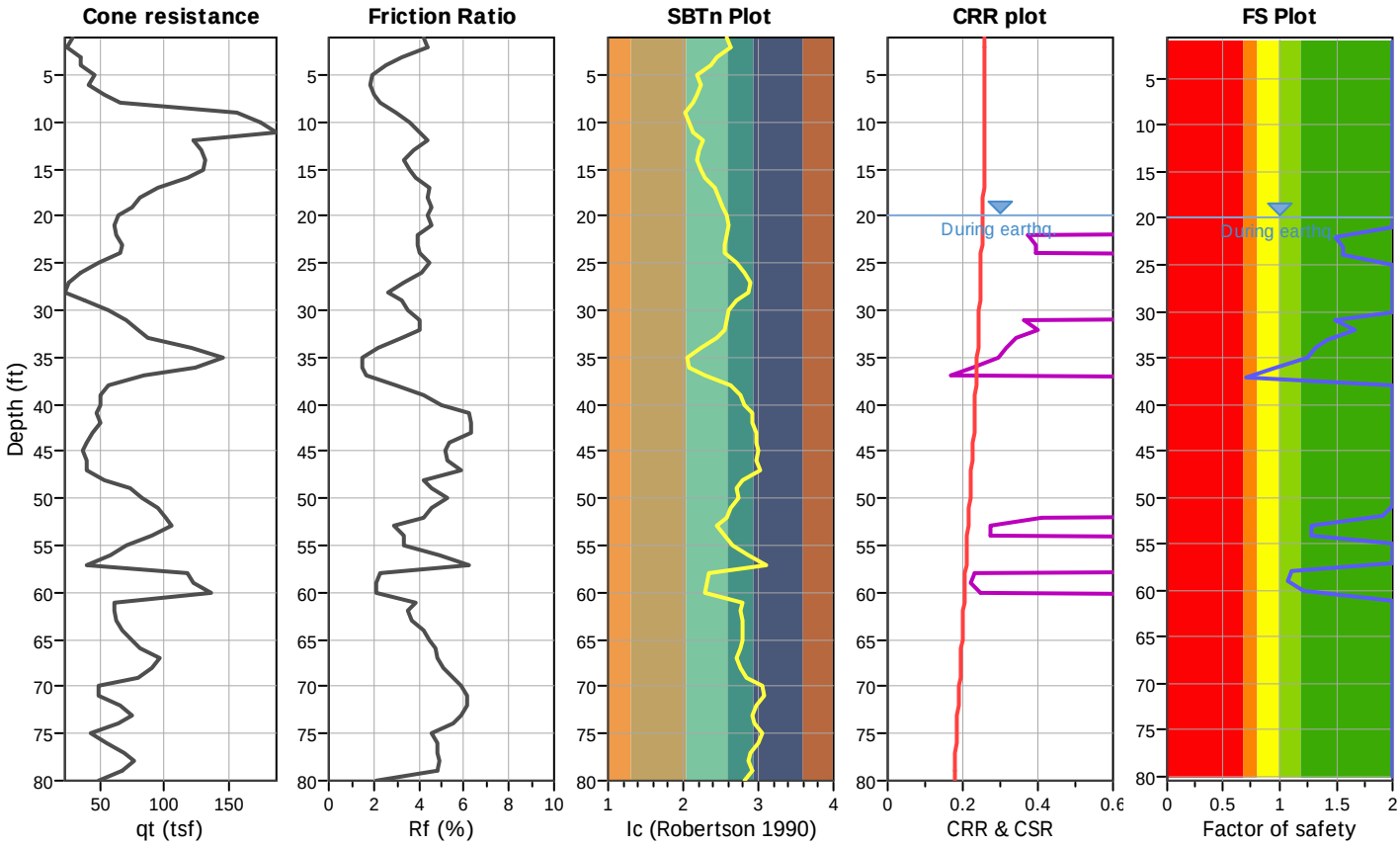
LIQUEFACTION ANALYSIS REPORT

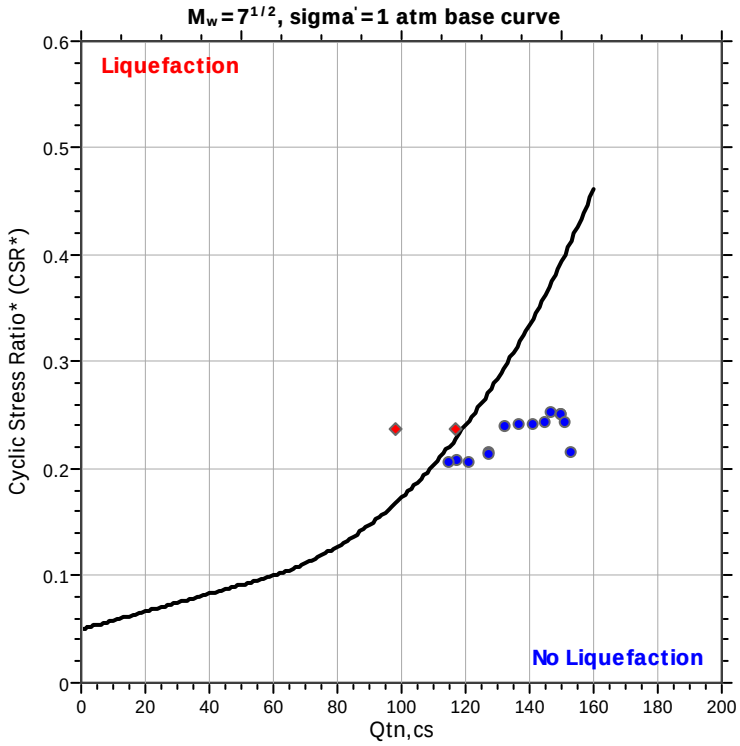
Project title : Kettner Substation **Location : San Diego, CA**

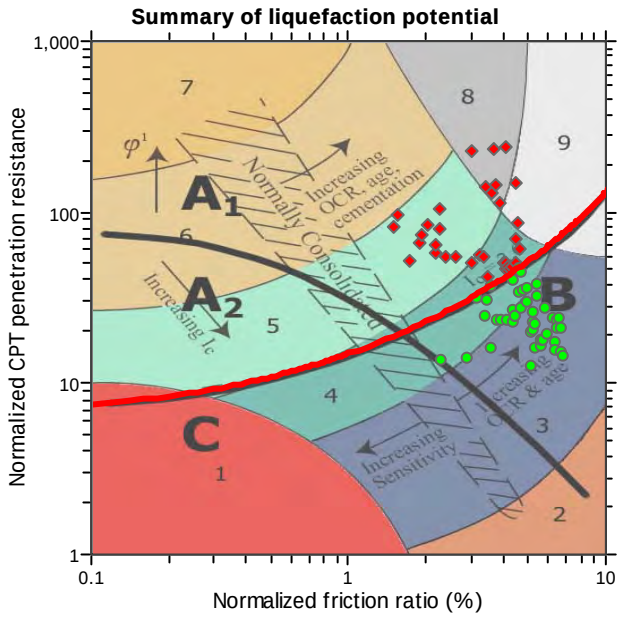
CPT file : CPT-19i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	80.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

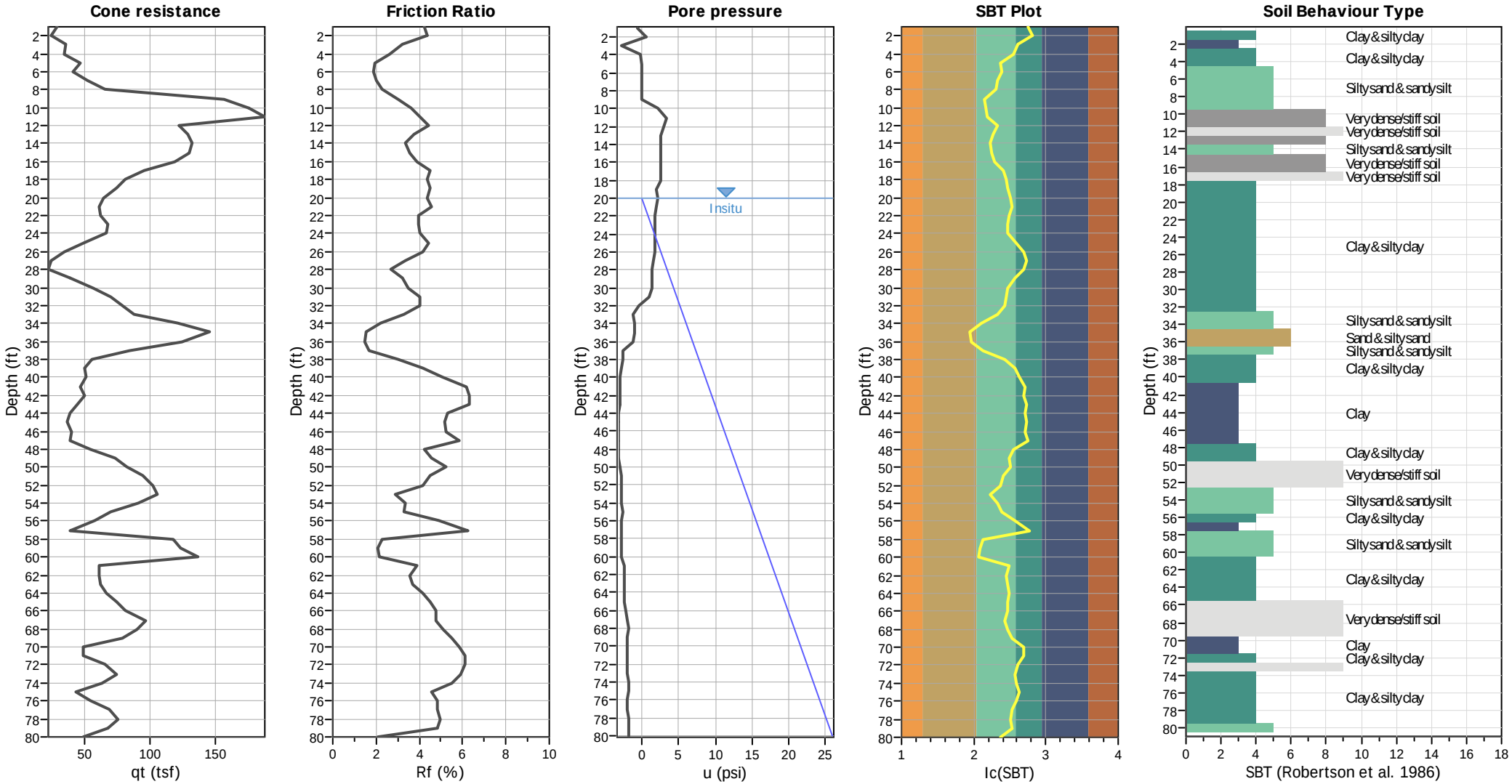






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



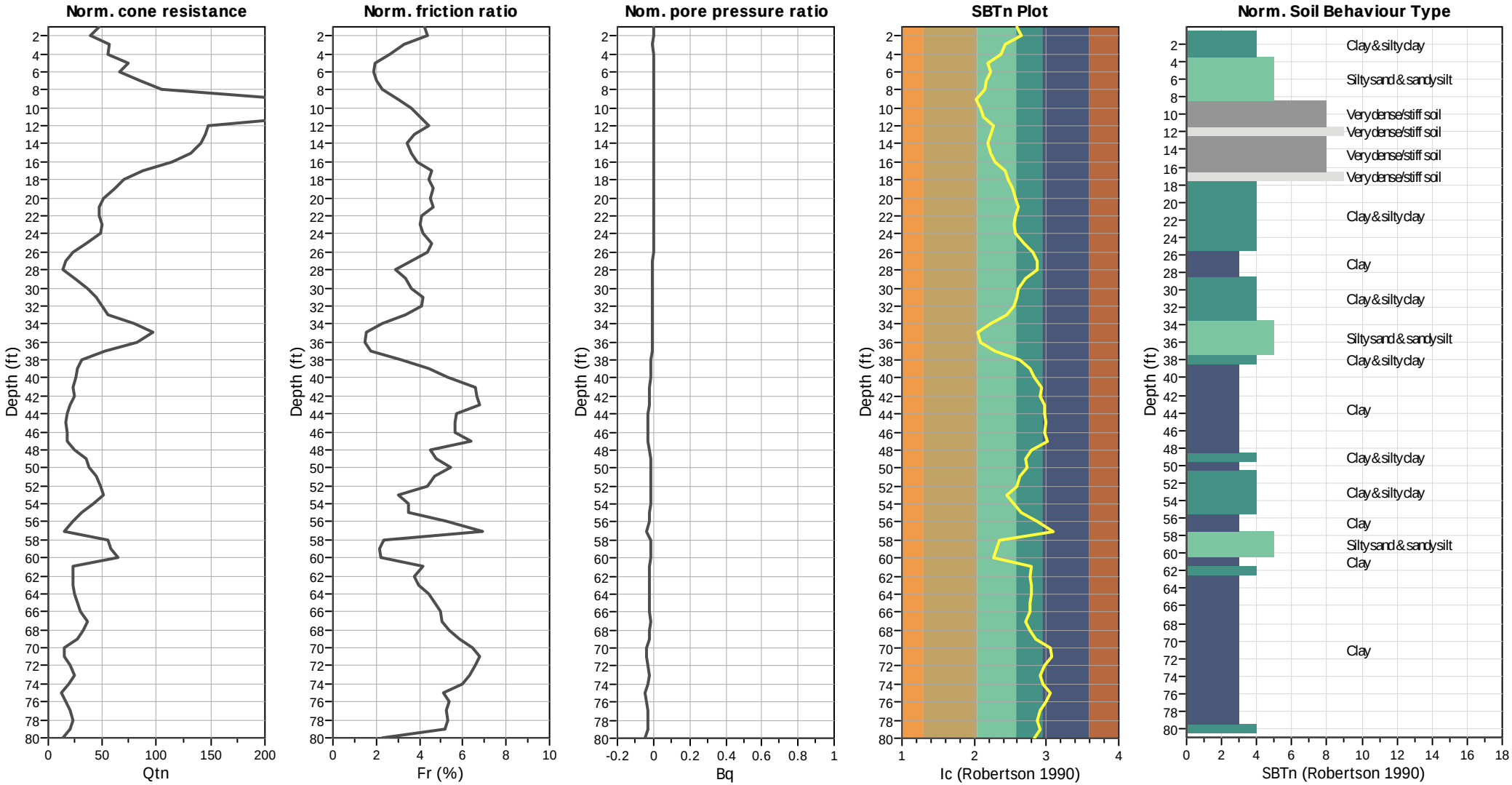
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



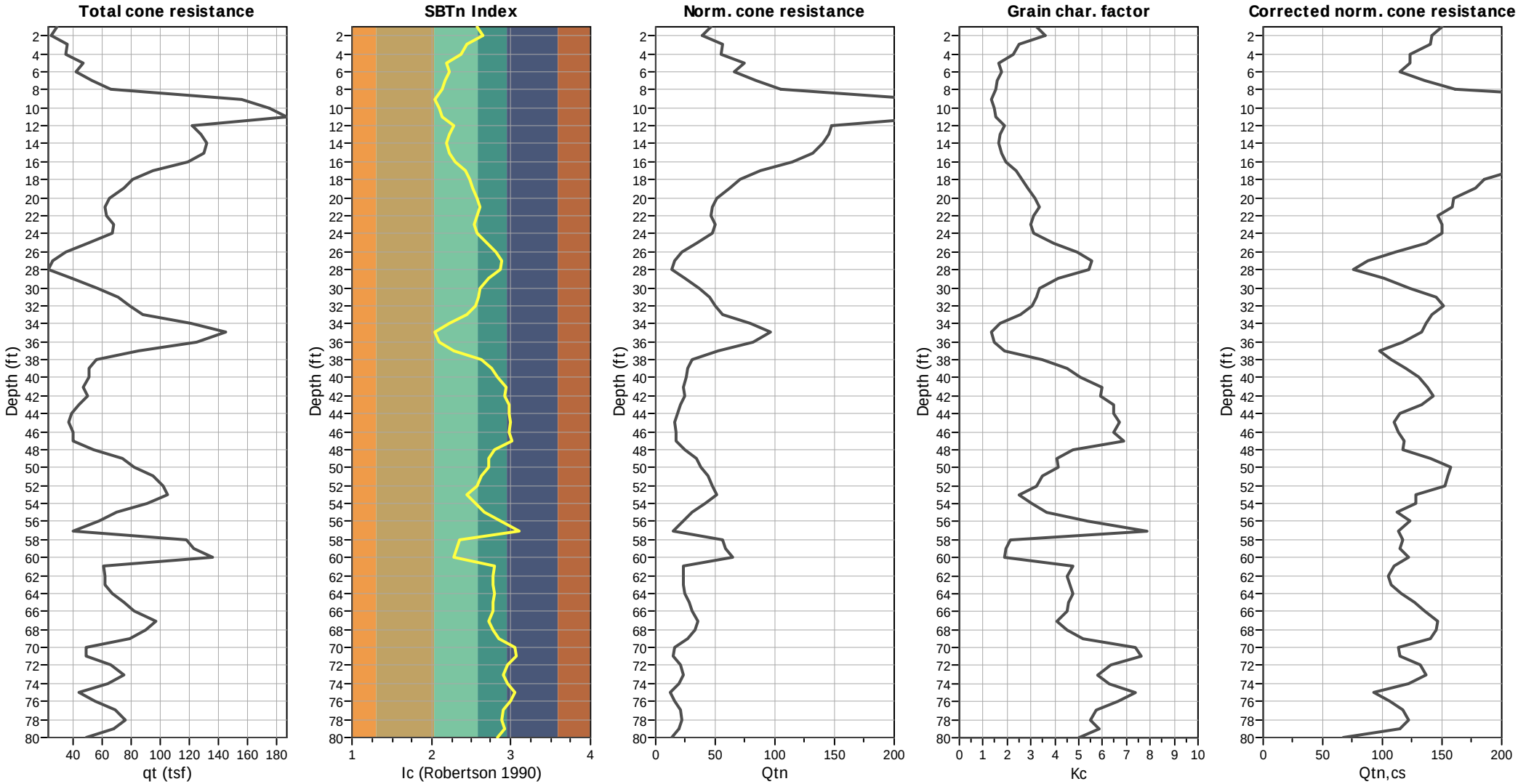
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

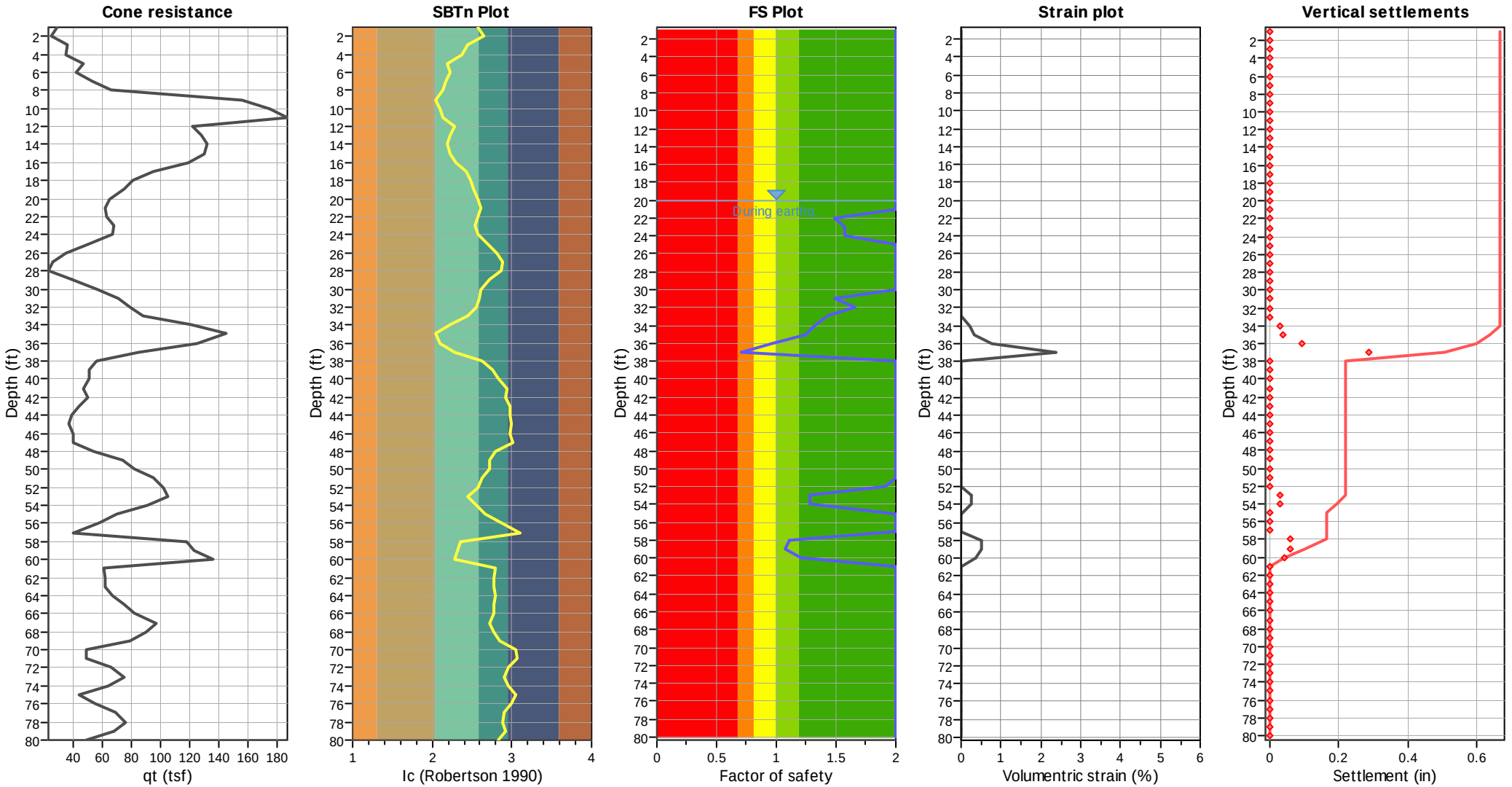
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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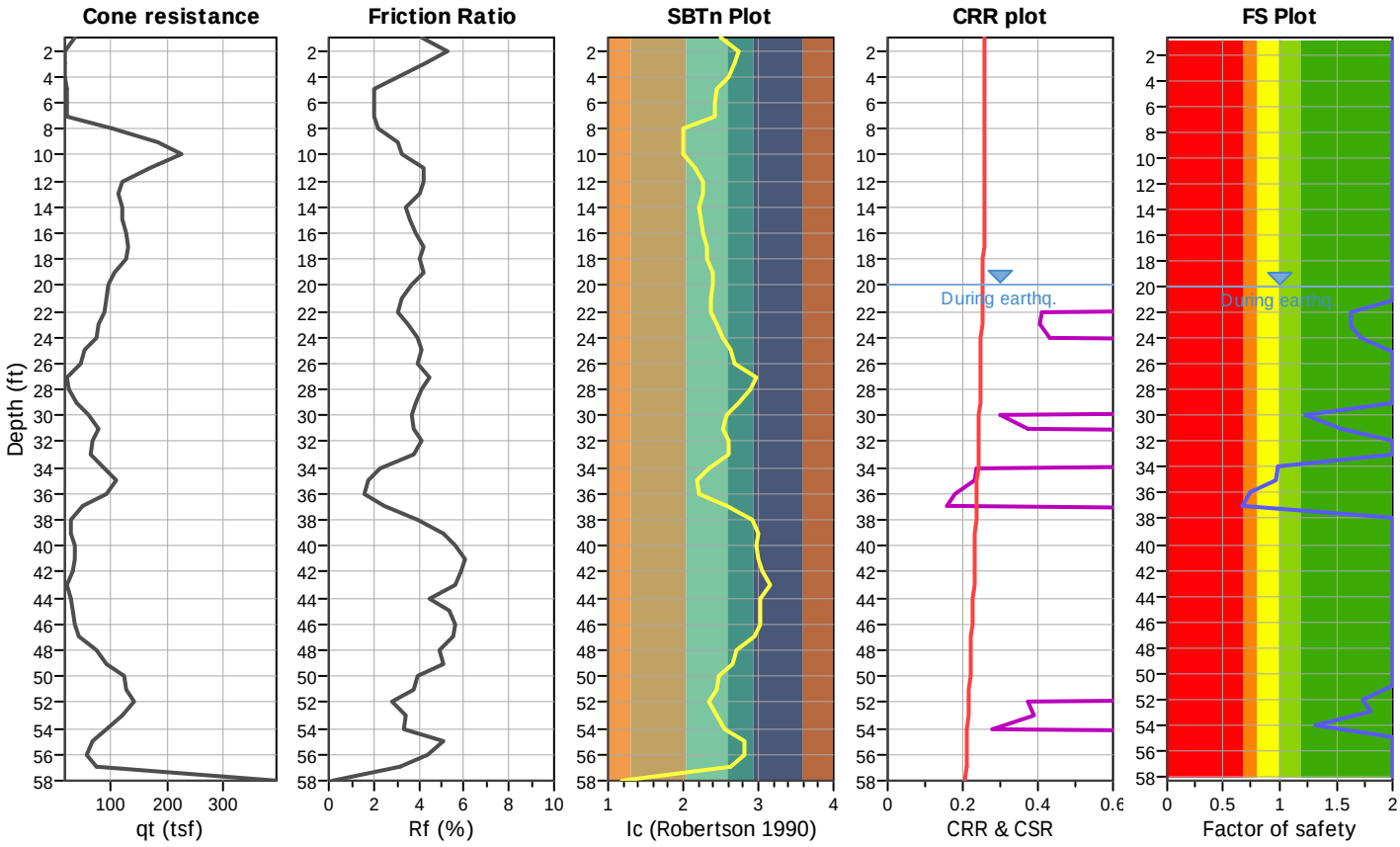
LIQUEFACTION ANALYSIS REPORT

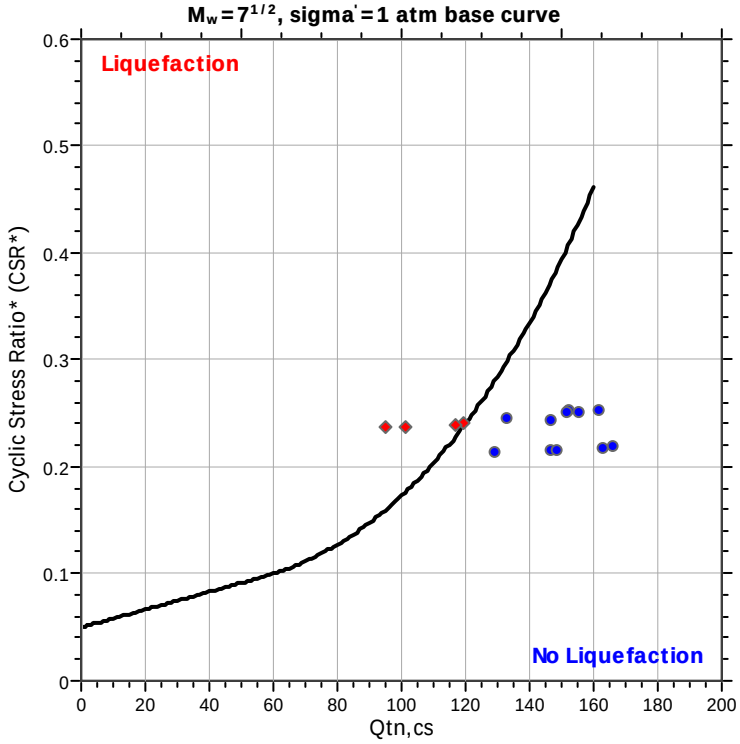
Project title : Kettner Substation **Location : San Diego, CA**

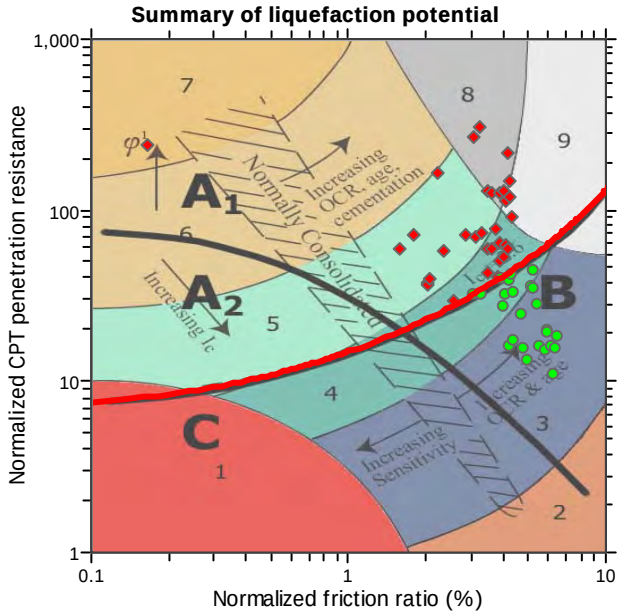
CPT file : CPT-20i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	60.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

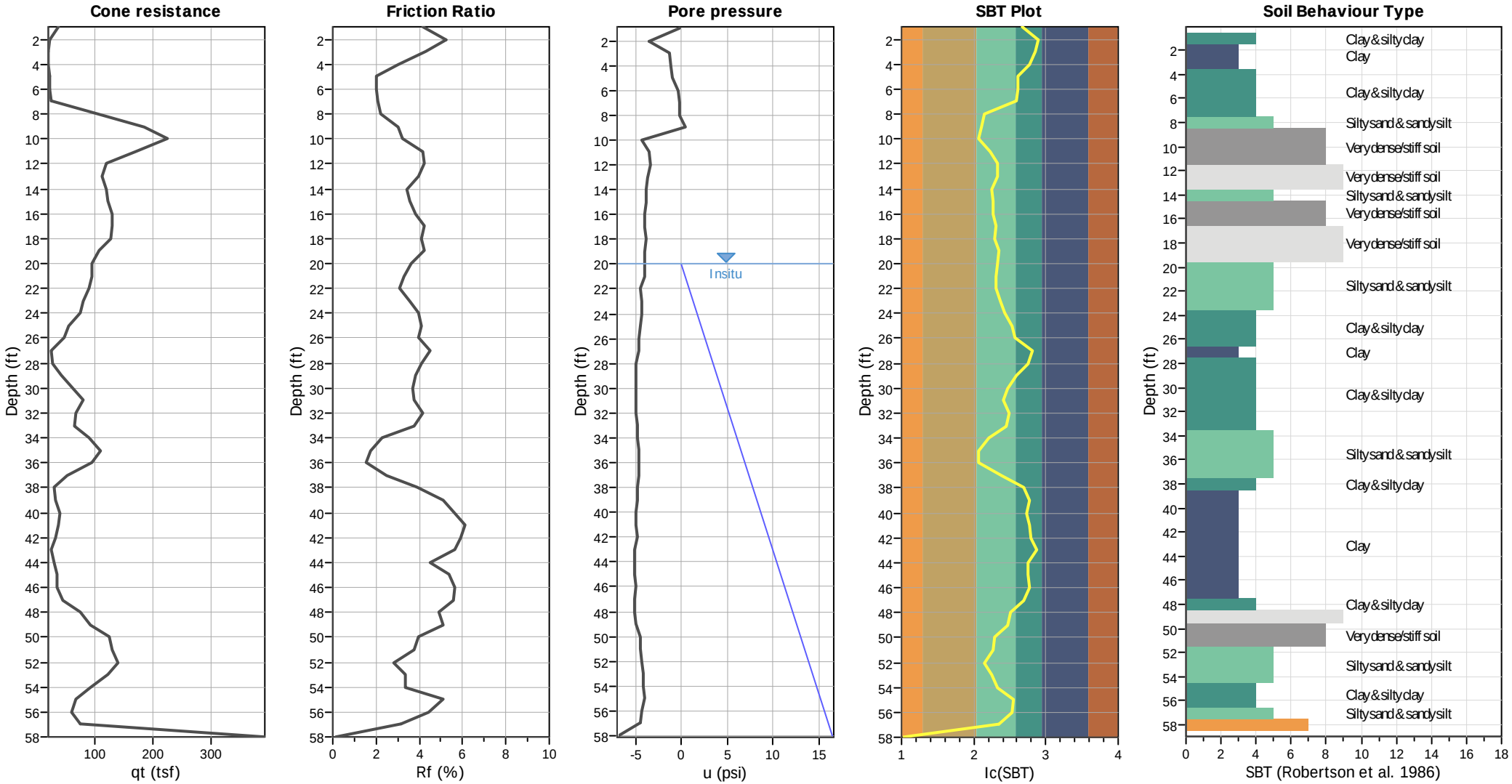






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



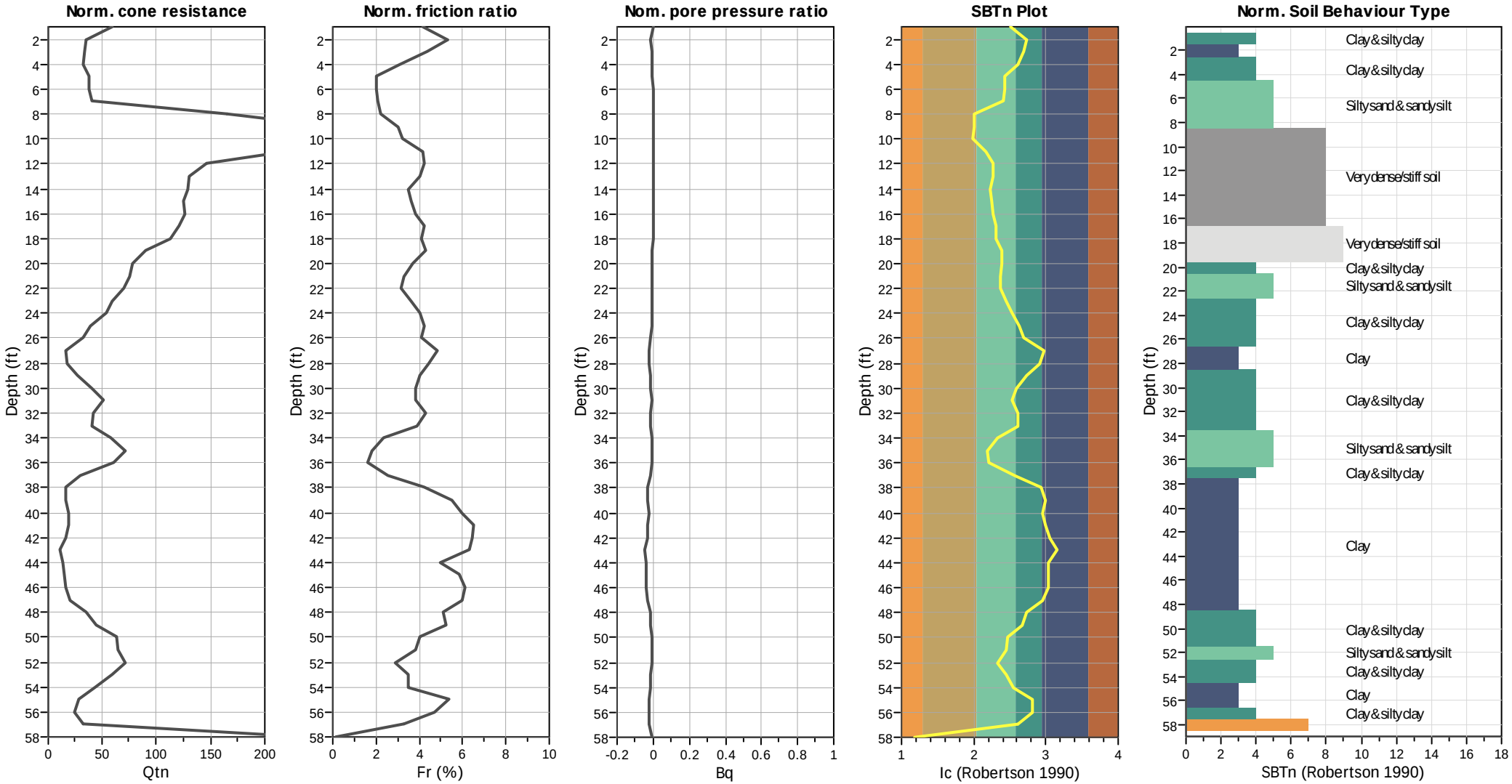
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



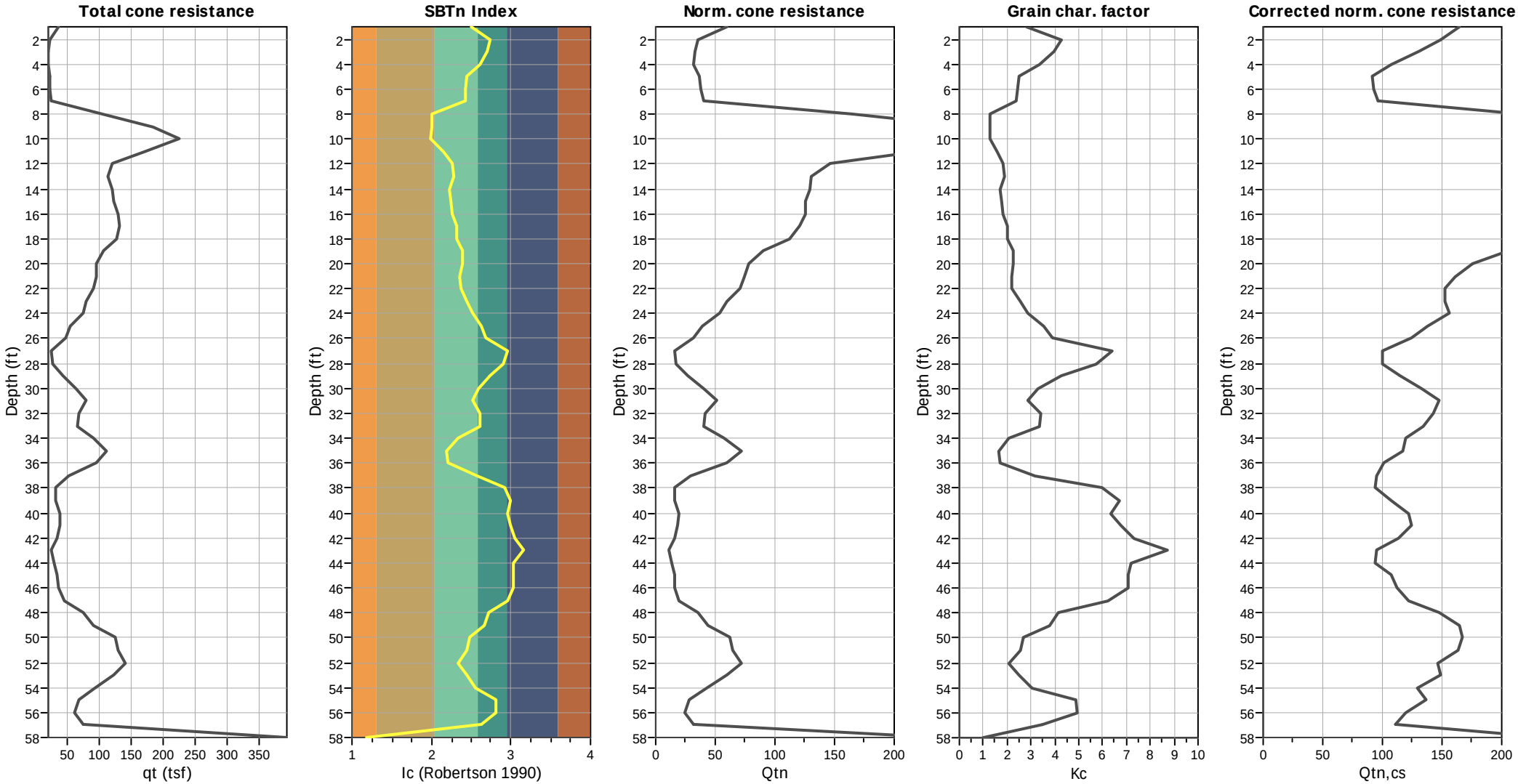
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

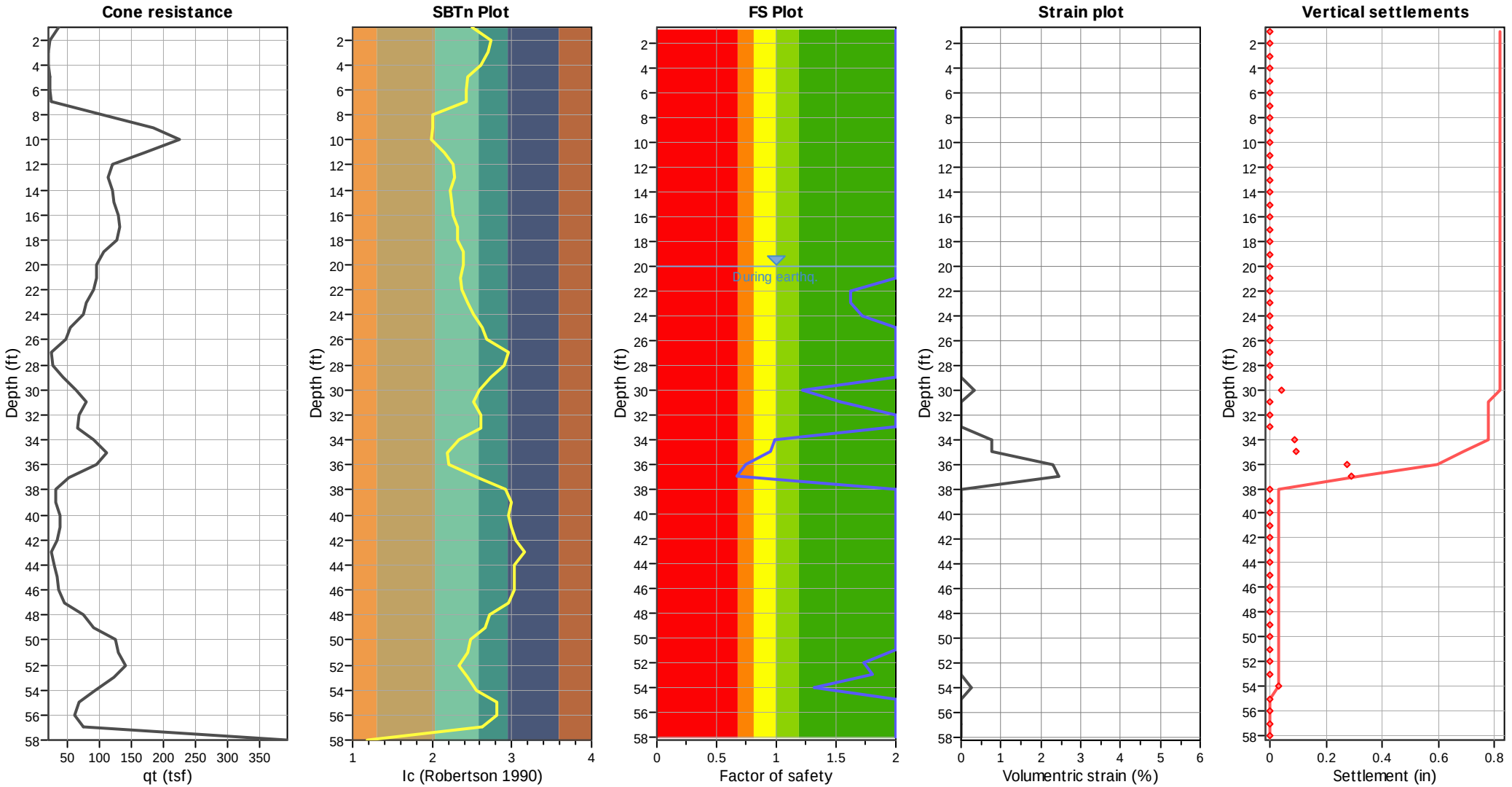
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	60.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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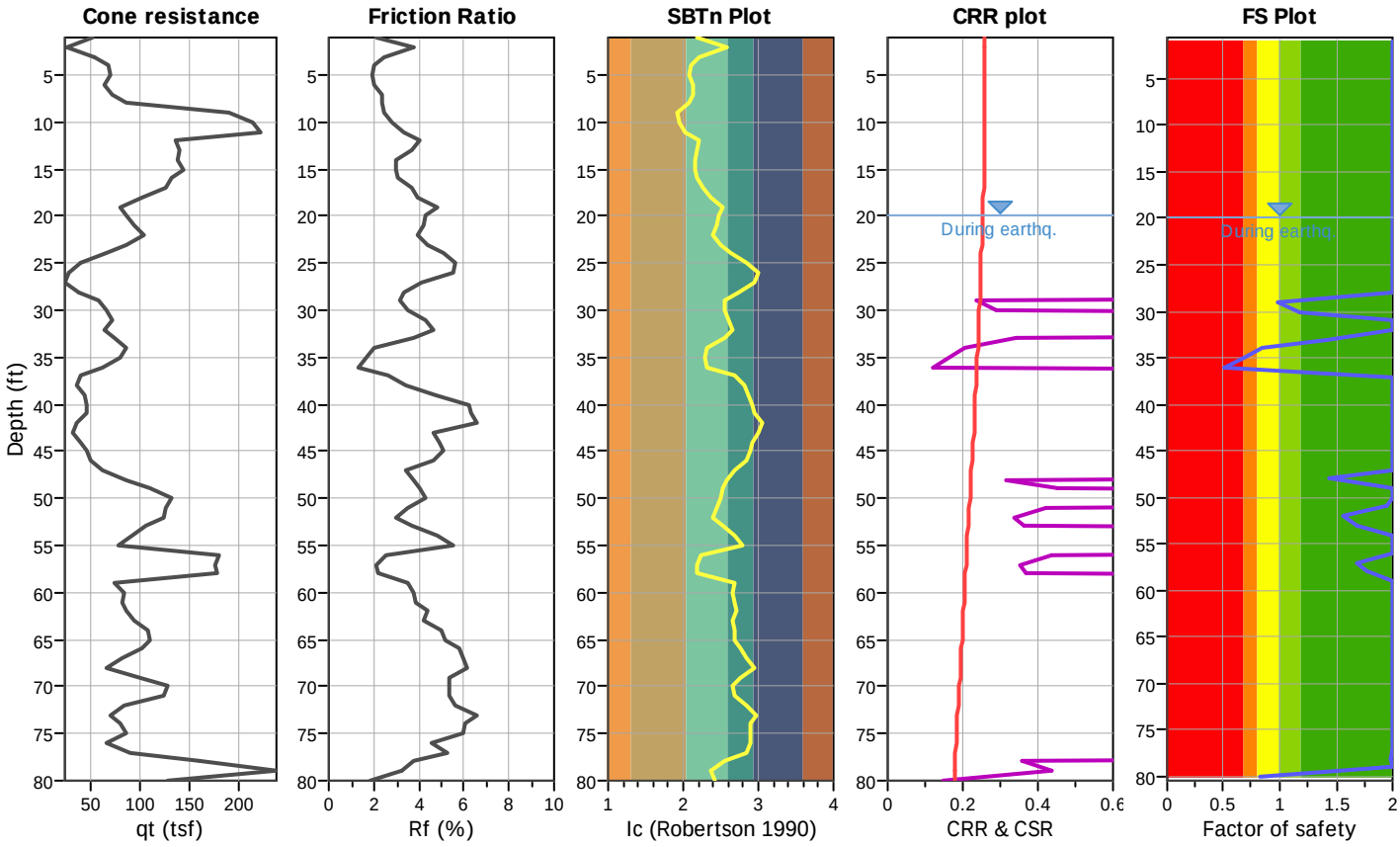
LIQUEFACTION ANALYSIS REPORT

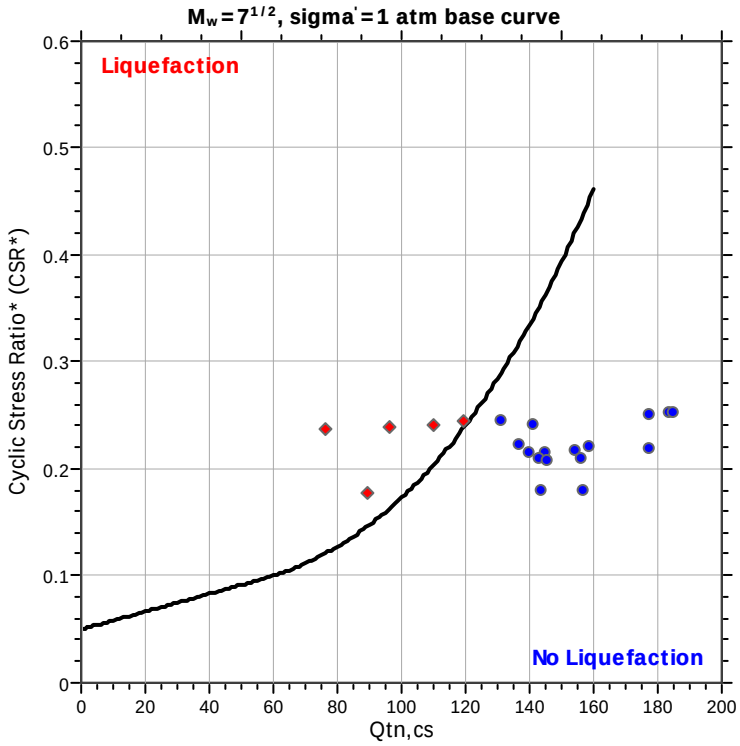
Project title : Kettner Substation **Location : San Diego, CA**

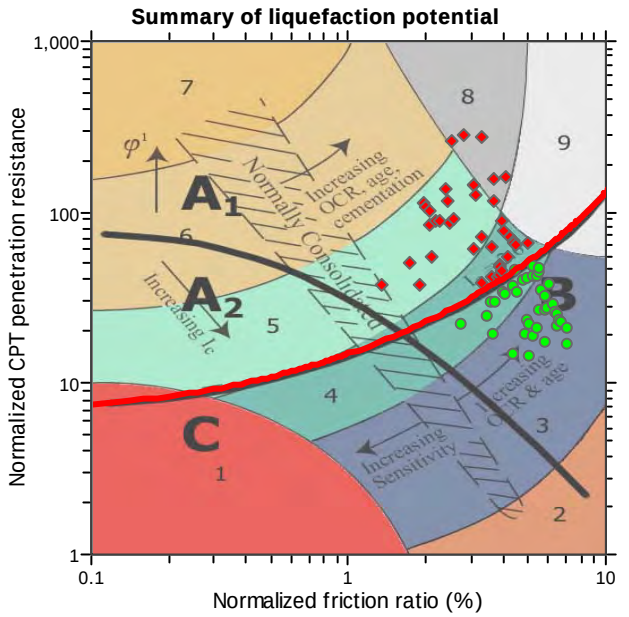
CPT file : CPT-21i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	80.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

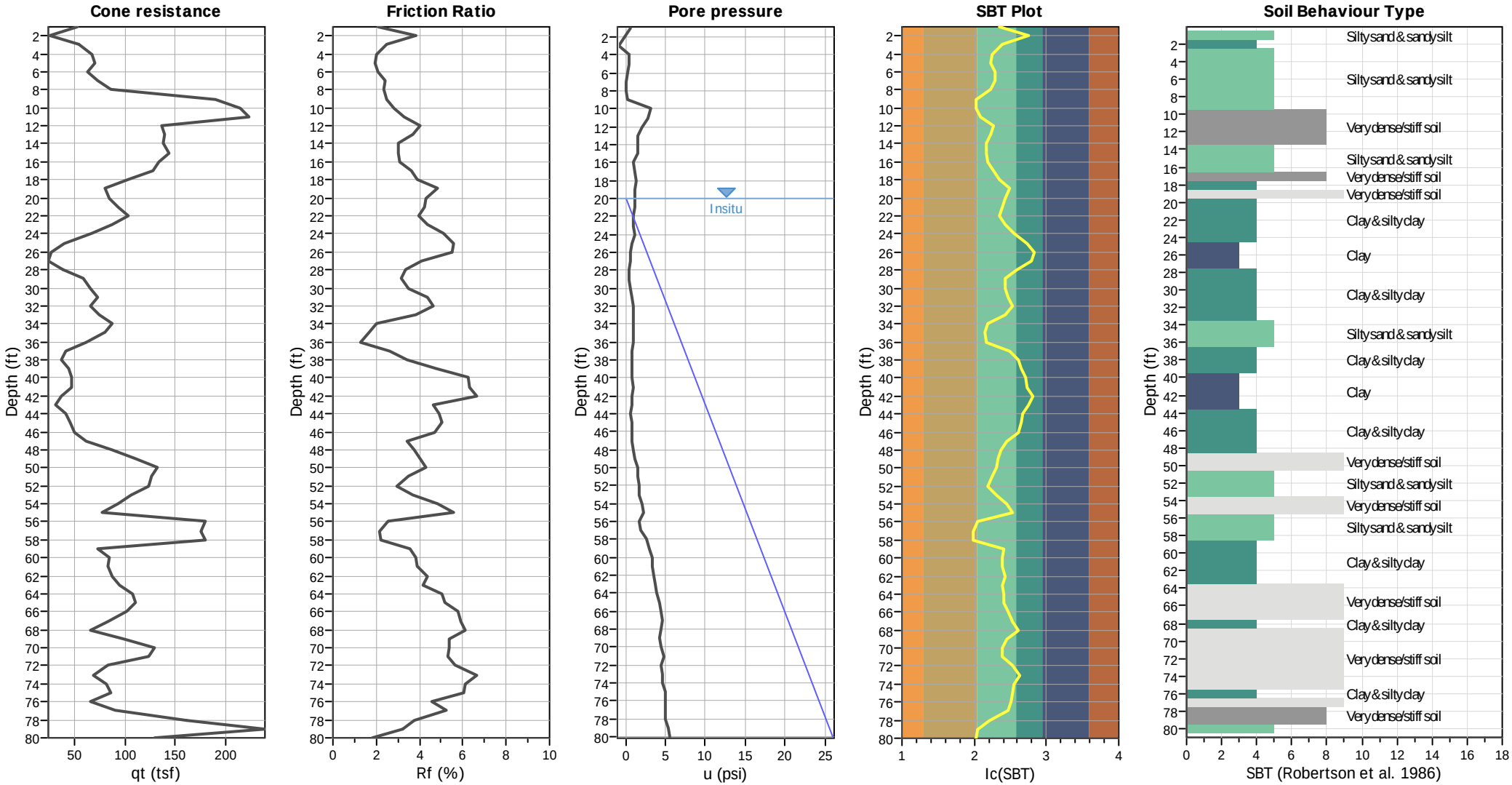






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



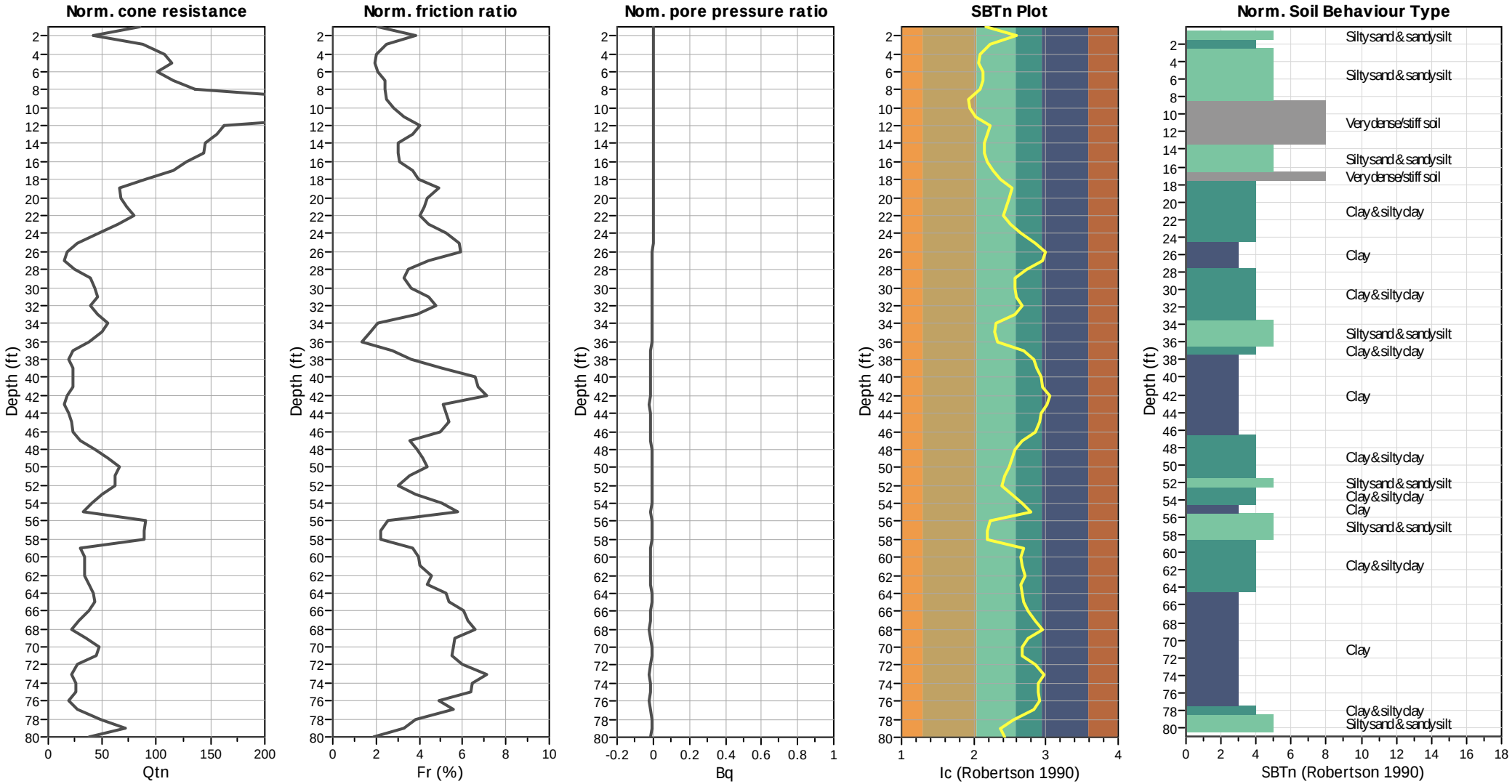
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



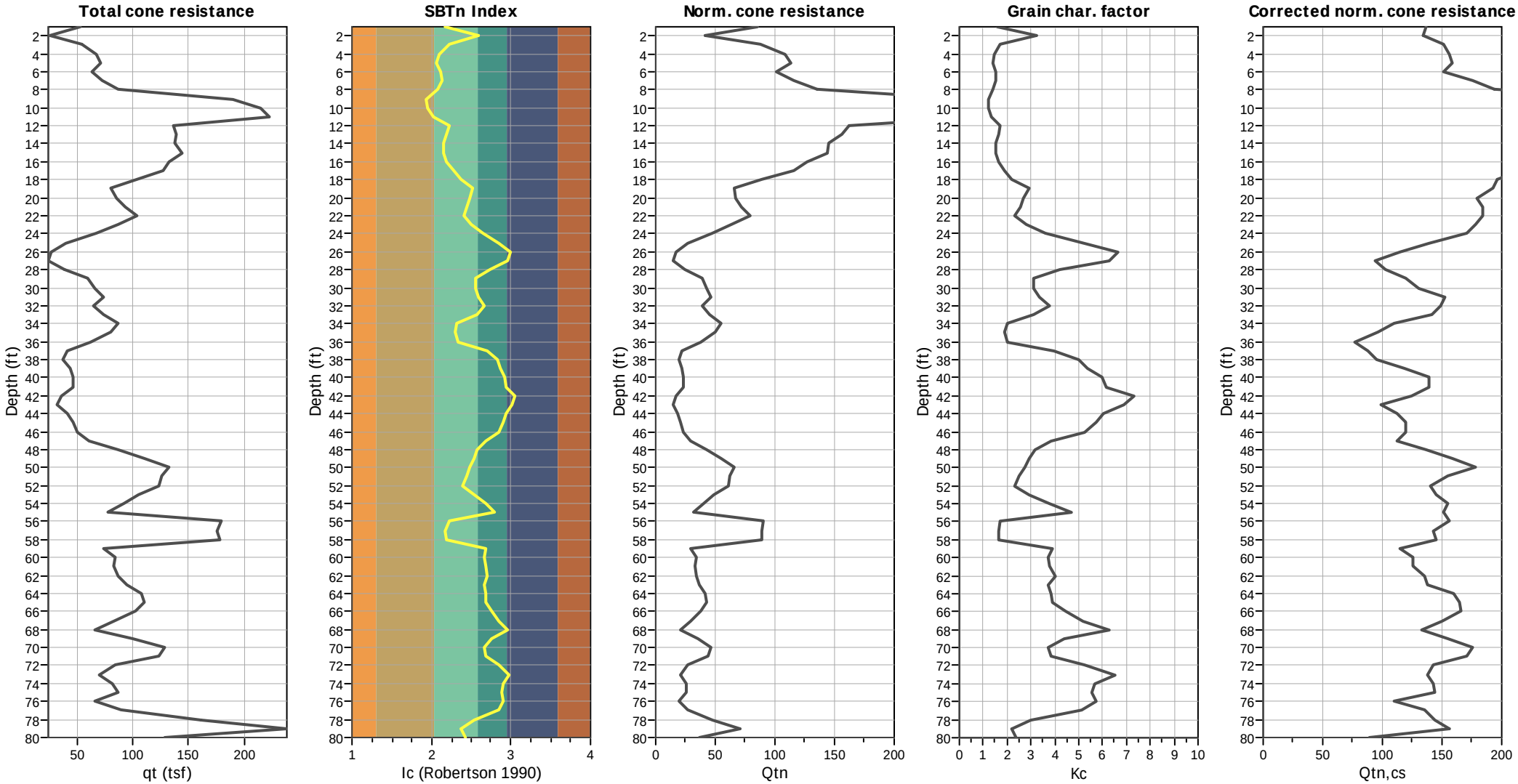
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

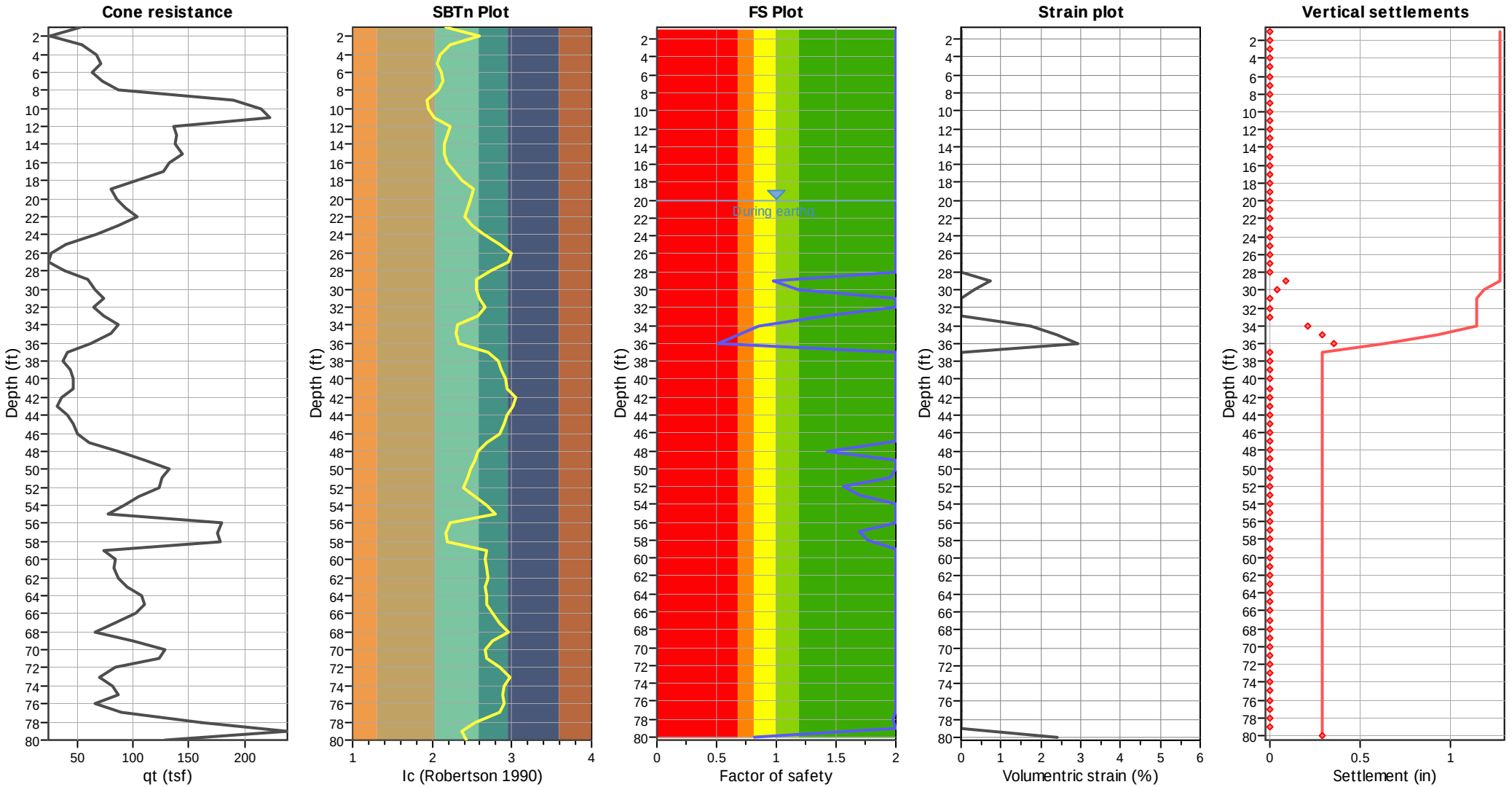
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	80.00 ft

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

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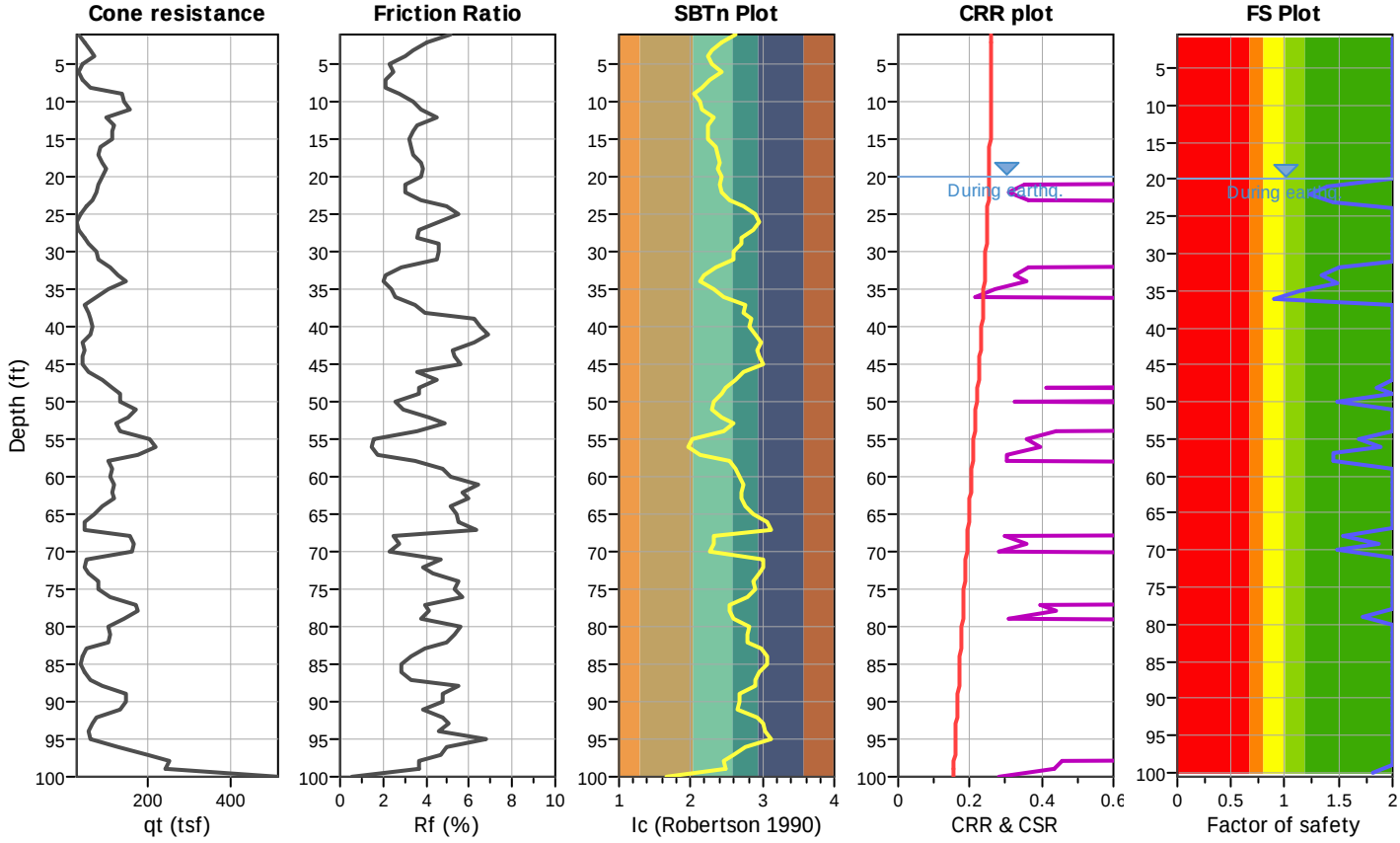
LIQUEFACTION ANALYSIS REPORT

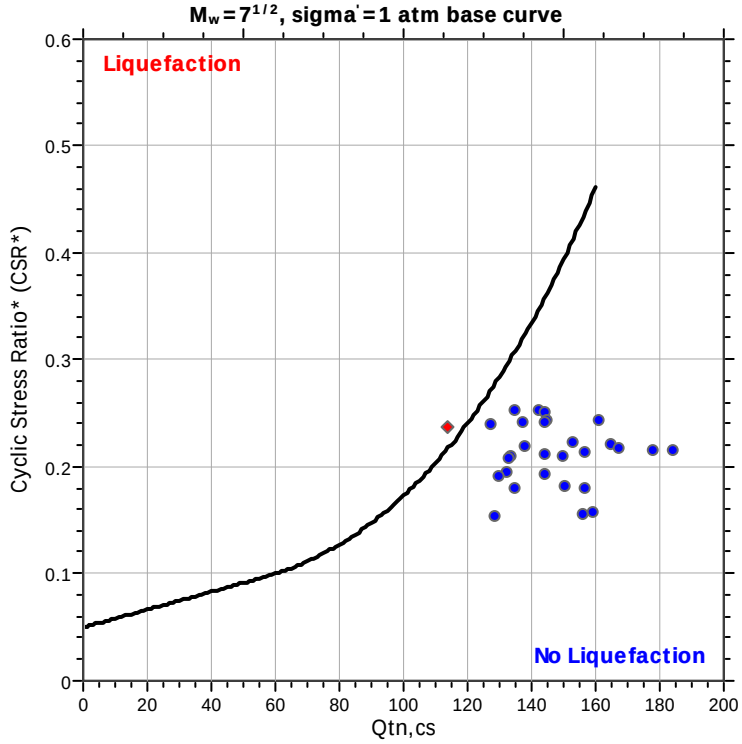
Project title : Kettner Substation **Location : San Diego, CA**

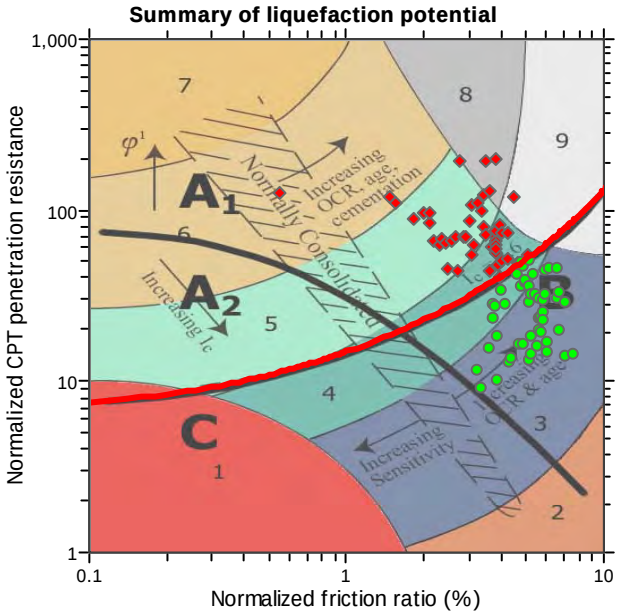
CPT file : CPT-22i

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	20.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	20.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	100.00 ft
Earthquake magnitude M_w:	6.64	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.60	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

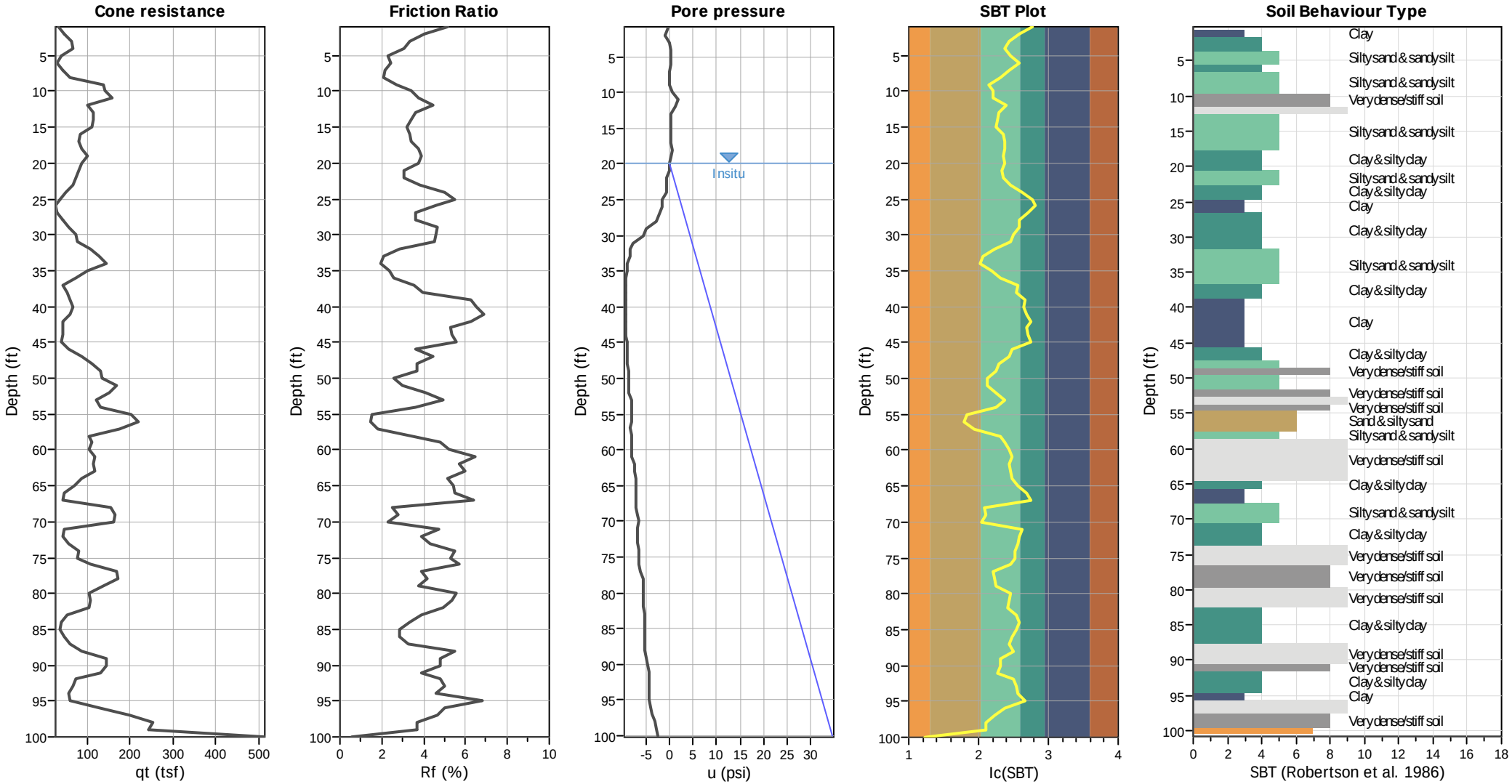






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



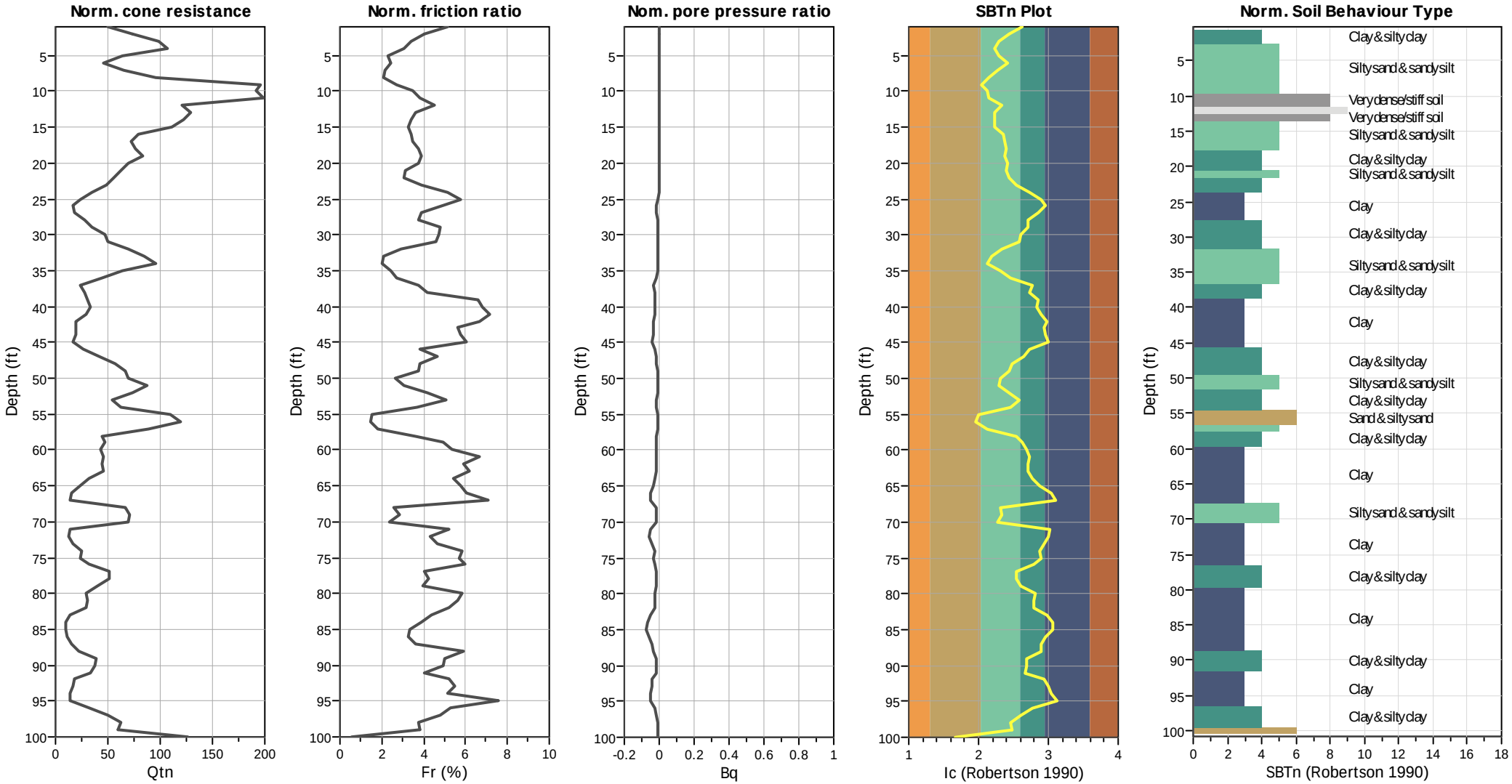
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



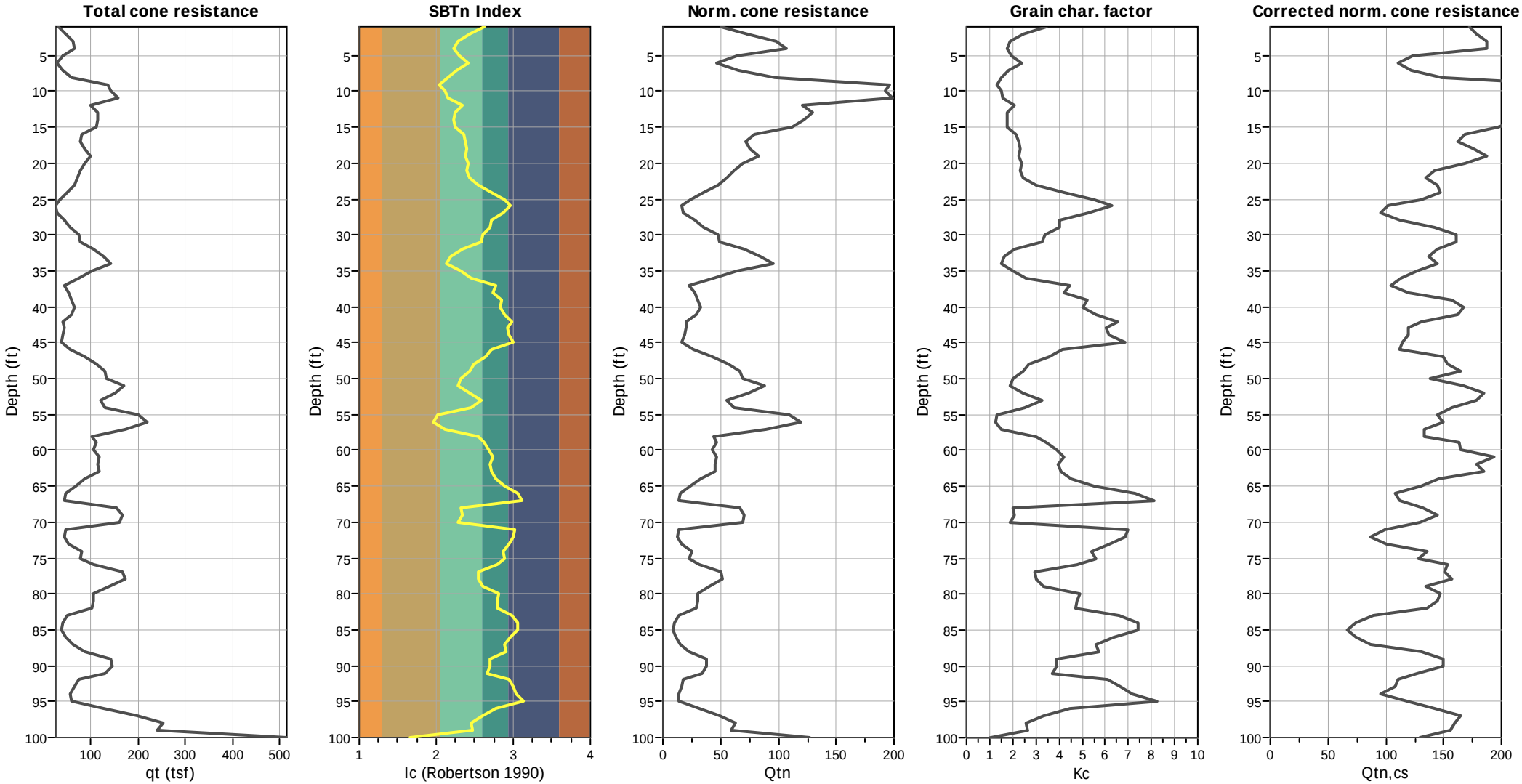
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

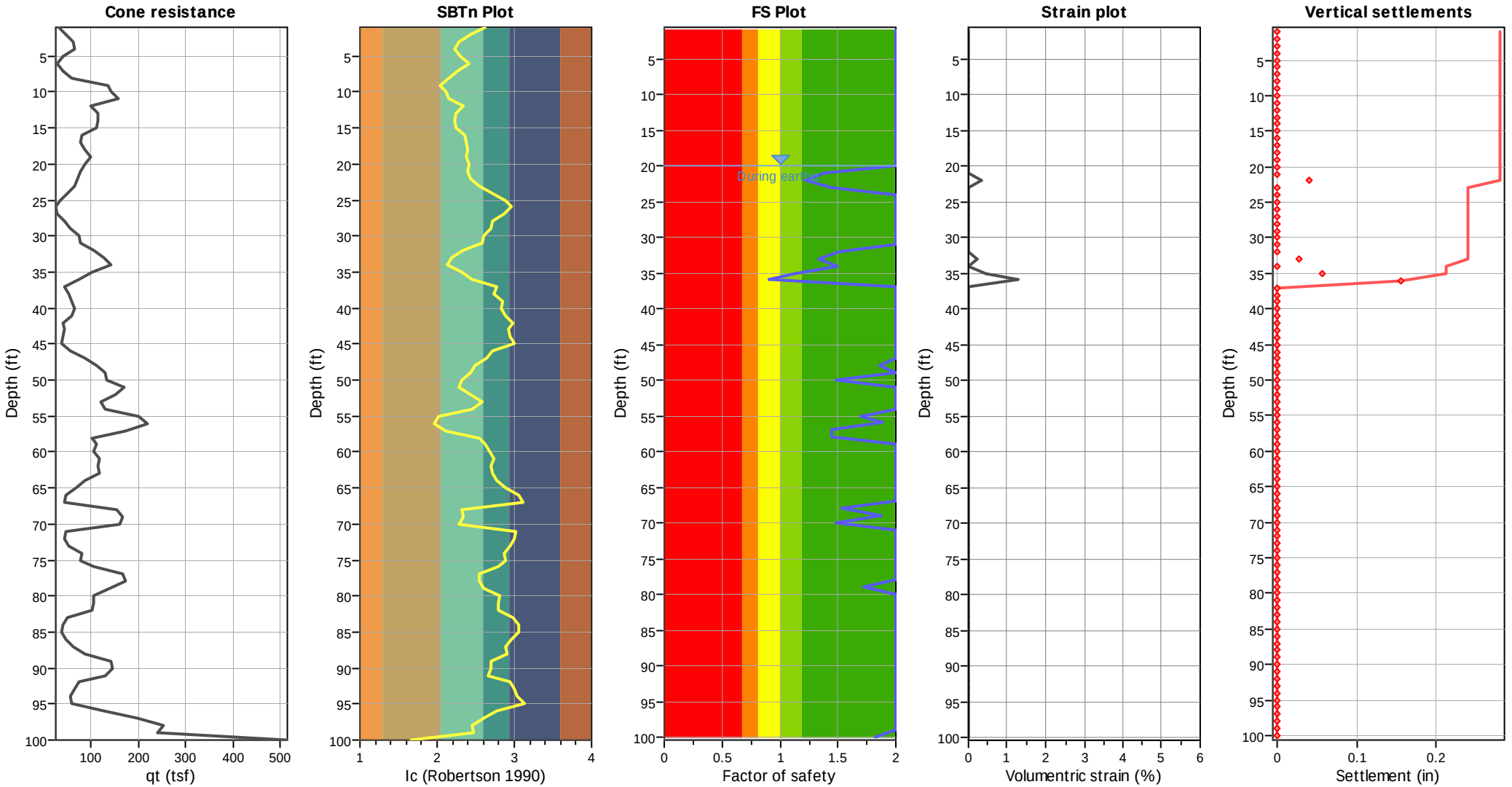
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	20.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.64	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.60	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	20.00 ft	Fill height:	N/A	Limit depth:	100.00 ft

Estimation of post-earthquake settlements



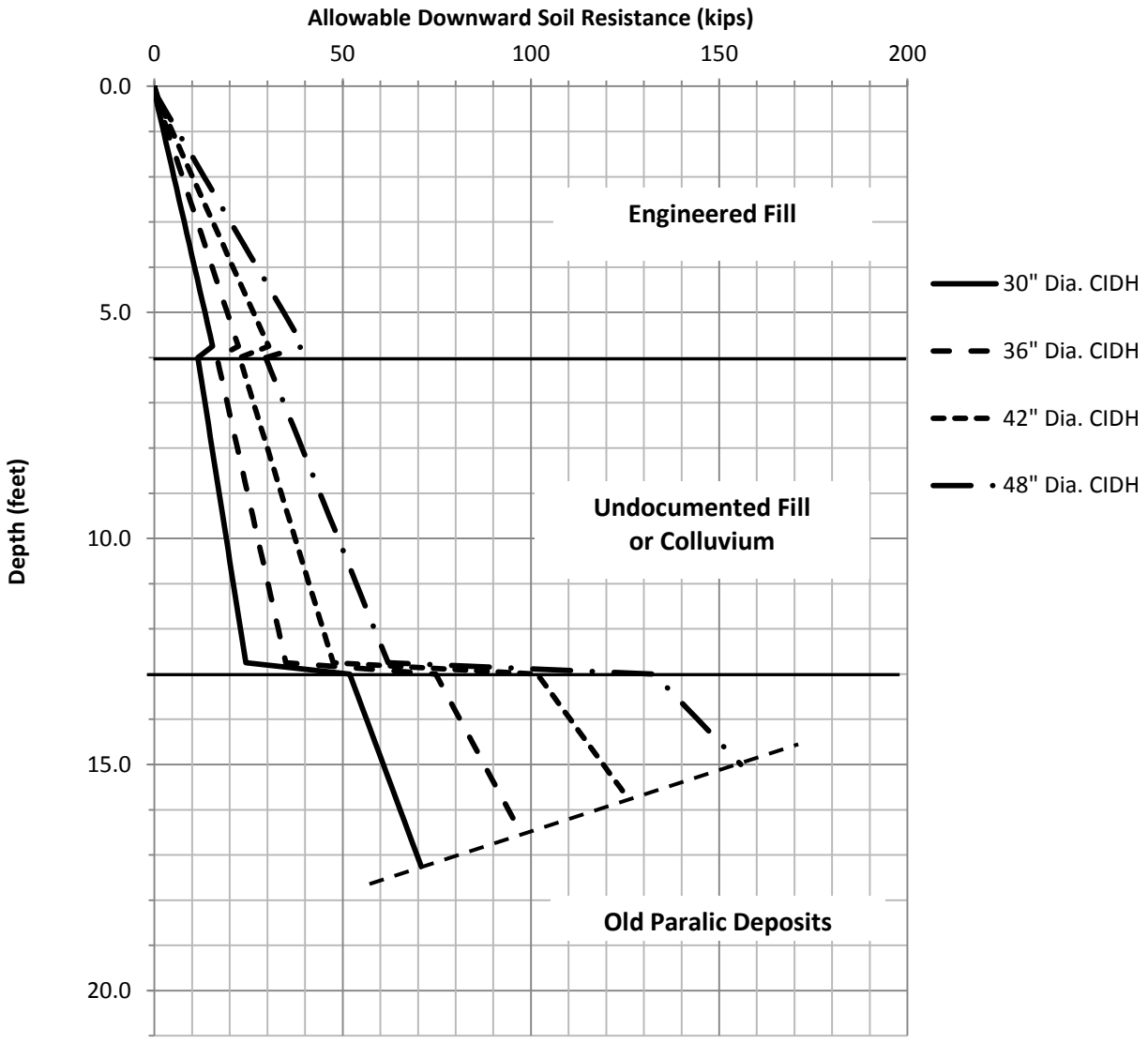
Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

APPENDIX F

Preliminary Deep Foundation Analyses

Axial Resistance and Drag Load



Notes:

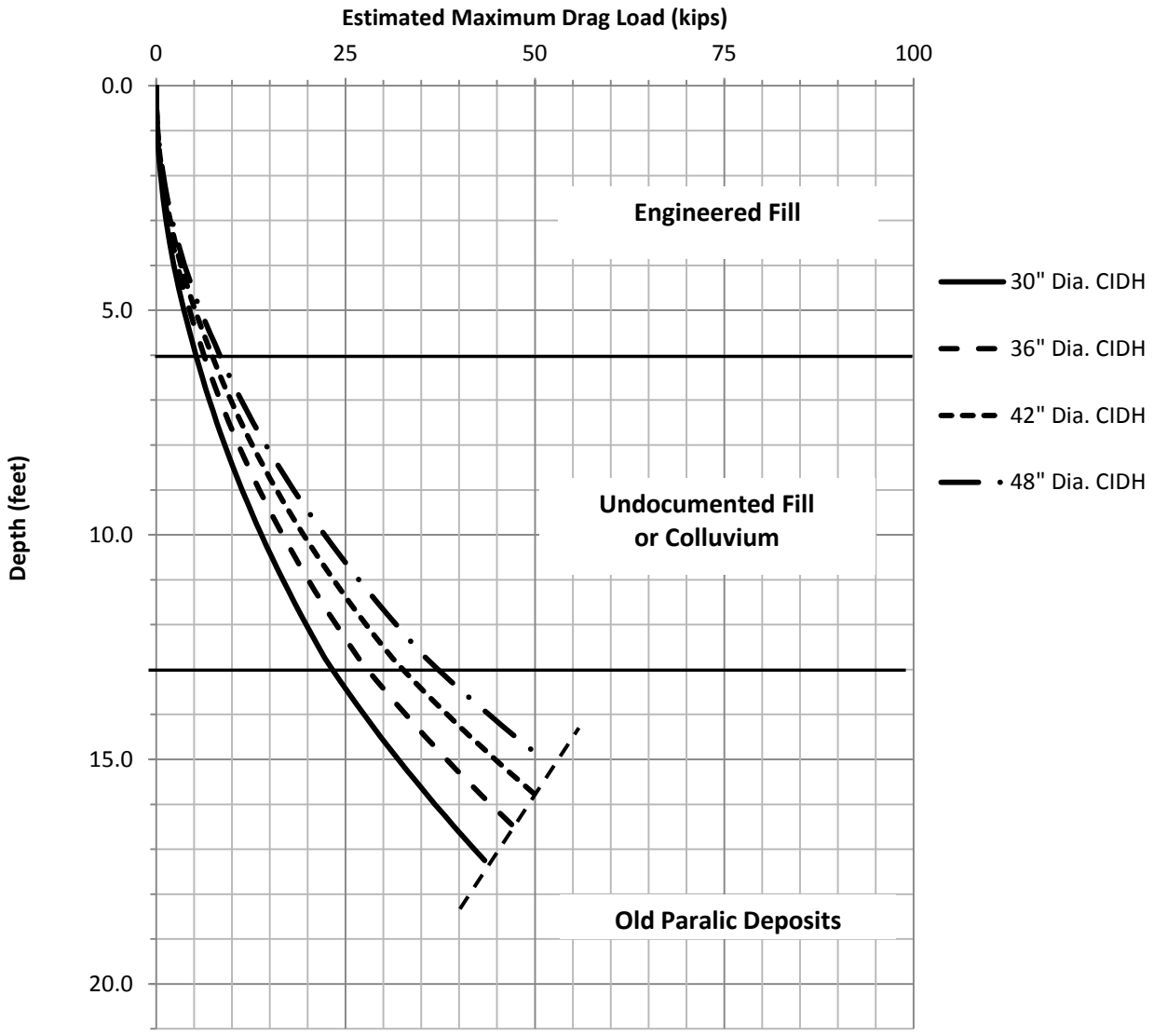
a. Simplified stratigraphy assumes 5' of overexcavation and recompaction, 1' of engineered fill placed above existing grade, and top of Old Paralic Deposits 13 feet below finish grade.

b. Resistance values terminated at maximum recommended foundation depth of 1.5*CIDH diameters above design high groundwater (20' + 1' below assumed finished grade).

Geosyntec consultants

SINGLE PILE DOWNWARD AXIAL SOIL RESISTANCE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	DECEMBER 2013	FIGURE
PROJECT NO:	SC0368-30	F-1



Notes:

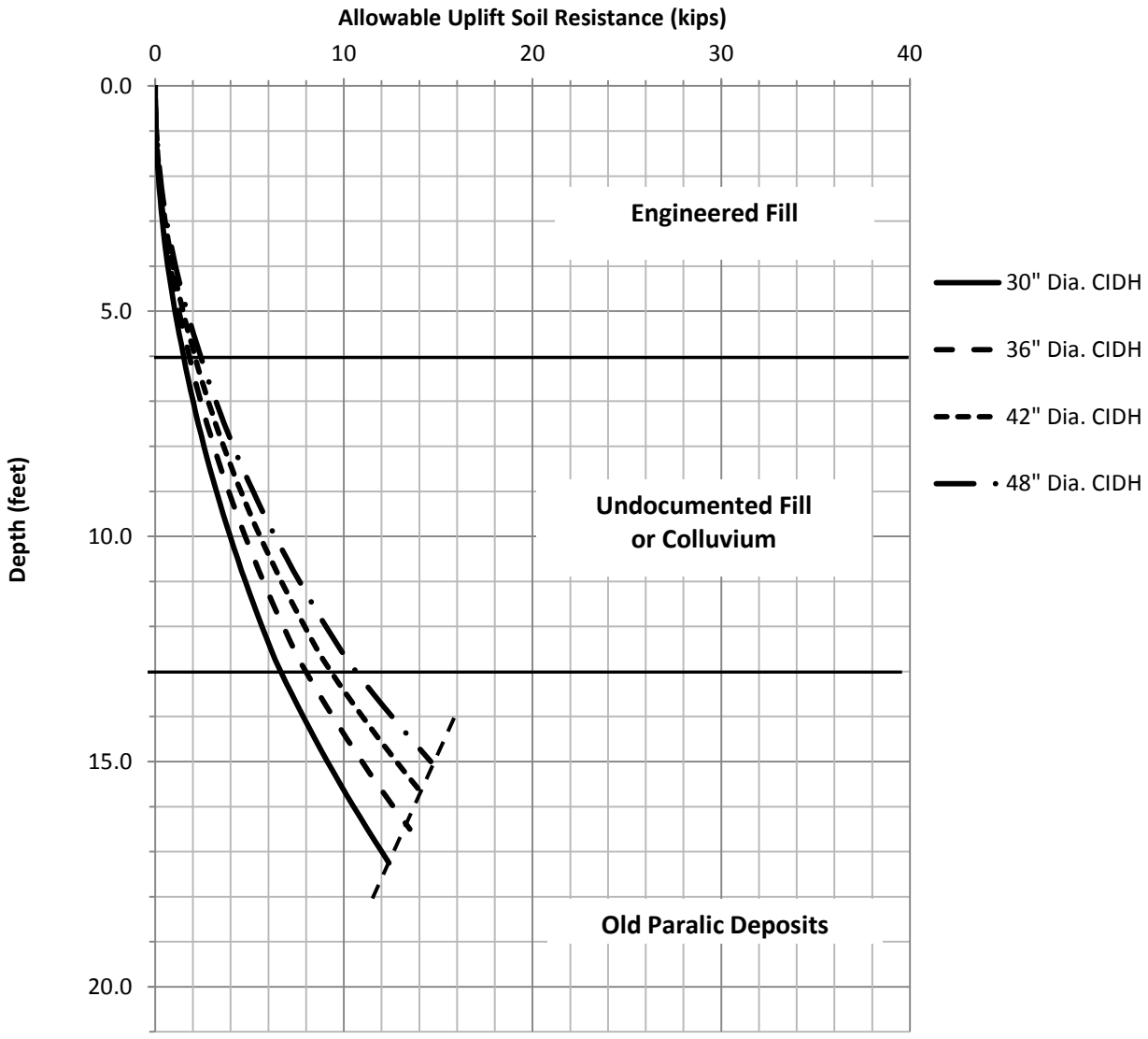
a. Simplified stratigraphy assumes 5' of overexcavation and recompaction, 1' of engineered fill placed above existing grade, and top of Old Paralic Deposits 13 feet below finish grade.

b. Resistance values terminated at maximum recommended foundation depth of 1.5*CIDH diameters above design high groundwater (20' + 1' below assumed finished grade).

Geosyntec consultants

SINGLE PILE DRAG LOAD
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	DECEMBER 2013	FIGURE
PROJECT NO:	SC0368-30	F-2



Notes:

a. Simplified stratigraphy assumes 5' of overexcavation and recompaction, 1' of engineered fill placed above existing grade, and top of Old Paralic Deposits 13 feet below finish grade.

b. Resistance values terminated at maximum recommended foundation depth of 1.5*CIDH diameters above design high groundwater (20' + 1' below assumed finished grade).

c. The CIDH pile weight can also be used for uplift resistance and is not included in this plot.

Geosyntec consultants

SINGLE PILE UPLIFT AXIAL SOIL RESISTANCE
VINE SUBSTATION
SAN DIEGO, CALIFORNIA

DATE:	DECEMBER 2013	FIGURE
PROJECT NO:	SC0368-30	F-3

SwitchRack LPILE Analysis

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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Geosyntec
San Diego

Serial Number of Security Device: 154103767
Company Name Stored in Security Device: Geosyntec Consultants

Files Used for Analysis

Path to file locations: \\sandiego-01\Data\PRJ\SDWP\Current Projects\SC0368 SDG&E Geotechnical\30 Vine Substation\05 Calculations\Preliminary LPILE Runs\
Name of input data file: SwitchRack SAND.f.lp6d
Name of output report file: SwitchRack SAND.f.lp6o
Name of plot output file: SwitchRack SAND.f.lp6p
Name of runtime messeage file: SwitchRack SAND.f.lp6r

Date and Time of Analysis

Date: December 11, 2013 Time: 10:03:56

Problem Title

Project Name: Vine Substation

Job Number: SC0368 30

Client: SDG&E

Engineer: JLN

Description: Simplified Sand Profile

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 84
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 14.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	48.0000000
2	14.000000	48.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type	= Drilled Shaft (Bored Pile)
Section Length	= 14.00000000 ft
Section Diameter	= 48.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 4 layers

Layer 1 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 0.0000 ft
Distance from top of pile to bottom of layer	= 1.00000 ft
Effective unit weight at top of layer	= 130.00000 pcf
Effective unit weight at bottom of layer	= 130.00000 pcf
Friction angle at top of layer	= 40.00000 deg.
Friction angle at bottom of layer	= 40.00000 deg.
Subgrade k at top of layer	= 225.00000 pci
Subgrade k at bottom of layer	= 225.00000 pci

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 1.00000 ft
Distance from top of pile to bottom of layer	= 6.00000 ft
Effective unit weight at top of layer	= 120.00000 pcf
Effective unit weight at bottom of layer	= 120.00000 pcf
Friction angle at top of layer	= 32.00000 deg.
Friction angle at bottom of layer	= 32.00000 deg.
Subgrade k at top of layer	= 60.00000 pci
Subgrade k at bottom of layer	= 60.00000 pci

Layer 3 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 6.00000 ft
Distance from top of pile to bottom of layer	= 13.00000 ft
Effective unit weight at top of layer	= 115.00000 pcf
Effective unit weight at bottom of layer	= 115.00000 pcf
Friction angle at top of layer	= 30.00000 deg.
Friction angle at bottom of layer	= 30.00000 deg.
Subgrade k at top of layer	= 40.00000 pci
Subgrade k at bottom of layer	= 40.00000 pci

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	13.00000 ft
Distance from top of pile to bottom of layer	=	21.00000 ft
Effective unit weight at top of layer	=	130.00000 pcf
Effective unit weight at bottom of layer	=	130.00000 pcf
Friction angle at top of layer	=	34.00000 deg.
Friction angle at bottom of layer	=	34.00000 deg.
Subgrade k at top of layer	=	225.00000 pci
Subgrade k at bottom of layer	=	225.00000 pci

(Depth of lowest soil layer extends 7.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Angle of Friction deg.	kpy pci
1	Sand (Reese, et al.)	0.00	130.000	40.000	225.000
		1.000	130.000	40.000	225.000
2	Sand (Reese, et al.)	1.000	120.000	32.000	60.000
		6.000	120.000	32.000	60.000
3	Sand (Reese, et al.)	6.000	115.000	30.000	40.000
		13.000	115.000	30.000	40.000
4	Sand (Reese, et al.)	13.000	130.000	34.000	225.000
		21.000	130.000	34.000	225.000

Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 2

Load No.	Load Type	Condition 1	Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	1	V = 18.60000 lbs	M = 0.0000 in-lbs	86.00000000	No
2	1	V = 38.80000 lbs	M = 0.0000 in-lbs	86.00000000	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	14.00000000 ft
Shaft Diameter	=	48.00000000 in
Concrete Cover Thickness	=	3.00000000 in
Number of Reinforcing Bars	=	14 bars
Yield Stress of Reinforcing Bars	=	60.00000000 ksi
Modulus of Elasticity of Reinforcing Bars	=	29000. ksi
Gross Area of Shaft	=	1809.55736847 sq. in.
Total Area of Reinforcing Steel	=	17.78000000 sq. in.
Area Ratio of Steel Reinforcement	=	0.98 percent
Edge-to-Edge Bar Spacing	=	7.79327764 in
Maximum Concrete Aggregate Size	=	1.00000000 in
Ratio of Bar Spacing to Aggregate Size	=	7.79
Offset of Rebar Cage Center from Center of Pile	=	0.0000000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As = 5635.832 kips
Tensile Load for Cracking of Concrete = -708.453 kips
Nominal Axial Tensile Capacity = -1066.800 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	1.27000	1.27000	20.36500	0.00000
2	1.27000	1.27000	18.34823	8.83604
3	1.27000	1.27000	12.69737	15.92200
4	1.27000	1.27000	4.53164	19.85441
5	1.27000	1.27000	-4.53164	19.85441
6	1.27000	1.27000	-12.69737	15.92200
7	1.27000	1.27000	-18.34823	8.83604
8	1.27000	1.27000	-20.36500	0.00000
9	1.27000	1.27000	-18.34823	-8.83604
10	1.27000	1.27000	-12.69737	-15.92200
11	1.27000	1.27000	-4.53164	-19.85441
12	1.27000	1.27000	4.53164	-19.85441
13	1.27000	1.27000	12.69737	-15.92200
14	1.27000	1.27000	18.34823	-8.83604

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 7.79328 inches between Bars 5 and 6

Spacing to aggregate size ratio = 7.79328

Concrete Properties:

Compressive Strength of Concrete = 3.00000000 ksi
Modulus of Elasticity of Concrete = 3122.01857778 ksi
Modulus of Rupture of Concrete = -0.41079191 ksi
Compression Strain at Peak Stress = 0.00163356
Tensile Strain at Fracture of Concrete = -0.00011596
Maximum Coarse Aggregate Size = 1.00000000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	0.086

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 0.086 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000000625	654.8613583	1047778173.	24.0195094	0.0000150	-0.0000150	0.0543400	0.4310036	
0.000001250	1306.0481616	1044838529.	24.0098153	0.0000300	-0.0000300	0.1081396	0.8616558	
0.000001875	1953.5604026	1041898881.	24.0065843	0.0000450	-0.0000450	0.1614434	1.2923080	
0.000002500	2597.3980811	1038959232.	24.0049690	0.0000600	-0.0000600	0.2142513	1.7229603	
0.000003125	3237.5611973	1036019583.	24.0040000	0.0000750	-0.0000750	0.2665634	2.1536125	
0.000003750	3874.0497512	1033079934.	24.0033542	0.0000900	-0.0000900	0.3183797	2.5842648	
0.000004375	4506.8637427	1030140284.	24.0028931	0.0001050	-0.0001050	0.3697001	3.0149171	
0.000005000	4506.8637427	901372749.	11.9918763	0.0000600	-0.0001800	0.2119395	-5.1863779	C
0.000005625	4506.8637427	801220221.	11.9955020	0.0000675	-0.0002025	0.2379579	-5.8340837	C
0.000006250	4506.8637427	721098199.	11.9993532	0.0000750	-0.0002250	0.2638753	-6.4816172	C
0.000006875	4506.8637427	655543817.	12.0033720	0.0000825	-0.0002475	0.2896913	-7.1289777	C
0.000007500	4506.8637427	600915166.	12.0075197	0.0000901	-0.0002699	0.3154057	-7.7761644	C
0.000008125	4506.8637427	554690922.	12.0117697	0.0000976	-0.0002924	0.3410184	-8.4231767	C
0.000008750	4506.8637427	515070142.	12.0161029	0.0001051	-0.0003149	0.3665291	-9.0700139	C
0.000009375	4506.8637427	480732133.	12.0205053	0.0001127	-0.0003373	0.3919376	-9.7166751	C

0.0000100	4506.8637427	450686374.	12.0249664	0.0001202	-0.0003598	0.4172437	-10.3631597	C
0.0000106	4506.8637427	424175411.	12.0294784	0.0001278	-0.0003822	0.4424471	-11.0094670	C
0.0000113	4506.8637427	400610110.	12.0340350	0.0001354	-0.0004046	0.4675477	-11.6555961	C
0.0000119	4506.8637427	379525368.	12.0386313	0.0001430	-0.0004270	0.4925453	-12.3015463	C
0.0000125	4506.8637427	360549099.	12.0432636	0.0001505	-0.0004495	0.5174395	-12.9473169	C
0.0000131	4506.8637427	343380095.	12.0479286	0.0001581	-0.0004719	0.5422302	-13.5929072	C
0.0000138	4506.8637427	327771909.	12.0526238	0.0001657	-0.0004943	0.5669172	-14.2383162	C
0.0000144	4506.8637427	313520956.	12.0573471	0.0001733	-0.0005167	0.5915003	-14.8835434	C
0.0000150	4506.8637427	300457583.	12.0620969	0.0001809	-0.0005391	0.6159791	-15.5285878	C
0.0000156	4506.8637427	288439280.	12.0668716	0.0001885	-0.0005615	0.6403535	-16.1734488	C
0.0000163	4506.8637427	277345461.	12.0716701	0.0001962	-0.0005838	0.6646233	-16.8181254	C
0.0000169	4506.8637427	267073407.	12.0764914	0.0002038	-0.0006062	0.6887882	-17.4626170	C
0.0000175	4506.8637427	257535071.	12.0813346	0.0002114	-0.0006286	0.7128479	-18.1069227	C
0.0000181	4506.8637427	248654551.	12.0861990	0.0002191	-0.0006509	0.7368024	-18.7510417	C
0.0000188	4506.8637427	240366066.	12.0910839	0.0002267	-0.0006733	0.7606512	-19.3949731	C
0.0000194	4506.8637427	232612322.	12.0959889	0.0002344	-0.0006956	0.7843942	-20.0387162	C
0.0000200	4506.8637427	225343187.	12.1009135	0.0002420	-0.0007180	0.8080312	-20.6822702	C
0.0000206	4595.9814755	222835465.	12.1058574	0.0002497	-0.0007403	0.8315618	-21.3256341	C
0.0000213	4733.6966179	222762194.	12.1108201	0.0002574	-0.0007626	0.8549859	-21.9688071	C
0.0000219	4871.3180735	222688826.	12.1158014	0.0002650	-0.0007850	0.8783032	-22.6117885	C
0.0000225	5008.8454817	222615355.	12.1208011	0.0002727	-0.0008073	0.9015135	-23.2545773	C
0.0000231	5146.2784794	222541772.	12.1258189	0.0002804	-0.0008296	0.9246166	-23.8971727	C
0.0000238	5283.6167004	222468072.	12.1308548	0.0002881	-0.0008519	0.9476120	-24.5395738	C
0.0000244	5420.8597760	222394247.	12.1359085	0.0002958	-0.0008742	0.9704998	-25.1817797	C
0.0000256	5695.0587702	222246196.	12.1460691	0.0003112	-0.0009188	1.0159508	-26.4656028	C
0.0000269	5968.8728929	222097596.	12.1563000	0.0003267	-0.0009633	1.0609678	-27.7486341	C
0.0000281	6242.2988842	221948405.	12.1666007	0.0003422	-0.0010078	1.1055485	-29.0308668	C
0.0000294	6515.3336444	221798592.	12.1769710	0.0003577	-0.0010523	1.1496910	-30.3122934	C
0.0000306	6787.9740256	221648131.	12.1874109	0.0003732	-0.0010968	1.1933931	-31.5929063	C
0.0000319	7060.2168303	221496999.	12.1979205	0.0003888	-0.0011412	1.2366527	-32.8726979	C
0.0000331	7332.0588108	221345172.	12.2084999	0.0004044	-0.0011856	1.2794675	-34.1516605	C
0.0000344	7603.4966675	221192630.	12.2191496	0.0004200	-0.0012300	1.3218355	-35.4297860	C
0.0000356	7874.5270481	221039356.	12.2298699	0.0004357	-0.0012743	1.3637543	-36.7070666	C
0.0000369	8145.1478102	220885364.	12.2406329	0.0004514	-0.0013186	1.4052190	-37.9835230	C
0.0000381	8415.3623918	220730817.	12.2510289	0.0004671	-0.0013629	1.4461856	-39.2596071	C
0.0000394	8685.1627868	220575563.	12.2614912	0.0004828	-0.0014072	1.4866938	-40.5348596	C
0.0000406	8954.5433670	220419529.	12.2720204	0.0004986	-0.0014514	1.5267413	-41.8092759	C
0.0000419	9223.5014274	220262721.	12.2826170	0.0005143	-0.0014957	1.5663258	-43.0828468	C
0.0000431	9492.0334630	220105124.	12.2932818	0.0005301	-0.0015399	1.6054449	-44.3555643	C
0.0000444	9760.1359123	219946725.	12.3040154	0.0005460	-0.0015840	1.6440963	-45.6274201	C
0.0000456	10028.	219787510.	12.3148185	0.0005619	-0.0016281	1.6822775	-46.8984056	C
0.0000469	10295.	219627467.	12.3256920	0.0005778	-0.0016722	1.7199862	-48.1685123	C
0.0000481	10562.	219466582.	12.3366365	0.0005937	-0.0017163	1.7572198	-49.4377315	C
0.0000494	10828.	219304842.	12.3476530	0.0006097	-0.0017603	1.7939758	-50.7060542	C
0.0000506	11094.	219142233.	12.3587422	0.0006257	-0.0018043	1.8302518	-51.9734715	C
0.0000519	11360.	218978744.	12.3699050	0.0006417	-0.0018483	1.8660450	-53.2399740	C
0.0000531	11625.	218814360.	12.3811424	0.0006577	-0.0018923	1.9013529	-54.5055523	C
0.0000544	11889.	218649070.	12.3924552	0.0006738	-0.0019362	1.9361728	-55.7701970	C
0.0000556	12153.	218482858.	12.4038445	0.0006900	-0.0019800	1.9705020	-57.0338982	C
0.0000569	12417.	218315713.	12.4153111	0.0007061	-0.0020239	2.0043377	-58.2966460	C
0.0000581	12680.	218147620.	12.4268562	0.0007223	-0.0020677	2.0376772	-59.5584304	C
0.0000594	12942.	217978566.	12.4384807	0.0007385	-0.0021115	2.0705176	-60.0000000	CY
0.0000606	13205.	217808537.	12.4501858	0.0007548	-0.0021552	2.1028561	-60.0000000	CY
0.0000619	13466.	217637520.	12.4619724	0.0007711	-0.0021989	2.1346897	-60.0000000	CY
0.0000631	13728.	217465499.	12.4738418	0.0007874	-0.0022426	2.1660155	-60.0000000	CY
0.0000644	13988.	217292461.	12.4857950	0.0008038	-0.0022862	2.1968303	-60.0000000	CY
0.0000656	14237.	216937877.	12.4942055	0.0008199	-0.0023301	2.2266874	-60.0000000	CY
0.0000669	14442.	215950841.	12.4897559	0.0008353	-0.0023747	2.2544434	-60.0000000	CY
0.0000681	14610.	214458844.	12.4747457	0.0008498	-0.0024202	2.2803787	-60.0000000	CY
0.0000694	14778.	213016282.	12.4606410	0.0008645	-0.0024655	2.3058995	-60.0000000	CY
0.0000706	14946.	211620502.	12.4473969	0.0008791	-0.0025109	2.3310038	-60.0000000	CY
0.0000719	15113.	210269032.	12.4349717	0.0008938	-0.0025562	2.3556895	-60.0000000	CY
0.0000731	15280.	208959565.	12.4233266	0.0009085	-0.0026015	2.3799546	-60.0000000	CY
0.0000744	15440.	207598595.	12.4102886	0.0009230	-0.0026470	2.4035366	-60.0000000	CY
0.0000794	15853.	199720504.	12.2970184	0.0009761	-0.0028339	2.4854478	-60.0000000	CY
0.0000844	16207.	192086483.	12.1819164	0.0010278	-0.0030222	2.5595018	-60.0000000	CY
0.0000894	16558.	185268209.	12.0803153	0.0010797	-0.0032103	2.6278771	-60.0000000	CY
0.0000944	16907.	179142156.	11.9928331	0.0011318	-0.0033982	2.6908621	-60.0000000	CY
0.0000994	17216.	173241769.	11.9049250	0.0011831	-0.0035869	2.7470342	-60.0000000	CY
0.0001044	17381.	166525746.	11.7801927	0.0012296	-0.0037804	2.7930480	-60.0000000	CY
0.0001094	17526.	160235444.	11.6571578	0.0012750	-0.0039750	2.8335294	-60.0000000	CY
0.0001144	17668.	154477936.	11.5457837	0.0013205	-0.0041695	2.8696885	-60.0000000	CY
0.0001194	17809.	149189441.	11.4457999	0.0013663	-0.0043637	2.9015893	-60.0000000	CY
0.0001244	17949.	144313067.	11.3558804	0.0014124	-0.0045576	2.9291611	-60.0000000	CY
0.0001294	18087.	139799924.	11.2745420	0.0014586	-0.0047514	2.9523089	-60.0000000	CY
0.0001344	18221.	135599692.	11.1962751	0.0015045	-0.0049455	2.9707471	-60.0000000	CY
0.0001394	18354.	131688989.	11.1255857	0.0015506	-0.0051394	2.9847732	-60.0000000	CY
0.0001444	18485.	128037416.	11.0617411	0.0015970	-0.0053330	2.9943057	-60.0000000	CY
0.0001494	18615.	124618631.	11.0041101	0.0016437	-0.0055263	2.9992592	-60.0000000	CY
0.0001544	18738.	121379788.	10.9502230	0.0016904	-0.0057196	2.9966892	-60.0000000	CY
0.0001594	18830.	118148831.	10.8885040	0.0017354	-0.0059146	2.9998114	-60.0000000	CY
0.0001644	18884.	114886235.	10.8161086	0.0017779	-0.0061121	2.9968527	-60.0000000	CY
0.0001694	18923.	111724980.	10.7386115	0.0018189	-0.0063111	2.9996375	-60.0000000	CY
0.0001744	18959.	108728016.	10.6647736	0.0018597	-0.0065103	2.9964977	-60.0000000	CY
0.0001794	18995.	105893565.	10.5962596	0.0019007	-0.0067093	2.9986847	-60.0000000	CY
0.0001844	19029.	103209432.	10.5324533	0.0019419	-0.0069081	2.9999978	-60.0000000	CY
0.0001894	19063.	100662014.	10.4733190	0.0019834	-0.0071066	2.9960568	-60.0000000	CY
0.0001944	19096.	98242854.	10.4180880	0.0020250	-0.0073050	2.9990937	-60.0000000	CY
0.0001994	19128.	95942162.	10.3665006	0.0020668	-0.0075032	2.9994573	-60.0000000	CY
0.0002044	19160.	93749758.	10.3184163	0.0021088	-0.0077012	2.9953545	-60.0000000	CY
0.0002094	19190.	91653705.	10.2688341	0.0021500	-0.0079000	2.9985210	60.0000000	CY

0.0002144	19219.	89653580.	10.2222468	0.0021914	-0.0080986	2.9999260	60.0000000	CY
0.0002194	19248.	87741768.	10.1787313	0.0022330	-0.0082970	2.9957937	60.0000000	CY
0.0002244	19277.	85913317.	10.1378345	0.0022747	-0.0084953	2.9960956	60.0000000	CY
0.0002294	19305.	84163204.	10.0992748	0.0023165	-0.0086935	2.9987988	60.0000000	CY
0.0002344	19333.	82486387.	10.0629126	0.0023585	-0.0088915	2.9999552	60.0000000	CY
0.0002394	19360.	80877303.	10.0288940	0.0024007	-0.0090893	2.9957921	60.0000000	CY
0.0002444	19387.	79332733.	9.9968054	0.0024430	-0.0092870	2.9944378	60.0000000	CY
0.0002494	19414.	77849108.	9.9664432	0.0024854	-0.0094846	2.9976287	60.0000000	CY
0.0002544	19440.	76422815.	9.9377129	0.0025279	-0.0096821	2.9994850	60.0000000	CY
0.0002594	19466.	75050373.	9.9105744	0.0025706	-0.0098794	2.9993256	60.0000000	CY
0.0002644	19492.	73728061.	9.8851525	0.0026134	-0.0100766	2.9941677	60.0000000	CY
0.0002694	19517.	72454132.	9.8610195	0.0026563	-0.0102737	2.9934557	60.0000000	CY
0.0002744	19543.	71225750.	9.8378764	0.0026993	-0.0104707	2.9967531	60.0000000	CY
0.0003044	19686.	64678375.	9.7087711	0.0029551	-0.0116549	2.9950431	60.0000000	CY
0.0003344	19824.	59287942.	9.6132027	0.0032144	-0.0128356	2.9883460	60.0000000	CYT
0.0003644	19929.	54692426.	9.5313059	0.0034730	-0.0140170	2.9993850	60.0000000	CYT
0.0003944	19969.	50634510.	9.4411704	0.0037234	-0.0152066	2.9914620	60.0000000	CYT
0.0004244	19969.	47055046.	9.4129401	0.0039946	-0.0163754	2.9961557	60.0000000	CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	0.086	19710.359	0.00300000

Note note that the values of moment capacity in the table above are not
factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether
the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction
factor to compute ultimate moment capacity according to ACI 318-08, Section
9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding
bending stiffnesses computed for common resistance factor values used for
reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	19710.359	0.056	12811.733	218062720.509
1	0.70	19710.359	0.060	13797.251	217419207.200
1	0.75	19710.359	0.065	14782.769	212976624.644

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 18.600 lbs
Applied moment at pile head = 0.000 in-lbs
Axial thrust load on pile head = 86.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.000169	4.757E-07	18.6000	-1.232E-06	0.000	1.048E+12	0.000	0.000	0.000
0.167	0.000167	37.2002	18.5250	-1.232E-06	0.000	1.048E+12	-0.0750	900.0000	0.000
0.333	0.000164	74.1005	18.3023	-1.232E-06	0.000	1.048E+12	-0.1478	1800.0000	0.000
0.500	0.000162	110.4097	17.9362	-1.232E-06	0.000	1.048E+12	-0.2183	2700.0000	0.000
0.667	0.000159	145.8456	17.4312	-1.231E-06	0.000	1.048E+12	-0.2867	3600.0000	0.000
0.833	0.000157	180.1348	16.7917	-1.231E-06	0.000	1.048E+12	-0.3528	4500.0000	0.000
1.000	0.000154	213.0130	16.3177	-1.231E-06	0.000	1.048E+12	-0.1213	1572.1582	0.000
1.167	0.000152	245.4059	16.0587	-1.230E-06	0.000	1.048E+12	-0.1376	1812.1582	0.000
1.333	0.000149	277.2483	15.7678	-1.230E-06	0.000	1.048E+12	-0.1533	2052.1582	0.000
1.500	0.000147	308.4776	15.4461	-1.229E-06	0.000	1.048E+12	-0.1684	2292.1582	0.000
1.667	0.000144	339.0331	15.0947	-1.229E-06	0.000	1.048E+12	-0.1829	2532.1582	0.000
1.833	0.000142	368.8570	14.7149	-1.228E-06	0.000	1.048E+12	-0.1969	2772.1582	0.000
2.000	0.000140	397.8933	14.3078	-1.227E-06	0.000	1.048E+12	-0.2102	3012.1582	0.000
2.167	0.000137	426.0887	13.8746	-1.227E-06	0.000	1.048E+12	-0.2230	3252.1582	0.000
2.333	0.000135	453.3923	13.4165	-1.226E-06	0.000	1.048E+12	-0.2352	3492.1582	0.000
2.500	0.000132	479.7552	12.9346	-1.225E-06	0.000	1.048E+12	-0.2467	3732.1582	0.000
2.667	0.000130	505.1312	12.4301	-1.224E-06	0.000	1.048E+12	-0.2577	3972.1582	0.000

2.833	0.000127	529.4763	11.9042	-1.223E-06	0.000	1.048E+12	-0.2682	4212.1582	0.000
3.000	0.000125	552.7486	11.3581	-1.222E-06	0.000	1.048E+12	-0.2780	4452.1582	0.000
3.167	0.000122	574.9090	10.7928	-1.221E-06	0.000	1.048E+12	-0.2873	4692.1582	0.000
3.333	0.000120	595.9204	10.2096	-1.220E-06	0.000	1.048E+12	-0.2959	4932.1582	0.000
3.500	0.000118	615.7480	9.6097	-1.218E-06	0.000	1.048E+12	-0.3040	5172.1582	0.000
3.667	0.000115	634.3595	8.9941	-1.217E-06	0.000	1.048E+12	-0.3115	5412.1582	0.000
3.833	0.000113	651.7249	8.3641	-1.216E-06	0.000	1.048E+12	-0.3185	5652.1582	0.000
4.000	0.000110	667.8163	7.7208	-1.215E-06	0.000	1.048E+12	-0.3248	5892.1582	0.000
4.167	0.000108	682.6084	7.0653	-1.213E-06	0.000	1.048E+12	-0.3306	6132.1582	0.000
4.333	0.000105	696.0780	6.3988	-1.212E-06	0.000	1.048E+12	-0.3358	6372.1582	0.000
4.500	0.000103	708.2042	5.7225	-1.211E-06	0.000	1.048E+12	-0.3405	6612.1582	0.000
4.667	0.000101	718.9685	5.0375	-1.209E-06	0.000	1.048E+12	-0.3445	6852.1582	0.000
4.833	9.815E-05	728.3546	4.3449	-1.208E-06	0.000	1.048E+12	-0.3480	7092.1582	0.000
5.000	9.573E-05	736.3486	3.6459	-1.207E-06	0.000	1.048E+12	-0.3510	7332.1582	0.000
5.167	9.332E-05	742.9388	2.9416	-1.205E-06	0.000	1.048E+12	-0.3533	7572.1582	0.000
5.333	9.091E-05	748.1156	2.2332	-1.204E-06	0.000	1.048E+12	-0.3551	7812.1582	0.000
5.500	8.851E-05	751.8720	1.5218	-1.202E-06	0.000	1.048E+12	-0.3563	8052.1582	0.000
5.667	8.610E-05	754.2031	0.8085	-1.201E-06	0.000	1.048E+12	-0.3570	8292.1582	0.000
5.833	8.370E-05	755.1063	0.0944	-1.200E-06	0.000	1.048E+12	-0.3571	8532.1582	0.000
6.000	8.130E-05	754.5812	-0.5104	-1.198E-06	0.000	1.048E+12	-0.2477	6093.7080	0.000
6.167	7.891E-05	753.0652	-1.0048	-1.197E-06	0.000	1.048E+12	-0.2467	6253.7080	0.000
6.333	7.652E-05	750.5622	-1.4970	-1.195E-06	0.000	1.048E+12	-0.2454	6413.7080	0.000
6.500	7.413E-05	747.0778	-1.9860	-1.194E-06	0.000	1.048E+12	-0.2436	6573.7080	0.000
6.667	7.174E-05	742.6187	-2.4712	-1.192E-06	0.000	1.048E+12	-0.2415	6733.7080	0.000
6.833	6.936E-05	737.1935	-2.9518	-1.191E-06	0.000	1.048E+12	-0.2391	6893.7080	0.000
7.000	6.698E-05	730.8120	-3.4271	-1.190E-06	0.000	1.048E+12	-0.2362	7053.7080	0.000
7.167	6.460E-05	723.4856	-3.8963	-1.188E-06	0.000	1.048E+12	-0.2330	7213.7080	0.000
7.333	6.222E-05	715.2272	-4.3587	-1.187E-06	0.000	1.048E+12	-0.2294	7373.7080	0.000
7.500	5.985E-05	706.0512	-4.8136	-1.185E-06	0.000	1.048E+12	-0.2255	7533.7080	0.000
7.667	5.748E-05	695.9733	-5.2602	-1.184E-06	0.000	1.048E+12	-0.2211	7693.7080	0.000
7.833	5.512E-05	685.0109	-5.6977	-1.183E-06	0.000	1.048E+12	-0.2164	7853.7080	0.000
8.000	5.275E-05	673.1828	-6.1255	-1.182E-06	0.000	1.048E+12	-0.2114	8013.7080	0.000
8.167	5.039E-05	660.5092	-6.5428	-1.180E-06	0.000	1.048E+12	-0.2059	8173.7080	0.000
8.333	4.803E-05	647.0118	-6.9489	-1.179E-06	0.000	1.048E+12	-0.2001	8333.7080	0.000
8.500	4.567E-05	632.7139	-7.3430	-1.178E-06	0.000	1.048E+12	-0.1940	8493.7080	0.000
8.667	4.332E-05	617.6401	-7.7244	-1.177E-06	0.000	1.048E+12	-0.1874	8653.7080	0.000
8.833	4.097E-05	601.8166	-8.0924	-1.175E-06	0.000	1.048E+12	-0.1805	8813.7080	0.000
9.000	3.862E-05	585.2709	-8.4462	-1.174E-06	0.000	1.048E+12	-0.1733	8973.7080	0.000
9.167	3.627E-05	568.0320	-8.7852	-1.173E-06	0.000	1.048E+12	-0.1656	9133.7080	0.000
9.333	3.393E-05	550.1307	-9.1084	-1.172E-06	0.000	1.048E+12	-0.1576	9293.7080	0.000
9.500	3.158E-05	531.5987	-9.4154	-1.171E-06	0.000	1.048E+12	-0.1493	9453.7080	0.000
9.667	2.924E-05	512.4696	-9.7052	-1.170E-06	0.000	1.048E+12	-0.1406	9613.7080	0.000
9.833	2.690E-05	492.7782	-9.9772	-1.169E-06	0.000	1.048E+12	-0.1315	9773.7080	0.000
10.000	2.456E-05	472.5610	-10.2307	-1.168E-06	0.000	1.048E+12	-0.1220	9933.7080	0.000
10.167	2.223E-05	451.8557	-10.4649	-1.167E-06	0.000	1.048E+12	-0.1122	10094.	0.000
10.333	1.990E-05	430.7017	-10.6791	-1.166E-06	0.000	1.048E+12	-0.1020	10254.	0.000
10.500	1.756E-05	409.1396	-10.8726	-1.166E-06	0.000	1.048E+12	-0.0915	10414.	0.000
10.667	1.523E-05	387.2118	-11.0446	-1.165E-06	0.000	1.048E+12	-0.0805	10574.	0.000
10.833	1.290E-05	364.9618	-11.1943	-1.164E-06	0.000	1.048E+12	-0.0693	10734.	0.000
11.000	1.058E-05	342.4348	-11.3212	-1.164E-06	0.000	1.048E+12	-0.0576	10894.	0.000
11.167	8.250E-06	319.6774	-11.4244	-1.163E-06	0.000	1.048E+12	-0.0456	11054.	0.000
11.333	5.925E-06	296.7375	-11.5032	-1.162E-06	0.000	1.048E+12	-0.0332	11214.	0.000
11.500	3.601E-06	273.6649	-11.5569	-1.162E-06	0.000	1.048E+12	-0.0205	11374.	0.000
11.667	1.278E-06	250.5103	-11.5848	-1.161E-06	0.000	1.048E+12	-0.007369	11534.	0.000
11.833	-1.044E-06	227.3262	-11.5860	-1.161E-06	0.000	1.048E+12	0.006105	11694.	0.000
12.000	-3.365E-06	204.1665	-11.5600	-1.160E-06	0.000	1.048E+12	0.0199	11854.	0.000
12.167	-5.686E-06	181.0867	-11.5059	-1.160E-06	0.000	1.048E+12	0.0342	12014.	0.000
12.333	-8.005E-06	158.1434	-11.4230	-1.160E-06	0.000	1.048E+12	0.0487	12174.	0.000
12.500	-1.032E-05	135.3950	-11.3106	-1.159E-06	0.000	1.048E+12	0.0637	12334.	0.000
12.667	-1.264E-05	112.9014	-11.1680	-1.159E-06	0.000	1.048E+12	0.0790	12494.	0.000
12.833	-1.496E-05	90.7236	-10.9943	-1.159E-06	0.000	1.048E+12	0.0947	12654.	0.000
13.000	-1.728E-05	68.9245	-10.3125	-1.159E-06	0.000	1.048E+12	0.5871	67960.	0.000
13.167	-1.960E-05	49.4739	-9.0507	-1.159E-06	0.000	1.048E+12	0.6747	68860.	0.000
13.333	-2.191E-05	32.7222	-7.6116	-1.159E-06	0.000	1.048E+12	0.7644	69760.	0.000
13.500	-2.423E-05	19.0278	-5.9912	-1.159E-06	0.000	1.048E+12	0.8561	70660.	0.000
13.667	-2.655E-05	8.7578	-4.1852	-1.159E-06	0.000	1.048E+12	0.9499	71560.	0.000
13.833	-2.887E-05	2.2873	-2.1895	-1.159E-06	0.000	1.048E+12	1.0458	72460.	0.000
14.000	-3.118E-05	0.000	0.000	-1.159E-06	0.000	1.048E+12	1.1438	36680.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

```
Pile-head deflection             =      0.0001691 inches
Computed slope at pile head      =   -0.000001232 radians
Maximum bending moment           =    755.1063185 inch-lbs
Maximum shear force              =     18.6000000 lbs
Depth of maximum bending moment  =     70.0000000 inches below pile head
Depth of maximum shear force     =       0.000000 inches below pile head
Number of iterations             =              6
Number of zero deflection points =              1
```

Computed Values of Pile Loading and Deflection
for Lateral Loading for Load Case Number 2

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 38.800 lbs
Applied moment at pile head = 0.000 in-lbs
Axial thrust load on pile head = 86.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	0.000353	3.408E-07	38.8000	-2.570E-06	0.000	1.048E+12	0.000	0.000	0.000
0.167	0.000348	77.6004	38.6436	-2.570E-06	0.000	1.048E+12	-0.1564	900.0000	0.000
0.333	0.000342	154.5752	38.1789	-2.570E-06	0.000	1.048E+12	-0.3082	1800.0000	0.000
0.500	0.000337	230.3169	37.4152	-2.569E-06	0.000	1.048E+12	-0.4554	2700.0000	0.000
0.667	0.000332	304.2370	36.3618	-2.569E-06	0.000	1.048E+12	-0.5980	3600.0000	0.000
0.833	0.000327	375.7652	35.0279	-2.568E-06	0.000	1.048E+12	-0.7359	4500.0000	0.000
1.000	0.000322	444.3497	34.0390	-2.567E-06	0.000	1.048E+12	-0.2531	1572.1582	0.000
1.167	0.000317	511.9219	33.4989	-2.567E-06	0.000	1.048E+12	-0.2870	1812.1582	0.000
1.333	0.000312	578.3460	32.8920	-2.566E-06	0.000	1.048E+12	-0.3198	2052.1582	0.000
1.500	0.000307	643.4908	32.2209	-2.564E-06	0.000	1.048E+12	-0.3513	2292.1582	0.000
1.667	0.000301	707.2304	31.4880	-2.563E-06	0.000	1.048E+12	-0.3816	2532.1582	0.000
1.833	0.000296	769.4435	30.6957	-2.562E-06	0.000	1.048E+12	-0.4107	2772.1582	0.000
2.000	0.000291	830.0139	29.8465	-2.560E-06	0.000	1.048E+12	-0.4385	3012.1582	0.000
2.167	0.000286	888.8303	28.9428	-2.559E-06	0.000	1.048E+12	-0.4651	3252.1582	0.000
2.333	0.000281	945.7861	27.9871	-2.557E-06	0.000	1.048E+12	-0.4905	3492.1582	0.000
2.500	0.000276	1000.7798	26.9819	-2.555E-06	0.000	1.048E+12	-0.5147	3732.1582	0.000
2.667	0.000271	1053.7146	25.9296	-2.553E-06	0.000	1.048E+12	-0.5377	3972.1582	0.000
2.833	0.000266	1104.4989	24.8325	-2.551E-06	0.000	1.048E+12	-0.5594	4212.1582	0.000
3.000	0.000261	1153.0455	23.6932	-2.549E-06	0.000	1.048E+12	-0.5799	4452.1582	0.000
3.167	0.000255	1199.2725	22.5141	-2.546E-06	0.000	1.048E+12	-0.5992	4692.1582	0.000
3.333	0.000250	1243.1027	21.2975	-2.544E-06	0.000	1.048E+12	-0.6173	4932.1582	0.000
3.500	0.000245	1284.4635	20.0460	-2.542E-06	0.000	1.048E+12	-0.6342	5172.1582	0.000
3.667	0.000240	1323.2876	18.7619	-2.539E-06	0.000	1.048E+12	-0.6499	5412.1582	0.000
3.833	0.000235	1359.5121	17.4477	-2.537E-06	0.000	1.048E+12	-0.6644	5652.1582	0.000
4.000	0.000230	1393.0792	16.1057	-2.534E-06	0.000	1.048E+12	-0.6776	5892.1582	0.000
4.167	0.000225	1423.9358	14.7384	-2.531E-06	0.000	1.048E+12	-0.6897	6132.1582	0.000
4.333	0.000220	1452.0336	13.3481	-2.529E-06	0.000	1.048E+12	-0.7006	6372.1582	0.000
4.500	0.000215	1477.3292	11.9373	-2.526E-06	0.000	1.048E+12	-0.7102	6612.1582	0.000
4.667	0.000210	1499.7838	10.5083	-2.523E-06	0.000	1.048E+12	-0.7187	6852.1582	0.000
4.833	0.000205	1519.3635	9.0636	-2.520E-06	0.000	1.048E+12	-0.7260	7092.1582	0.000
5.000	0.000200	1536.0391	7.6055	-2.517E-06	0.000	1.048E+12	-0.7321	7332.1582	0.000
5.167	0.000195	1549.7862	6.1363	-2.514E-06	0.000	1.048E+12	-0.7370	7572.1582	0.000
5.333	0.000190	1560.5853	4.6585	-2.511E-06	0.000	1.048E+12	-0.7408	7812.1582	0.000
5.500	0.000185	1568.4212	3.1745	-2.508E-06	0.000	1.048E+12	-0.7433	8052.1582	0.000
5.667	0.000180	1573.2840	1.6865	-2.505E-06	0.000	1.048E+12	-0.7447	8292.1582	0.000
5.833	0.000175	1575.1680	0.1969	-2.502E-06	0.000	1.048E+12	-0.7449	8532.1582	0.000
6.000	0.000170	1574.0726	-1.0647	-2.499E-06	0.000	1.048E+12	-0.5167	6093.7080	0.000
6.167	0.000165	1570.9102	-2.0961	-2.496E-06	0.000	1.048E+12	-0.5147	6253.7080	0.000
6.333	0.000160	1565.6889	-3.1227	-2.493E-06	0.000	1.048E+12	-0.5119	6413.7080	0.000
6.500	0.000155	1558.4203	-4.1428	-2.490E-06	0.000	1.048E+12	-0.5083	6573.7080	0.000
6.667	0.000150	1549.1186	-5.1549	-2.487E-06	0.000	1.048E+12	-0.5039	6733.7080	0.000
6.833	0.000145	1537.8014	-6.1575	-2.484E-06	0.000	1.048E+12	-0.4987	6893.7080	0.000
7.000	0.000140	1524.4895	-7.1489	-2.481E-06	0.000	1.048E+12	-0.4928	7053.7080	0.000
7.167	0.000135	1509.2065	-8.1278	-2.479E-06	0.000	1.048E+12	-0.4860	7213.7080	0.000
7.333	0.000130	1491.9793	-9.0924	-2.476E-06	0.000	1.048E+12	-0.4786	7373.7080	0.000
7.500	0.000125	1472.8379	-10.0412	-2.473E-06	0.000	1.048E+12	-0.4703	7533.7080	0.000
7.667	0.000120	1451.8152	-10.9728	-2.470E-06	0.000	1.048E+12	-0.4613	7693.7080	0.000
7.833	0.000115	1428.9474	-11.8856	-2.467E-06	0.000	1.048E+12	-0.4515	7853.7080	0.000
8.000	0.000110	1404.2737	-12.7780	-2.465E-06	0.000	1.048E+12	-0.4409	8013.7080	0.000
8.167	0.000105	1377.8363	-13.6485	-2.462E-06	0.000	1.048E+12	-0.4296	8173.7080	0.000
8.333	0.000100	1349.6806	-14.4956	-2.459E-06	0.000	1.048E+12	-0.4175	8333.7080	0.000
8.500	9.528E-05	1319.8548	-15.3177	-2.457E-06	0.000	1.048E+12	-0.4046	8493.7080	0.000
8.667	9.037E-05	1288.4106	-16.1133	-2.454E-06	0.000	1.048E+12	-0.3910	8653.7080	0.000
8.833	8.546E-05	1255.4023	-16.8810	-2.452E-06	0.000	1.048E+12	-0.3766	8813.7080	0.000
9.000	8.056E-05	1220.8876	-17.6190	-2.450E-06	0.000	1.048E+12	-0.3615	8973.7080	0.000
9.167	7.566E-05	1184.9271	-18.3260	-2.447E-06	0.000	1.048E+12	-0.3455	9133.7080	0.000
9.333	7.077E-05	1147.5844	-19.0004	-2.445E-06	0.000	1.048E+12	-0.3289	9293.7080	0.000
9.500	6.588E-05	1108.9263	-19.6407	-2.443E-06	0.000	1.048E+12	-0.3114	9453.7080	0.000
9.667	6.100E-05	1069.0225	-20.2453	-2.441E-06	0.000	1.048E+12	-0.2932	9613.7080	0.000
9.833	5.612E-05	1027.9459	-20.8128	-2.439E-06	0.000	1.048E+12	-0.2742	9773.7080	0.000
10.000	5.124E-05	985.7723	-21.3415	-2.437E-06	0.000	1.048E+12	-0.2545	9933.7080	0.000
10.167	4.637E-05	942.5807	-21.8301	-2.435E-06	0.000	1.048E+12	-0.2340	10094.	0.000
10.333	4.150E-05	898.4529	-22.2769	-2.433E-06	0.000	1.048E+12	-0.2128	10254.	0.000
10.500	3.664E-05	853.4740	-22.6804	-2.432E-06	0.000	1.048E+12	-0.1908	10414.	0.000
10.667	3.178E-05	807.7321	-23.0392	-2.430E-06	0.000	1.048E+12	-0.1680	10574.	0.000
10.833	2.692E-05	761.3181	-23.3516	-2.429E-06	0.000	1.048E+12	-0.1445	10734.	0.000
11.000	2.206E-05	714.3263	-23.6163	-2.427E-06	0.000	1.048E+12	-0.1202	10894.	0.000
11.167	1.721E-05	666.8539	-23.8316	-2.426E-06	0.000	1.048E+12	-0.0951	11054.	0.000
11.333	1.236E-05	619.0009	-23.9960	-2.425E-06	0.000	1.048E+12	-0.0693	11214.	0.000
11.500	7.511E-06	570.8708	-24.1080	-2.423E-06	0.000	1.048E+12	-0.0427	11374.	0.000
11.667	2.666E-06	522.5698	-24.1661	-2.422E-06	0.000	1.048E+12	-0.0154	11534.	0.000
11.833	-2.178E-06	474.2073	-24.1687	-2.421E-06	0.000	1.048E+12	0.0127	11694.	0.000
12.000	-7.020E-06	425.8958	-24.1144	-2.421E-06	0.000	1.048E+12	0.0416	11854.	0.000
12.167	-1.186E-05	377.7506	-24.0015	-2.420E-06	0.000	1.048E+12	0.0712	12014.	0.000
12.333	-1.670E-05	329.8905	-23.8286	-2.419E-06	0.000	1.048E+12	0.1016	12174.	0.000
12.500	-2.154E-05	282.4370	-23.5942	-2.419E-06	0.000	1.048E+12	0.1328	12334.	0.000
12.667	-2.637E-05	235.5147	-23.2966	-2.418E-06	0.000	1.048E+12	0.1648	12494.	0.000
12.833	-3.121E-05	189.2514	-22.9344	-2.418E-06	0.000	1.048E+12	0.1975	12654.	0.000
13.000	-3.604E-05	143.7780	-21.5121	-2.417E-06	0.000	1.048E+12	1.2248	67960.	0.000
13.167	-4.088E-05	103.2037	-18.8799	-2.417E-06	0.000	1.048E+12	1.4074	68860.	0.000

13.333	-4.571E-05	68.2592	-15.8780	-2.417E-06	0.000	1.048E+12	1.5945	69760.	0.000
13.500	-5.055E-05	39.6925	-12.4978	-2.417E-06	0.000	1.048E+12	1.7858	70660.	0.000
13.667	-5.538E-05	18.2690	-8.7305	-2.417E-06	0.000	1.048E+12	1.9815	71560.	0.000
13.833	-6.021E-05	4.7714	-4.5674	-2.417E-06	0.000	1.048E+12	2.1815	72460.	0.000
14.000	-6.505E-05	0.000	0.000	-2.417E-06	0.000	1.048E+12	2.3859	36680.	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 2:

Pile-head deflection = 0.0003528 inches
Computed slope at pile head = -0.000002570 radians
Maximum bending moment = 1575.1680193 inch-lbs
Maximum shear force = 38.8000000 lbs
Depth of maximum bending moment = 70.0000000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head
Number of iterations = 6
Number of zero deflection points = 1

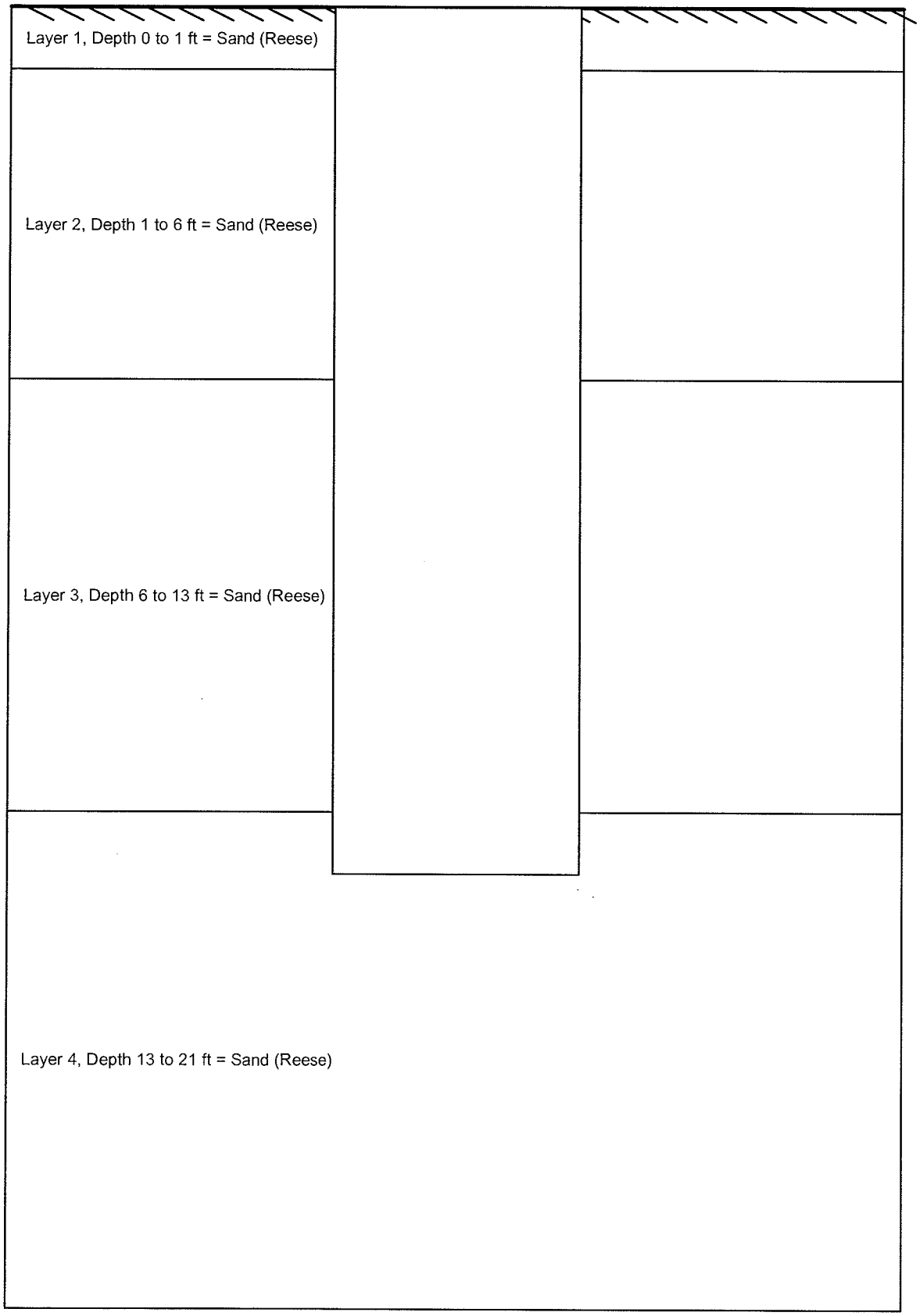
Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)		Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	1	V = 18.6000	M =	0.000	86.00000000	0.00016911	755.10631852	18.6000	-0.00000123
2	1	V = 38.8000	M =	0.000	86.00000000	0.00035277	1575.16801929	38.8000	-0.00000257

The analysis ended normally.



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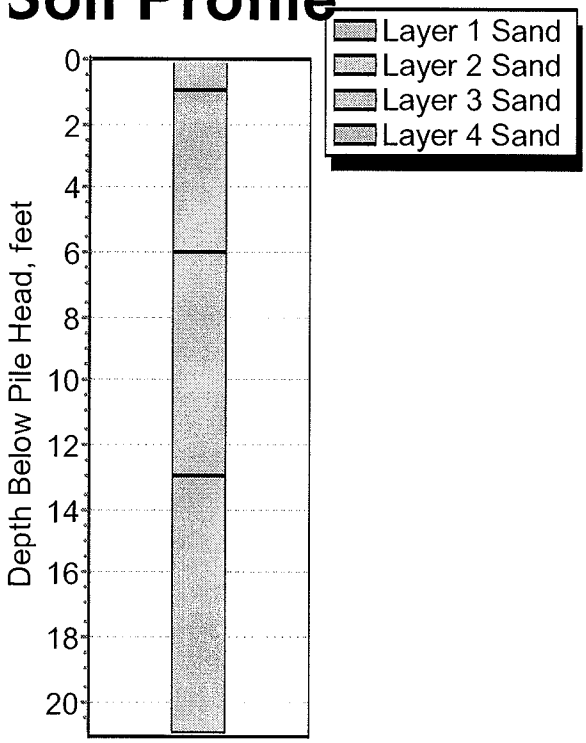
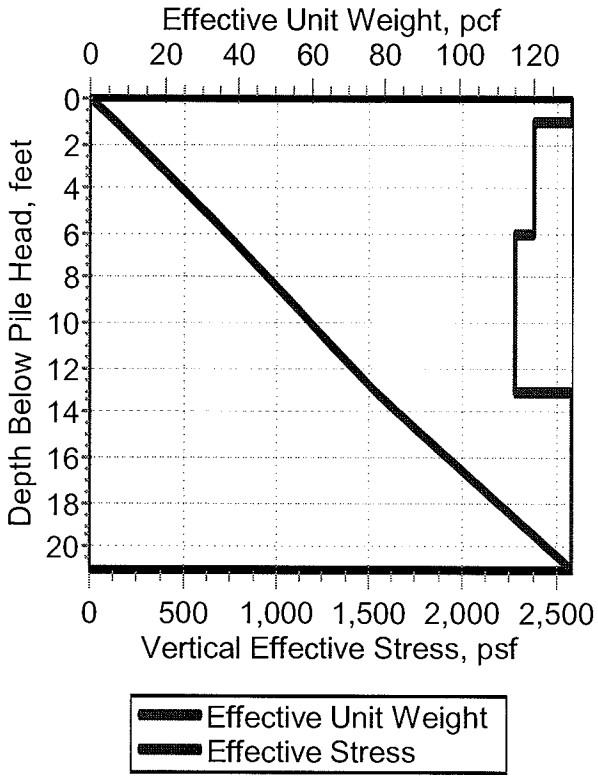
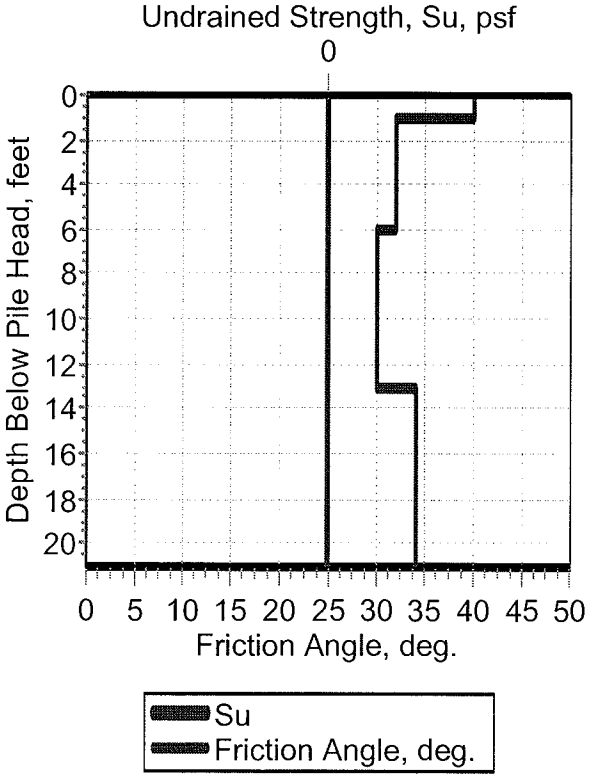
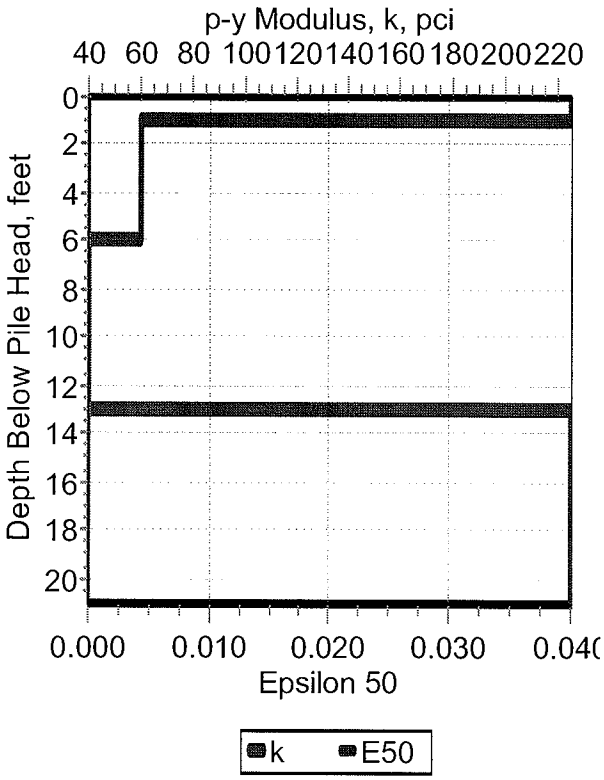
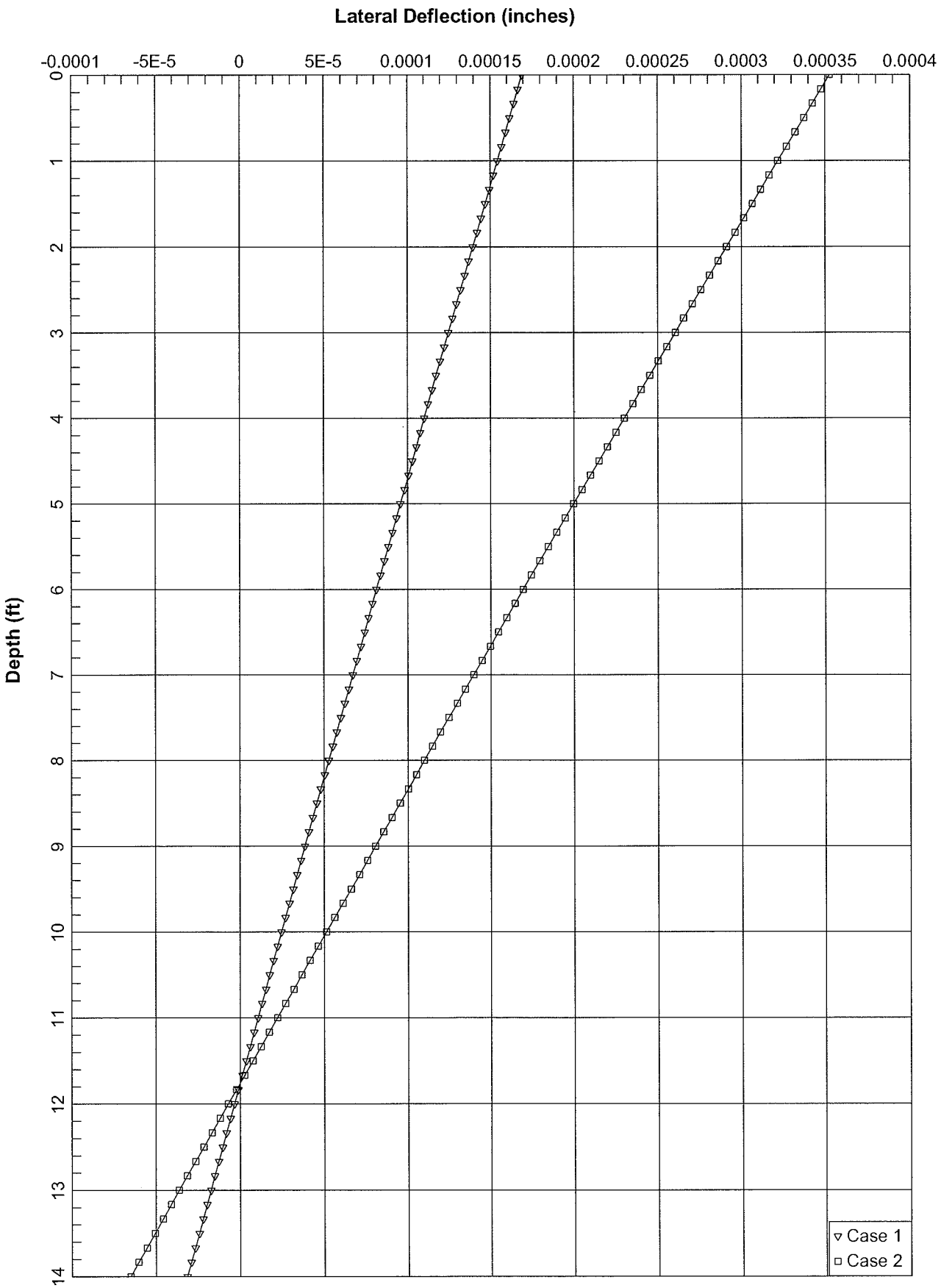
Soil Profile










Lateral Deflection (inches)
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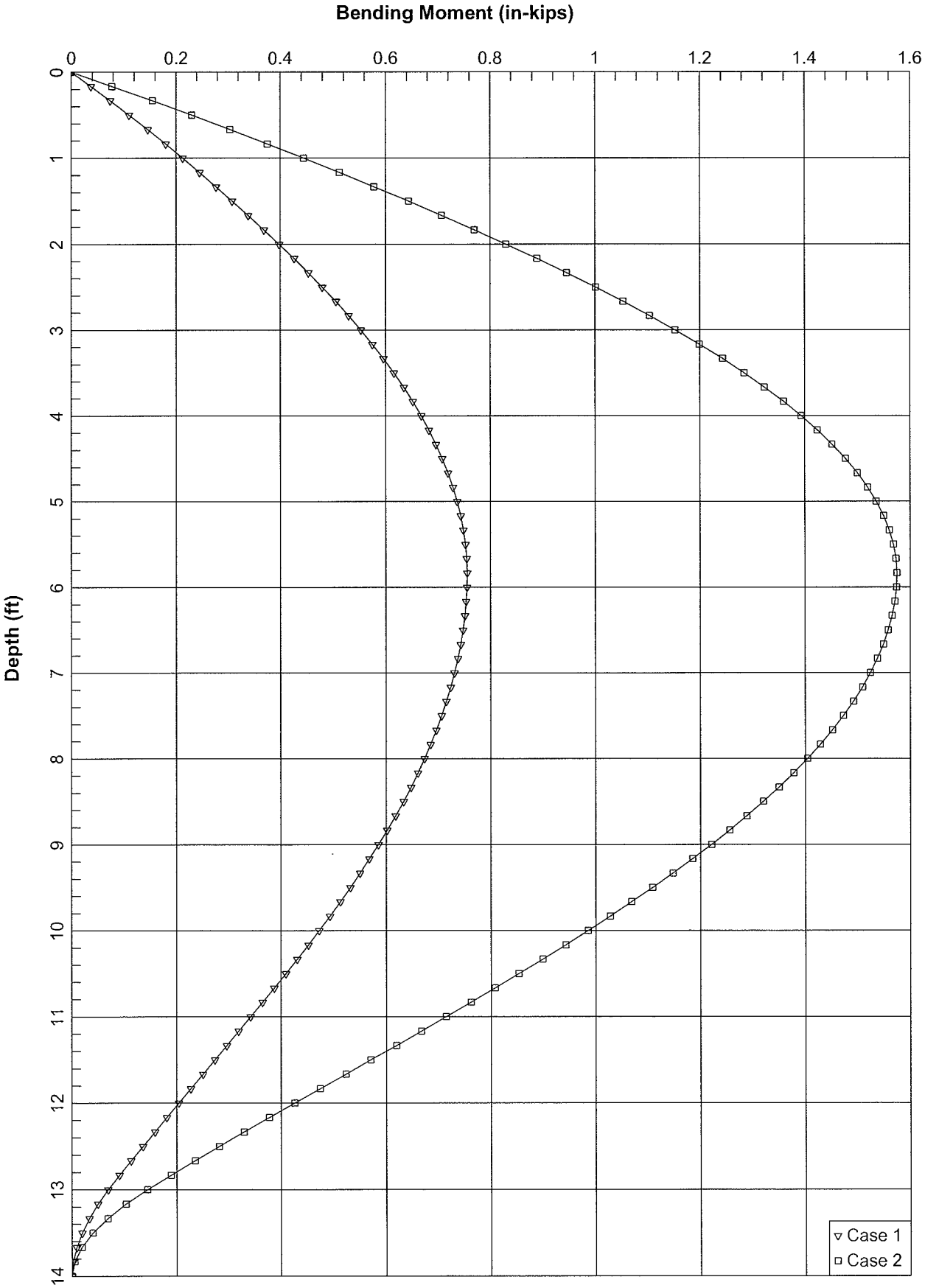
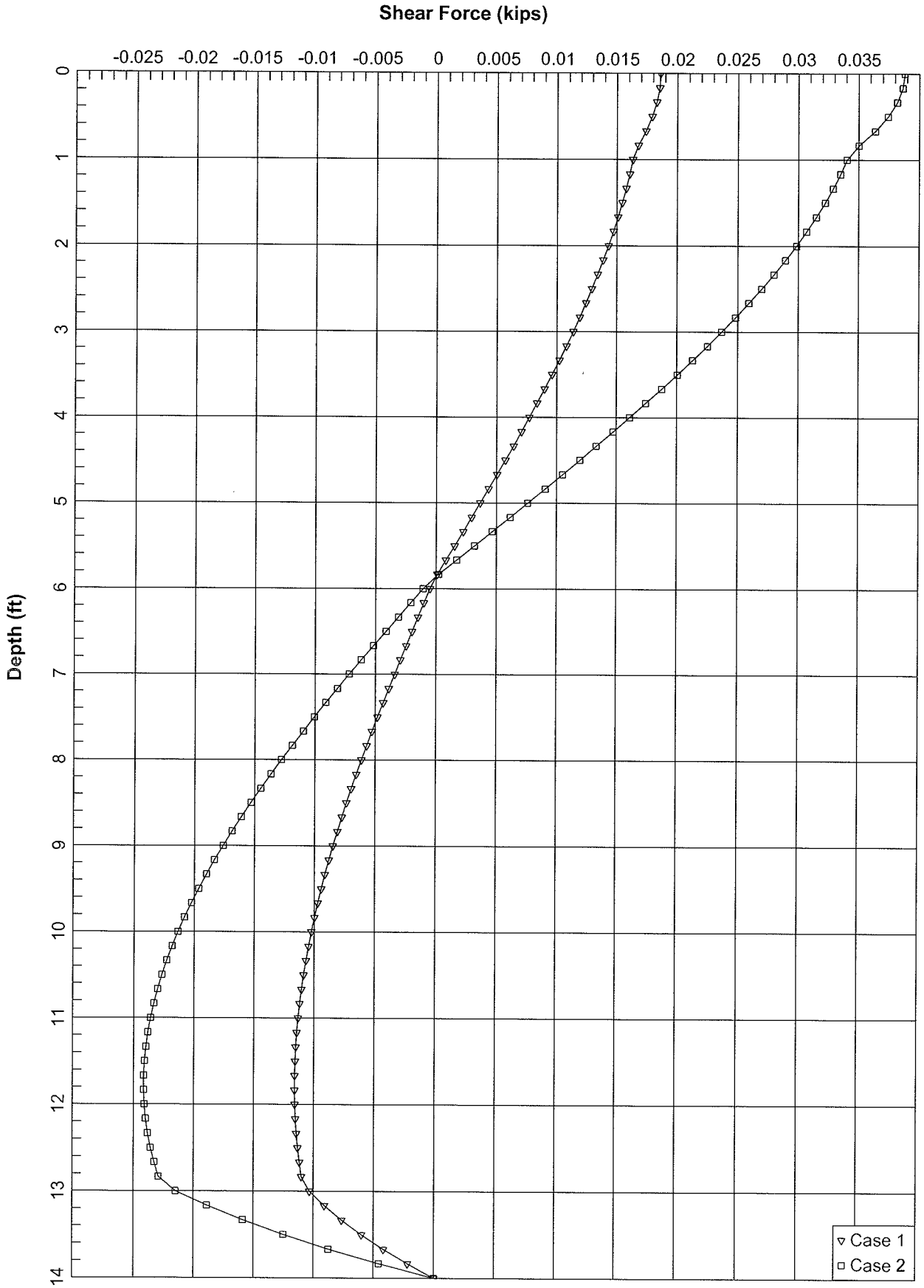
-5E-5
0
5E-5
0.0001
0.00015
0.0002
0.00025
0.0003
0.00035
0.0004
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Case 1
Case 2


Bending Moment (in-kips)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Case 1
Case 2


Shear Force (kips)
-0.025
-0.02
-0.015
-0.01
-0.005
0
0.005
0.01
0.015
0.02
0.025
0.03
0.035
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
Case 1
Case 2

Terminal Arrestor LPILE Analysis

LPile Plus for Windows, Version 2012-06.037

Analysis of Individual Piles and Drilled Shafts
Subjected to Lateral Loading Using the p-y Method

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Geosyntec
San Diego

Serial Number of Security Device: 154103767
Company Name Stored in Security Device: Geosyntec Consultants

Files Used for Analysis

Path to file locations: \\sandiego-01\Data\PRJ\SDWP\Current Projects\SC0368 SDG&E Geotechnical\30 Vine Substation\05 Calculations\Preliminary LPILE Runs\
Name of input data file: Terminal Arrestor SAND.f.lp6d
Name of output report file: Terminal Arrestor SAND.f.lp6o
Name of plot output file: Terminal Arrestor SAND.f.lp6p
Name of runtime messeage file: Terminal Arrestor SAND.f.lp6r

Date and Time of Analysis

Date: December 11, 2013 Time: 10:20:43

Problem Title

Project Name: Vine Substation

Job Number: SC0368 30

Client: SDG&E

Engineer: JLN

Description: Simplified Sand Profile

Program Options

Engineering units are US Customary Units: pounds, inches, feet

Basic Program Options:

This analysis computes pile response to lateral loading and will compute nonlinear moment-curvature and nominal moment capacity for section types with nonlinear properties.

Computation Options:
- Analysis does not use p-y multipliers (individual pile or shaft only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix values
- Report pile response for full length of pile
- Analysis assumes no loading by soil movements acting on pile
- No p-y curves to be computed and reported for user-specified depths

Solution Control Parameters:
- Number of pile increments = 100
- Maximum number of iterations allowed = 100
- Deflection tolerance for convergence = 1.0000E-05 in
- Maximum allowable deflection = 100.0000 in

Pile Response Output Options:
- Values of pile-head deflection, bending moment, shear force, and soil reaction are printed for full length of pile.
- Printing Increment (nodal spacing of output points) = 1

Pile Structural Properties and Geometry

Total number of pile sections = 1

Total length of pile = 13.00 ft

Depth of ground surface below top of pile = 0.00 ft

Pile diameter values used for p-y curve computations are defined using 2 points.

p-y curves are computed using pile diameter values interpolated with depth over the length of the pile.

Point	Depth X ft	Pile Diameter in
1	0.00000	30.0000000
2	13.000000	30.0000000

Input Structural Properties:

Pile Section No. 1:

Section Type	= Drilled Shaft (Bored Pile)
Section Length	= 13.00000000 ft
Section Diameter	= 30.00000000 in

Ground Slope and Pile Batter Angles

Ground Slope Angle = 0.000 degrees
= 0.000 radians

Pile Batter Angle = 0.000 degrees
= 0.000 radians

Soil and Rock Layering Information

The soil profile is modelled using 4 layers

Layer 1 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 0.0000 ft
Distance from top of pile to bottom of layer	= 1.00000 ft
Effective unit weight at top of layer	= 130.00000 pcf
Effective unit weight at bottom of layer	= 130.00000 pcf
Friction angle at top of layer	= 40.00000 deg.
Friction angle at bottom of layer	= 40.00000 deg.
Subgrade k at top of layer	= 225.00000 pci
Subgrade k at bottom of layer	= 225.00000 pci

Layer 2 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 1.00000 ft
Distance from top of pile to bottom of layer	= 6.00000 ft
Effective unit weight at top of layer	= 120.00000 pcf
Effective unit weight at bottom of layer	= 120.00000 pcf
Friction angle at top of layer	= 32.00000 deg.
Friction angle at bottom of layer	= 32.00000 deg.
Subgrade k at top of layer	= 60.00000 pci
Subgrade k at bottom of layer	= 60.00000 pci

Layer 3 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	= 6.00000 ft
Distance from top of pile to bottom of layer	= 13.00000 ft
Effective unit weight at top of layer	= 115.00000 pcf
Effective unit weight at bottom of layer	= 115.00000 pcf
Friction angle at top of layer	= 30.00000 deg.
Friction angle at bottom of layer	= 30.00000 deg.
Subgrade k at top of layer	= 40.00000 pci
Subgrade k at bottom of layer	= 40.00000 pci

Layer 4 is sand, p-y criteria by Reese et al., 1974

Distance from top of pile to top of layer	=	13.00000 ft
Distance from top of pile to bottom of layer	=	21.00000 ft
Effective unit weight at top of layer	=	130.00000 pcf
Effective unit weight at bottom of layer	=	130.00000 pcf
Friction angle at top of layer	=	34.00000 deg.
Friction angle at bottom of layer	=	34.00000 deg.
Subgrade k at top of layer	=	225.00000 pci
Subgrade k at bottom of layer	=	225.00000 pci

(Depth of lowest soil layer extends 8.00 ft below pile tip)

Summary of Soil Properties

Layer Num.	Layer Soil Type (p-y Curve Criteria)	Layer Depth ft	Effective Unit Wt. pcf	Angle of Friction deg.	kpy pci
1	Sand (Reese, et al.)	0.00	130.000	40.000	225.000
		1.000	130.000	40.000	225.000
2	Sand (Reese, et al.)	1.000	120.000	32.000	60.000
		6.000	120.000	32.000	60.000
3	Sand (Reese, et al.)	6.000	115.000	30.000	40.000
		13.000	115.000	30.000	40.000
4	Sand (Reese, et al.)	13.000	130.000	34.000	225.000
		21.000	130.000	34.000	225.000

Loading Type

Static loading criteria were used when computing p-y curves for all analyses.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 1

Load No.	Load Type	Condition 1		Condition 2	Axial Thrust Force, lbs	Compute Top y vs. Pile Length
1	1	V = 2.50000 lbs	M =	0.0000 in-lbs	0.0000000	No

V = perpendicular shear force applied to pile head
M = bending moment applied to pile head
y = lateral deflection relative to pile axis
S = pile slope relative to original pile batter angle
R = rotational stiffness applie to pile head
Axial thrust is assumed to be acting axially for all pile batter angles.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Axial thrust force values were determined from pile-head loading conditions

Number of Pile Sections Analyzed = 1

Pile Section No. 1:

Dimensions and Properties of Drilled Shaft (Bored Pile):

Length of Section	=	13.00000000 ft
Shaft Diameter	=	30.00000000 in
Concrete Cover Thickness	=	3.00000000 in
Number of Reinforcing Bars	=	9 bars
Yield Stress of Reinforcing Bars	=	60.00000000 ksi
Modulus of Elasticity of Reinforcing Bars	=	29000. ksi
Gross Area of Shaft	=	706.85834706 sq. in.
Total Area of Reinforcing Steel	=	3.96000000 sq. in.
Area Ratio of Steel Reinforcement	=	0.56 percent
Edge-to-Edge Bar Spacing	=	7.20196833 in
Maximum Concrete Aggregate Size	=	1.00000000 in
Ratio of Bar Spacing to Aggregate Size	=	7.20
Offset of Rebar Cage Center from Center of Pile	=	0.0000000 in

Axial Structural Capacities:

Nom. Axial Structural Capacity = 0.85 Fc Ac + Fy As = 2029.991 kips
Tensile Load for Cracking of Concrete = -267.781 kips
Nominal Axial Tensile Capacity = -237.600 kips

Reinforcing Bar Dimensions and Positions Used in Computations:

Bar Number	Bar Diam. inches	Bar Area sq. in.	X inches	Y inches
1	0.75000	0.44000	11.62500	0.00000
2	0.75000	0.44000	8.90527	7.47241
3	0.75000	0.44000	2.01866	11.44839
4	0.75000	0.44000	-5.81250	10.06755
5	0.75000	0.44000	-10.92393	3.97598
6	0.75000	0.44000	-10.92393	-3.97598
7	0.75000	0.44000	-5.81250	-10.06755
8	0.75000	0.44000	2.01866	-11.44839
9	0.75000	0.44000	8.90527	-7.47241

NOTE: The positions of the above rebars were computed by LPile

Minimum spacing between any two bars not equal to zero = 7.20197 inches between Bars 5 and 6

Spacing to aggregate size ratio = 7.20197

Concrete Properties:

Compressive Strength of Concrete = 3.00000000 ksi
Modulus of Elasticity of Concrete = 3122.01857778 ksi
Modulus of Rupture of Concrete = -0.41079191 ksi
Compression Strain at Peak Stress = 0.00163356
Tensile Strain at Fracture of Concrete = -0.00011596
Maximum Coarse Aggregate Size = 1.00000000 in

Number of Axial Thrust Force Values Determined from Pile-head Loadings = 1

Number	Axial Thrust Force kips
1	0.000

Definitions of Run Messages and Notes:

C = concrete in section has cracked in tension.
Y = stress in reinforcing steel has reached yield stress.
T = ACI 318-08 criteria for tension-controlled section met, tensile strain in reinforcement exceeds 0.005 while simultaneously compressive strain in concrete more than than 0.003. See ACI 318-08, Section 10.3.4.
Z = depth of tensile zone in concrete section is less than 10 percent of section depth.

Bending Stiffness (EI) = Computed Bending Moment / Curvature.
Position of neutral axis is measured from edge of compression side of pile.
Compressive stresses and strains are positive in sign.
Tensile stresses and strains are negative in sign.

Axial Thrust Force = 0.000 kips

Bending Curvature rad/in.	Bending Moment in-kip	Bending Stiffness kip-in2	Depth to N Axis in	Max Comp Strain in/in	Max Tens Strain in/in	Max Concrete Stress ksi	Max Steel Stress ksi	Run Msg
0.000001250	190.3436562	152274925.	14.9999711	0.0000187	-0.0000188	0.0677919	-0.5383135	
0.000002500	379.2734532	151709381.	14.9999710	0.0000375	-0.0000375	0.1348090	-1.0766271	
0.000003750	566.7893910	151143838.	14.9999708	0.0000562	-0.0000563	0.2010514	-1.6149406	
0.000005000	752.8914695	150578294.	14.9999706	0.0000750	-0.0000750	0.2665191	-2.1532542	
0.000006250	937.5796888	150012750.	14.9999705	0.0000937	-0.0000938	0.3312120	-2.6915678	
0.000007500	1120.8540489	149447207.	14.9999703	0.0001125	-0.0001125	0.3951302	-3.2298814	
0.000008750	1120.8540489	128097606.	6.2913864	0.0000550	-0.0002075	0.1941281	-5.9779982	C
0.0000100	1120.8540489	112085405.	6.2941921	0.0000629	-0.0002371	0.2214298	-6.8311843	C
0.0000113	1120.8540489	99631471.	6.2970065	0.0000708	-0.0002667	0.2486231	-7.6841641	C
0.0000125	1120.8540489	89668324.	6.2998297	0.0000787	-0.0002963	0.2757077	-8.5369367	C
0.0000138	1120.8540489	81516658.	6.3026617	0.0000867	-0.0003258	0.3026833	-9.3895011	C
0.0000150	1120.8540489	74723603.	6.3055025	0.0000946	-0.0003554	0.3295497	-10.2418564	C
0.0000163	1120.8540489	68975634.	6.3083523	0.0001025	-0.0003850	0.3563066	-11.0940014	C
0.0000175	1120.8540489	64048803.	6.3112111	0.0001104	-0.0004146	0.3829537	-11.9459354	C
0.0000188	1120.8540489	59778883.	6.3140789	0.0001184	-0.0004441	0.4094909	-12.7976571	C
0.0000200	1120.8540489	56042702.	6.3169558	0.0001263	-0.0004737	0.4359177	-13.6491656	C
0.0000213	1120.8540489	52746073.	6.3198418	0.0001343	-0.0005032	0.4622341	-14.5004599	C
0.0000225	1120.8540489	49815736.	6.3227371	0.0001423	-0.0005327	0.4884396	-15.3515390	C
0.0000238	1120.8540489	47193855.	6.3256416	0.0001502	-0.0005623	0.5145341	-16.2024018	C
0.0000250	1120.8540489	44834162.	6.3285555	0.0001582	-0.0005918	0.5405172	-17.0530472	C
0.0000263	1120.8540489	42699202.	6.3314788	0.0001662	-0.0006213	0.5663888	-17.9034742	C

0.0000275	1120.8540489	40758329.	6.3344116	0.0001742	-0.0006508	0.5921484	-18.7536817	C
0.0000288	1120.8540489	38986228.	6.3373539	0.0001822	-0.0006803	0.6177959	-19.6036687	C
0.0000300	1120.8540489	37361802.	6.3403057	0.0001902	-0.0007098	0.6433309	-20.4534340	C
0.0000313	1120.8540489	35867330.	6.3432672	0.0001982	-0.0007393	0.6687532	-21.3029765	C
0.0000325	1120.8540489	34487817.	6.3462385	0.0002063	-0.0007687	0.6940625	-22.1522952	C
0.0000338	1120.8540489	33210490.	6.3492195	0.0002143	-0.0007982	0.7192585	-23.0013889	C
0.0000350	1120.8540489	32024401.	6.3522103	0.0002223	-0.0008277	0.7443409	-23.8502565	C
0.0000363	1120.8540489	30920112.	6.3552111	0.0002304	-0.0008571	0.7693094	-24.6988968	C
0.0000375	1120.8540489	29889441.	6.3582218	0.0002384	-0.0008866	0.7941638	-25.5473087	C
0.0000388	1120.8540489	28925266.	6.3612426	0.0002465	-0.0009160	0.8189038	-26.3954911	C
0.0000400	1120.8540489	28021351.	6.3642735	0.0002546	-0.0009454	0.8435290	-27.2434427	C
0.0000413	1120.8540489	27172219.	6.3673146	0.0002627	-0.0009748	0.8680392	-28.0911624	C
0.0000425	1120.8540489	26373036.	6.3703660	0.0002707	-0.0010043	0.8924340	-28.9386490	C
0.0000438	1120.8540489	25619521.	6.3734276	0.0002788	-0.0010337	0.9167132	-29.7859012	C
0.0000450	1120.8540489	24907868.	6.3764997	0.0002869	-0.0010631	0.9408764	-30.6329179	C
0.0000463	1120.8540489	24234682.	6.3795822	0.0002951	-0.0010924	0.9649234	-31.4796979	C
0.0000475	1120.8540489	23596927.	6.3826753	0.0003032	-0.0011218	0.9888539	-32.3262398	C
0.0000488	1120.8540489	22991878.	6.3857790	0.0003113	-0.0011512	1.0126674	-33.1725425	C
0.0000513	1120.8540489	21870323.	6.3920185	0.0003276	-0.0012099	1.0599426	-34.8644256	C
0.0000538	1120.8540489	20853099.	6.3983014	0.0003439	-0.0012686	1.1067466	-36.5553359	C
0.0000563	1120.8540489	19926294.	6.4046282	0.0003603	-0.0013272	1.1530768	-38.2452635	C
0.0000588	1166.7382984	19859375.	6.4109996	0.0003766	-0.0013859	1.1989306	-39.9341978	C
0.0000613	1215.5627102	19845922.	6.4174163	0.0003931	-0.0014444	1.2443052	-41.6221277	C
0.0000638	1264.3145820	19832386.	6.4238789	0.0004095	-0.0015030	1.2891981	-43.3090425	C
0.0000663	1312.9932186	19818766.	6.4303881	0.0004260	-0.0015615	1.3336065	-44.9949306	C
0.0000688	1361.5979120	19805061.	6.4369445	0.0004425	-0.0016200	1.3775276	-46.6797808	C
0.0000713	1410.1279409	19791269.	6.4435489	0.0004591	-0.0016784	1.4209585	-48.3635811	C
0.0000738	1458.5828889	19777395.	6.4501907	0.0004757	-0.0017368	1.4638945	-50.0463420	C
0.0000763	1506.9639262	19763461.	6.4565178	0.0004923	-0.0017952	1.5062623	-51.7288391	C
0.0000788	1555.2688927	19749446.	6.4628896	0.0005090	-0.0018535	1.5481275	-53.4103151	C
0.0000813	1603.4968314	19735346.	6.4693068	0.0005256	-0.0019119	1.5894872	-55.0907602	C
0.0000838	1651.6470031	19721158.	6.4757700	0.0005423	-0.0019702	1.6303385	-56.7701631	C
0.0000863	1699.7186544	19706883.	6.4822800	0.0005591	-0.0020284	1.6706783	-58.4485119	C
0.0000888	1747.7113784	19692523.	6.4888374	0.0005759	-0.0020866	1.7105039	-60.0000000	CY
0.0000913	1795.6236975	19678068.	6.4954429	0.0005927	-0.0021448	1.7498118	-60.0000000	CY
0.0000938	1843.4551505	19663522.	6.5020974	0.0006096	-0.0022029	1.7885991	-60.0000000	CY
0.0000963	1891.2049249	19648882.	6.5088014	0.0006265	-0.0022610	1.8268625	-60.0000000	CY
0.0000988	1938.8721920	19634149.	6.5155559	0.0006434	-0.0023191	1.8645989	-60.0000000	CY
0.0001013	1986.4561067	19619320.	6.5223615	0.0006604	-0.0023771	1.9018050	-60.0000000	CY
0.0001038	2031.8785038	19584371.	6.5270542	0.0006772	-0.0024353	1.9379864	-60.0000000	CY
0.0001063	2069.1573248	19474422.	6.5235400	0.0006931	-0.0024944	1.9717382	-60.0000000	CY
0.0001088	2103.8894561	19346110.	6.5179394	0.0007088	-0.0025537	2.0044276	-60.0000000	CY
0.0001113	2136.7306683	19206568.	6.5109405	0.0007243	-0.0026132	2.0362072	-60.0000000	CY
0.0001138	2162.7500727	19013187.	6.4974206	0.0007391	-0.0026734	2.0658798	-60.0000000	CY
0.0001163	2185.7517070	18802165.	6.4816017	0.0007535	-0.0027340	2.0944128	-60.0000000	CY
0.0001188	2208.7129764	18599688.	6.4666531	0.0007679	-0.0027946	2.1225514	-60.0000000	CY
0.0001213	2231.6335735	18405225.	6.4525226	0.0007824	-0.0028551	2.1502937	-60.0000000	CY
0.0001238	2254.4877333	18218083.	6.4384290	0.0007968	-0.0029157	2.1774634	-60.0000000	CY
0.0001263	2277.1999241	18037227.	6.4248236	0.0008111	-0.0029764	2.2041748	-60.0000000	CY
0.0001288	2297.7068336	17846267.	6.4094544	0.0008252	-0.0030373	2.2298962	-60.0000000	CY
0.0001313	2313.6849657	17628076.	6.3897078	0.0008386	-0.0030989	2.2540026	-60.0000000	CY
0.0001338	2327.4466333	17401470.	6.3683631	0.0008518	-0.0031607	2.2771623	-60.0000000	CY
0.0001363	2340.9421034	17181226.	6.3476751	0.0008649	-0.0032226	2.2999263	-60.0000000	CY
0.0001388	2354.4112175	16968729.	6.3278761	0.0008780	-0.0032845	2.3223608	-60.0000000	CY
0.0001413	2367.8537920	16763567.	6.3089200	0.0008911	-0.0033464	2.3444644	-60.0000000	CY
0.0001438	2381.2696411	16565354.	6.2907637	0.0009043	-0.0034082	2.3662356	-60.0000000	CY
0.0001463	2394.6585766	16373734.	6.2733673	0.0009175	-0.0034700	2.3876729	-60.0000000	CY
0.0001488	2408.0204082	16188372.	6.2566935	0.0009307	-0.0035318	2.4087748	-60.0000000	CY
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0.0001688	2496.2072629	14792339.	6.1231473	0.0010333	-0.0040292	2.5600216	-60.0000000	CY
0.0001788	2523.5797654	14117929.	6.0477722	0.0010810	-0.0042815	2.6226829	-60.0000000	CY
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0.0001988	2577.4787333	12968446.	5.9239682	0.0011774	-0.0047851	2.7344827	-60.0000000	CY
0.0002088	2603.9896194	12474202.	5.8730287	0.0012260	-0.0050365	2.7834610	-60.0000000	CY
0.0002188	2629.8179228	12022025.	5.8257754	0.0012744	-0.0052881	2.8272629	-60.0000000	CY
0.0002288	2649.8676565	11584121.	5.7742834	0.0013209	-0.0055416	2.8646307	-60.0000000	CY
0.0002388	2661.9594774	11149568.	5.7170955	0.0013650	-0.0057975	2.8958205	-60.0000000	CY
0.0002488	2673.4437063	10747512.	5.6649268	0.0014092	-0.0060533	2.9229935	-60.0000000	CY
0.0002588	2684.7316369	10375774.	5.6177914	0.0014536	-0.0063089	2.9461956	-60.0000000	CY
0.0002688	2695.8176744	10030949.	5.5751518	0.0014983	-0.0065642	2.9653544	-60.0000000	CY
0.0002788	2706.5851710	9709723.	5.5351067	0.0015429	-0.0068196	2.9802748	-60.0000000	CY
0.0002888	2716.9569822	9409375.	5.4963275	0.0015871	-0.0070754	2.9909329	-60.0000000	CY
0.0002988	2727.1307050	9128471.	5.4611096	0.0016315	-0.0073310	2.9975309	-60.0000000	CY
0.0003088	2737.1003919	8865102.	5.4291359	0.0016762	-0.0075863	2.9999852	-60.0000000	CY
0.0003188	2746.8256371	8617492.	5.4002374	0.0017213	-0.0078412	2.9965158	-60.0000000	CY
0.0003288	2756.3516129	8384340.	5.3740081	0.0017667	-0.0080958	2.9997541	-60.0000000	CY
0.0003388	2765.6337627	8164233.	5.3503633	0.0018124	-0.0083501	2.9945081	-60.0000000	CY
0.0003488	2774.7116635	7956162.	5.3289692	0.0018585	-0.0086040	2.9984905	-60.0000000	CY
0.0003588	2781.6254236	7753660.	5.3057723	0.0019034	-0.0088591	2.9998287	-60.0000000	CY
0.0003688	2787.3634244	7558952.	5.2829118	0.0019481	-0.0091144	2.9940627	-60.0000000	CY
0.0003788	2791.1877390	7369473.	5.2583591	0.0019916	-0.0093709	2.9982333	-60.0000000	CY
0.0003888	2794.3347616	7187999.	5.2326517	0.0020342	-0.0096283	2.9999359	-60.0000000	CY
0.0003988	2796.9468113	7014287.	5.2071808	0.0020764	-0.0098861	2.9949905	-60.0000000	CY
0.0004088	2799.4752904	6848869.	5.1834725	0.0021187	-0.0101438	2.9950095	-60.0000000	CY
0.0004188	2801.9360465	6691191.	5.1613377	0.0021613	-0.0104012	2.9984139	60.0000000	CY
0.0004288	2804.3272671	6540705.	5.1406775	0.0022041	-0.0106584	2.9999224	60.0000000	CY
0.0004388	2806.6040620	6396818.	5.1215991	0.0022471	-0.0109154	2.9955901	60.0000000	CY
0.0004488	2808.8084268	6259183.	5.1038126	0.0022903	-0.0111722	2.9921316	60.0000000	CY
0.0004588	2810.9589063	6127431.	5.0871552	0.0023337	-0.0114288	2.9963776	60.0000000	CY
0.0004688	2813.0541587	6001182.	5.0715630	0.0023773	-0.0116852	2.9990083	60.0000000	CY
0.0004788	2815.0927861	5880089.	5.0569779	0.0024210	-0.0119415	2.9999932	60.0000000	CY

0.0004888	2817.0225933	5763729.	5.0435812	0.0024651	-0.0121974	2.9947959	60.0000000	CY
0.0004988	2818.9054130	5651941.	5.0310250	0.0025092	-0.0124533	2.9894446	60.0000000	CY
0.0005088	2820.7461628	5544464.	5.0192400	0.0025535	-0.0127090	2.9941586	60.0000000	CY
0.0005188	2822.5438714	5441048.	5.0081877	0.0025980	-0.0129645	2.9975035	60.0000000	CY
0.0005288	2824.2975296	5341461.	4.9978332	0.0026426	-0.0132199	2.9994551	60.0000000	CY
0.0005388	2825.9986088	5245473.	4.9881796	0.0026874	-0.0134751	2.9993227	60.0000000	CY
0.0005488	2827.6113406	5152822.	4.9793577	0.0027324	-0.0137301	2.9940175	60.0000000	CY
0.0006088	2836.5202333	4659581.	4.9341875	0.0030037	-0.0152588	2.9999085	60.0000000	CYT
0.0006688	2844.0089891	4252724.	4.9010583	0.0032776	-0.0167849	2.9957771	60.0000000	CYT
0.0007288	2850.0113188	3910822.	4.8777613	0.0035547	-0.0183078	2.9869561	60.0000000	CYT
0.0007888	2852.8162665	3616883.	4.8529451	0.0038278	-0.0198347	2.9967538	60.0000000	CYT

Summary of Results for Nominal (Unfactored) Moment Capacity for Section 1

Moment values interpolated at maximum compressive strain = 0.003
or maximum developed moment if pile fails at smaller strains.

Load No.	Axial Thrust kips	Nominal Mom. Cap. in-kip	Max. Comp. Strain
1	0.000	2836.399	0.00300000

Note note that the values of moment capacity in the table above are not factored by a strength reduction factor (phi-factor).

In ACI 318-08, the value of the strength reduction factor depends on whether the transverse reinforcing steel bars are tied hoops (0.65) or spirals (0.70).

The above values should be multiplied by the appropriate strength reduction factor to compute ultimate moment capacity according to ACI 318-08, Section 9.3.2.2 or the value required by the design standard being followed.

The following table presents factored moment capacities and corresponding bending stiffnesses computed for common resistance factor values used for reinforced concrete sections.

Axial Load No.	Resistance Factor for Moment	Nominal Moment Capacity in-kip	Ultimate (Factored) Axial Thrust kips	Ultimate (Factored) Moment Capacity in-kip	Bending Stiffness at Ult. Mom. Cap. kip-in^2
1	0.65	2836.399	0.000	1843.659	19663458.991
1	0.70	2836.399	0.000	1985.479	19619623.964
1	0.75	2836.399	0.000	2127.299	19246641.352

Computed Values of Pile Loading and Deflection for Lateral Loading for Load Case Number 1

Pile-head conditions are Shear and Moment (Loading Type 1)

Shear force at pile head = 2.500 lbs
Applied moment at pile head = 0.000 in-lbs
Axial thrust load on pile head = 0.000 lbs

Depth X feet	Deflect. y inches	Bending Moment in-lbs	Shear Force lbs	Slope S radians	Total Stress psi*	Bending Stiffness lb-in^2	Soil Res. p lb/in	Soil Spr. Es*h lb/inch	Distrib. Lat. Load lb/inch
0.00	2.953E-05	3.816E-09	2.5000	-2.818E-07	0.000	1.523E+11	0.000	0.000	0.000
0.130	2.909E-05	3.9000	2.4920	-2.817E-07	0.000	1.523E+11	-0.0102	547.5600	0.000
0.260	2.865E-05	7.7751	2.4684	-2.817E-07	0.000	1.523E+11	-0.0201	1095.1200	0.000
0.390	2.821E-05	11.6013	2.4295	-2.816E-07	0.000	1.523E+11	-0.0297	1642.6800	0.000
0.520	2.778E-05	15.3552	2.3759	-2.814E-07	0.000	1.523E+11	-0.0390	2190.2400	0.000
0.650	2.734E-05	19.0142	2.3081	-2.813E-07	0.000	1.523E+11	-0.0480	2737.8000	0.000
0.780	2.690E-05	22.5565	2.2265	-2.811E-07	0.000	1.523E+11	-0.0566	3285.3600	0.000
0.910	2.646E-05	25.9609	2.1316	-2.808E-07	0.000	1.523E+11	-0.0650	3832.9200	0.000
1.040	2.602E-05	29.2070	2.0622	-2.805E-07	0.000	1.523E+11	-0.0239	1435.4203	0.000
1.170	2.558E-05	32.3949	2.0233	-2.802E-07	0.000	1.523E+11	-0.0259	1581.4363	0.000
1.300	2.515E-05	35.5197	1.9813	-2.799E-07	0.000	1.523E+11	-0.0278	1727.4523	0.000
1.430	2.471E-05	38.5767	1.9365	-2.795E-07	0.000	1.523E+11	-0.0297	1873.4683	0.000
1.560	2.428E-05	41.5615	1.8888	-2.791E-07	0.000	1.523E+11	-0.0314	2019.4843	0.000
1.690	2.384E-05	44.4698	1.8385	-2.786E-07	0.000	1.523E+11	-0.0331	2165.5003	0.000
1.820	2.341E-05	47.2976	1.7856	-2.782E-07	0.000	1.523E+11	-0.0347	2311.5163	0.000
1.950	2.297E-05	50.0410	1.7303	-2.777E-07	0.000	1.523E+11	-0.0362	2457.5323	0.000
2.080	2.254E-05	52.6963	1.6728	-2.771E-07	0.000	1.523E+11	-0.0376	2603.5483	0.000
2.210	2.211E-05	55.2601	1.6130	-2.766E-07	0.000	1.523E+11	-0.0390	2749.5643	0.000
2.340	2.168E-05	57.7290	1.5513	-2.760E-07	0.000	1.523E+11	-0.0402	2895.5803	0.000
2.470	2.125E-05	60.1000	1.4876	-2.754E-07	0.000	1.523E+11	-0.0414	3041.5963	0.000
2.600	2.082E-05	62.3702	1.4221	-2.748E-07	0.000	1.523E+11	-0.0425	3187.6123	0.000
2.730	2.039E-05	64.5369	1.3549	-2.741E-07	0.000	1.523E+11	-0.0436	3333.6283	0.000
2.860	1.996E-05	66.5976	1.2862	-2.735E-07	0.000	1.523E+11	-0.0445	3479.6443	0.000
2.990	1.954E-05	68.5498	1.2160	-2.728E-07	0.000	1.523E+11	-0.0454	3625.6603	0.000

3.120	1.911E-05	70.3916	1.1446	-2.720E-07	0.000	1.523E+11	-0.0462	3771.6763	0.000
3.250	1.869E-05	72.1210	1.0719	-2.713E-07	0.000	1.523E+11	-0.0469	3917.6923	0.000
3.380	1.826E-05	73.7361	0.9982	-2.706E-07	0.000	1.523E+11	-0.0476	4063.7083	0.000
3.510	1.784E-05	75.2354	0.9236	-2.698E-07	0.000	1.523E+11	-0.0482	4209.7243	0.000
3.640	1.742E-05	76.6176	0.8481	-2.690E-07	0.000	1.523E+11	-0.0486	4355.7403	0.000
3.770	1.700E-05	77.8814	0.7718	-2.682E-07	0.000	1.523E+11	-0.0491	4501.7563	0.000
3.900	1.659E-05	79.0257	0.6950	-2.674E-07	0.000	1.523E+11	-0.0494	4647.7723	0.000
4.030	1.617E-05	80.0498	0.6177	-2.666E-07	0.000	1.523E+11	-0.0497	4793.7883	0.000
4.160	1.575E-05	80.9530	0.5400	-2.658E-07	0.000	1.523E+11	-0.0499	4939.8043	0.000
4.290	1.534E-05	81.7348	0.4621	-2.650E-07	0.000	1.523E+11	-0.0500	5085.8203	0.000
4.420	1.493E-05	82.3948	0.3841	-2.641E-07	0.000	1.523E+11	-0.0501	5231.8363	0.000
4.550	1.452E-05	82.9330	0.3060	-2.633E-07	0.000	1.523E+11	-0.0500	5377.8523	0.000
4.680	1.411E-05	83.3495	0.2280	-2.624E-07	0.000	1.523E+11	-0.0499	5523.8683	0.000
4.810	1.370E-05	83.6444	0.1502	-2.616E-07	0.000	1.523E+11	-0.0498	5669.8843	0.000
4.940	1.329E-05	83.8181	0.0727	-2.607E-07	0.000	1.523E+11	-0.0495	5815.9003	0.000
5.070	1.288E-05	83.8712	-0.004337	-2.598E-07	0.000	1.523E+11	-0.0492	5961.9163	0.000
5.200	1.248E-05	83.8046	-0.0809	-2.590E-07	0.000	1.523E+11	-0.0489	6107.9323	0.000
5.330	1.208E-05	83.6190	-0.1567	-2.581E-07	0.000	1.523E+11	-0.0484	6253.9483	0.000
5.460	1.167E-05	83.3156	-0.2318	-2.573E-07	0.000	1.523E+11	-0.0479	6399.9643	0.000
5.590	1.127E-05	82.8956	-0.3061	-2.564E-07	0.000	1.523E+11	-0.0473	6545.9803	0.000
5.720	1.087E-05	82.3605	-0.3794	-2.556E-07	0.000	1.523E+11	-0.0466	6691.9963	0.000
5.850	1.048E-05	81.7119	-0.4516	-2.547E-07	0.000	1.523E+11	-0.0459	6838.0123	0.000
5.980	1.008E-05	80.9516	-0.5226	-2.539E-07	0.000	1.523E+11	-0.0451	6984.0283	0.000
6.110	9.684E-06	80.0814	-0.5827	-2.531E-07	0.000	1.523E+11	-0.0319	5136.1539	0.000
6.240	9.290E-06	79.1337	-0.6318	-2.523E-07	0.000	1.523E+11	-0.0312	5233.4979	0.000
6.370	8.897E-06	78.1101	-0.6799	-2.515E-07	0.000	1.523E+11	-0.0304	5330.8419	0.000
6.500	8.505E-06	77.0125	-0.7267	-2.507E-07	0.000	1.523E+11	-0.0296	5428.1859	0.000
6.630	8.115E-06	75.8429	-0.7722	-2.499E-07	0.000	1.523E+11	-0.0287	5525.5299	0.000
6.760	7.725E-06	74.6033	-0.8163	-2.491E-07	0.000	1.523E+11	-0.0278	5622.8739	0.000
6.890	7.337E-06	73.2960	-0.8590	-2.484E-07	0.000	1.523E+11	-0.0269	5720.2179	0.000
7.020	6.951E-06	71.9232	-0.9002	-2.476E-07	0.000	1.523E+11	-0.0259	5817.5619	0.000
7.150	6.565E-06	70.4873	-0.9398	-2.469E-07	0.000	1.523E+11	-0.0249	5914.9059	0.000
7.280	6.180E-06	68.9909	-0.9778	-2.462E-07	0.000	1.523E+11	-0.0238	6012.2499	0.000
7.410	5.797E-06	67.4364	-1.0141	-2.455E-07	0.000	1.523E+11	-0.0227	6109.5939	0.000
7.540	5.414E-06	65.8268	-1.0486	-2.448E-07	0.000	1.523E+11	-0.0215	6206.9379	0.000
7.670	5.033E-06	64.1647	-1.0813	-2.441E-07	0.000	1.523E+11	-0.0203	6304.2819	0.000
7.800	4.653E-06	62.4531	-1.1121	-2.435E-07	0.000	1.523E+11	-0.0191	6401.6259	0.000
7.930	4.274E-06	60.6950	-1.1408	-2.428E-07	0.000	1.523E+11	-0.0178	6498.9699	0.000
8.060	3.895E-06	58.8936	-1.1676	-2.422E-07	0.000	1.523E+11	-0.0165	6596.3139	0.000
8.190	3.518E-06	57.0522	-1.1922	-2.416E-07	0.000	1.523E+11	-0.0151	6693.6579	0.000
8.320	3.141E-06	55.1740	-1.2146	-2.411E-07	0.000	1.523E+11	-0.0137	6791.0019	0.000
8.450	2.766E-06	53.2625	-1.2348	-2.405E-07	0.000	1.523E+11	-0.0122	6888.3459	0.000
8.580	2.391E-06	51.3213	-1.2527	-2.400E-07	0.000	1.523E+11	-0.0107	6985.6899	0.000
8.710	2.017E-06	49.3540	-1.2682	-2.395E-07	0.000	1.523E+11	-0.009158	7083.0339	0.000
8.840	1.644E-06	47.3645	-1.2812	-2.390E-07	0.000	1.523E+11	-0.007566	7180.3779	0.000
8.970	1.271E-06	45.3565	-1.2918	-2.385E-07	0.000	1.523E+11	-0.005931	7277.7219	0.000
9.100	8.998E-07	43.3341	-1.2997	-2.380E-07	0.000	1.523E+11	-0.004254	7375.0659	0.000
9.230	5.288E-07	41.3014	-1.3050	-2.376E-07	0.000	1.523E+11	-0.002533	7472.4099	0.000
9.360	1.585E-07	39.2625	-1.3076	-2.372E-07	0.000	1.523E+11	-0.000769	7569.7539	0.000
9.490	-2.112E-07	37.2217	-1.3074	-2.368E-07	0.000	1.523E+11	0.001038	7667.0979	0.000
9.620	-5.803E-07	35.1835	-1.3043	-2.364E-07	0.000	1.523E+11	0.002888	7764.4419	0.000
9.750	-9.488E-07	33.1522	-1.2983	-2.361E-07	0.000	1.523E+11	0.004782	7861.7859	0.000
9.880	-1.317E-06	31.1326	-1.2894	-2.357E-07	0.000	1.523E+11	0.006719	7959.1299	0.000
10.010	-1.684E-06	29.1294	-1.2773	-2.354E-07	0.000	1.523E+11	0.008699	8056.4739	0.000
10.140	-2.051E-06	27.1473	-1.2622	-2.351E-07	0.000	1.523E+11	0.0107	8153.8179	0.000
10.270	-2.418E-06	25.1914	-1.2439	-2.349E-07	0.000	1.523E+11	0.0128	8251.1619	0.000
10.400	-2.784E-06	23.2665	-1.2223	-2.346E-07	0.000	1.523E+11	0.0149	8348.5059	0.000
10.530	-3.150E-06	21.3779	-1.1973	-2.344E-07	0.000	1.523E+11	0.0171	8445.8499	0.000
10.660	-3.516E-06	19.5309	-1.1690	-2.342E-07	0.000	1.523E+11	0.0193	8543.1939	0.000
10.790	-3.881E-06	17.7306	-1.1372	-2.340E-07	0.000	1.523E+11	0.0215	8640.5379	0.000
10.920	-4.246E-06	15.9827	-1.1019	-2.338E-07	0.000	1.523E+11	0.0238	8737.8819	0.000
11.050	-4.610E-06	14.2926	-1.0630	-2.337E-07	0.000	1.523E+11	0.0261	8835.2259	0.000
11.180	-4.975E-06	12.6661	-1.0204	-2.335E-07	0.000	1.523E+11	0.0285	8932.5699	0.000
11.310	-5.339E-06	11.1089	-0.9741	-2.334E-07	0.000	1.523E+11	0.0309	9029.9139	0.000
11.440	-5.703E-06	9.6270	-0.9240	-2.333E-07	0.000	1.523E+11	0.0334	9127.2579	0.000
11.570	-6.067E-06	8.2262	-0.8700	-2.332E-07	0.000	1.523E+11	0.0359	9224.6019	0.000
11.700	-6.430E-06	6.9127	-0.8120	-2.331E-07	0.000	1.523E+11	0.0384	9321.9459	0.000
11.830	-6.794E-06	5.6927	-0.7500	-2.331E-07	0.000	1.523E+11	0.0410	9419.2899	0.000
11.960	-7.158E-06	4.5726	-0.6840	-2.330E-07	0.000	1.523E+11	0.0437	9516.6339	0.000
12.090	-7.521E-06	3.5587	-0.6138	-2.330E-07	0.000	1.523E+11	0.0464	9613.9779	0.000
12.220	-7.885E-06	2.6577	-0.5393	-2.329E-07	0.000	1.523E+11	0.0491	9711.3219	0.000
12.350	-8.248E-06	1.8760	-0.4606	-2.329E-07	0.000	1.523E+11	0.0519	9808.6659	0.000
12.480	-8.611E-06	1.2206	-0.3775	-2.329E-07	0.000	1.523E+11	0.0547	9906.0099	0.000
12.610	-8.975E-06	0.6983	-0.2899	-2.329E-07	0.000	1.523E+11	0.0575	10003.	0.000
12.740	-9.338E-06	0.3160	-0.1979	-2.329E-07	0.000	1.523E+11	0.0605	10101.	0.000
12.870	-9.701E-06	0.0808	-0.1013	-2.329E-07	0.000	1.523E+11	0.0634	10198.	0.000
13.000	-1.006E-05	0.000	0.000	-2.329E-07	0.000	1.523E+11	0.0664	5147.6930	0.000

* This analysis makes computations of pile response using nonlinear moment-curvature relationships.
  The above values of total stress are computed for combined axial and bending stress in elastic
  sections and do not equal actual stresses in concrete and steel in the range of nonlinear bending.

Output Summary for Load Case No. 1:

Pile-head deflection = 0.0000295 inches
Computed slope at pile head = -0.000000282 radians
Maximum bending moment = 83.8712488 inch-lbs
Maximum shear force = 2.5000000 lbs
Depth of maximum bending moment = 60.8400000 inches below pile head
Depth of maximum shear force = 0.000000 inches below pile head

Number of iterations = 6
Number of zero deflection points = 1

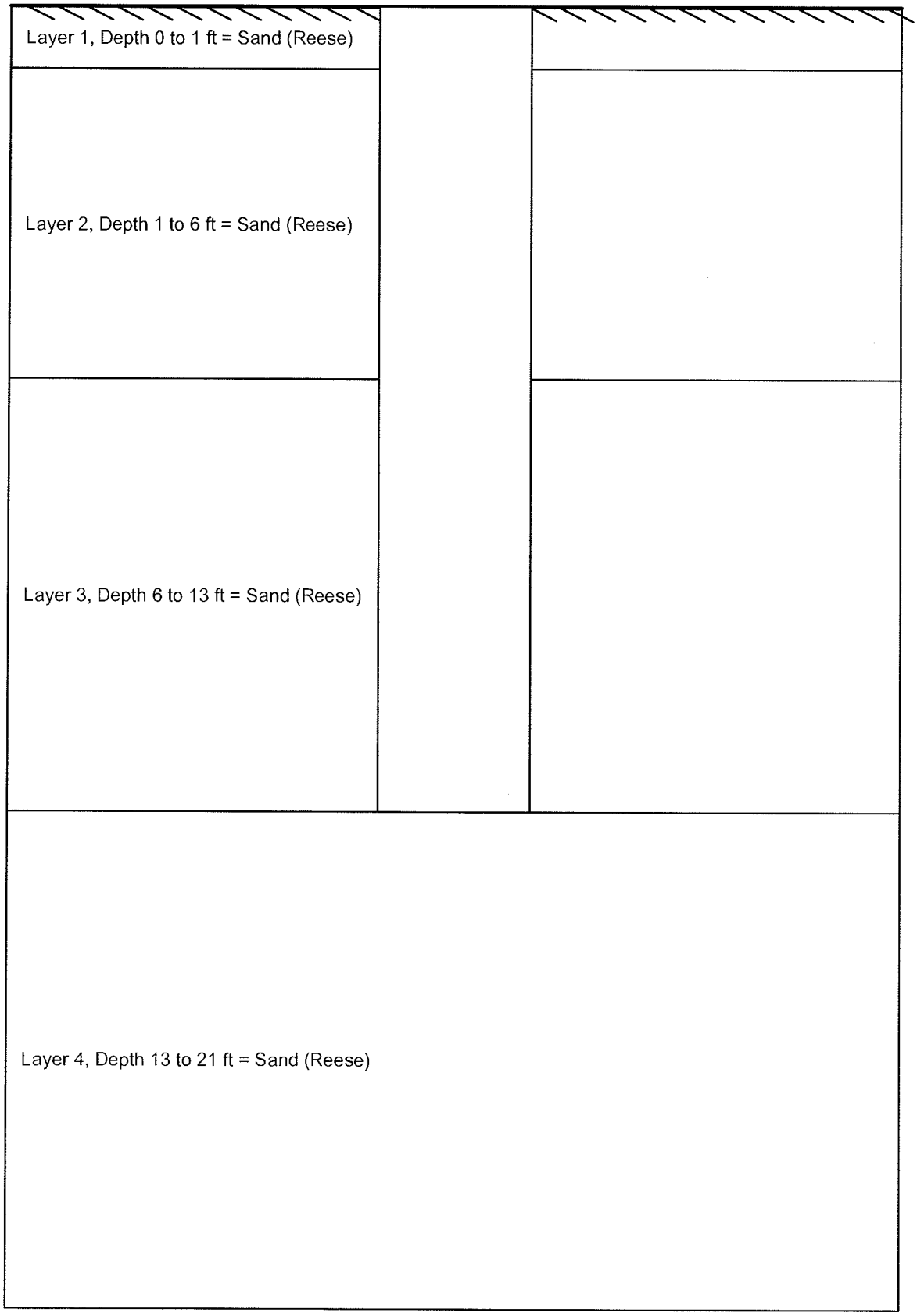
Summary of Pile Response(s)

Definitions of Pile-head Loading Conditions:

Load Type 1: Load 1 = Shear, lbs, and Load 2 = Moment, in-lbs
Load Type 2: Load 1 = Shear, lbs, and Load 2 = Slope, radians
Load Type 3: Load 1 = Shear, lbs, and Load 2 = Rotational Stiffness, in-lbs/radian
Load Type 4: Load 1 = Top Deflection, inches, and Load 2 = Moment, in-lbs
Load Type 5: Load 1 = Top Deflection, inches, and Load 2 = Slope, radians

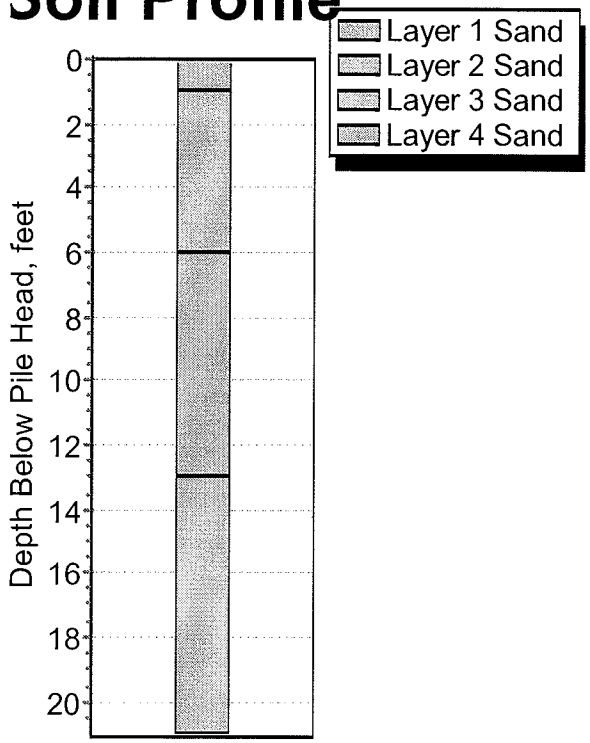
Load Case No.	Load Type No.	Pile-head Condition 1 V(lbs) or y(inches)	Pile-head Condition 2 in-lb, rad., or in-lb/rad.	Axial Loading lbs	Pile-head Deflection inches	Maximum Moment in Pile in-lbs	Maximum Shear in Pile lbs	Pile-head Rotation radians
1	1	V = 2.5000	M = 0.000	0.0000000	0.00002953	83.87124884	2.5000	-0.00000028

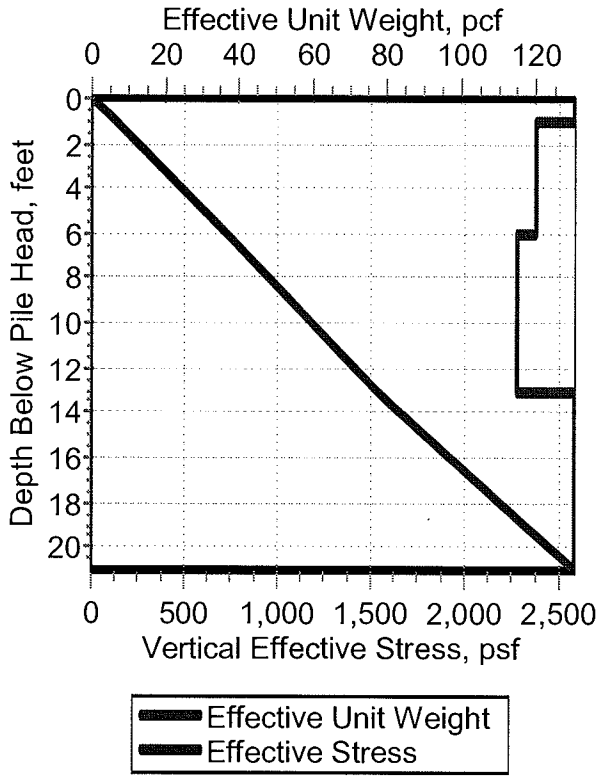
The analysis ended normally.

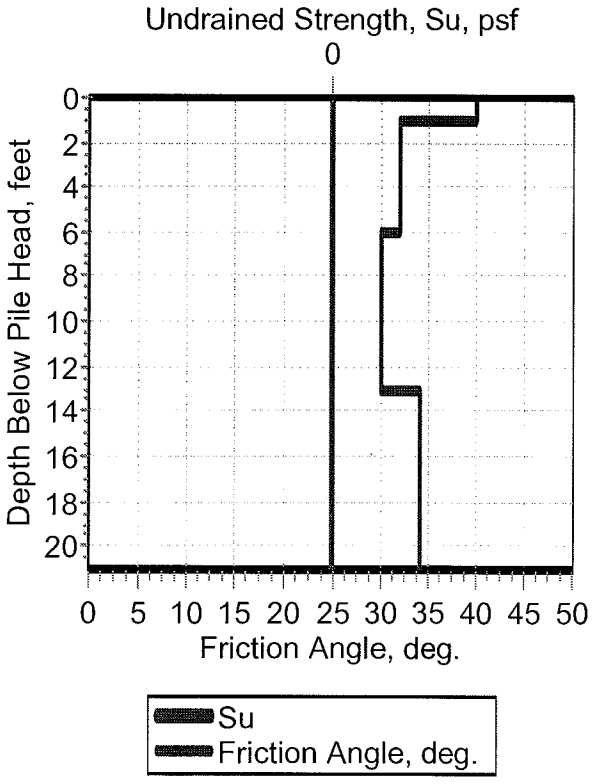


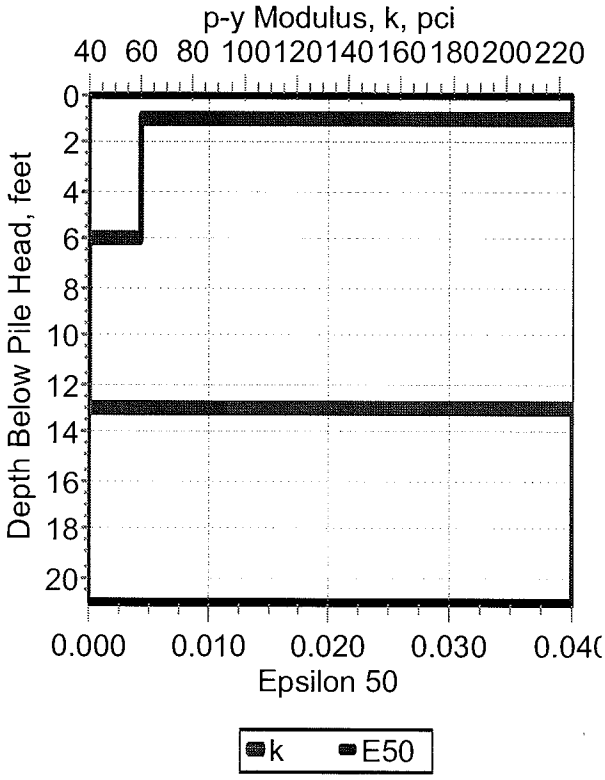
LPile 2012.6.37, © 2013 by Ensoft, Inc.

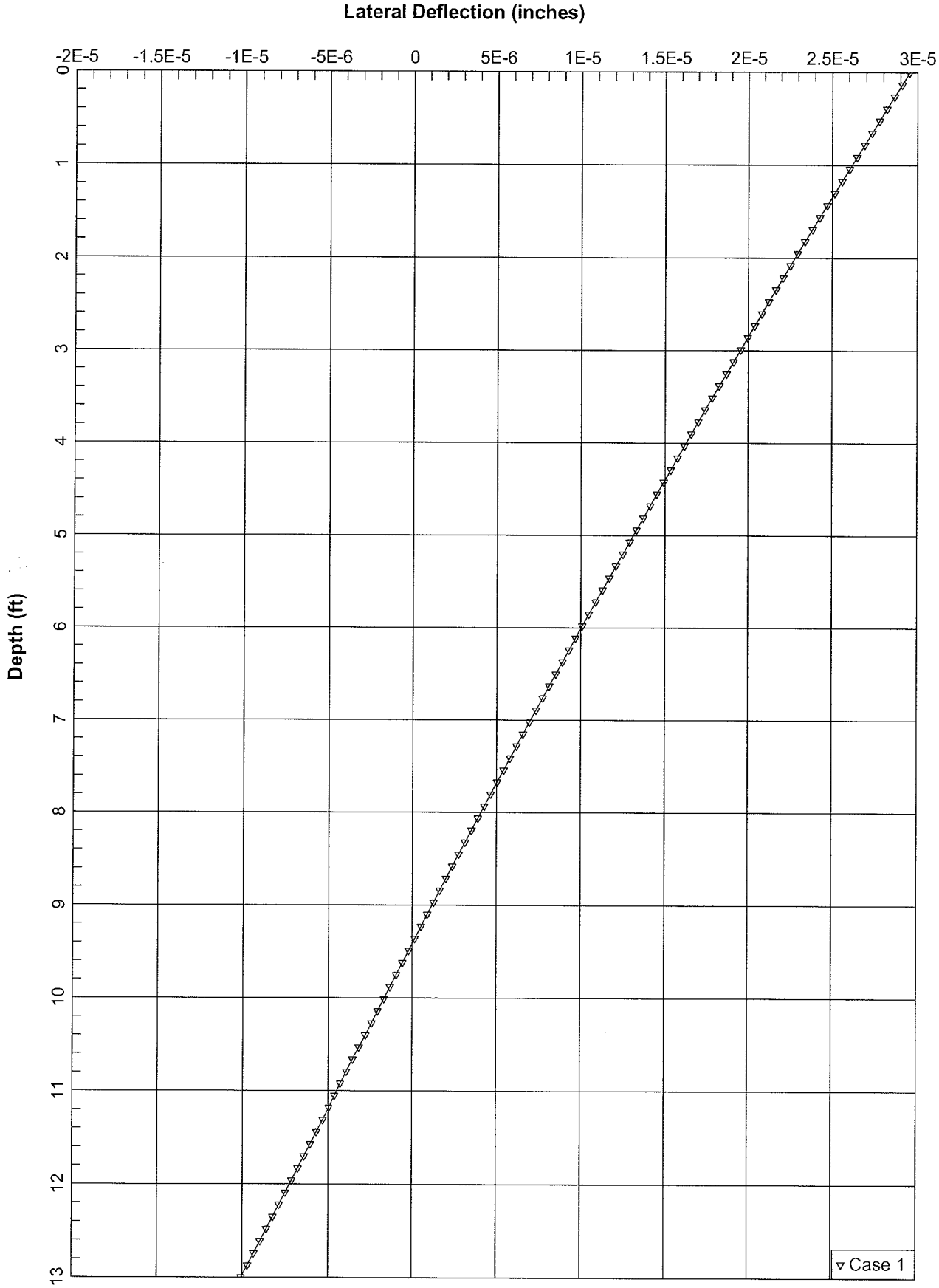
Soil Profile










Lateral Deflection (inches)
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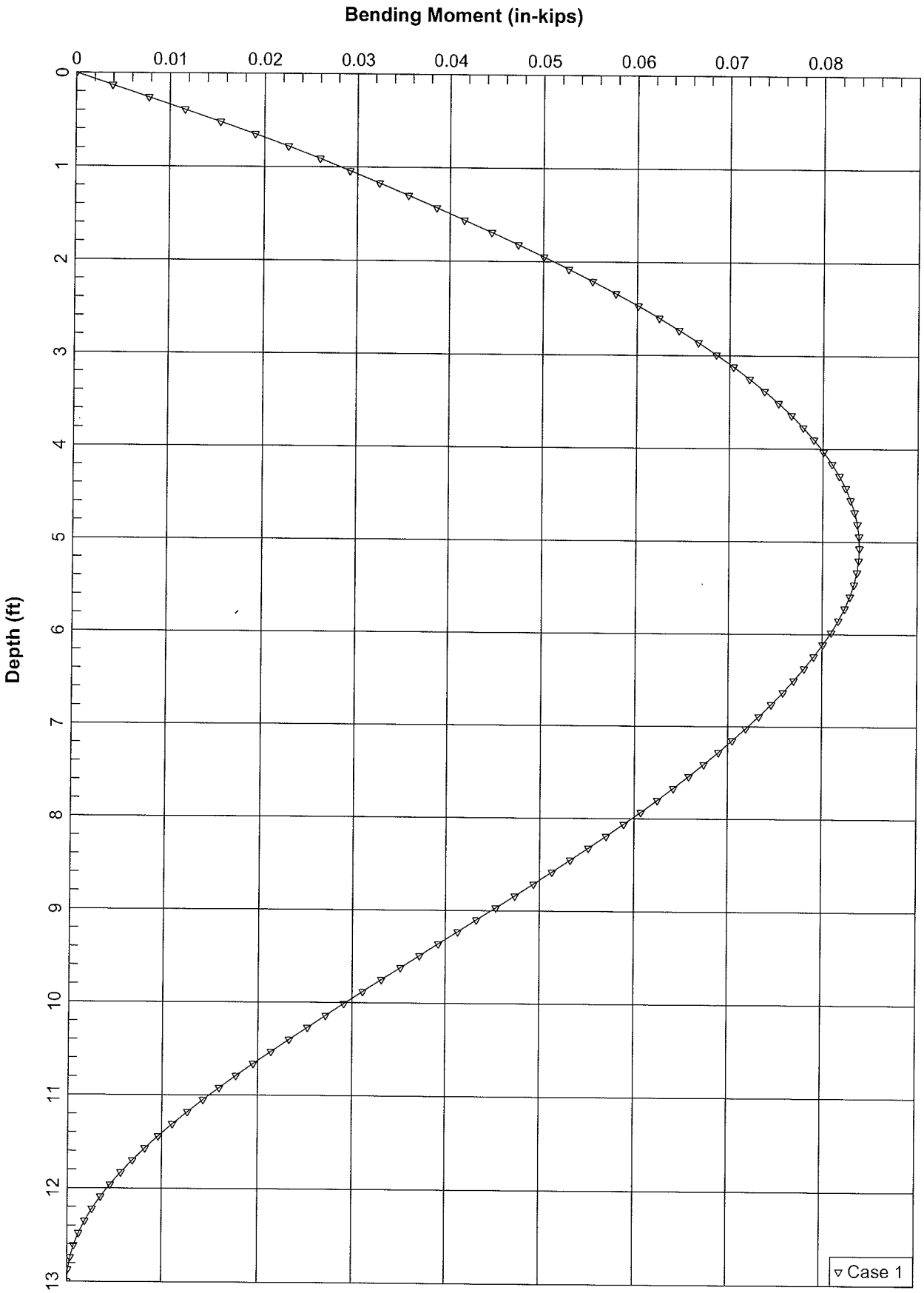
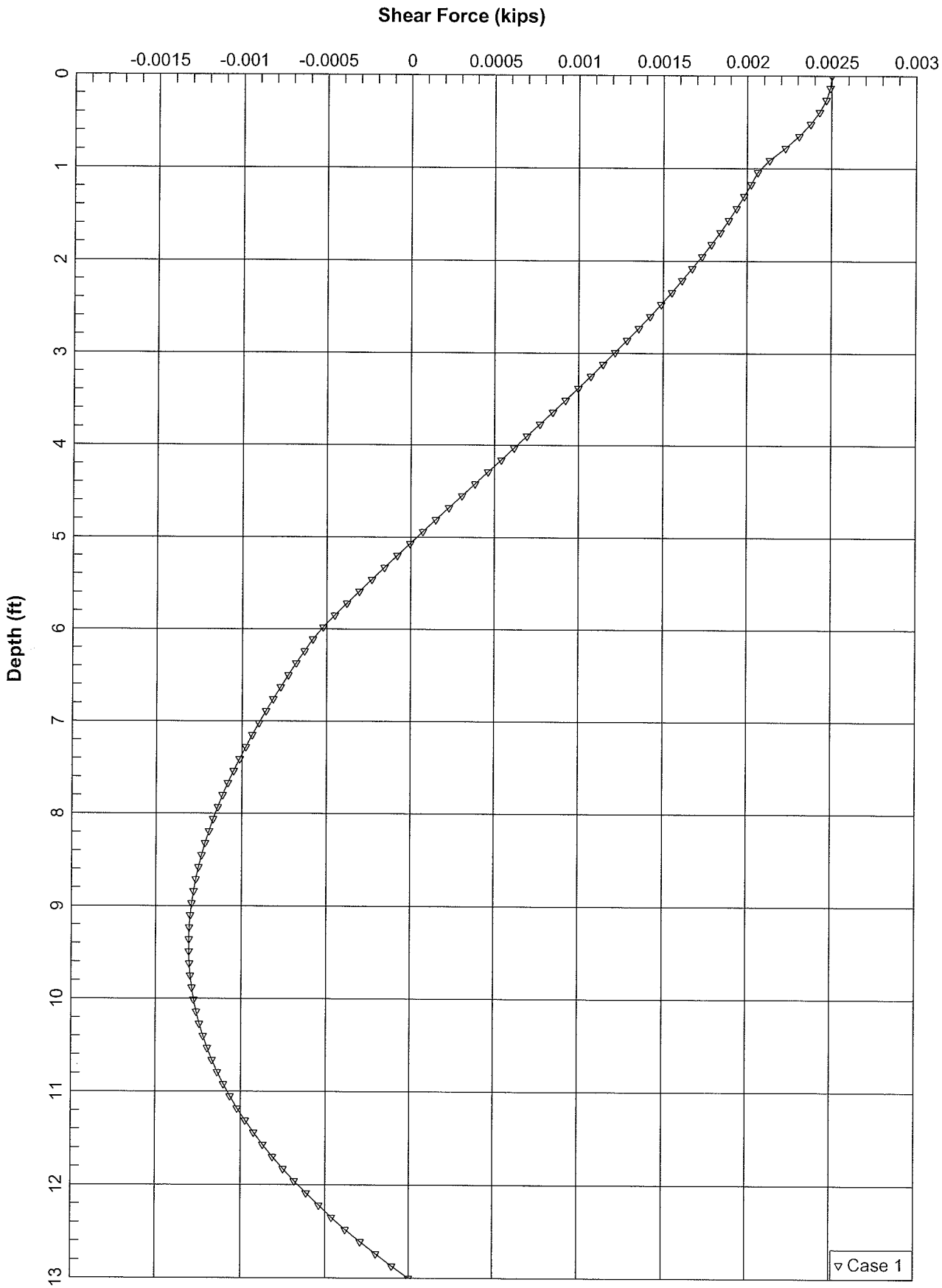
-1.5E-5
-1E-5
-5E-6
0
5E-6
1E-5
1.5E-5
2E-5
2.5E-5
3E-5
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
Case 1


Bending Moment (in-kips)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
Case 1


Shear Force (kips)
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-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
0.0025
0.003
Depth (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
Case 1

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4.7 GREENHOUSE GAS EMISSIONS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

4.7.0 Introduction

This section of the Proponent's Environmental Assessment describes the existing conditions in the area of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and potential impacts relating to greenhouse gases (GHG) associated with the construction and operation of the Proposed Project. Construction may result in emissions of GHGs due to combustion of fossil fuels in construction equipment and vehicles. However, the Proposed Project will not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

4.7.1 Methodology

Federal, state, and regional/local regulations and policies were consulted to determine the Proposed Project's level of compliance with, as well as potential impacts to, applicable climate action plans and/or GHG standards. Information for this section was obtained from Internet searches of federal, state, and regional/local websites. The simulated GHG emissions presented in this section were developed using the South Coast Air Quality Management District's (SCAQMD's) California Emissions Estimator Model (CalEEMod). The analysis of GHG emissions evaluates the Proposed Project's potential to generate GHG emissions for the construction and operational phases of the Proposed Project. GHG emissions were calculated with the intent of identifying the biggest contributors of GHGs.

4.7.2 Existing Conditions

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), which are known as GHGs. These gases allow solar radiation (i.e., sunlight) into Earth's atmosphere, but prevent radiative heat from escaping, thus warming Earth's atmosphere.

Gases that trap heat in the atmosphere are often called GHGs, analogous to a greenhouse. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates Earth's temperature. Emissions from human activities, such as burning fossil fuels for electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere.

The proposed Vine Substation site is currently used as a long-term airport parking lot and is not currently a source of GHG emissions. The relocated and new distribution circuits, 69 kV loop-in, and telecommunication system extension will be constructed in existing power line corridors or in City of San Diego streets that are not existing sources of GHG emissions.

Different GHGs have varying global warming potentials. Global warming potential is the effectiveness of a gas or aerosol to trap heat in the atmosphere. According to the United States (U.S.) Environmental Protection Agency (EPA), global warming potential is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for global warming potential is CO_2; therefore, CO_2 has a global warming potential of 1. The other main GHGs that have been attributed to human activity are CH_4, which has a global warming potential of 21; and N_2O, which has a global warming potential of 310. Table 4.7-1: Global Warming Potentials and Atmospheric Lifetimes of GHGs presents the global warming potential and atmospheric lifetimes of common GHGs.

Table 4.7-1: Global Warming Potentials and Atmospheric Lifetimes of GHGs

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (years)
Carbon Dioxide	CO_2	1	Variable
Methane	CH_4	21	12 ± 3
Nitrous Oxide	N_2O	310	120
Sulfur Hexafluoride	SF_6	23,900	3,200

In the California Greenhouse Gas Emission Inventory, the California Air Resources Board (CARB) compiled statewide anthropogenic GHG emissions and sinks, which include processes that uptake GHG emissions. The inventory includes estimates for CO_2, CH_4, N_2O, sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). The current inventory covers 1990 through 2008, and is summarized in Table 4.7-2: State of California Greenhouse Gas Emissions by Sector. Data sources used to calculate this GHG inventory include California and federal agencies, international organizations, and industry associations. Calculation methodologies applied are consistent with guidance from the Intergovernmental Panel on Climate Change. The 1990 emissions level is the sum total of sources and sinks from all sectors and categories in the inventory. CARB's original inventory was divided into seven broad sectors and categories: agriculture, commercial, electricity generation, forestry, industrial, residential, and transportation. The latest inventory includes GHG emissions from recycling and waste management, high global warming potential gas emissions, and reductions in GHG emissions related to forestry (i.e., forestry sinks).

Table 4.7-2: State of California Greenhouse Gas Emissions by Sector

Sector	Total 1990 Emissions ($MMTCO_2e$)[1]	Percent of Total 1990 Emissions	Total 2008 Emissions ($MMTCO_2e$)	Percent of Total 2008 Emissions
Agriculture	23.4	5	28.1	6
Commercial	14.4	3	14.7	3
Electricity Generation	110.6	26	116.4	25
Forestry (excluding sinks)	0.2	< 1	0.2	< 1
Industrial	103.0	24	92.66	20
Residential	29.7	7	28.5	6
Transportation	150.7	35	175.0	37
Recycling and Waste Management	--	--	6.7	1
High Global Warming Potential Gas Emissions	--	--	15.65	3
Forestry Sinks	(6.7)	--	(3.98)	--

Source: CARB 2007a

Regulatory Background

Federal

Endangerment Finding

On April 17, 2009, the EPA issued its proposed endangerment finding for GHG emissions. On December 7, 2009, the EPA Administrator signed the following two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- Endangerment Finding: The EPA found that the current and projected concentrations of the six key well-mixed GHGs—CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The EPA found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to GHG pollution, which threatens public health and welfare.

The endangerment findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed GHG emissions standards for light-duty vehicles, which were jointly proposed by the EPA and the U.S.

[1] $MMTCO_2e$ refers to million metric tons of CO_2 equivalent emissions.

Department of Transportation's National Highway Safety Administration on September 15, 2009.

Mandatory Reporting of Greenhouse Gases, Title 40, Part 98 of the Code of Federal Regulations

The EPA's rule titled Mandatory Reporting of Greenhouse Gases (Title 40, Part 98 of the Code of Federal Regulations) requires mandatory reporting of GHGs for certain facilities. Subpart DD of the rule, titled Electrical Transmission and Distribution Equipment Use, applies to SF_6 reporting from gas-insulated substations. The proposed Vine Substation will be an air-insulated substation, rather than a gas-insulated substation.

Under the final Mandatory Reporting Rule for Additional Sources of Fluorinated GHGs, owners and operators of electric power system facilities with a total nameplate capacity that exceeds 17,820 pounds (7,838 kilograms) of SF_6 and/or PFCs must report emissions of SF_6 and/or PFCs from the use of electrical transmission and distribution equipment. Owners or operators must collect emissions data; calculate GHG emissions; and follow the specified procedures for quality assurance, missing data, recordkeeping, and reporting.

The rule requires each electric power system facility operator to report total SF_6 and PFC emissions (including emissions from equipment leaks, installation, servicing, decommissioning, and disposal, and from storage cylinders) from the following types of equipment:

- gas-insulated substations;
- circuit breakers;
- switchgears, including closed-pressure and hermetically sealed pressure switchgears;
- gas-insulated lines containing SF_6 or PFCs;
- gas containers, such as pressurized cylinders;
- gas carts;
- electric power transformers; and
- other containers of SF_6 or PFCs.

Because the proposed Vine Substation will be an air-insulated substation, only the Proposed Project's 69 kV circuit breakers will contain SF_6. Facilities subject to Subpart DD began monitoring GHG emissions on January 1, 2011, in accordance with the methods specified in Subpart DD. The deadline for reporting is March 31 of each year, unless that date falls on a weekend, in which case the report is due the next business day.

State

The most common GHGs that result from human activity, as defined by California Health and Safety Code Section 38505(g), are any of the following compounds: CO_2, CH_4, N_2O, SF_6, HFCs, or PFCs.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, then-Governor Arnold Schwarzenegger signed California Assembly Bill (AB) 32, the Global Warming Solutions Act, into law. Pursuant to AB 32, CARB adopted a comprehensive AB 32 Scoping Plan in December 2008, which outlined programs designed to

achieve the 2020 GHG reduction goal of 174 MMTCO$_2$e through regulations, market mechanisms, and other actions.

For the electricity sector, the scoping plan adopted the California Public Utilities Commission's (CPUC's) recommendations for investor-owned and publicly owned utilities to continue and increase implementation of programs designed to reduce emissions. These recommendations included energy efficiency programs, increasing the use of electricity supplies obtained from renewable generation sources to 33 percent by 2020, and the adoption of a cap and trade system to ensure an overall reduction of emissions from electric generation.

The AB 32 Scoping Plan Measure H-6 led to CARB's Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear (Title 17, Sections 95350 to 95359 of the California Code of Regulations). The proposed Vine Substation will be an air-insulated substation, rather than a gas-insulated substation.

Therefore, the 69 kV circuit breakers will be the only equipment containing SF_6. CARB's SF_6 regulation sets the maximum emissions rate for SF_6-containing equipment at 10 percent by 2011. The maximum allowable emissions rate decreases by 1 percent each year. In 2020, the threshold will remain at 1 percent.

State Standards Addressing Vehicular Emissions

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. CARB adopted the regulations on September 24, 2009, to reduce GHG emissions in new passenger vehicles from 2009 through 2016. CARB has estimated that the regulations will reduce emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.

Senate Bills 1078 and 107 and Executive Order S-14-08

Senate Bill (SB) 1078 requires retail sellers of electricity to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010. In November 2008, then-Governor Arnold Schwarzenegger signed Executive Order S-14-08, which expands the Renewables Energy Standard to 33 percent by 2020. In April 2011, the California Legislature enacted SB 2, which mandates the Renewables Portfolio Standard of 33 percent by 2020 for investor-owned and publicly owned utilities.

Executive Order S-21-09

Executive Order S-21-09 directs CARB to work with the CPUC and the California Energy Commission (CEC) to implement the Renewables Portfolio Standard of 33 percent by 2020. On May 5, 2011, the CPUC adopted Order Instituting Rulemaking 11-05-005 to open a new proceeding for the Renewables Portfolio Standard.

CARB is also working with the California Independent System Operator and other load balancing authorities to address reliability, renewable integration requirements, and interactions with wholesale power markets. CARB established a "loading order" in its Energy Action Plan for resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health.

SDG&E Programs

SDG&E has been engaged for many years in activities to reduce GHG emissions. These activities include programs to increase energy efficiency and efforts to meet the Renewables Portfolio Standard of 33 percent of its supply from renewable sources by 2020. In 2011, 20.8 percent of SDG&E's retail sales were from renewable energy sources.

SDG&E submits a mandatory Long-Term Procurement Plan (LTPP) to the CPUC that describes its strategy for meeting the forecasted load during the next 10 years. The LTPP must be consistent with the "loading order" prescribed in the Energy Action Plan to meet growth first with conservation, then with renewable sources of electricity, and finally with new fossil fuel sources to the extent necessary. New generation sources must be consistent with the LTPP. The CPUC approved SDG&E's most recent LTPP in September 2008.

The LTPP includes the following programs to reduce GHG emissions:

- energy efficiency, which will reduce needed capacity by 487 megawatts (MW) by 2016;
- demand response, which will reduce needed capacity by 249 MW by 2016;
- renewables, which will provide 318 MW in 2010 and 727 MW in 2016; and
- new peaker plants to back up intermittent renewables and support retirement of older plants.

Forecasted reductions from these programs are greater than 1.5 $MMTCO_2e$ per year. These efforts will reduce carbon intensity by one-third while accommodating continued population growth, and will ensure consistency with the applicable plans, policies, and regulations adopted by California to reduce GHG emissions.

4.7.3 Impacts

Significance Criteria

Standards for determining impact significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Under these guidelines, impacts to GHGs would be considered significant if the Proposed Project:

- Generates GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG

The San Diego County Air Pollution Control District (SDAPCD) has not established GHG thresholds under CEQA. The SCAQMD has adopted and the County of San Diego Planning & Development Services has issued a significance threshold of 10,000 metric tons (MT) of CO_2e emissions annually for industrial sources, below which levels an industrial project would not generate GHG emissions that would have a significant impact on the environment. The SCAQMD and the County of San Diego recommend amortizing construction emissions over a 30-year period to account for their contribution to GHG emissions over the lifetime of the Proposed Project.

Question 4.7a – Greenhouse Gas Emissions

Construction – Less-than-Significant Impact

The main source of GHG emissions associated with the Proposed Project will be fossil fuel combustion during construction. GHG emissions for construction were calculated using the same approach as criteria pollutant emissions for overall construction emissions. Estimated GHG emissions are summarized in Table 4.7-3: Greenhouse Gas Construction Emissions.

Table 4.7-3: Greenhouse Gas Construction Emissions

Category	GHG Emissions (metric tons)		
	CO_2	CH_4	N_2O
Total Construction Emissions	1,921.13	0.46	0.00
Global Warming Potential	1	21	310
CO_2 Equivalent	1,921.13	9.66	0.00
Total CO_2 Equivalent	1,930.79		
Amortized Construction Emissions (Amortized over 30 Years)	64.36		

The SCAQMD has adopted and the County of San Diego Planning & Development Services has issued a significance threshold of 10,000 MT of CO_2e emissions annually for industrial sources. The Proposed Project's total annualized construction CO_2e emissions of 64.36 MT, will be below the significance threshold of 10,000 MT of CO_2e emissions annually. This level of GHG emissions will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Operation and maintenance activities will include regular inspection of the substation, distribution circuits, and power line and periodic maintenance activities. These activities will generate a minor amount of GHG emissions from vehicles and/or equipment used to inspect and maintain the facilities. GHG emissions associated with operation and maintenance will be well below the applicable significance thresholds.

Equipment that contains SF_6 has the potential to contribute to GHG emissions during operation and maintenance of the Proposed Project. The proposed Vine Substation will be an air-insulated substation, rather than a gas-insulated substation. Therefore, the Proposed Project's 69 kV circuit breakers will be the only piece of equipment containing SF_6. Under the ultimate arrangement, the proposed Vine Substation will have nine 69 kV circuit breakers containing SF_6. Each circuit breaker is estimated to hold 33 pounds of SF_6. The Proposed Project will accordingly use a total of 297 pounds of SF_6.

New SF_6 equipment, including the Proposed Project's 69 kV circuit breakers, has a low leak rate of approximately 0.1 percent annually per industry standards. The Proposed Project will include design and operational features to maintain the SF_6 emissions rate at approximately 0.1 percent,

which is well below the maximum allowable SF_6 emissions rate of one percent that CARB has established for 2020. With a leak rate of 0.1 percent annually, the Proposed Project will emit approximately 0.297 pound of SF_6. Because SF_6 has a global warming potential of 23,900, the Proposed Project's 69 kV circuit breakers will have an annual emission of approximately 7,098.30 pounds (3.22 MT) of CO_2e for operations and maintenance. As shown in Table 4.7-4: Greenhouse Gas Operation and Maintenance Emissions, when added to the amortized construction emissions and simulated emissions from the use of construction equipment and vehicles during operation and maintenance activities, the total annual emissions are anticipated to be approximately 68.04 MT of CO_2e. This level falls below the SCAQMD's and the County of San Diego's significance threshold of 10,000 MT of CO_2e emissions annually for industrial sources. Accordingly, impacts will be less than significant.

Table 4.7-4: Greenhouse Gas Operation and Maintenance Emissions

Source	GHG Emissions (metric tons of CO_2e per year)
Off-Road Equipment and On-Road Vehicle Use	0.46
Fugitive Circuit Breaker Emissions	3.22
Amortized Construction Emissions	64.36
Total	**68.04**

Question 4.7b – Applicable Greenhouse Gas Plan Conflicts

Construction – No Impact

The Proposed Project's GHG emissions from construction will be below the significance threshold when amortized over a 30-year period, as recommended by the SCAQMD and the County of San Diego. Equipment and vehicles supporting construction of the Proposed Project will comply with the requirements implemented by CARB to reduce GHG emissions and will be consistent with AB 32's goals. Accordingly, there will be no impact associated with construction.

Operation and Maintenance – No Impact

The proposed Vine Substation will be air insulated; therefore, the substation's circuit breakers will be the only equipment containing SF_6. SDG&E has ongoing standard internal programs and practices that ensure compliance with the applicable SF_6 regulations and air quality plan, and those programs and practices will not change as a result of the Proposed Project. By virtue of its compliance with applicable rules and regulations and its similarity to existing operation and maintenance requirements, the Proposed Project will be consistent with AB 32's goals. Emissions will not differ from emission levels for operations and maintenance under existing rules and regulations. Accordingly, no impact will occur.

By complying with applicable rules and regulations and following SDG&E's design and operational features to decrease GHG emissions, the Proposed Project will not conflict with any

applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Accordingly, there will be no impact.

4.7.4 Applicant-Proposed Measures

With implementation of SDG&E's ordinary construction/operating restrictions, potential impacts related to GHG, including SF_6, will remain less than significant. As a result, no applicant-proposed measures have been proposed.

4.7.5 References

California Air Pollution Control Officers Association. CalEEMod. Online. http://caleemod.com/. Site visited April 2, 2014.

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CPUC. RPS Program Overview. Online. http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm. Site visited April 2, 2014.

U.S. EPA. Emissions | Climate Change. Online. http://www.epa.gov/climatechange/ghgemissions/. Site visited April 2, 2014.

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U.S. EPA. Greenhouse Gas Reporting Program. Online. http://www.epa.gov/ghgreporting/. Site visited April 2, 2014.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?			✓	
e) If located within an airport land use plan or within two miles of a public airport or public use airport for which such a plan has not been adopted, result in a safety hazard for people residing or working in the project area?			✓	
f) If located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fire, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

4.8.0 Introduction

The purpose of this section is to document existing hazardous conditions in the area of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and to assess potential impacts that may occur as a result of implementation of the Proposed Project. Potential impacts include exposure to hazardous materials in or around the areas affected by the Proposed Project or exposure to hazards generated by the Proposed Project during the short-term construction phase and/or long-term operation. In addition, this section evaluates the hazards related to wildfire and exposure to potentially contaminated groundwater.

4.8.1 Methodology

A Phase I Environmental Site Assessment (ESA), included as Attachment 4.8-A: Phase I Environmental Site Assessment, was prepared by Geosyntec Consultants for the Proposed Project site in April 2014. The Phase I assessment and hazards assessment included a review of the following:

- federal and state databases to identify properties that may be listed in the referenced agency records and located within recommended American Society of Testing and Materials (ASTM) distances;
- available physiographic information including topographic, geologic, and hydrogeologic information;
- select historic aerial photographs to assess past usage of the site and surrounding areas;
- historic fire insurance maps;
- the Preliminary Geotechnical and Geologic Hazards Investigation for the proposed Vine Substation (Geosyntec Consultants, December 2013) included as Attachment 4.6-A: Preliminary Geotechnical and Geologic Hazards Investigation;
- site reconnaissance surveys; and

- reports summarizing previous hazardous materials investigations to understand existing site conditions.

Searches for known hazardous materials sites in the vicinity of the Proposed Project area were conducted via the Internet across federal, state, and local hazardous materials databases and as part of the Phase I ESA. In addition, emergency evacuation and response plans employed by the City of San Diego (City) and emergency measures implemented by the County of San Diego's Office of Emergency Services (OES) were researched. The City General Plan was also reviewed for relevant policies, plans, and programs pertaining to hazards and hazardous materials.

Records Review

A database search report was obtained from Environmental Data Resources, Inc. (EDR), which is included in Attachment 4.8-A: Phase I Environmental Site Assessment. The report documents findings of various federal, state, and local regulatory database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons. The following federal, state, and local records were reviewed, among others, to determine areas where contamination might be encountered during construction:

- Annual Workplan Sites
- California Hazardous Material Incident Report System
- Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS)
- CERCLIS No Further Response Actions Planned
- Department of Toxic Substances Control (DTSC) Cortese List
- Emergency Response Notification System
- Federal Emergency Response Notification System
- Federal Institutional Controls/Engineering Controls
- Federal Underground Storage Tank listings
- Local Landfill/Solid Waste Disposal sites
- Local Brownfield sites
- National Priorities List (NPL) (included delisted and proposed sites)
- Needing Further Evaluation sites
- Notify 65
- Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Treatment, Storage, Disposal Facilities (TSD) facilities
- RCRA non-CORRACTS TSD facilities
- RCRA generators
- School Property Evaluation Program
- State and Tribal Equivalent NPL/CERCLIS sites
- State and Tribal Registered Underground Storage Tanks
- State and Tribal Landfills and Solid Waste Disposal sites
- State and Tribal Leaking Underground Storage Tanks
- State and Tribal Voluntary Cleanup sites
- State Response sites

- Statewide Spills, Leaks, Investigations, and Cleanups
- Toxic Alert for California Superfund sites

A review of the databases identified properties located within the recommended ASTM distances from the Proposed Project. This review identified hazardous materials and the use, generation, storage, treatment, or disposal of chemicals, as well as any release incidents of such materials that may be encountered by the Proposed Project.

Historical Use

Aerial photographs, city directories, and topographic maps were reviewed, where available, to assess historical site and adjacent property uses, and the potential for encountering hazardous materials in the Proposed Project area as a result of historical use.

A Preliminary Geotechnical and Geologic Hazards Investigation was conducted by Geosyntec Consultants (Geosyntec) in December 2013 and included a review of published regional geologic information, review of previous site geotechnical information, site reconnaissance, geotechnical borings, cone penetration test soundings, and geotechnical laboratory testing. The investigation results reported that the northeastern portion of the site was previously occupied by a gas station, and the fuel reservoir had been removed. The Phase I ESA confirmed the previous use of a portion of the proposed Vine Substation site as a gas station and automotive repair service in the years 1969 and 1970 through research of historic aerial, Sanborn, and topographic maps. Historic city directories indicate the site included a service station as early as 1927; but historic maps do not confirm the existence of a service station at the site during that time period. There are no records to indicate environmental closure of the gas station, tank removal, or soil conditions. Geosyntec screened soil samples in the field for potential indications of contamination using geotechnical borings and a Photoionization Detector, and no volatile organic compounds or other soil vapors from the site soil samples were observed. Therefore, Geosyntec determined the potential for previous release of petroleum products to be insignificant.

Site Reconnaissance

In addition to the survey conducted for the Prelimary Geotechnical and Geologic Hazards Investigation and Phase 1 ESA site reconnaissance, a reconnaissance-level survey of the proposed Vine Substation site was conducted by Insignia Environmental on December 10, 2013. The reconnaissance survey consisted of walking the accessible areas of the property and conducting a visual examination for evidence of potential environmental concerns, which included the following:

- soil and groundwater contamination, as indicated by soil or pavement staining/discoloration;
- stressed vegetation;
- indications of waste-dumping or burial;
- pits;
- ponds or lagoons;
- containers of hazardous substances or petroleum products;

- electrical and hydraulic equipment, such as electrical transformers and hydraulic hoists, that may contain polychlorinated biphenyls (PCBs); and
- underground and aboveground storage tanks.

Insignia also observed adjoining property conditions from the site boundaries and public roadways for potential impacts that could affect the Proposed Project site.

4.8.2 Existing Conditions

The following discussion addresses the potential types and amounts of hazardous materials that are anticipated to be located within approximately one mile of the areas affected by the Proposed Project. Schools located within 0.25 mile of the Proposed Project have been identified according to California Environmental Quality Act (CEQA) requirements to assess potential impacts with regard to hazardous conditions. As the Proposed Project site is located within a highly urbanized area of the City of San Diego with established commercial and light industrial uses, the potential for hazardous materials contamination due to present or historic land uses does exist.

Regulatory Background

The following sections describe federal, state, local regulations regarding hazards and hazardous materials that apply to the Proposed Project.

Federal

United States Environmental Protection Agency

The United States (U.S.) Environmental Protection Agency (EPA) maintains a list of materials considered to be hazardous to the environment or to human health. These materials are identified in the following three categories:

- F-List: Wastes from the F-list are published under Title 40 of the Code of Federal Regulations (CFR) Section 261.31. These wastes include non-specific source wastes common in manufacturing and industrial processes.

- K-List: K-list wastes are published under 40 CFR § 261.32. These wastes include source-specific wastes from specific industries, including pesticide manufacturing and petroleum refining.

- P-List and U-List: Wastes from the P- and U-lists are published under 40 CFR § 261.33. These wastes include discarded commercial chemical products in an unused form.

Waste that has not been previously listed may still be considered hazardous if it exhibits one or more of the following characteristics: ignitibility, corrosivity, reactivity, or toxicity (40 CFR 261 Subpart C).

Uniform Building Code and Uniform Fire Code

The Uniform Building Code (UBC) and the Uniform Fire Code (UFC) provide codes for fire protection at the federal level. To minimize potential fire risk and damage to structures, the UBC provides requirements to which building construction, materials, and other elements or

construction practices must adhere. In addition, the UFC provides design measures for installation of fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards and safety measures, hazardous material storage and use, and other general and specialized requirements pertaining to fire safety and prevention.

Resource Conservation and Recovery Act

RCRA regulates potential health and environmental problems associated with hazardous and non-hazardous waste. This law is implemented by the U.S. EPA through Subtitle C, Title 42 of the U.S. Code (U.S.C.) Section 6921 et. seq., and its implementing regulations (40 CFR § 260 et seq.). The generation, transportation, treatment, storage, and disposal of hazardous waste is regulated through Subtitle C of the RCRA, which addresses a "cradle-to-grave" approach to hazardous waste management. All states are subject to Subtitle C with regard to hazardous waste generation. RCRA also provides the specific quantities of wastes that are regulated under the Act.

Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act

CERCLA and SARA, together with their implementing regulations, govern the use, planning, reporting, clean up, and notification with regard to hazardous materials and hazardous material releases into the environment. These statutes are codified in 40 CFR § 239 through 282 and the regulations are defined in 40 CFR § 302 through 355.

Annual reporting requirements associated with hazardous materials released into the environment are provided in 42 U.S.C. § 11023 and 40 CFR § 372.30. Reporting of both routine discharges and spill releases is required. In addition, Title III of SARA (identified as the Emergency Planning and Community Right-To-Know Act of 1986) requires that all states develop and implement local chemical emergency preparedness programs and make available information pertaining to hazardous materials that are used at facilities within local communities.

Clean Water Act/Clean Air Act

The Clean Water Act (CWA) provides measures governing the accidental release of hazardous materials to surface waters. Similarly, the Clean Air Act (CAA) provides measures aimed at preventing the accidental release of hazardous materials into the atmosphere.

Regulations implementing the CAA and governing hazardous materials emissions are provided in 40 CFR Part 68. Implementation of these regulations is intended to prevent the accidental release of hazardous materials into the environment.

State

Division of Occupational Safety and Health

The California Occupational Safety and Health Act (Cal-OSHA) of 1970 provides measures to address the safety of construction and industrial workers. Title 8 of the California Code of Regulation (CCR) implements the majority of these measures. Cal-OSHA is responsible for enforcing the occupational and public safety laws adopted by the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA). OSHA is responsible for the

regulation of workplace hazards and hazardous materials at the federal level, while Cal-OSHA regulates hazards and hazardous materials at the state level.

Department of Toxic Substances Control/California Environmental Protection Agency

DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California, while the California EPA is charged with developing, implementing, and enforcing the state's environmental protection laws.

Regional Water Quality Control Board

The San Diego Regional Water Quality Control Board (RWQCB) is responsible for protecting the beneficial uses of surface water and groundwater resources in the San Diego area. The RWQCB adopted a Water Quality Control Plan (Basin Plan) in September 1994 and amended the plan in April 2011. The Basin Plan sets forth implementation policies, goals, and water management practices in accordance with the Porter-Cologne Water Quality Control Act. The Basin Plan establishes both numerical and narrative standards and objectives for water quality aimed at protecting aquatic resources. Project discharges to surface waters in the region are subject to the regulatory standards set forth in the Basin Plan, which prevents the discharge of hazardous materials into waters of the U.S. Although groundwater is not used as a municipal or domestic water supply, the RWQCB enforces the provisions of the state statutes that protect groundwater.

California Hazardous Materials and Waste Codes

Within the State of California, the storage, handling, use, and/or disposal of hazardous materials is regulated through various sections of the California Health and Safety Code (H&SC). In addition, H&SC § 33437 requires lessees or purchasers of property in a redevelopment project to comply with all covenants, conditions, and restrictions imposed by the agency for the reasonable protection of lenders. Individual states are required by the RCRA to develop their own programs for the regulation of hazardous waste discharges; however, such plans are required to meet or exceed RCRA requirements.

The California Hazardous Waste Control Law (HWCL) addresses the control of hazardous wastes for the state. The HWCL regulates generators of universal waste (e.g., batteries, mercury control devices, dental amalgams, aerosol cans, and lamps/cathode ray tubes) under Section 25100 et seq. of the H&SC, as well as hydrocarbon waste (e.g., oils, lubricants, and greases) that is not classified as hazardous waste under the federal RCRA regulations. DTSC is responsible for the administration and enforcement of the HWCL.

The Hazardous Materials Release Response Plans and Inventory Act (H&SC, Section 25500 et seq.) and regulations provided in 19 CCR § 2620 et seq. require that local governments be responsible for the regulation of facilities that store, handle, or use hazardous materials above threshold quantities (TQs). The TQs for identified hazardous materials are 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases measured at standard temperature and pressure. Facilities storing such hazardous materials in excess of their TQs are required to prepare a Hazardous Materials Business Plan (HMBP) to identify the facility's internal response requirements to accidental spills. The HMBP may identify emergency contacts, hazardous material inventory and quantities, control methods, emergency response

measures, and employee training methods. The HMBP is required to be submitted to the local administering agency, which is typically the local fire department or public health agency. In the event of a spill from such a facility, both the local administrative agency and the California Governor's OES must be notified.

H&SC Section 25249.5 et seq. of the Safe Drinking Water and Toxics Enforcement Act (i.e., Proposition 65) is administered through the California Office of Environmental Health Hazard Assessment. The Act regulates cancer-causing and reproduction-impairing chemicals. Under Proposition 65, users of such regulated chemicals are required to issue a public warning before potential exposure to chemicals above a threshold amount occurs (H&SC § 25249.6). In addition, the act is aimed at preventing discharges or releases of specified hazardous materials into a "source of drinking water." The Act provides a list of chemicals of concern (*Id.* § 25249.5), which is periodically updated.

Section 25404 et seq. of the California H&SC includes the California Unified Hazardous Waste and Hazardous Material Management Regulatory Program Act, which establishes specific requirements for handling hazardous waste locally by establishing the Certified Unified Program Agency (CUPA). The responsibility for management of local hazardous wastes is delegated by the California EPA to the local agency through a Memorandum of Understanding. The primary CUPA relative to the Proposed Project site is the County of San Diego's Department of Environmental Health Hazardous Materials Management Division (HMMD).

California Building Code

The California Building Code (CBC) provides design and construction measures for structures and other facilities with regard to fire protection and prevention. The CBC supplements the UBC by providing measures that are specific to potential conditions in the State of California. Measures provided in the CBC are integrated and enforced through city and county review of development projects, the Office of the State Fire Marshal, and by local city or county fire chiefs or marshals.

California Public Resources Code

The California Public Resources Code (PRC) provides regulations to enhance safety with regard to the operation and management of electrical transmission lines. These include, but are not limited to, the following:

- PRC Section 4292: This section requires the clearing of flammable vegetation around specific structures that support certain connectors or types of electrical apparatus. An approximately 10-foot radius around such structures must remain clear of vegetation for the entirety of the fire season.

- PRC Section 4293: This section requires specific clearance between conductors and vegetation. As the line voltage increases, the radius of clearance also increases. It is also required that some trees must be removed if they pose the potential to fall on an electrical transmission line and cause damage.

Local

San Diego County

Within San Diego County, the HMMD is responsible for the implementation of the CUPA. Hazardous materials are addressed through various county codes and regulations. The HMMD's hazardous material requirements include hazardous waste determination, storage and transportation of hazardous waste, treatment and disposal requirements, biennial reporting, emergency preparedness and prevention, emergency procedures, business plans, personnel training, and standards for violations. Regulations for the storage and use of explosives are provided in San Diego County General Regulation, Section 6904.

City of San Diego General Plan and Municipal Code

The Public Facilities, Services, and Safety Element of the City of San Diego General Plan addresses public facilities and services, such as fire and rescue, police, storm water protection, and disaster preparedness. The General Plan identifies goals and policies intended to allow for the efficient and adequate provision of public services and facilities, as well as to reduce the potential for hazardous or emergency situations to occur.

In addition, the Proposed Project site lies within the City's Airport Environs Overlay Zone, as designated in the City's Municipal Code. The Overlay Zone provides supplemental regulations for property surrounding the San Diego International Airport (SDIA), which is located approximately 0.75 mile to the southwest of the Proposed Project site. The Overlay Zone provides measures pertaining to land use compatibility, noise impacts, and safety hazards, among other issues.

San Diego County Regional Airport Authority Airport Land Use Compatibility Plan

The Proposed Project site is located approximately 0.75 mile northeast of the SDIA. The Airport Land Use Commission (ALUC) is required by federal and state law to create or update Airport Land Use Compatibility Plans (ALUCPs) for San Diego County's 16 public-use and military airports. The San Diego County Regional Airport Authority (SDCRAA) is in the process of updating the ALUCP for SDIA, which was originally adopted in 1992 and amended in 1994 and 2004. The July 2013 Draft ALUCP addresses airport compatibility issues related to noise, safety, airspace protection, and aircraft overflight. Local agencies are required to submit proposed actions to the ALUC for compatibility review until their General Plans are found to be consistent with the applicable ALUCP.

Contaminated Sites

To determine those sites that may potentially represent the greatest risk, the following were considered:

- Density of Listed Sites: The greater the number of listed sites in the vicinity of the Proposed Project, the greater the potential for encountering contamination.

- Type of Release and Medium Affected: Contaminants are typically transported at a faster rate in groundwater than in soil. The volume of contaminant released, release date, and

medium impacted all affect how contaminants may have migrated and, therefore, affects their potential to result in an impact.

Existing Hazardous Sites

Proposed Vine Substation and Transmission Line Corridor

A number of properties were identified with releases of hazardous substances or petroleum products within 0.50 mile of the Proposed Project, including the proposed Vine Substation and 12 kV distribution relocation sites. Five properties within one mile of the Proposed Project site were identified in RCRA CORRACTS or CERCLIS databases. Two of these properties are discussed in detail in the paragraphs that follow; a complete listing of sites identified in the Phase I ESA database search can be found in Attachment 4.8-A: Phase I Environmental Site Assessment.

The most notable of the sites identified, Honeywell International Inc. (Honeywell) (formerly Baron-Blakesee Inc.), is located at 3596 California Street, approximately 250 feet to the northwest of the proposed Vine Substation. The site is a former solvent recycling facility that accepted chlorinated and fluorinated solvents and processed the solvents by distillation to reclaim them as a usable product. Following cease of operations in 1993, several investigations identified significant concentrations of chlorinated hydrocarbons in soil, groundwater, and soil vapor at that property. In October 2008, the facility conducted a Soil Vapor Extraction pilot test to evaluate whether this technology will be effective at reducing the VOC concentrations in soil. The site's status is currently classified as active and undergoing closure. Based on reported soil vapor concentrations, a land use covenant was established to restrict the Honewell property from use as a residence, hospital, school, or other sensitive land uses.

The second site carried forward for discussion in the ESA is the Northside San Diego International Airport Redevelopment (formerly General Dynamics Facility), which is located approximately 950 feet from the Proposed Project site at 3302 Pacific Highway. Between 1935 and 1995, General Dynamics and its predecessors performed aircraft and aerospace manufacturing activities at the facility; facility decommissioning began in 1995 and ended in 1997. Chemicals of concern (COCs) used at the site included fuels, oils, solvents, acids, metals, and paints. In addition, PCB-bearing building materials were used. Prior to the facility decommissioning, COCs were found in the soil and groundwater, and several phases of investigations and remediation took place. During the facility decommissioning, additional remedial actions were taken, and recent soil and groundwater investigations also encountered COCs. As of November 2010, the SDCRAA has planned on redeveloping the site for airport-related businesses and is conducting additional investigations to assess the potential risk relative to the new site use. The site's status is classified as open and undergoing assessment. However, the site is located down gradient with ground water flow generally south to southwest, away from the Proposed Project site.

The following sections describe the types and amounts of hazardous materials likely to be present in the vicinity of the Proposed Project. All Proposed Project components are located in industrial areas, where historical land use may contribute to hazardous material contamination.

Contaminated Soil and Ground Water

No visual or olfactory indications of soil or groundwater contamination have been identified at the proposed Vine Substation site or the 12 kV distribution relocation and telecommunication system extension corridors. Groundwater is expected to be encountered at depths of between 24 and 25 feet below ground surface, as described further in Section 4.9 Hydrology and Water Quality.

Based on the Proposed Project site's designation with non-beneficial groundwater uses, many cases listed nearby the site have been closed with residual impacts in place. Three closed leaking UST facilities are located upgradient of the Proposed Project within 0.25 mile.

Fire Hazards

Based on the Wildland Fire Hazards Map depicted in the City of San Diego General Plan and California Department of Forestry and Fire Protection data, the Proposed Project is not located in a wildland fire hazard area. As of the date of the Phase I ESA, Geosyntec had not received responses from the Fire Department with regards to potential hazards.

Schools

One school is located within 0.25 mile of the Proposed Project—the Montessori School of San Diego—and it is approximately 0.25 mile southeast of the Proposed Project.

Airports

The Proposed Project site is located approximately 0.75 mile from the SDIA and, therefore, is required by state and local law to be consistent with the SDIA ALUCP. The July 2013 Draft SDIA ALUCP describes the noise, safety, airspace protection, and overflight policies and standards adopted to promote compatibility between the SDIA and surrounding future land uses. The July 2013 Draft SDIA ALUCP, once adopted, will supersede the previous ALUCP that was adopted in 1992 and amended in 1994 and 2004.

Emergency Response and Evacuation Plans

The County of San Diego's Office of Disaster Preparedness implements the San Diego County Operational Area Emergency Plan. The San Diego County Operational Area consists of the county, 18 cities (including the City of San Diego), and all special districts, including school districts. A formal Joint Powers relationship exists between the county and the 18 incorporated municipalities in the county. The Operational Area staff coordinates among all of the public agencies within the county's boundaries and the California Governor's OES. The Operational Area is staffed by the County of San Diego's OES. During a disaster response, the County of San Diego's OES is responsible for activating the county's Emergency Operations Center and coordinating resources at the Operational Area level, as well as collecting status reports and other information from organizations and facilities that may have sustained damage.

The San Diego County Operational Area Evacuation Annex (Annex) was designed to be used as a template for preparation of other jurisdictional evacuation plans and to supplement or support the evacuation plans developed and implemented by local jurisdictions. Strategies, protocols, organizational frameworks, and recommendations that may be used to implement a coordinated

evacuation effort within the San Diego County Operational Area are included in the Annex. It identifies estimates on the resident population within each jurisdiction that may be potentially impacted by certain hazards and would require evacuation, the number of residents that may need assistance securing shelter or transportation, and the estimated number of household pets that may need to be accommodated in the event of an evacuation effort. In addition, the Annex provides hazard-specific considerations, transportation routes, and capacities for general evacuation, shelter capacities throughout the county, locally available resources, resources available through mutual aid, and other special needs considerations.

The Annex includes hazard-specific evacuation routes for dam failure, earthquakes, tsunamis, floods, and wildfires. Primary evacuation routes consist of the major interstates, highways, and prime arterials within San Diego County.

In addition, the City of San Diego's Fire-Rescue Department Community Emergency Response Teams (CERTs) help local communities build a base of emergency preparedness to rely on when needed. The CERT program brings together neighbors, team members, and co-workers within their own community, in coordination with the San Diego Fire-Rescue Department. Other agencies—such as the City of San Diego's Office of Homeland Security, the City's Police Department, the San Diego County Sheriff's Department, and the County of San Diego's OES—also offer coordinated services in the event of an emergency or evacuation.

4.8.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to hazards and hazardous materials would be considered significant if the Proposed Project:

- Creates a hazard to public health or the environment by the routine transport, use, or disposal of hazardous materials
- Creates a hazard to the public or the environment by reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emits hazardous emissions or handle hazardous materials within 0.25 mile of a school
- Is located at a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a hazard to the public or the environment
- Is located within two miles of a public or private airport and results in a safety hazard for people residing or working in the Proposed Project area
- Impairs implementation of, or physically interferes with, an adopted emergency response or evacuation plan
- Exposes people or structures to a risk of loss, injury, or death related to wildland fires

Question 4.8a – Hazardous Material Transport, Use, or Disposal

Construction – Less-than-Significant Impact

It is possible that impacts could occur from the transport or use of hazardous materials during the construction phase as the result of incidental spills or other unauthorized releases during foundation excavation and construction; trenching; conductor pulling, splicing, and tensioning during the installation of the 69 kV loop-in and distribution circuits and during the upgrade of the telecommunication system; and transformer transporting and/or oil filling. Other potential impacts relative to the use of hazardous materials could occur during construction at temporary storage sites, from transportation of materials or workers to worksites, or during the refueling or servicing of equipment. Vehicles and equipment used for construction may contain or require temporary, short-term use of potentially hazardous substances, such as fuel, lubricating oils, or hydraulic fluid.

In addition, material that is excavated, transported, stored, or disposed of during construction of the Proposed Project has the potential to contain hazardous materials and could present a hazard to construction workers, the public, or the environment if improperly managed. Vehicles and equipment used for construction may contain or require temporary, short-term use of potentially hazardous substances, such as fuel, lubricating oils, or hydraulic fluid. Groundwater is not anticipated to be encountered during excavation because the excavation will occur above the water table. Should groundwater be encountered, the procedures described in Section 3.6.3 Methods in Chapter 3 – Project Description regarding groundwater discharge will be followed. In addition, a Health and Safety Plan will be prepared to provide guidance for site workers in the case of contamination discovery at the proposed Vine Substation site.

A general listing of types of chemicals used during construction is provided in Table 4.8-1: Hazardous Materials Typically Used for Construction and/or Operation and Maintenance. In the case of an incidental spill or other unauthorized release, hazardous materials could have the potential to adversely affect the health or safety of construction workers, nearby building occupants or residents, or others within the vicinity of the Proposed Project.

As presented in Section 4.8.2 Existing Conditions, several laws, rules, and regulations apply to the routine use of hazardous materials during construction, which include proper handling and disposal of hazardous materials. SDG&E will comply with all such laws, rules, and regulations. Because construction will require only small amounts of hazardous materials; transport of these materials will only occur during the approximately 19-month construction period; and all spills will be immediately cleaned up and disposed of properly in accordance with SDG&E's Water Quality Construction Best Management Practices Manual (BMP Manual) (included as Attachment 4.8-B: Water Quality Construction Best Management Practices Manual) and with federal, state, and local regulations. In addition, a Hazardous Materials and Waste Management Plan, as described in APM-HAZ-01, will be implemented. This plan will include procedures for the use, storage, and transportation of hazardous materials; protocols for the implementation of secondary containment and countermeasures for hazardous materials; a list of and the locations of spill response materilas, and a description of wast management and disposal procedures. As part of SDG&E's ordinary construction restrictions, a Safety and Environmental Awareness Program (SEAP) will be developed which will include training on hazardous material protocols and best management practices (BMPs). With the adherence to applicable laws and regulations,

implementation of SDG&E's BMP Manual, SEAP training, and implementation of APM-HAZ-01, impacts will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Similar to activities occurring during the construction phase, the use of hazardous materials during ongoing operation and maintenance of the proposed Vine Substation could pose health and safety hazards to SDG&E maintenance staff, area residents, and the surrounding environment as the result of an incidental spill of hazardous substances during routine or emergency maintenance, as well as during daily operation of the facilities. The majority of chemicals used for ongoing operation or maintenance activities will be similar to those used during the construction phase; however, daily use of such chemicals will generally be considerably less during operation and maintenance than during construction. A typical list of the types of hazardous materials used during operations and maintenance is provided in Table 4.8-1: Hazardous Materials Typically Used for Construction and/or Operation and Maintenance. Hazardous chemicals used for operations and maintenance activities, with the exception of the oil contained in the substation transformers, will be transported to and removed from the Proposed Project site by maintenance personnel, rather than stored on site, to reduce the overall potential for accidental release of such substances.

At its ultimate configuration, the proposed Vine Substation will support four standard profile transformers. The four transformers will contain a total of approximately 30,000 gallons of oil. As the transformers age, the potential increases for leaks to occur. Other major natural events (e.g., seismic events) or collisions from maintenance equipment will also have the potential to result in a release into the environment. Storage and use of hazardous materials, including mineral oil, in amounts exceeding 1,320 gallons is regulated under the CWA. Because total materials in excess of this threshold are expected at the proposed Vine Substation site, SDG&E will prepare a site-specific Hazardous Materials Business Plan (HMBP) and Spill Prevention, Control, and Countermeasures (SPCC) Plan, which will contain the proper procedures for storage, handling, spill response, and disposal of hazardous materials, including fueling, maintenance, spill containment, leak inspection, and cleanup procedures, in accordance with the CWA. In addition, the proposed Vine Substation will include oil-retention basins for each transformer to ensure any future leak or spill is fully contained. The basins will be designed to have a capacity that exceeds the transformer capacity by 10 percent. With the installation of the oil-retention basins, which are part of the Proposed Project's design, compliance with California law, which requires the implementation of a HMBP, and adherence to the CWA, which requires a SPCC Plan, the potential impact will be less than significant.

Question 4.8b – Reasonably Foreseeable Upset and Accident Conditions

Construction – Less-than-Significant Impact

The site reconnaissance survey and accompanying database search confirmed that no existing contamination has been identified on the Proposed Project site. As the site is presently a paved surface used for long-term parking and does not contain buildings or structures, with the exception of a small kiosk used to collect payment from customers. The release of hazardous materials (e.g., asbestos) during demolition activities are not anticipated.

Table 4.8-1: Hazardous Materials Typically Used for Construction and/or Operation and Maintenance

Hazardous Materials	
ABC fire extinguisher	Hydraulic fluid
Acetylene gas	Insulating oil (inhibited, non-PCB)
Air tool oil	Lubricating grease
Ammonium hydroxide	Mastic coating
Battery acid (in vehicles and in the meter house of the substations)	Methyl alcohol
Bottled oxygen	Mineral oil
Brake fluid	Motor oils
Canned spray paint	Paint thinner
Chain lubricant (contains methylene chloride)	Propane
Connector grease (penotox)	Puncture seal tire inflator
Contact cleaner 2000	Safety fuses
Diesel fuel	Starter fluid
Diesel fuel additive	Sulfur hexafluoride (within the circuit breakers in the substations)
Eye glass cleaner (contains methylene chloride)	Two-cycle oil (contains distillates and hydro-treated heavy paraffinic)
Gasoline	WD-40
Gasoline treatment	ZEP (safety solvent)
Hot stick cleaner (cloth treated with polydimethylsiloxane)	ZIP (1,1,1-trichloroethane)

As discussed in response to Question 4.8a, hazardous materials used in construction vehicles and equipment could inadvertently be released through spills or leaks. In addition, because the northeastern area of the proposed Vine Substation site was previously used as a gas station, there is potential for contamination to be encountered during excavation of the site. As discussed in the response to Question 4.8a, a Health and Safety Plan will be prepared to provide guidance for site workers to identify potential contamination and to appropriately respond in the case of contamination discovery at the proposed Vine Substation site. In addition, construction of the Proposed Project will be subject to the laws and regulations governing the handling and disposal of hazardous materials. All relevant local, state and federal regulations will be adhered to. As a result and with preparation of a project-specific Hazardous Materials and Waste Management Plan proposed by APM-HAZ-01, the potential impact will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Hazardous material impacts could occur as a result of incidental spills during normal operation or routine or emergency maintenance at the proposed Vine Substation. SDG&E and its contractors will be subject to and will follow all relevant local, state, and federal regulations regarding the transport, storage, use, handling, and spill response for hazardous materials. Vehicles and equipment that will be used to maintain Proposed Project facilities may contain materials that could constitute a hazardous substance if released into the environment; however, the use of such chemicals will typically be considerably less than those used during Proposed Project construction activities. To reduce the potential for adverse effects to occur, SDG&E will maintain spill kits in maintenance vehicles to effectively respond to incidental spills as part of their ordinary operation restrictions. In addition, as discussed in the response to Question 4.8a, SDG&E will implement a HMBP and SPCC Plan, as required by law, to prevent or address any accidental release of hazardous materials. As such, potential impacts from operation and maintenance of the proposed Vine Substation will be less than significant.

Question 4.8c – Hazardous Substances in Close Proximity to Schools

Construction – Less-than-Significant Impact

Schools within 0.25 mile of the Proposed Project are considered to be sensitive receptors. One school, the Montessori School of San Diego, is located approximately 0.25 mile southeast of the Proposed Project. The next nearest school is located approximately 0.7 mile to the north of the Proposed Project. As discussed in the response to Question 4.8a, impacts associated with hazardous material transport, use, or disposal during construction are considered to be less than significant. In addition, as discussed in the response to Question 4.8b, impacts associated with reasonably foreseeable upset and accident conditions are considered to be less than significant due to the implementation of an SPCC and the maintenance of spill kits by substation personnel. In addition, as discussed in the response to Question 4.8b, a Health and Safety Plan will be prepared to guide construction workers on how to properly manage any contamination discovery and a project-specific Hazardous Materials and Waste Management Plan, as described in APM-HAZ-01, will be implemented. Therefore, construction of the Proposed Project is not expected to cause a significant health or environmental hazard, and potential impacts from the use of hazardous substances within proximity to schools will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

As discussed in the response to Question 4.8a, the use of hazardous materials during operation and maintenance will generally be considerably less than during construction. Hazardous chemicals used will be transported to and removed from the Proposed Project site by maintenance personnel, rather than stored onsite, and therefore will not cause significant health or environmental hazards. In addition, the installation of the oil-retention basins and implementation of a SPCC Plan, as required by law, will ensure that any hazardous materials leak or spill at the proposed Vine Substation will be fully contained and appropriately controlled during operation. Therefore, potential impacts from the use of hazardous substances within proximity to schools during operation and maintenance will be considered less than significant.

Question 4.8d – Existing Hazardous Materials Sites Listed in Government Code Section 65962.5

Construction – No Impact

Construction of the Proposed Project will not result in any impacts related to known hazardous materials sites listed in Government Code § 65962.5, as no known hazardous sites have been identified on the Proposed Project site or on adjacent lands. Although two open sites with past or current hazardous materials cases were identified within 0.25 mile of the Proposed Project, they do not pose significant risk to the Proposed Project due to their localized nature, present regulatory status, and lack of violations reported. Furthermore, the sites are located down gradient or cross gradient with ground water flow, generally in a south to southwest direction away from Proposed Project site. No hazardous materials have been identified on the Proposed Project site; however, there is potential for contamination due to the site's previous use as a gas station. As discussed in the responses to Questions 4.8b and 4.8c, a Health and Safety Plan will be prepared and implemented in the case of contamination discovery. In addition, the groundwater table is at a sufficient depth such that encountering groundwater during excavation activities is not anticipated. A SPCC Plan, BMPs, and APM-HAZ-01 will also be implemented during construction. As a result, impacts will be less than significant.

Operation and Maintenance – No Impact

Long-term operation and maintenance activities will not result in significant impacts, as no known existing hazardous materials or contamination sites listed in Government Code § 65962.5 are located on site. As previously mentioned, two open sites with past or current hazardous materials cases exist within 0.25 mile of the Proposed Project, but do not pose significant risk to the Proposed Project. Future maintenance activities for the proposed Vine Substation will primarily occur on above-grade structures, thereby minimizing the potential for the uncovering of existing, unknown hazardous materials sites during such activities. Therefore, no impacts will occur.

Although the distribution and telecommunication system components will be installed underground, once construction is complete, operation and maintenance activities will not further disturb underlying surfaces or require activities with the potential to encounter unknown hazardous materials sites. As such, no impacts will occur.

Question 4.8e – Public Airport Hazards – *Less-than-Significant Impact*

The Proposed Project site is located approximately 0.75 mile from the SDIA. The Proposed Project will be designed and constructed in accordance with the noise, safety, airspace protection, and overflight policies and standards described in the SDIA ALUCP, which were designed to prevent new structures from becoming hazards to air navigation. Per the SDIA ALUCP, structures that are 200 feet above ground level will require coordination with the Federal Aviation Administration (FAA).

Per the SDIA ALUCP requirements, coordination with the FAA is required prior to construction of the Proposed Project due to its proximity to SDIA. Because the 69 kV steel poles—which will reach approximately 100 feet high and are located within one mile from the airport—will exceed the one-to-100 ratio required by 14 CFR § 77.9 for airspace and navigation, SDG&E will consult with the FAA. The FAA will conduct an obstruction evaluation, for which the resulting requirements will be implemented by SDG&E. Because the SDG&E will comply with FAA requirements should an airport obstruction be identified, impacts to public airports will be less than significant.

Question 4.8f – Private Airstrip Hazards – *No Impact*

No components of the Proposed Project are located within two miles of a private airstrip and, therefore, will not affect or disrupt existing operations or worker safety at such a facility. As a result, no impact will occur.

Question 4.8g – Emergency Evacuation and Response Plan Interference – *Less-than-Significant Impact*

Construction – Less-than-Significant Impact

No conflicts with public safety or emergency response and evacuation plans have been identified for construction or operation of the proposed Vine Substation. The majority of construction equipment, vehicles, personnel, and material staging areas will be accommodated within the property lines of the proposed Vine Substation site. Equipment staging will also occur at other existing SDG&E facilities. Temporary parking of limited construction-related vehicles along Vine Street may be required depending on actual construction activities occurring at the proposed Vine Substation site. Emergency access will not be affected during construction, as all streets will remain open to emergency vehicles at all times.

The 12 kV distribution relocation, 69 kV loop-in, and telecommunication system extension will be constructed within public roadways. As part of the 12 kV distribution relocation, underground duct banks will be constructed within Kettner Boulevard between West Laurel Street and the proposed Vine Substation. Three existing duct banks will also be utilized: within Pacific Highway between West Hawthorn Street and West Laurel Street; West Laurel Street between Pacific Highway and Kettner Boulevard; and Kettner Boulevard between West Hawthorn Street and West Laurel Street. The telecommunication system extension will use the same right-of-way (ROW) as the distribution conduits.

As described in detail in Section 4.16 Transportation and Traffic, temporary land and/or road closures will be necessary during some construction activities to provide safety to the public and

workers within public areas and roadways. In addition, some roads may be temporarily limited to one-way traffic at times, in which case one-way traffic controls will be implemented as required. Road closures and encroachment into public roadways could increase hazards if the appropriate safety measures are not in place, such as proper signage, orange cones, and flaggers. However, SDG&E will obtain the required encroachment permits from the City of San Diego and implement traffic control measures accordingly. In addition, construction within the road may be limited to nighttime hours to avoid traffic impacts during peak hours, and emergency vehicles will be provided access during the temporary road and/or lane closures. Therefore, emergency access will not be directly impacted during construction. In addition, in the event of an emergency requiring evacuation, SDG&E will ensure that all potential routes are open and accessible for public use by limiting trenching activities to approximately 500 linear feet per day within a single lane of traffic. As a result, any potential impacts during construction will be less than significant.

Operation and Maintenance – No Impact

Operation and maintenance of the proposed Vine Substation will not require any road or lane closures and, therefore, will not interfere with any emergency vehicle or evacuation routes. Maintenance of the 12 kV distribution relocation and telecommunication system extension may require temporary lane closures, but are expected to be short in duration and will not deviate from the maintenance of existing distribution and telecommunication system alignments in the area. In addition, all required traffic control measures will be implemented accordingly, and emergency vehicles will be provided access during potential road and lane closures caused by maintenance activities. Therefore, no impact will occur during operation and maintenance.

Question 4.8h – Wildland Fires – *No Impact*

The Proposed Project site will be located in an urban area with little to no vegetation on site. As previously discussed, the Proposed Project site is not located in a wildland fire hazard area. In addition, the mechanical and structural design and construction of the new 69 kV power lines must meet the requirements of the California Public Utilities Commission (CPUC) General Order No. 95 (GO 95), Rules for Overhead Electric Line Construction. Although energized conductors can create potential for a fire hazard, SDG&E takes into account normal and unusual structural loading in its designs under GO 95 to prevent these fire hazards. Therefore, no impact will occur.

4.8.4 Applicant-Proposed Measures

The following measure is provided to ensure that impacts remain at a less-than-significant level:

- APM-HAZ-01: Prior to approval of the final construction plans for the Proposed Project, a project-specific Hazardous Materials and Waste Management Plan will be prepared for the construction phase of the Proposed Project to ensure compliance with all applicable federal, state, and local regulations. The Hazardous Materials and Waste Management Plan will reduce or avoid the use of potentially hazardous materials for the purposes of worker safety, protection from groundwater contamination, and proper disposal of hazardous materials. The plan will include the following information related to hazardous materials and waste, as applicable:

  - A list of the hazardous materials that will be present on site during construction, including information regarding their storage, use, and transportation;

  - Procedures for the identification of and avoidance of contaminated materials;

  - Any secondary containment and countermeasures that will be required for onsite hazardous materials, as well as the required responses for different quantities of potential spills;

  - A list of spill response materials and the locations of such materials at the Proposed Project site during construction;

  - A list of the adequate safety and fire suppression devices for construction activities involving toxic, flammable, or exposure materials;

  - A description of the waste-specific management and disposal procedures that will be conducted for any hazardous materials that will be used or are discovered during construction of the Proposed Project; and

  - A description of the waste minimization procedures to be implemented during construction of the Proposed Project.

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ATTACHMENT 4.8-A: PHASE I ENVIRONMENTAL SITE ASSESSMENT

Prepared for

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Phase I Environmental Site Assessment

Proposed Vine Substation
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Geosyntec Project Number SC0368-34

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1 INTRODUCTION

This report documents the results of the Phase I Environmental Site Assessment (ESA) performed by Geosyntec Consultants (Geosyntec) for the Proposed Vine Substation Property located at 3550 Kettner Boulevard, San Diego, California (Figure 1; the Site). The Site includes one parcel of land identified by the San Diego County Assessor's Office as Parcel Number 451-690-1800 comprising approximately 1.5 acres (Figure 2). This Phase I ESA was prepared in accordance with the scope of work, terms and conditions described in Geosyntec's proposal dated 21 March 2014. This report incorporates, by reference, the American Society of Testing and Materials (ASTM) Standard E 1527-13, "Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process." Exceptions and limitations are provided in Section 1.5 of this report. Geosyntec performed the Phase I ESA for the sole use of its client, San Diego Gas & Electric (SDG&E).

1.1 Purpose

The purpose of this Phase I ESA was to identify, to the extent feasible, "Recognized Environmental Conditions[1]" (RECs) at the Site as the "REC" term is defined by ASTM E 1527-13. This REC definition eliminates from consideration several conditions that could fall under the general definition of "environmental issues" and focuses on known or potential releases of hazardous substances and petroleum products. In addition to this general limitation, specific conditions that were not considered to be within the scope of this Phase I ESA are identified in Section 1.5 of this report. Geosyntec understands this Phase I ESA was prepared to help identify potential environmental liabilities associated with the Site prior to redevelopment as an electrical substation.

1.2 Site Description

The Site is approximately rectangular in shape, comprising approximately 1.5 acres, located on the corner southwest of Kettner Boulevard and southeast of Vine Street (Figure 2). The Site can be accessed by a gate along Vine Street.

1.2.1 Site Characteristics

The Site is currently occupied by a Park 'N Fly Airport Parking lot. The Site is surrounded by a chain link fence, and paved with asphalt. The Site includes approximately 220 parking stalls, a guard shack, and a wooden storage shed (Figure 3).

[1] As defined by ASTM E 1527-13, a Recognized Environmental Condition is: "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

1.2.2 Surrounding Land Uses

Northwest of the Site across Vine Street is a commercial property occupied by Rush Press, and across California Street is a parking lot partially used for rental car parking (Honeywell property); northeast of the Site across Kettner Boulevard, Interstate-5 Freeway corridor, and India Street are a gasoline service station, commercial properties, and a residence; southeast of the Site is a vacant rental car facility including a car wash, fueling area, and parking lot; and southwest of the Site across a railroad corridor and Pacific Highway are parking lots (Figure 2).

1.3 Geologic and Hydrogeologic Summary

The Site lies at an approximate elevation of 40 feet above mean sea level. Based on a review of available geologic maps, the Site is located on the seaward edge of a Pleistocene marine terrace; however, just west of the Site boundary is a man-made plain comprised of hydraulic fill [Kennedy and Tan, 2005]. The Site is located within the Newport-Inglewood-Rose Canyon Fault Zone, which consists of right-lateral strike-slip faults, some segments of which have been active in Recent time [Lindvall and Rockwell, 1995].

Soil borings advanced at the Site by Geosyntec during a previous geotechnical evaluation indicated Site soil consists of interbedded silty sand, sand, silt, and clay to the maximum depth explored of 100 feet below ground surface (bgs) [Geosyntec, 2013]. Groundwater was encountered at approximately 25 feet bgs. During drilling activities, soil was screened with a photoionization detector (PID) for the presence of volatile constituents; however, no measurable concentrations were detected.

The Site is located within the Lindbergh Hydrologic Subarea of the San Diego Mesa Hydrologic Area of the Pueblo San Diego Hydrologic Unit (908.21). Beneficial use designations do not apply for groundwater in the San Diego Mesa Hydrologic Area west of the Interstate Highway 5 [RWQCB, 2007]. Therefore, no existing or potential beneficial uses are designated for groundwater beneath the Site.

Based on a groundwater monitoring report for a former Honeywell property located approximately 350 feet northwest of the Site, shallow groundwater in the Site vicinity is encountered at depths of approximately 20 feet bgs and generally flows to the south-southwest at an average hydraulic gradient of 0.005 ft/ft [CH2MHILL, 2008]. Groundwater is likely brackish to saline due to salt water intrusion from San Diego Bay.

1.4 Scope of Services

Geosyntec was authorized on 21 March 2014 by Ms. Barbara Montgomery of SDG&E to complete a Phase I ESA of the Site. The scope of services included the following:

- Searching standard local, state, and federal environmental record sources within recommended ASTM search distances;

- Reviewing available physiographic information including topographic, geologic, and hydrogeologic information;
- Reviewing historical aerial photographs;
- Reviewing historical fire insurance maps;
- Performing a Site reconnaissance;
- Conducting an interview with the Site manager; and
- Documenting the procedures, findings, opinions, and conclusions of the Phase I ESA in this report.

This work was completed in general accordance with ASTM Practice E 1527-13 with the limitations and exceptions described in Section 1.5 of this report. For the purposes of this Phase I ESA report, SDG&E represents the "user," defined as "the party seeking to use Practice E 1527-13 to complete an *environmental site assessment* of the *property*…"

This ESA report was prepared by Mr. Douglas Baumwirt, PG and reviewed by Mr. Veryl Wittig, PG ("environmental professionals", as defined under the ASTM Practice E 1527-13) of Geosyntec, in accordance with the peer review policy of the firm. Mr. Baumwirt's professional qualifications are presented in Appendix A.

1.5 Limitations and Exceptions

This Phase I ESA was performed according to the agreed upon scope of work with SDG&E. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the Site, and recognizes reasonable limits of time and cost. Not every property warrants the same level of assessment. Consistent with good commercial or customary practice, the appropriate level of assessment was guided by the type of property subject to assessment and the information developed in the course of the inquiry.

Additional services considered optional by ASTM E 1527-13, such as asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, biological agents, mold, and high voltage power lines, were not included in the scope of work.

The findings and conclusions presented in this Phase I ESA are the result of professional interpretation of the information collected at the time of this study. This Phase I ESA was not an exhaustive search of all available records, nor does it include detailed assessment of all Phase I ESA findings. Geosyntec cannot "certify" or guarantee that any property is free of environmental impairment; no warranties regarding the environmental quality of the property are expressed or implied.

This Phase I ESA did not include the sampling of rock, soil, groundwater, surface water, soil vapor, air, or on-Site substances or materials. Therefore, it is not possible to confirm the presence or absence of hazardous substances or petroleum products in the environments associated with the property.

The findings of this report, to the best of our knowledge, are valid as of the date of this work. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate regulations and standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

Specified information contained in this report has been obtained from publicly available sources and other secondary sources of information. Although care has been taken in compiling this information, Geosyntec disclaims any and all liability for any errors, omissions, or inaccuracies of the third parties in such information and data.

The work was performed using the degree of care and skill ordinarily exercised under similar circumstances by environmental consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the findings, opinions, conclusions, and recommendations included in this report.

1.6 User Reliance

This Phase I ESA report has been prepared solely for the benefit of SDG&E. Geosyntec has issued the Phase I ESA report to its client and grants SDG&E the right to rely on the report contents. Except as specifically set forth in Geosyntec's proposal to SDG&E to perform this work, no third party shall have the right to rely on Geosyntec's opinions rendered in connection with the Services without SDG&E's approval and Geosyntec's written consent which may be conditioned on the third party's agreement to be bound to acceptable conditions and limitations similar to this Agreement.

2 USER PROVIDED INFORMATION

In accordance with ASTM E 1527-13, Geosyntec requested that the user of the Phase I ESA provide information that would assist in identifying the possibility of RECs in connection with the subject property, including but not limited to:

- Reviewing title and judicial records for environmental liens or activity and use limitations recorded against the subject property;
- Communicating specialized knowledge or experience that is material to RECs in connection with the subject property;
- Providing information about previous ownership or uses of the property;
- Providing information on a significantly lower purchase price, if applicable; and
- Designating personnel who are the most knowledgeable at the Site that will be interviewed by Geosyntec personnel.

2.1 Title Records

The user did not provide title records for the Site.

2.2 Environmental Liens

The user did not report any environmental liens against the property.

2.3 Specialized Knowledge

The user did not provide specialized knowledge regarding the Site pertinent to recognized environmental conditions. However, SDG&E provided a summary of prior database findings for the Site vicinity (Appendix B).

2.4 Commonly Known or Reasonably Ascertainable Information

The user did not provide any commonly known or reasonably ascertainable information material to RECs in connection with the property.

2.5 Valuation Reduction for Environmental Issues

The user did not report property valuation information for the Site; however, Geosyntec understands that SDG&E has owned the Site since at least 1980.

2.6 Owner, Property Manager, and Occupant Information

Geosyntec interviewed Ms. Patty Glass, the SDG&E Corporate Real Estate Agent for the Site (Section 4.1).

2.7 Reason for Performing Phase I ESA

Geosyntec understands that SDG&E has requested this Phase I ESA as part of pending redevelopment of the Site as an electrical substation.

3 RECORDS REVIEW

3.1 General

The following sections present the results of the environmental database search, review of reasonably ascertainable historical aerial photographs, topographic maps, fire insurance maps, and city directories.

3.2 Database Search Report

The database search report was obtained from Environmental Data Resources, Inc. (EDR) (Appendix C). The report documents findings of various federal, state, and local regulatory database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons. The searches were performed according to ASTM standards for Phase I ESA database searches. A list and description of the databases searched are included within the EDR report.

3.2.1 Site

The Site was identified with in the EDR US Historical Auto Stations database as a gasoline and oil service station in 1927, 1930, 1933, and 1943. Additionally, the Site may also be listed with the address of 3526 Kettner Boulevard as a historical gasoline station in 1970.

3.2.2 Adjoining Properties

Numerous properties adjoining the Site were identified in the databases searched by EDR. Several historical auto stations were formerly located along Pacific Highway southwest of the Site and along India Street northeast of the Site, including a Chevron located at 3535 India Street (approximately 350 feet northeast of the Site across Kettner Blvd., Interstate-5, and India Street) which has had a documented release of gasoline from an underground storage tank (UST) to groundwater upgradient of the Site. The rental car facility southeast of the Site formerly contained several gasoline, diesel fuel, and waste oil USTs; and several small quantity generators of hazardous wastes were located northwest of the Site. However, the most notable adjoining property is the former Baron-Blakeslee facility (currently referred to as Honeywell, Inc., the existing responsible party) which adjoins the Site to the northwest across Vine and California Streets (approximately 250 feet northwest). The Honeywell facility is listed as a former transportation, storage, and disposal facility that included aboveground storage tanks (ASTs) and USTs that resulted in the release of chlorinated solvents and other hazardous substances to soil and groundwater. Remediation is ongoing with regulatory oversight from the California Department of Toxic Substances Control (DTSC).

Based on the regulatory database listings identified by EDR, and the nature of activities associated with former and current occupants of properties adjoining the Site, it is likely that soil, groundwater, and/or soil vapor at the Site have been impacted by hazardous substances or petroleum products.

3.2.3 Properties within ½-Mile of the Site

Numerous properties within ½ mile of the Site were identified with releases of hazardous substances or petroleum products. Topographic and hydraulically upgradient or cross-gradient properties include several gasoline service stations, automotive repair facilities, rental car facilities, and drycleaners. Notable downgradient facilities include various aerospace manufacturing facilities and airport fueling facilities. Based on the regulatory database listings identified by EDR, the nature of activities associated with these facilities, and the number of facilities identified within ½ mile of the Site, it is likely that some of these properties have adversely impacted soil, groundwater, and/or soil vapor at the Site with hazardous substances or petroleum products.

3.2.4 Properties within One Mile of the Site

Five properties within one mile of the Site were identified in RCRA CORRACTS or CERCLIS databases. The most notable listing is the Honeywell, Inc. (Baron-Blakeslee) facility which adjoins the Site to the northwest which is reportedly responsible for releases of chlorinated solvents and other hazardous substances to soil and groundwater in the Site vicinity. No other notable properties within one mile of the Site were identified by EDR in the Federal NPL site list, Federal RCRA CORRACTS facilities list, Department of Defense (DOD) Facilities list, or the state or tribal-equivalent NPL list.

3.2.5 Summary of Database Review

Based on a review of the database search report provided by EDR, the Site was previously occupied by at least one gasoline service station. Records indicate a gasoline service station was located at the Site during two separate intervals, from 1927 to 1943, and in 1970. No indications of a release from fuel tanks at the Site were noted.

The Site vicinity has been used extensively for industrial purposes since the early 1900s. Adjoining properties have been identified for releases of hazardous substances and petroleum products to soil and groundwater upgradient and cross-gradient from the Site. Based on the nature, proximity, and quantity of the facilities identified in the Site vicinity, it is possible that soil, groundwater, and/or soil vapor at the Site have been impacted by hazardous substances or petroleum products.

A review of the list of "orphan sites" identified by EDR in their database search suggests insufficient information is available to accurately plot the properties, or that based on the available information presented, the properties do not appear to be located near the Site.

3.3 Historical Aerial Photographs, Topographic Maps, and Sanborn Maps

Historical aerial photographs (aerials) from 1953 to 2012, USGS topographic (topos) maps for years 1904 to 1991, and Sanborn Maps (Sanborns) from 1921 to 1970 were received from EDR and are provided in Appendices D, E, and F, respectively. Geosyntec also reviewed aerials dated: 1953, 1964, 1972, 1980, 1981, 1989, 1990, 2003, and 2005 online at

www.historicaerials.com; from 1994, 1996, 1998, and 2000 through 2013 online with GoogleEarth; and viewed aerials from 1928 at the San Diego County, Department of Cartographic Services [HistoricAerials, 2014; GoogleEarth, 2014]. A summary of the aerials, Sanborns, and topos reviewed is included below.

- The oldest available topo indicates that a railroad corridor was present by 1904 near the existing railroad corridor which adjoins the Site to the southwest.

- The oldest available Sanborn from 1921 indicates the Site was vacant land with Kettner Boulevard, Vine Street, and the railroad corridor established along the Site boundaries. Additionally, Upas Street was present along the southeastern Site boundary. Sporadic dwellings are plotted on adjoining properties. The 1928 aerial indicated the Site was vacant land.

- The Sanborn from 1950 depicts a chemical warehouse on an adjoining property northwest of the Site across Vine/California Streets. By 1953, the Site was developed as a paved parking lot. Additionally, Upas Street no longer defined the southeastern Site boundary and terminated at Kettner Boulevard, and the new adjoining property to the southeast appeared to be used for residential dwellings. Southwest of the Site, Pacific Highway (Hwy 101) was present and significant hydraulic filling had occurred in the northeast portion of San Diego Bay for Lindbergh Field Municipal Airport and industrial structures. By 1956, the first of several adjoining printing facilities was present north of the Site.

- By 1966 construction of the Interstate-5 Freeway was in progress adjoining northeast of the Site, and by 1967, a gas and oil service station was plotted northeast of the Site, northeast of the intersection of Vine Street and India Street, and a used building materials facility was present adjoining the Site to the southeast.

- By 1969 a gasoline filling station was present on the northern portion of the Site.

- By 1970 the gasoline filling station was present northeast of the Site along India Street (350 feet northeast).

- By 1975, the Site was vacant. The northern portion of the Site formerly occupied by the gas station appeared to be unpaved, and the remaining portion of the Site appeared paved.

- By 1980 the Site was used as a parking lot similar to its current configuration.

- By 2009, the adjoining chemical warehouse facility (Honeywell/Baron-Blakeslee) located approximately 250 feet northwest of the Site had been redeveloped as a parking lot, and by 2010 was used as a rental car facility similar to present.

3.4 City Directories

City Directories were searched by EDR for selected years from 1903 to 2013 to assess occupancy at the Site and adjoining properties (Appendix G). The Site address (3550 Kettner) was identified in the city directory listings from 1927 through 1945 as gasoline service station, and from 1980 through 2013 as the Park 'N Ride. The Site appears to also formerly have been associated with the address 3526 Kettner Boulevard which included a Shell Service Station in 1970.

Notable adjoining properties included the following:

- Battery manufacturing facility (San Diego Lead Products and T. Frank Battery Manufacturing) northwest of the Site across Vine Street (3449 California St.) from 1933 through 1952;

- Chemical manufacturing/recycling facility (Bateman Chemical and Baron-Blakeslee, now Honeywell, Inc.) 250 feet northwest of the Site (3596 California St.) from 1952 to 2008;

- Car rental facility (Hertz) southeast of the Site (3420 Kettner Blvd.) from 1991-2013; previously occupied by a lumber and supply company beginning in 1955;

- Gasoline service station (Chevron) northeast of the Site across Kettner Blvd., Interstate-5, and India St. (3535 India St.) from 1975 through 2013; and

- Auto repair facility (Jeff's Garage) northeast of the Site (3515 Kettner Blvd.) in 1961.

3.5 Local Regulatory Agencies

Geosyntec contacted the following federal, state, and local agencies and accessed associated online databases to identify information pertaining to the Site and applicable adjoining properties. Documents received from the agencies are provided in Appendix B:

- United States Environmental Protection Agency (USEPA) and MyPropertyInfo Database;
- DTSC and EnviroStor Database;
- California Department of Oil, Gas, and Geothermal Resources (DOGGR) Database;
- San Diego Regional Water Quality Control Board (RWQCB);
- State Water Resource Control Board (SWRCB) GeoTracker Database;
- San Diego Air Pollution Control District (APCD);
- San Diego Department of Environmental Health;
- San Diego Building Department;
- San Diego Fire Department; and

- San Diego Industrial Wastewater Control Program.

No evidence of RECs at the Site was identified in files and correspondence received from the above-referenced agencies. However, review of documents reviewed in above-referenced publically-accessible online databases did identify facilities in the Site vicinity that have been documented with releases of hazardous substances and petroleum products to the subsurface that may have impacted the Site. Pertinent documents relating to the adjoining facilities are provided in Appendix B.

The most notable facility identified is the Honeywell International, Inc. (former Baron-Blakeslee facility) which adjoins the Site to the northwest across Vine and California Streets (Figure 2). Based on review of files obtained from the SWRCB's GeoTracker database and DTSC's EnviroStor database, the former Baron-Blakeslee facility was initially operated as a chemical manufacturing facility (1952-1969) and was later converted to a hazardous chemical recycling/disposal facility (1969-1993), including chlorinated and fluorinated solvents. Following cease of operations at the facility in 1993, several investigations were performed at the facility under regulation of the DTSC which identified significant concentrations of chlorinated hydrocarbons in soil, groundwater, and soil vapor at that property, including concentrations indicative of dense non-aqueous phase liquid. Based on reported soil vapor concentrations, a land use covenant was established to restrict the Honeywell property from use as a residence, hospital, school, or other sensitive land uses.

Based on the Site's designation with non-beneficial groundwater uses, many cases listed nearby the Site have been closed with residual impacts in place. Three closed leaking UST facilities (3625, 3585, and 3535 India Street) are located upgradient of the Site within ¼ mile.

As of the date of this report, responses have not been received from the Fire Department or APCD. If files are received after finalization of this report which change the conclusions herein, an addendum will be prepared.

3.6 Previous Site Assessment Reports

No previous environmental site assessment reports were identified for the Site; however, a prior preliminary geotechnical and geologic hazards report prepared for the Site by Geosyntec in 2013 was reviewed for indications of environmental impacts at the Site [Geosyntec, 2013]. The previous geotechnical evaluation at the Site included five soil borings and referenced prior test pits advanced at the Site (including two soil borings and one test pit located within the footprint of the former gasoline station at the Site). The report indicated that a former gasoline station may have been present at the Site; therefore, soil was screened in the field with a PID during advancement of soil borings to evaluate organic vapors in the soil; however, no soil samples were retained for environmental laboratory analysis. The report indicated that no measurable concentrations of organic vapors were detected in soil screened at the Site. In addition to the soil screening, the report noted no obvious indications of impacts at the Site.

4 INTERVIEWS

4.1 Interview of Property Owner

On 4 April 2014 Geosyntec interviewed Ms. Patty Glass, SDG&E Corporate Real Estate Agent. During the interview, questions were asked regarding Site use and conditions, typical of a Phase I ESA interview in accordance with ASTM E 1527-13.

Ms. Glass indicated that she has been affiliated with the Site since August 2013, but that SDG&E purchased the Site in 1976 with the intent to build a substation at the Site in the future. Based on her knowledge, the Site was vacant land at the time of purchase and has been leased to various parking lot operators since then. Ms. Glass indicated that the existing lease with Park 'N Ride for the Site will be terminated on 1 March 2015.

When asked about the presence of hazardous substances or petroleum products, tanks, drums, wells, or drains at the property, Ms. Glass indicated that the she is not aware of any, and that the list specifically prohibits the storage or use of hazardous materials at the Site.

Ms. Glass reported that she had no knowledge of spills, leaks, or environmental incidents associated with the property.

4.2 Interview of State and/or Local Officials

No case managers were identified at any of the regulatory agencies which may have had files related to the Site; therefore, interview of regulatory personnel was not performed.

5 SUMMARY OF SITE RECONNAISSANCE

5.1 Methodology

The following section summarizes observations made during the Site reconnaissance performed by Mr. Douglas Baumwirt, PG of Geosyntec, on 28 March 2014. The Site reconnaissance included a walking survey of the Site. The adjoining properties were inspected by driving on public roads. Figure 2 depicts the Site vicinity and features as identified during the Site reconnaissance. Photographs taken during the Site reconnaissance are included in Appendix H.

5.2 Reconnaissance Observations

A summary of the reconnaissance observations is provided in Table 1.

6 SUMMARY OF FINDINGS

Geosyntec performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the proposed Vine Substation property located at 3550 Kettner Boulevard, San Diego, California. This assessment revealed the following:

6.1 Site Conditions and Use

The Site is approximately rectangular in shape, comprises approximately 1.5 acres, and is located on the corner southwest of Kettner Boulevard and southeast of Vine Street (Figures 1 and 2). The Site can be accessed by a gate along Vine Street. The Site is currently occupied by a Park 'N Fly Airport Parking lot. The Site is surrounded by a chain link fence and paved with asphalt. The Site includes approximately 220 parking stalls, a guard shack, and a wooden storage shed (Figure 3).

6.2 Offsite Conditions and Use

Northwest of the Site across Vine Street is a commercial property occupied by Rush Press (formerly occupied by a battery manufacturing facility) and a vacant lot formerly occupied by Honeywell (formerly Baron-Blakeslee hazardous waste recycling/disposal facility); northeast of the Site across Kettner Boulevard, Interstate-5 Freeway corridor, and India Street are a gasoline service station, commercial properties, and a residence; southeast of the Site is a vacant rental car facility including a car wash, fueling area, and parking lot; and southwest of the Site across a railroad corridor and Pacific Highway are parking lots (Figure 2).

The Site is located in an area used extensively for industrial purposes since the early 1900s, including aerospace manufacturing facilities, airport support facilities, chemical manufacturing, automotive fueling and service stations, drycleaners, and other commercial and residential properties.

6.3 Data Gaps

Based upon the available information, it is believed that data gaps exist but have not affected the identification of RECs at the Site. Following a thorough investigation, it appears that "data gaps" as defined by ASTM, exist for the Site as follows:

- Responses to file review requests for the Site have not been received from each agency.
- A discrepancy exists between data sources regarding the earliest use of the Site as a gasoline service station. Historic city directories indicate the Site included a service station as early as 1927; but physiographic sources do not confirm the existence of a service station at the Site during that time period. However, sources agree that a service station was present at the Site beginning in 1969. Therefore, this discrepancy does not represent data failure and has not precluded the identification of RECs at the Site for the former presence of a service station.

- Pertinent regulatory agencies (RWQCB and DEH) reported that documents pertaining to the onsite service station(s) and the nature and removal of fuel tanks at the Site do not exist. However, based on the time period the former service station(s) at the Site has been classified as a REC. Therefore, the lack of documentation regarding fuel tanks at the Site has not precluded the identification of RECs at the Site.

6.4 Recognized Environmental Conditions

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Site which encompasses approximately 1.5 acres located at 3550 Kettner Boulevard, San Diego, California. Any exceptions to, or deletions from, this practice are described in Section 6.3 Data Gaps of this report. This assessment has revealed no evidence of Recognized Environmental Conditions, Controlled Recognized Environmental Conditions, or Historical Recognized Conditions in connection with the property, with the following exceptions:

Recognized Environmental Conditions

- The Site was formerly used as a gasoline service station and automotive repair facility. Although documentation regarding removal of fuel tanks from the Site has not been identified, based on the time period of operation of the former service station and repair facility at the Site, the possibility exists for a release of petroleum products to have occurred at the Site. However, geotechnical soil borings advanced at the Site did not identify obvious impacts or the presence of existing USTs at the Site. Therefore, the magnitude of the possible release is likely insignificant.
- An adjoining parcel located approximately 250 feet northwest of the Site across Vine and California Streets formerly contained a chemical manufacturing facility and hazardous waste disposal/recycling facility (Honeywell/formerly Baron-Blakeslee). Chlorinated hydrocarbons and other hazardous substances have been released to soil and groundwater from the former facility. Based on available groundwater analytical data, the potential exists for the release to have impacted groundwater or soil vapor at the Site with diluted concentrations of volatile organic compounds. This case remains open with the DTSC, but a land use restriction covenant for the Honeywell facility indicates the property, as remediated to date, is acceptable for use as a non-occupied property with restricted uses. Therefore, this adjoining facility does not appear to present a significant risk to the proposed future Site use as an electrical substation.
- Based on the Site vicinity history and presence of several additional facilities in the Site vicinity (including a battery manufacturing facility, aerospace manufacturing facilities, drycleaners, paint shops, and other facilities documented to handle hazardous materials and petroleum products), it is possible that releases from these facilities have migrated in groundwater or soil vapor to the Site.

Historical Recognized Environmental Conditions

- Several documented releases of petroleum products from upgradient gasoline service stations may have impacted soil, groundwater, and/or soil vapor at the Site. However,

due to the non-beneficial groundwater use designation for the Site vicinity, these cases have been closed and do not appear to present a significant risk to the proposed future Site use as an electrical substation.

6.5 De Minimis Conditions

De minimis conditions are environmental conditions which generally do not present a threat to human health or the environment and that generally would not be the subject of enforcement action if brought to the attention of the appropriate governmental agencies. Conditions determined to be *de minimis* are not RECs. *De minimis* conditions at the Site include:

- The existing railroad corridor present along the southwestern Site boundary has been present prior to 1904. Railroads are commonly associated with shallow soil impacts relating to heavy metals and wood preservatives. However, the railroad corridor is topographically downgradient from the Site, and no evidence of impacts to soil or groundwater from the railroad tracks near the Site was identified.

7 CERTIFICATION

This environmental site assessment (ESA) was prepared in accordance with the scope of work, terms and conditions described in Geosyntec's proposal dated 21 March 2014. This proposal incorporated by reference the ASTM Standard E 1527-13, *Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process*.

"I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312."

_____ 18 April 2014

Douglas Baumwirt Date
California Professional Geologist No. 8745

8 REFERENCES

ASTM Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2013.

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EDR, 2014. The EDR-Certified Sanborn Map Report, Inquiry No. 3889802.3. Environmental Data Resources, Inc., 24 March 2014.

EDR, 2014. The EDR-Historical Topographic Map Report, Inquiry No. 3889802.4. Environmental Data Resources, Inc., 24 March 2014.

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Geosyntec Consultants, 2013. Preliminary Geotechnical and Geologic Hazards Investigation, Vine Substation, San Diego, California. Prepared for SDG&E. December 2013.

GoogleEarth, 2014. GoogleEarthPro, 3550 Kettner Boulevard, San Diego, CA. Accessed 25 March 2014.

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Kennedy, M.P. and S.S., Tan, 2005. Geologic Map of the San Diego 30' x 60' Quadrangle, California. California Geological Survey Regional Geologic Map No. 3, scale 1:100,000.

Lindvall, S.C., and Rockwell, T.K., 1995. Holocene Activity of the Rose Canyon Fault Zone in San Diego, California. Journal of Geophysical Research, volume 100, No. B12, pp. 24, 121-124, 132. 10 December.

RWQCB, San Diego Region, 2007. *Water Quality Control Plan for the San Diego Basin (9)*, Dated 8 September 1994, with amendments adopted through 25 April 2007.

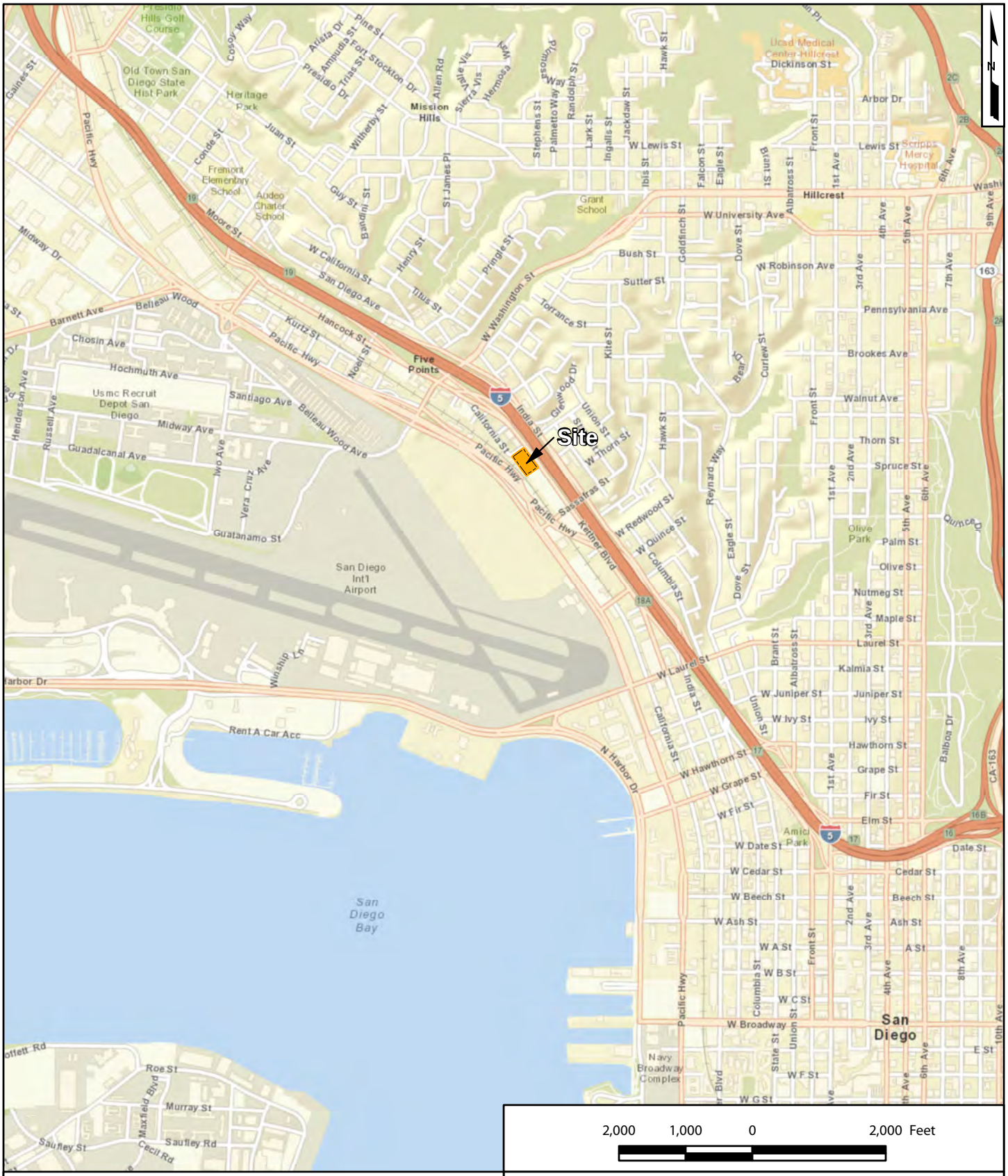
TABLES

Table 1
Summary of Site Reconnaissance
Proposed Street Substation
San Diego, California

Geosyntec consultants

ASTM Section	Feature or Condition	Description
General Site Setting		
9.4.1.1 & 9.4.1.2	Current and Former Property Usage	The Site is currently used as a parking lot, including a guard shack. Previous Site usage included a gasoline service station.
9.4.1.3 & 9.4.1.4	Current and Former Adjoining Property Usage	The adjoining property to the south is vacant, but was formerly used as a rental car facility, and currently include the car wash and gasoline AST. Adjoining property to the west is a railroad corridor followed by commercial properties including a termite and pest control facility, Pacific Highway, and parking lots. Adjoining property to the north across Vine Street is a commercial building occupied by Rush Press. A former solvent recycling facility (Barron-Blakeslee) formerly occupied a vacant area across Vine Street northwest of the Site. East of the Site across Kettner Blvd is the Interstate-5 Freeway corridor followed by India Street and a gasoline service station.
9.4.1.5	Current and Former Use of Surrounding Area	The Site vicinity is currently used for a mix of commercial, and industrial activities. The area formerly including various additional industrial facilities and residential properties.
9.4.1.6	Geology, Hydrogeology, Hydrology, Topography of Site and Adjoining Properties	The Site is located on fill, colluvium, and old paralic deposits of silts, sands, and cobbles. The Site slopes gently toward the southwest toward the railroad corridor. Groundwater is approximately 25 feet below the ground surface, and flows toward the south.
9.4.1.7	Onsite Structures	Two structures were observed onsite, a guard shack at the entrance, and a wooden shed in the northwest corner of the Site.
9.4.1.8	Roads and Parking Areas	The Site is a parking lot, paved with asphalt.
9.4.1.9	Potable Water supply	A water source was not observed onsite.
9.4.1.10 & 9.4.4.7	Sewage Disposal or Septic Systems	Sewage or septic systems were not observed onsite.
Interior and Exterior Observations		
9.4.2.3 & 9.4.2.8	Hazardous Substances or Petroleum Products	No evidence of hazardous substances or petroleum products was observed onsite, except for small quantities contained within the cars parked onsite.
9.4.2.4	Underground Storage Tanks	No known USTs are currently present at the Site.
9.4.2.4	Above-ground Storage Tanks	No known ASTs are currently present at the Site; however, a gasoline AST was observed on the property adjoining southeast of the Site, approximately 25 feet from the Site boundary.
9.4.2.5	Odors	No suspicious odors were noted.
9.4.2.6	Pools of Liquids	No pools of liquid were observed onsite.
9.4.2.7	Drums and Containers > 5 Gallons	No drums or containers were observed onsite.
9.4.2.9	Unidentified Substances/Containers	No unidentified substances were observed onsite.
9.4.2.10	PCB Items	Evidence of PCB-containing items was not observed onsite.
Interior Observations		
9.4.3.1	Heating and Cooling Systems	No evidence of heating or cooling systems was observed onsite.
9.4.3.2	Stains/Corrosion	No interior staining was observed.
9.4.3.3	Drains and Sumps	No drains were observed onsite.
Exterior Observations		
9.4.4.1	Pits, Ponds, or Lagoons (Onsite and Adjoining)	No pits, ponds, or lagoons observed onsite.
9.4.4.2	Stained Soil or Pavement	Minor staining was observed on pavement in parking stalls at the Site, but none indicative of a significant release to the subsurface.
9.4.4.3	Stressed Vegetation	No stressed vegetation was observed at the Site.
9.4.4.4	Solid Waste	No evidence of solid waste disposal was observed onsite.
9.4.4.5	Wastewater or Stormwater Discharge	Surface water appears to flow southwesterly across the Site to a concrete swale along the Site boundary which conveys surface water to a storm drain.
9.4.4.6	Wells	No wells were observed at the Site.

FIGURES



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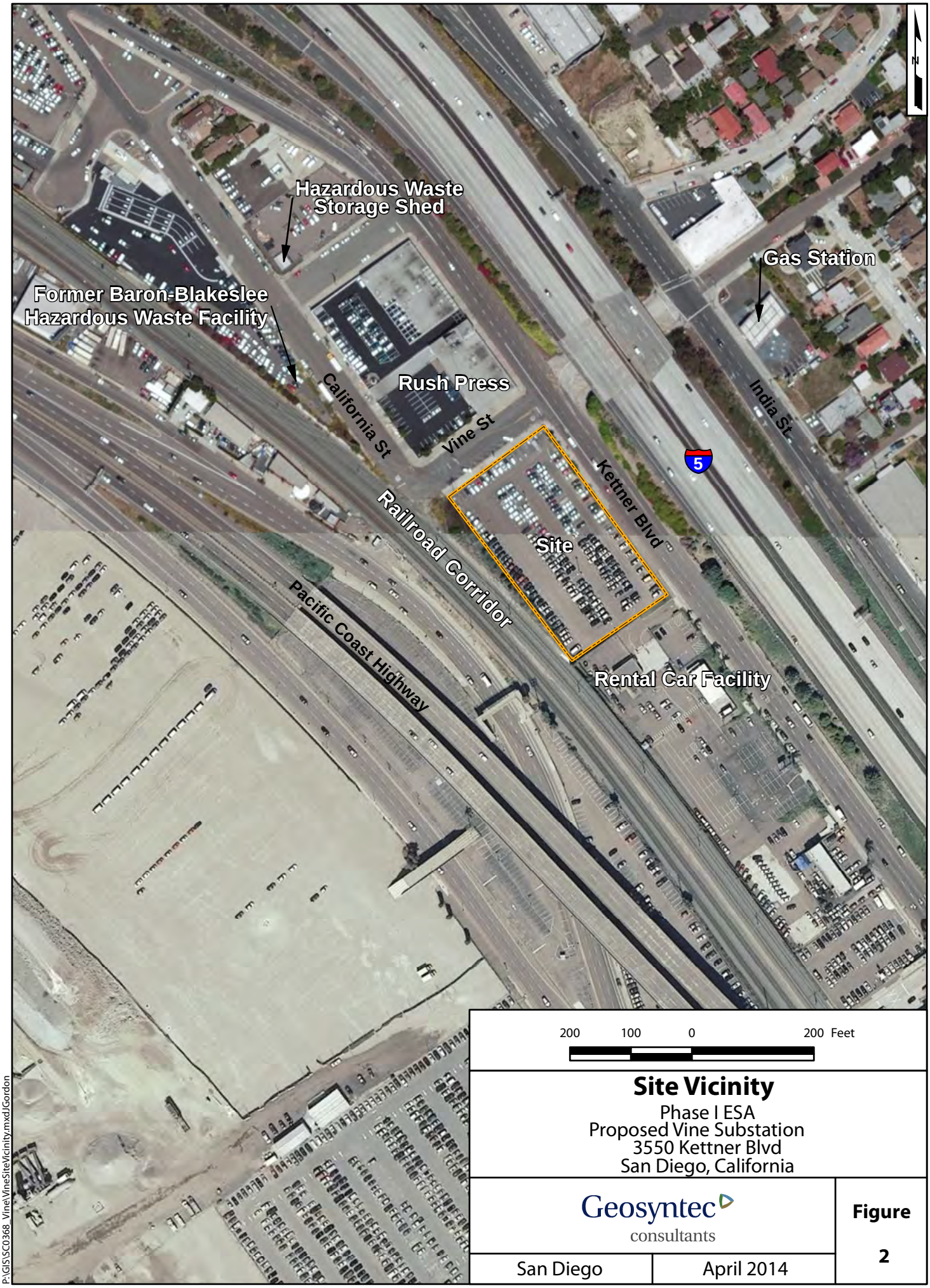
Site Location

Phase I ESA
Proposed Vine Substation
3550 Kettner Blvd
San Diego, California

Geosyntec consultants

San Diego	April 2014	Figure 1



Site Vicinity

Phase I ESA
Proposed Vine Substation
3550 Kettner Blvd
San Diego, California

Geosyntec consultants

San Diego	April 2014	Figure 2

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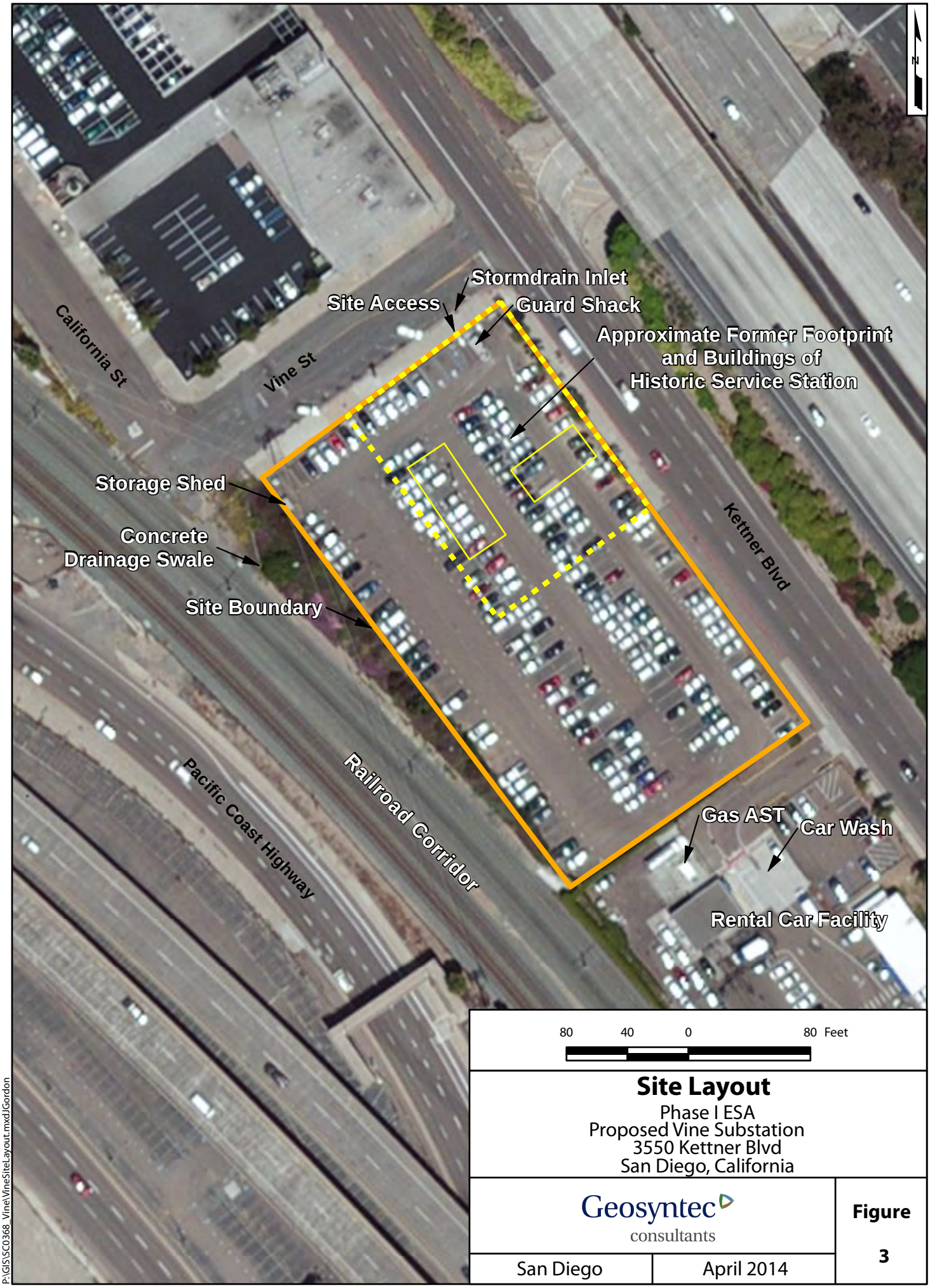

Site Layout

Phase I ESA
Proposed Vine Substation
3550 Kettner Blvd
San Diego, California

Geosyntec consultants

San Diego	April 2014	Figure 3

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APPENDIX A
Qualifications of the Environmental Professional

Geosyntec consultants

DOUGLAS J. BAUMWIRT, PG
Senior Geologist

Phase I Environmental Site Assessments
Phase II Site Characterization
Environmental Liability Valuation
Contaminated Site Mitigation/Remediation
Mineral Remoteness Evaluations
Hazardous Materials Management
Litigation Support
Project Management

CAREER SUMMARY

Mr. Baumwirt joined Geosyntec Consultants in 2005 after working in the legal and geotechnical consulting fields. Representative experience includes the performance of Phase I Environmental Site Assessments (ESAs); extensive work plan preparation and implementation; coordination and mobilization of diverse field activities; sample collection; statistical analyses; preparation of groundwater monitoring, phase II environmental site assessment, site conceptual model, and many other reports; and project management for a wide variety of projects and budgets. Mr. Baumwirt's diverse background and multidisciplinary professional experience enables him to provide innovative and valuable services to a broad range of project types.

Environmental Assessment and Due Diligence Services

Mr. Baumwirt has performed more than 100 Phase I ESAs throughout the United States in accordance with ASTM standards to evaluate the presence of Recognized Environmental Conditions (RECs) associated with the subject properties. The Phase I ESAs have involved a variety of property types and proposed usages, including:

- Large remote rural properties
- Petroleum distribution facilities/pipelines
- Large-scale linear projects (mixed uses)
- Pesticide manufacturing/distribution
- Concrete and asphalt production/distribution
- Large and small agricultural properties
- Commercial wholesale and retail facilities
- Biosolids processing and composting
- Electricity generating/transmission facilities
- Residential properties
- Industrial manufacturing facilities
- Aviation/aerospace manufacturing
- Rail and transit facilities
- Mines
- Schools
- Salvage yards
- Dry cleaners
- Service stations
- Landfills and burn dumps
- Former military installations

Based on the results of Phase I ESAs, additional due diligence services have included numerous Phase II site characterizations to assess potential impacts resulting from historical activities. Activities conducted include surface geophysical surveys; asbestos and lead-based surveys and abatement; soil, soil vapor, groundwater and surface water assessments; human health risk

assessments; feasibility studies; developing estimated site cleanup costs and liability valuation; developing cleanup goals based on the current and/or future intended site usage; regulatory support and coordination; and litigation support.

Examples of the range of due diligence services provided by Mr. Baumwirt include:

Phase I Environmental Site Assessment and Phase II Site Characterization, Four Corners Generating Station, Southern California Edison

The Four Corners Generating Station (FCGS) is a coal-burning power plant located in northwestern New Mexico on land leased by the Navajo Nation. Since initiation of the plant in 1959, coal-combustion residuals have been disposed onsite and on adjoining properties. Geosyntec was contracted to perform a suite of due diligence services for the site to evaluate the potential environmental liabilities associated with the possible sale of the client's interest in the FCGS. Mr. Baumwirt managed and performed a large-scale Phase I ESA for the site in accordance with ASTM Standard E 1527-05. Due to the complex site history, large facility size, and client's planned end use of the study, the Phase I ESA report was prepared using a unique table and figure-based report format that tabulated and visualized the findings for the Site. Subsequently, Mr. Baumwirt managed and performed a comprehensive Site Characterization which included advancement of more than 70 soil borings and collection of groundwater, sediment, and surface water samples. The phase II report included a comprehensive summary of findings for the due diligence investigation and a site conceptual model based on site specific findings and historical records.

Phase I Environmental Site Assessment, 120-Mile Sunrise Powerlink, San Diego Gas & Electric

Mr. Baumwirt served as project manager and primary author of a Phase I Environmental Site Assessment to identify potential presence of contamination within the right-of-way which may affect construction, mobilize contaminants, and/or expose workers or the public for the construction of the approximately 120-mile transmission corridor. Due to the urgent nature of the project and investigation per the request of the client, Geosyntec was able to perform the site assessment and provide a draft executive summary to the client within 10 days of the site reconnaissance, and a draft Phase I ESA report within 30 days of authorization to proceed. The entire 60-square mile site assessment and final reporting was completed on schedule within 45 days. Subsequently, as additional properties were considered for purchase for the project, 42 addenda to the initial Phase I ESA were prepared on expedited schedules.

Phase II Environmental Site Assessments, 120-Mile Sunrise Powerlink, San Diego Gas & Electric

Geosyntec has performed seven expedited Phase II Environmental Site Characterizations for properties throughout the planned Sunrise Powerlink project alignment in the backcountry of San Diego County to characterize the nature and extent of existing contamination, and provide remedial cost estimates to demolish constructed features, remove contaminated materials, and restore impacted properties to their pre-developed conditions. Sites assessed have included several properties adjoining agricultural chemical manufacturing sites, former agricultural facilities, industrial facilities, and rural residences. At the request of the client, in some cases, soil

and groundwater site characterization investigations were scoped, implemented, and reported within two weeks. Additionally, due to SDG&Es observation of our outstanding project management and work product, SDG&E tasked Mr. Baumwirt to manage three other SDG&E subcontractors to coordinate the presentation of findings to the California Public Utilities Commission.

Phase II Environmental Site Assessment of Former Agricultural Lands, 120-Mile Sunrise Powerlink, San Diego Gas & Electric

During the performance of a large-scale Phase I ESA for an approximately 120-mile corridor, 24 former and current agricultural sites were identified in the subject area spanning the remote areas of San Diego and Imperial Counties. To address mitigation measures enforced by the California Public Utilities Commission (CPUC), Mr. Baumwirt managed the assessment of shallow soil at each site to evaluate the presence of organophosphate and organochlorine pesticides as a result of former agricultural site use. As required by the CPUC, Mr. Baumwirt worked with the local Agricultural Commission to prepare a Workplan to address the concerns of agency and to adequate assess the sites. To reduce costs to the client and to construct statistically valid data sets for the sites of variable sizes ranging from less than one acre to more than 100 acres, Geosyntec utilized statistical methods to determine the minimum amount of sample points necessary to be considered representative. Field sampling and reporting was completed in less than three weeks, and the project was completed ahead of schedule and under budget.

Mineral Remoteness Evaluations, Mitigation Properties, San Diego Gas & Electric

To address requirements related to environmental permits for major capital improvement projects, SDG&E acquired a number of rural open space properties for donation to various conservation agencies. To establish conservation easements on these properties, Geosyntec performed mineral remoteness evaluations for five rural properties to address potential conflicts related to severed estates, where mineral rights and surface estates for a given property are reserved separately on the property's title. The purpose of the mineral remoteness evaluations was to determine if the probability of future implementation of mining activities at the surface of the site is so remote as to be considered negligible. The five evaluations were performed on time and under budget.

Phase I and Phase II Environmental Site Assessments, Confidential Home Improvement Retailer, Various Locations

Mr. Baumwirt has assisted in conducting and reviewing over fifty Phase I ESAs for various proposed and operating home improvement retail store locations throughout the United States. Historical property uses at these sites include agricultural, rural, commercial, and industrial uses. Each Phase I ESA report was prepared in accordance with current ASTM E 1527 Standard Practice for ESAs. Mr. Baumwirt has prepared and implemented workplan's for over ten Phase II ESAs for various proposed development locations throughout California from San Diego to Crescent City. Phase II ESA investigations included soil, soil vapor, and/or groundwater sampling for recognized environmental conditions identified in previous reports and in many instances performed coordination and oversight of asbestos and lead-based paint abatement contractors. At the client's request, special coordination was often implemented to preserve the confidential nature of the investigation and/or difficult access issues.

Site Closure Assessment, Former SoilServe Facility, Wilbur-Ellis Company, Brawley, California

A retail agricultural chemical distribution facility leased an approximately 2.5-acre property for approximately 5 years. Geosyntec was contracted by WECO to perform a site closure assessment of the site after operations had ceased, to assess and document the conditions at the site prior to termination of the site lease. Mr. Baumwirt managed and performed the assessment on an expedited basis which included an initial site reconnaissance to observe site conditions and interview facility personnel, and a second phase to collect and analyze soil samples. The suite of analytical testing was specifically developed to include only chemicals of concern which were handled at the site by the client, including certain metals, chlorinated herbicides, organophosphorus compounds, fertilizer compounds, and petroleum hydrocarbons. Geosyntec delivered a concise report which clearly documented site conditions at the time the client's lease was terminated for the site.

Soil Management Planning and Monitoring, San Diego Gas & Electric.

Geosyntec previously performed a Phase I ESA for a linear project which identified several areas with likely existing soil and groundwater contamination along the proposed project's underground construction alignment. To prevent improper handling of contaminated soil and water, Mr. Baumwirt prepared a site-specific Soil Management Plan and managed the implementation of soil monitoring throughout construction in the vicinity of the previously identified areas of concern. Implementation included coordination with numerous construction contractors, identifying and screening impacted soil in the field, ensuring proper waste characterization, documenting field activities, and providing safety instruction to crews.

EDUCATION

San Diego State University, B.S., Geological Sciences, 2004

PROFESSIONAL HISTORY

Geosyntec Consultants, San Diego, California, 2005-Present
Geocon Consultants, Inc., San Diego, California, 2005
Eastwood-Stein Litigation Support, San Diego, CA 2001-2005

PROFESSIONAL CERTIFICATIONS AND TRAINING

California Professional Geologist No. 8745
Geosyntec Environmental Professional
Hazardous Waste Operations and Emergency Response (29 CFR 1910.120)

APPENDIX B
Pertinent Site Documents

Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

April 4, 2014

Project Name: San Diego

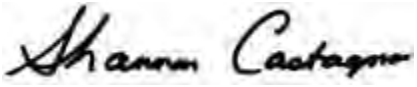
Geosyntec Consultants
10875 Rancho Bernardo Road, Suite 200
San Diego, CA 92127

Attention: Doug Baumwirt

Dear Mr. Baumwirt

Attached is the Environmental (Hazardous/Toxic Waste) Records Search Summary of the Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., APN 451-690-18-00 ("San Diego") site located in San Diego, California. Environmental Support Services ("**ESS**") received the request on March 24, 2014 (See Appendix A). Should you have any questions regarding the summary, please call.

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

Records Search Summary

Company:	Geosyntec Consultants
Project Name:	San Diego
Attention:	Doug Baumwirt
Street Address of Property:	Southwest Corner of Vine Street & Kettner Blvd. 3548 & 3550 Kettner Blvd. San Diego, CA APN 451-690-18-00

San Diego County Hazardous Materials Management Division

E-mailed request: 3-24-14 & 3-28-14, Contact: Joyce Ellman

ESS submitted a request for a records search concerning the San Diego site to Ms. Ellman, with the San Diego County Hazardous Materials Management Division (See Appendix B). **ESS** requested information concerning the utilization, manufacture, storage and/or discharge of hazardous materials/waste, and any information concerning previous or on-going site investigations/remediations pertaining to hazardous materials/waste. She informed **ESS** March 27, 2014 that her department did have records for APN 451-690-18-00, San Diego, CA (See Appendix B). As of April 4, 2014 Ms. Ellman had not completed **ESS'** request for 3548 & 3550 Kettner Blvd., San Diego, CA. Should any information concerning the site surface, **ESS** will immediately forward it to Mr. Baumwirt at the Geosyntec Consultants office.

United States Environmental Protection Agency – Region IX

On-line request: 3-24-14 & 3-28-14, Contact: Ivry Johnson

ESS requested that Ms. Johnson, with the United States Environmental Protection Agency – Region IX, check her records for any files/information (such as treatment, storage and disposal of hazardous waste) concerning Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00. She informed **ESS** on March 25, 2014 & March 28, 2014 that her department received **ESS'** Freedom of Information request and will respond within (20) working days (See Appendix C). Should any information concerning the site surface, **ESS** will immediately forward it to Mr. Baumwirt at the Geosyntec Consultants' office.

Department of Toxic Substances Control (DTSC) – Cypress Office

Faxed request: 3-24-14 & 3-28-14, Contact: Julie Johnson/Jone Barrio

Previous contacts with the DTSC have disclosed that this office only collects and stores information (such as treatment, storage and disposal of hazardous waste) concerning sites which have existing businesses, industries, etc. present. **ESS** requested that Ms. Johnson/Ms. Barrio, with the DTSC, check the file room records for any files/information the concerning Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00 (See Appendix D). She informed **ESS** on March 25, 2014 & April 1, 2014 that her department had no files/information concerning that site (See Appendix D).

Department of Toxic Substances Control (DTSC) – San Diego Office

E-mailed request: 3-24-14 & 3-28-14, Contact: Cleo Munoz

Previous contacts with the DTSC have disclosed that this office only collects and stores information (such as treatment, storage and disposal of hazardous waste) concerning sites which have existing businesses, industries, etc. present. **ESS** requested that the Records Section, with the DTSC, check the file room records for any files/information concerning the Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00 (See Appendix E). He informed **ESS** April 1, 2014 that his department had no files/information concerning that site (See Appendix E).

San Diego Fire Department – Fire Prevention

Mailed request: 3-24-14 & 3-28-14, Contact: Beth Carroll

ESS requested that Ms. Carroll, with the San Diego Fire Department, check her records concerning the storage of hazardous materials/waste and underground storage tanks with regards to the following: 3548 & 3550 Kettner Blvd., San Diego, CA (See Appendix F). As of April 4, 2014 Ms. Carroll had not completed **ESS'** request. Should any information concerning the site surface, **ESS** will immediately forward it to Mr. Baumwirt at the Geosyntec Consultants office.

City of San Diego – Industrial Waste Program

Faxed request: 3-24-14 & 3-28-14, Contact: Public Records Unit

ESS requested that the Public Records Unit, with the City of San Diego – Industrial Waste Program, check their records for any information concerning industrial waste discharge permits or violations for Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00 (See Appendix G). Brian Taylor, with that department informed **ESS** March 25, 2014 that his department had no records for APN 451-690-18-00, San Diego, CA (See Appendix G). As of April 4, 2014 Mr. Taylor had not completed **ESS'** request for 3548 & 3550 Kettner Blvd., San Diego, CA. Should any information concerning the site surface, **ESS** will immediately forward it to Mr. Baumwirt at the Geosyntec Consultants office.

San Diego Building Department

Visited: 3-25-14 & 4-4-14, Contact: Stacey Harris & Lorena Grijalva

ESS requested that Ms. Harris and Ms. Grijalva, with the San Diego Building Department, provide the building records (all building permits and certificates of occupancy) 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00. Ms. Harris informed **ESS** that her department had no records for APN 451-690-18-00, San Diego, CA. Ms. Grijalva, with that department informed **ESS** that her department only had records for 3550 Kettner Blvd., San Diego, CA (See Appendix H for copies). No further information concerning the site was obtained from the building department at the time of the investigation.

San Diego Air Pollution Control District (SDAPCD)

E-mailed request: 3-24-14 & 3-28-14, Contact: Teresa Cain

ESS submitted a search request concerning active, inactive and sold files for Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA and APN 451-690-18-00 to Ms. Cain at the SDAPCD (See Appendix I). She informed **ESS** April 4, 2014 that her department had no records for 3548 & 3550 Kettner Blvd., San Diego, CA.

Regional Water Quality Control Board (RWQCB) – San Diego Region

E-mailed request: 3-24-14 & 3-28-14, Contact: Public Records Unit

ESS requested that the Public Records Unit, with the RWQCB, provide the files for Southwest Corner of Vine Street & Kettner Blvd., 3548 & 3550 Kettner Blvd., San Diego, CA (See Appendix J). Rachel O'Donovan, with that department informed **ESS** April 1, 2014 that their department had no records for 3548 & 3550 Kettner Blvd., San Diego, CA (See Appendix J).

Records Search completed by:

Shannon Castagno
Project Manager
Environmental Support Services

The information provided in this report was obtained by a comprehensive examination of public records, public information and public servant communications. The degree of care performed by **ESS** is equivalent to that exercised by environmental companies performing similar records searches.

Appendix A

Environmental (Hazardous/Toxic Waste) Records Search
Order Form

From: Douglas Baumwirt [DBaumwirt@Geosyntec.com]
Sent: Friday, March 28, 2014 12:06 PM
To: Shannon Castagno (Shannon@EnvironmentalSupportServices.com)
Subject: RE: File Review Requests - Vine Street, San Diego, Ca

Hi Shannon,
We got our EDR report for the above-referenced site that has a former gas station listed at the site with an address of 3550 Kettner Blvd. Hopefully that helps with the file requests, since I know that some agencies cant search without an address.
Happy Friday!!!!
-doug

From: Doug Baumwirt
Sent: Monday, March 24, 2014 6:08 PM
To: Shannon Castagno (Shannon@EnvironmentalSupportServices.com)
Subject: RE: File Review Requests - Vine Street, San Diego, Ca

Here's a map showing the site location. REDI says the address is "Kettner," not sure if that helps.

From: Doug Baumwirt
Sent: Monday, March 24, 2014 2:38 PM
To: Shannon Castagno (Shannon@EnvironmentalSupportServices.com<mailto:Shannon@EnvironmentalSupportServices.com>)
Cc: Daniel Pelikan
Subject: File Review Requests - Vine Street, San Diego, Ca

Hi Shannon,
Please initiate a file review for a Phase I ESA for the property located on the southwest corner of the intersection Vine Street and Kettner Bouelvard in San Diego, CA. There is no known formal address (currently a parking lot), but the SD County APN is 451-690-1800.
Please contact the following agencies:

* USEPA

* DTSC

* RWQCB

* SD APCD

* SD DEH (SAM and HMMD)

* SD Fire Dept

* SD Industrial Wastewater Control Program

* SD Building Dept

Please submit your report with whatever responses you have on Wednesday April 2nd.
Please let me know if you have any questions, or concerns, and please confirm that you can take this on.
Thank you!
-Doug

Douglas Baumwirt, PG 8745
Senior Geologist

10875 Rancho Bernardo Road
Suite 200
San Diego, CA 92127
Direct Phone: 858.716.2922
Office: 858.674.6559
Fax: 858.674.6586
Mobile: 619.992.7743
www.geosyntec.com<http://www.geosyntec.com/>

[Geosyntec_logoV10_USE-THIS]

This electronic mail message contains information that (a) is or may be LEGALLY PRIVILEGED, CONFIDENTIAL, PROPRIETARY IN NATURE, OR OTHERWISE PROTECTED BY LAW FROM DISCLOSURE, and (b) is intended only for the use of the Addressee(s) named herein. If you are not the intended recipient, an addressee, or the person responsible for delivering this to an addressee, you are hereby notified that reading, using, copying, or distributing any part of this message is strictly prohibited. If you have received this electronic mail message in error, please contact us immediately and take the steps necessary to delete the message completely from your computer system.
[cid:image001.png@01CD84FB.13443FB0]

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To: Shannon Castagno (Shannon@EnvironmentalSupportServices.com)
Cc: Daniel Pelikan
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Please contact the following agencies:

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* DTSC

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* SD DEH (SAM and HMMD)

* SD Fire Dept

* SD Industrial Wastewater Control Program

* SD Building Dept

Please submit your report with whatever responses you have on Wednesday April 2nd.
Please let me know if you have any questions, or concerns, and please confirm that you can take this on.
Thank you!
-Doug

Douglas Baumwirt, PG 8745
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[cid:image001.png@01CD84FB.13443FB0]

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

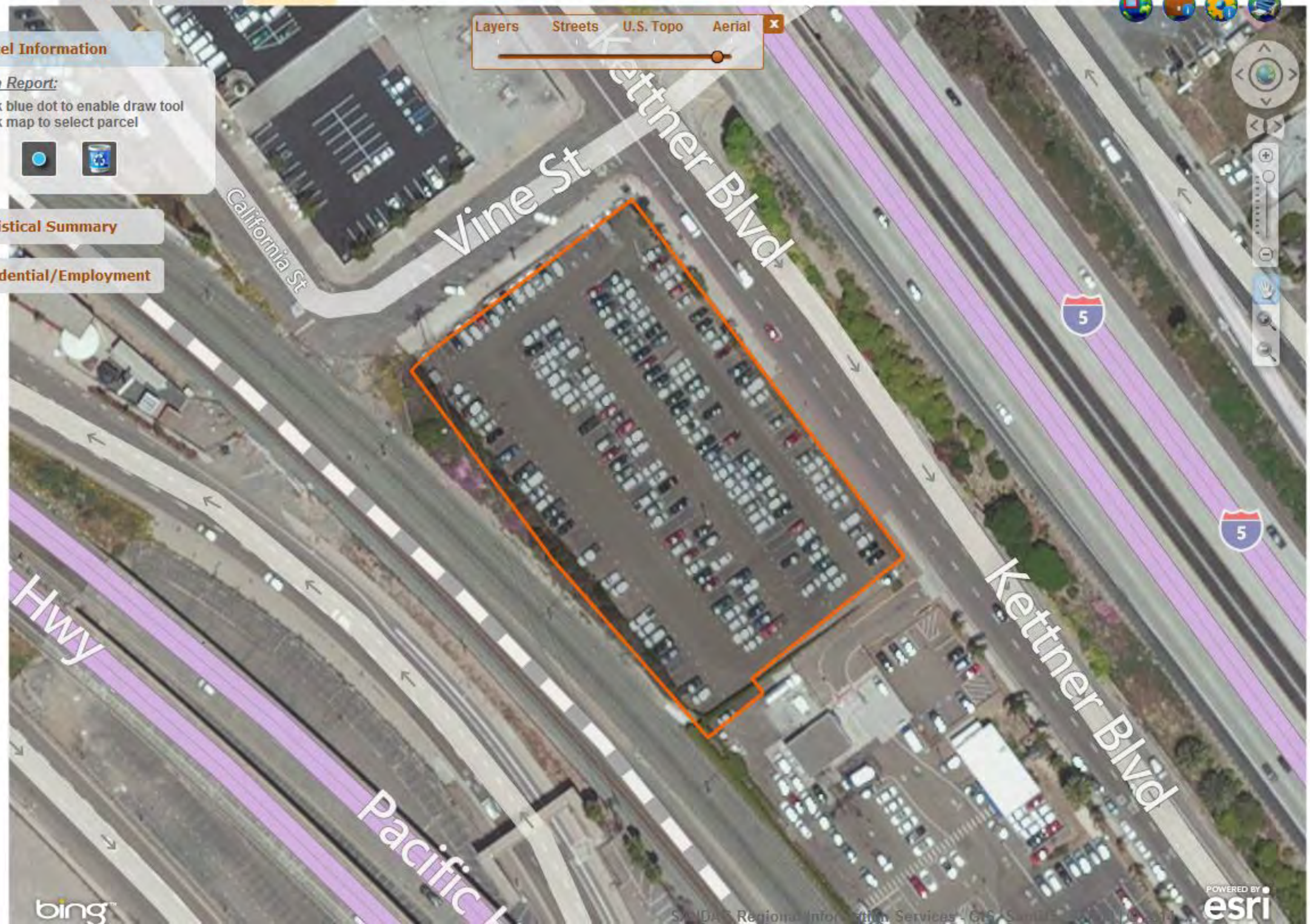
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



Appendix B

Request for Records Search to the
San Diego County HMMD and
Photocopies Obtained from that Agency

OFFICE USE ONLY
Request # _____

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700 FAX (858) 505-6848
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: _____

Phone: (_____) _____

Company Name: _____

Mailing Address: _____

Environmental Support Services

Shannon Castagno
30251 Golden Lantern, Suite #E-305
Laguna Niguel, CA 92677
Tel: 949-429-3564 - Fax: 949-429-3563
Shannon@EnvironmentalSupportServices.com

3/24/14

ness card if preferred)

Additional informatio **ite, www.sdcdeh.org. Fax or email your completed form to the Public Records Program at (858) 505-6848 or deh.publicrecords@sdcounty.ca.gov. The following information is required. Separate forms are needed for each address or parcel number.**

Southwest Corner of Vine St & Kettner Blvd. or 451-690-1800
Exact Address (Street, City and Zip Code) San Diego, CA 92101 Assessor's Parcel Number

Optional information (establishment permit number, business name, etc.): (See Attached Map)

Please indicate the purpose of your search by checking all that apply:

- ☐ Contaminated Property Investigation(s) (SAM Cases)
- ☑ SAM Closure Letter/Report
- ☑ Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
- ☐ Other: _____ (specify)

☐ Monitoring Well Files (select conditions that apply)
- Government agency request
- Consultant with related case
- Written authorization from owner (attach letter)

OFFICE USE ONLY BELOW THIS LINE

Files reviewed by: _____ of _____ Date: / /

Files copied for: _____ of _____ Date: / /

Request cancelled by: _____ Date: / /

Photocopies _____ Cost _____ Picked up/mailed on _____ By _____

A search for DEH records checked above has been conducted and the following apply:

☐ SAM files for the permit number(s) listed below are available.
_____ # _____ # _____ # _____ # _____

☐ HMD/UST files for the permit number(s) listed below are available.
_____ # _____ # _____ # _____ # _____

☐ Original records were purged. Database-only records are available (at: http://sdcounty.ca.gov/deh/doing_business/hazmat_search.html) for the following permit number(s):
_____ # _____ # _____ # _____ # _____

☐ No SAM/HMD/UST records were found for the address/APN you requested.

_____ / /
Signature - DEH Representative Date

DEH complies fully with the California Public Records Act and the Federal Freedom of Information Act. Please be advised that photocopy and/or scanned file fees may apply.

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

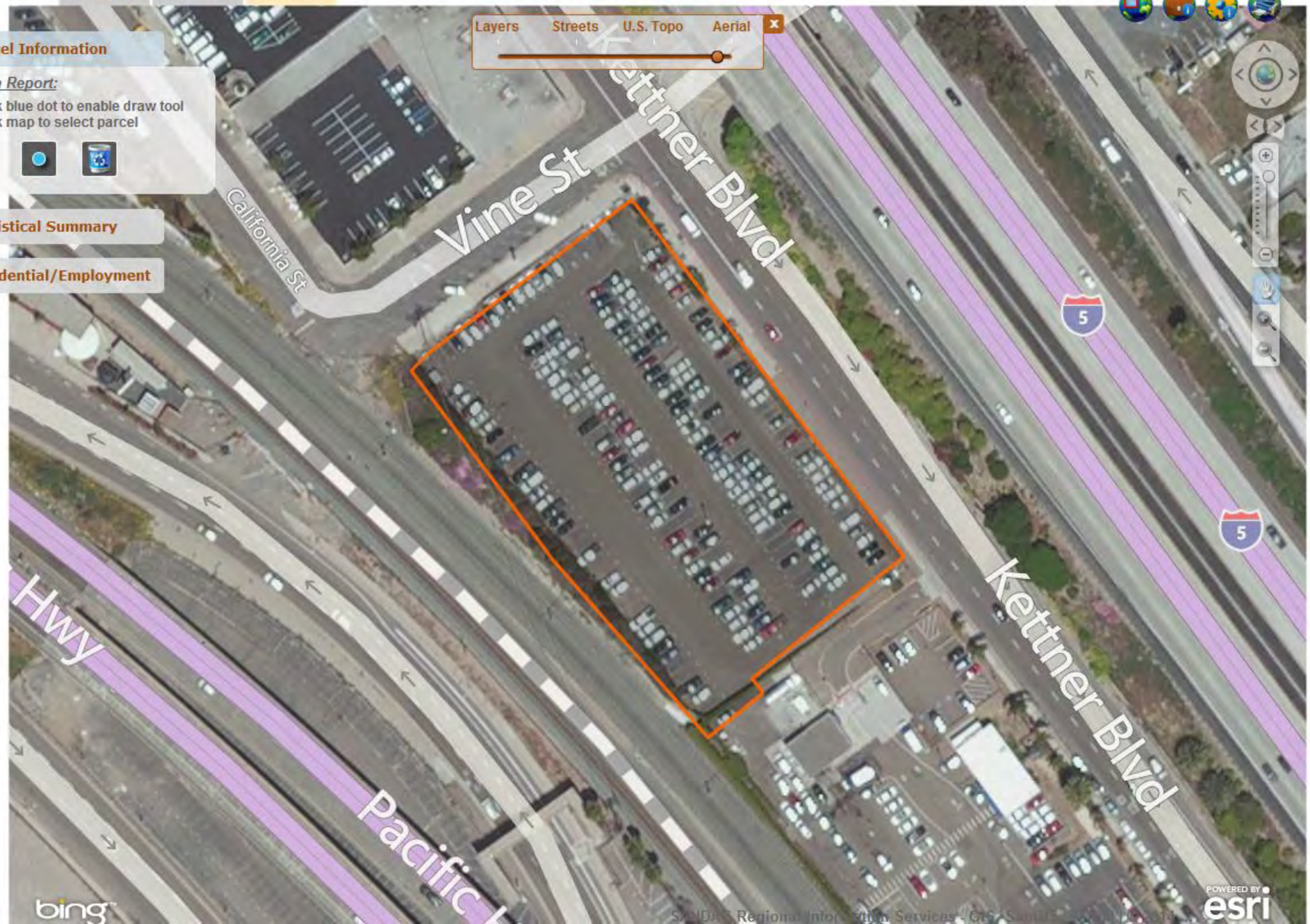
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



OFFICE USE ONLY

Request # _____

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700 FAX (858) 505-6848
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: _

Phone: (_____)

Company Name: _

Mailing Address: _

Environmental Support Services

Shannon Castagno
30251 Golden Lantern, Suite #E-305
Laguna Niguel, CA 92677
Tel: 949-429-3564 - Fax: 949-429-3563
Shannon@EnvironmentalSupportServices.com

3/28/14

ness card if preferred)

Additional informatio ite, www.sdcdeh.org. Fax or email your completed form to the Public Records Program at (858) 505-6848 or deh.publicrecords@sdcounty.ca.gov. The following information is required. Separate forms are needed for each address or parcel number.

3548 & 3550 Kettner Bl., San Diego 92101 or _____

Exact Address (Street, City and Zip Code) Assessor's Parcel Number

Optional information (establishment permit number, business name, etc.):

Please indicate the purpose of your search by checking all that apply:

- ☑ Contaminated Property Investigation(s) (SAM Cases)
- ☑ SAM Closure Letter/Report
- ☑ Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
- ☐ Other: _____ (specify)

☐ Monitoring Well Files (select conditions that apply)
- Government agency request
- Consultant with related case
- Written authorization from owner (attach letter)

OFFICE USE ONLY BELOW THIS LINE

Files reviewed by: _____ of _____ Date: / /

Files copied for: _____ of _____ Date: / /

Request cancelled by: _____ Date: / /

Photocopies _____ Cost _____ Picked up/mailed on _____ By _____

A search for DEH records checked above has been conducted and the following apply:

☐ SAM files for the permit number(s) listed below are available.

_____ # _____ # _____ # _____ # _____

☐ HMD/UST files for the permit number(s) listed below are available.

_____ # _____ # _____ # _____ # _____

☐ Original records were purged. Database-only records are available (at: http://sdcounty.ca.gov/deh/doing_business/hazmat_search.html) for the following permit number(s):

_____ # _____ # _____ # _____ # _____

☐ No SAM/HMD/UST records were found for the address/APN you requested.

_____ Signature - DEH Representative

_____ / / Date

DEH complies fully with the California Public Records Act and the Federal Freedom of Information Act. Please be advised that photocopy and/or scanned file fees may apply.

DEH-9098 (Rev. 12/12)

PERMIT #LMWP-000518
A.P.N. #451-690-18
EST #NONE

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM
GEOTECHNICAL BORING CONSTRUCTION PERMIT

SITE NAME: SAN DIEGO GAS AND ELECTRIC PROPERTY

SITE ADDRESS: SW OF KETTNER BLVD AND VINE ST., SAN DIEGO CA 92101

PERMIT FOR: **FIVE GEOTECHNICAL BORINGS**

PERMIT APPROVAL DATE: JULY 3, 2013

PERMIT EXPIRES ON: OCTOBER 31, 2013

RESPONSIBLE PARTY: SAN DIEGO GAS & ELECTRIC

PERMIT CONDITIONS:

1. All borings must be sealed from the bottom of the boring to the ground surface with an approved sealing material as specified in California Well Standards Bulletin 74-90, Part III, Section 19.D. **Drill cuttings are not an acceptable fill material.**

2. All borings must be properly destroyed within 24 hours of drilling.

3. Placement of any sealing material at a depth greater than 30 feet must be done using the tremie method.

4. This work is not connected to any known unauthorized release of hazardous substances. Any contamination found in the course of drilling and sampling must be reported to DEH. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, II, E- 4. (**http://www.sdcounty.ca.gov/deh/lwq/sam/manual_guidelines.html**). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.

5. Within 60 days of completing work, submit a well/boring construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.

6. **This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at (858) 505-6688.**

APPROVED BY: Amelia Ceseña Digitally signed by Amelia Ceseña DN: cn=Amelia Ceseña, o=DEH, ou=MWP, email=amelia.cesena@sdcounty.ca.gov, c=US Date: 2013.07.03 07:40:02 -07'00' DATE: 7.3.2013

AMELIA CESEÑA

PERMIT APPLICATION GROUNDWATER AND VADOSE MONITORING WELLS AND EXPLORATORY OR TEST BORINGS

OFFICE USE ONLY
PERMIT LMWP# 000518
SAM CASE Y/N # NONE
DATE RECEIVED: 7.2.2013
FEE PAID: _____
CHECK # _____

A. RESPONSIBLE PARTY San Diego Gas & Electric E-mail EReese@semprautilities.com
(The person, persons, or company responsible for the construction, maintenance, and destruction of the proposed borings and/or wells.)
Mailing Address 8316 Century Park Court, CP-52G City San Diego State CA Zip 92123
Contact Person Edwin Reese Phone (858) 650-4123 Ext.

B. SITE ASSESSMENT PROJECT NUMBER – IF APPLICABLE # _____

C. CONSULTING FIRM Geosyntec Consultants
Mailing Address 10875 Rancho Bernardo Road, Suite 200 City San Diego State CA Zip 92127
Registered Professional Jennifer Nevius Phone 858-705-5273 Registration #64932(RCE)
E-mail jnevius@geosyntec.com
Contact Person Jennifer Nevius Phone 858-716-2932 Ext_____ Email jnevius@geosyntec.com

D. DRILLING COMPANY Tri-County Drilling C57#547737
Contact Name Dave Maske E-mail Dave Maske <dmaske@tcdrilling.com>
Mailing Address 9631 Candida Street City San Diego State CA Zip 92126
Phone 858-271-0099 Ext._____

E. CONSTRUCTION INFORMATION

TYPE OF WELLS/ BORINGS TO BE CONSTRUCTED

	#
☐ Groundwater	___
☐ Vadose	___
☒ Boring	5
☐ Other	___

NUMBER OF WELLS TO BE DESTROYED

☐ Destruction ___

MATERIALS TO BE USED

CASING
Not Applicable _____
Type _____
Gauge_____
Diameter _____
Well Screen Size ____
Filter Pack _____

SEAL/BORING BACKFILL
☐ Neat Cement
☐ Cement & Bentonite
☐ Sand-Cement
☒ Bentonite
☐ Other
Borehole diameter 8"

Drilling Method
☒ Auger
☐ Direct Push
☐ Other _____
☐ Air Rotary
☐ Sonic
☐ Percussion

PROPOSED CONSTRUCTION
Estimated Groundwater Depth: 35 ft.
Estimated Depth of Boring: 40 ft.
Concrete Seal: 0 to 2
Annular Seal: _____ to _____
Filter Pack: _____ to _____
Perforation: _____ to _____

NOTE: Attach a well construction diagram

I agree to comply with the requirements of the current Site Assessment and Mitigation Manual, and with all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction.

DRILLER'S SIGNATURE Dave Maske DATE 6/27/2013

Within 60 days of completion, I will furnish the Monitoring Well Permit Desk with a complete and accurate well/boring log. I will certify the design and construction or destruction of the well/borings in accordance with the permit application.

PG/RCE/CEG SIGNATURE Jennifer T. Nevins DATE 7/1/13

F. SITE INFORMATION - A Property Owner Consent agreement is required for all applications, except for onsite, open LOP/SAM site assessment cases, Caltrans properties and military properties. Submit a separate sheet for additional parcels.

1. ASSESSOR'S PARCEL NUMBER 4516901800

Site Name Southwest of Intersection of Kettner Blvd. and Vine Street

Site Address SW of Kettner Blvd. and Vine Street City San Diego Zip 92101

PROPERTY OWNER San Diego Gas & Electric.

Phone 858-637-3714 - Jim Seifert, Mgr - Real Estate Land Svc Fac Ext. _____ Fax _____

Mailing Address 8335 Century Park Court, CP 1-1D City San Diego State CA Zip92123

NUMBER OF WELLS 5 **TYPE OF WELLS** Geotechnical Boring

2. ASSESSOR'S PARCEL NUMBER _____

Site Address _____ City _____ Zip _____

PROPERTY OWNER _____

Phone _____ Ext. _____ Fax _____

Mailing Address _____ City _____ State _____ Zip _____

NUMBER OF WELLS _____ **TYPE OF WELLS** _____

G. QUESTIONNAIRE: Please answer all applicable questions completely *and submit any required supportive documentation.*

1. What is the purpose of the well/boring investigation?

   ☐ a. Part of an ongoing site assessment case in which a government regulator is the lead agency. If yes, indicate which government regulator is the lead agency and the case number.

   DEH RWQCB DTSC

   ☐ b. Part of a Phase I investigation for property ownership transfer.

   ☒ c. Geotechnical investigation for proposed construction or land stabilization.

   ☐ d. Other: _____

2. If wells are to be destroyed, provide a description of method of destruction _____

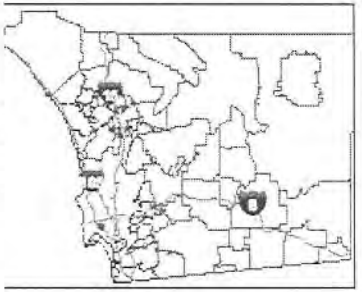
3. Are you proposing a variation from current SAM Manual Requirements for the construction or destruction of borings, Vadose and/or Groundwater Monitoring Wells? If yes, specify these variations and include a well construction diagram and all required supporting documentation. Refer to the SAM Manual Appendix B for monitoring well guidelines (www.sdcdeh.org). Yes ☐ No ☒

H. FEES (in effect beginning July 1, 2012, through June 30, 2013)

ACTIVITY	FEE SCHEDULE	AMOUNT	
Permit for Well Installations Only (Groundwater Monitoring Wells, Vadose, Vapor Extraction Wells)	$200.00 for the first monitoring well		**$200.00**
Each Additional New Well	$161.00 for each additional well installation	_____x **$161.00**	
New Well Inspection	$99.00 for first new well inspection		**$99.00**
	$30.00 for each additional new well inspection	_____x **$ 30.00**	
Permit for Borings Only *(CPT's, Hydropunch, Geoprobes, Temporary Well Points, etc.)*	$200.00 for the first boring	1 x **$200.00**	**200.00**
	$49.00 for each additional boring	4 x **$ 49.00**	**196.00**
Permit for Well Destructions Only	$200.00 for the first destruction	_____x **$200.00**	_____
	$123.00 for each additional destruction	_____x **$123.00**	_____
Permit for any Combination of Well Installations, Borings, & Destructions ***(Except Enhanced Leak Detection)***	$200.00 for the first activity	_____x **$200.00**	_____
	$161.00 for each additional well	_____x **$161.00**	_____
	$99.00 for first well maintenance inspection	_____x **$ 99.00**	_____
	$ 30.00 for each additional well maintenance inspection	_____x **$ 30.00**	_____
	$123.00 for each well destruction	_____x **$123.00**	_____
	$ 49.00 for each additional boring	_____x **$ 49.00**	_____
Permit for Enhanced Leak Detection	**$320.00 (Flat Fee)**		$_____
	TOTAL COST OF PERMIT		**$ 396.00**

LUEG GIS

APN - Kettner and Vine



Legend

Assessor Parcels

Notes

0.1 0 0.07 0.1 Miles

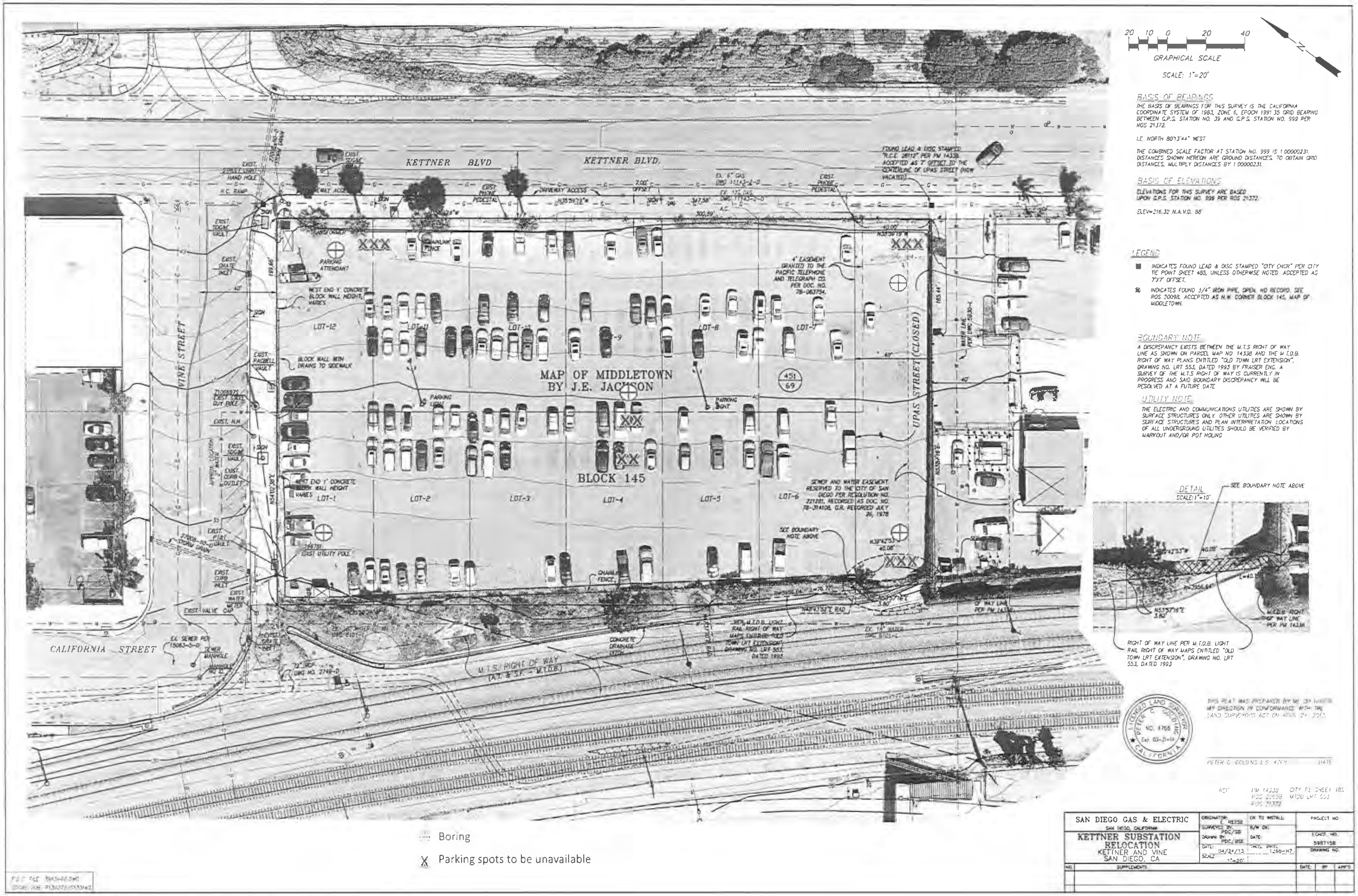
WGS_1984_Web_Mercator_Auxiliary_Sphere
Planning and Development Services

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

APN Information

Kettner and Vine

Thu Apr 18 2013 08:24:46 AM


GRAPHICAL SCALE
SCALE: 1"=20'
BASIS OF BEARINGS
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 6, EPOCH 1991.35 GRID BEARING BETWEEN G.P.S. STATION NO. 39 AND G.P.S. STATION NO. 999 PER ROS 21372.
I.E. NORTH 80°13'44" WEST
THE COMBINED SCALE FACTOR AT STATION NO. 999 IS 1.00000231. DISTANCES SHOWN HEREON ARE GROUND DISTANCES. TO OBTAIN GRID DISTANCES, MULTIPLY DISTANCES BY 1.00000231.
BASIS OF ELEVATIONS
ELEVATIONS FOR THIS SURVEY ARE BASED UPON G.P.S. STATION NO. 999 PER ROS 21372.
ELEV=216.32 N.A.V.D. 88
LEGEND
INDICATES FOUND LEAD & DISC STAMPED "CITY ENGR" PER CITY TIE POINT SHEET 485, UNLESS OTHERWISE NOTED. ACCEPTED AS 7'X7' OFFSET.
INDICATES FOUND 3/4" IRON PIPE, OPEN, NO RECORD, SEE ROS 20098, ACCEPTED AS N.W. CORNER BLOCK 145, MAP OF MIDDLETOWN.
BOUNDARY NOTE
A DISCREPANCY EXISTS BETWEEN THE M.T.S RIGHT OF WAY LINE AS SHOWN ON PARCEL MAP NO 14338 AND THE M.T.D.B. RIGHT OF WAY PLANS ENTITLED "OLD TOWN LRT EXTENSION", DRAWING NO. LRT 553, DATED 1993 BY FRAISER ENG. A SURVEY OF THE M.T.S RIGHT OF WAY IS CURRENTLY IN PROGRESS AND SAID BOUNDARY DISCREPANCY WILL BE RESOLVED AT A FUTURE DATE.
UTILITY NOTE
THE ELECTRIC AND COMMUNICATIONS UTILITIES ARE SHOWN BY SURFACE STRUCTURES ONLY. OTHER UTILITIES ARE SHOWN BY SURFACE STRUCTURES AND PLAN INTERPRETATION. LOCATIONS OF ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY MARKOUT AND/OR POT HOLING
DETAIL
SCALE: 1"=10'
SEE BOUNDARY NOTE ABOVE
RIGHT OF WAY LINE PER M.T.D.B. LIGHT RAIL RIGHT OF WAY MAPS ENTITLED "OLD TOWN LRT EXTENSION", DRAWING NO. LRT 553, DATED 1993
KETTNER BLVD
KETTNER BLVD.
VINE STREET
CALIFORNIA STREET
UPAS STREET (CLOSED)
M.T.S. RIGHT OF WAY (A.T. & S.F. - M.T.D.B.)
MAP OF MIDDLETOWN BY J.E. JACKSON
BLOCK 145
LOT-1
LOT-2
LOT-3
LOT-4
LOT-5
LOT-6
LOT-7
LOT-8
LOT-9
LOT-10
LOT-11
LOT-12
4' EASEMENT GRANTED TO THE PACIFIC TELEPHONE AND TELEGRAPH CO. PER DOC. NO. 78-083754.
SEWER AND WATER EASEMENT RESERVED TO THE CITY OF SAN DIEGO PER RESOLUTION NO. 221281, RECORDED AS DOC. NO. 78-314108, O.R. RECORDED JULY 26, 1978
SEE BOUNDARY NOTE ABOVE
PARKING ATTENDANT
PARKING LIGHT
BLOCK WALL WITH DRAINS TO SIDEWALK
CONCRETE DRAINAGE DITCH
CHAINLINK FENCE
DRIVEWAY ACCESS
LICENSED LAND SURVEYOR
PETER C. GOLDING
NO. 4768
CALIFORNIA
THIS PLAT WAS PREPARED BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE LAND SURVEYORS ACT ON APRIL 24, 2013.
PETER C. GOLDING L.S. 4768
DATE
SAN DIEGO GAS & ELECTRIC
SAN DIEGO, CALIFORNIA
KETTNER SUBSTATION RELOCATION
KETTNER AND VINE
SAN DIEGO, CA
SUPPLEMENTS
DATE: 04/24/13
SCALE: 1"=20'
5987158
Boring
X Parking spots to be unavailable

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
858-505-6700/1-800-253-9933 FAX: 858-505-6891
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

PROPERTY OWNER CONSENT

Proposed locations for subsurface work:

Property Address:	**Assessor's Parcel Number (APN):**
Southwest of the Intersection of Kettner Blvd. and Vine Street	4516901800
_____	_____

I, San Diego Gas & Electric Company, owner of the property/properties listed above, give my permission to Geosyntec Consultants (consulting company, contractor) to conduct the following work at the locations stated above.

☐ Install _____ monitoring wells ☐ Destroy _____ monitoring wells ☒ Drill 5 soil borings

I understand that Jennifer Nevius (registered professional) of Geosyntec Consultants (consulting company) and an authorized signer for Tri-County Drilling (drilling company) have submitted a signed application to the Department of Environmental Health in which they have agreed to complete the above-stated work according the requirements of the current SAM Manual, all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction. I have arranged with the Responsible Party, the person who causes to have monitoring wells/borings installed or existing wells destroyed on this property, to ensure proper closure of the monitoring wells/borings.

Property Owner Signature: _____ Date: 6/28/13

Print Name: Jim Seifert Title: Manager of Corporate Real Estate, Land Services & Facilities

Company: San Diego Gas & Electric Company

Mailing Address: 8335 Century Park Court, CP 1-1D, San Diego, CA 92123

PERMIT #LMWP-000548
A.P.N. #451-690-18
EST #NONE

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM
GEOTECHNICAL BORING CONSTRUCTION PERMIT

SITE NAME: KETTNER SUBSTATION RELOCATION

SITE ADDRESS: SW OF INTERSECTION OF KETTNER BLVD., AND VINE ST.,

SAN DIEGO CA 92101

PERMIT FOR: **29 GEOTECHNICAL BORINGS**

PERMIT APPROVAL DATE: JULY 25, 2013

PERMIT EXPIRES ON: NOVEMBER 21, 2013

RESPONSIBLE PARTY: SAN DIEGO GAS & ELECTRIC

PERMIT CONDITIONS:

1. All borings must be sealed from the bottom of the boring to the ground surface with an approved sealing material as specified in California Well Standards Bulletin 74-90, Part III, Section 19.D. **Drill cuttings are not an acceptable fill material.**

2. All borings must be properly destroyed within 24 hours of drilling.

3. Placement of any sealing material at a depth greater than 30 feet must be done using the tremie method.

4. This work is not connected to any known unauthorized release of hazardous substances. Any contamination found in the course of drilling and sampling must be reported to DEH. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, II, E- 4. (**http://www.sdcounty.ca.gov/deh/lwq/sam/manual_guidelines.html**). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.

5. Within 60 days of completing work, submit a well/boring construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.

6. **This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at (858) 505-6688.**

APPROVED BY: Amelia Ceseña Digitally signed by Amelia Ceseña DN: cn=Amelia Ceseña, o=DEH, ou=MWP, email=amelia.cesena@sdcounty.ca.gov, c=US Date: 2013.07.25 07:45:53 -07'00' DATE: 7.25.2013

AMELIA CESENA

PERMIT APPLICATION
GROUNDWATER
AND VADOSE MONITORING WELLS
AND EXPLORATORY OR TEST BORINGS

OFFICE USE ONLY
PERMIT LMWP# 000548
SAM CASE Y/N # none
DATE RECEIVED: 7.23.2013
FEE PAID:
CHECK #

A. RESPONSIBLE PARTY San Diego Gas & Electric E-mail EReese@semprautilities.com
(The person, persons, or company responsible for the construction, maintenance, and destruction of the proposed borings and/or wells.)
Mailing Address 8316 Century Park Court, CP-52G City San Diego State CA Zip 92123
Contact Person Edwin Reese Phone (858) 650-4123 Ext.

B. SITE ASSESSMENT PROJECT NUMBER – IF APPLICABLE #

C. CONSULTING FIRM Geosyntec Consultants
Mailing Address 10875 Rancho Bernardo Road, Suite 200 City San Diego State CA Zip 92127
Registered Professional Jennifer Nevius Phone 858-705-5273 Registration #64932 (RCE)
E-mail jnevius@geosyntec.com
Contact Person Jennifer Nevius Phone 858-716-2932 Ext Email jnevius@geosyntec.com

D. DRILLING COMPANY Kehoe Testing and Engineering, Inc. C57#786163
Contact Name Rich Koester E-mail (714) 901-7270 rich@kehoetesting.com
Mailing Address 5415 Industrial Drive City Huntington Beach State CA Zip 92649-1518
Phone Ext.

E. CONSTRUCTION INFORMATION

TYPE OF WELLS/ BORINGS TO BE CONSTRUCTED

	#
☐ Groundwater	
☐ Vadose	
☐ Boring	
☒ Other	29

NUMBER OF WELLS TO BE DESTROYED

☐ Destruction

MATERIALS TO BE USED

CASING
Not Applicable
Type
Gauge
Diameter
Well Screen Size
Filter Pack

SEAL/BORING BACKFILL
☐ Neat Cement
☒ Cement & Bentonite
☐ Sand-Cement
☐ Bentonite
☐ Other
Borehole diameter 3"

Drilling Method
☐ Auger ☐ Air Rotary
☐ Direct Push ☐ Sonic
☒ Other CPT Sounding ☐ Percussion

PROPOSED CONSTRUCTION
Estimated Groundwater Depth 25ft.
Estimated Depth of Boring: 70ft /100 ft.
Concrete Seal: 0 to 1
Annular Seal: to
Filter Pack: to
Perforation: to

NOTE: Attach a well construction diagram

I agree to comply with the requirements of the current Site Assessment and Mitigation Manual, and with all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction.

DRILLER'S SIGNATURE [signature] DATE 7/14/13

Within 60 days of completion, I will furnish the Monitoring Well Permit Desk with a complete and accurate well/boring log. I will certify the design and construction or destruction of the well/borings in accordance with the permit application.

PG/RCE/CEG SIGNATURE Jennifer L. Nevius DATE 7/22/13

Within 60 days of completion, I will furnish the Monitoring Well Permit Desk with a complete and accurate well/boring log. I will certify the design and construction or destruction of the well/borings in accordance with the permit application.

PG/RCE/CEG SIGNATURE _____ DATE _____

F. SITE INFORMATION - A Property Owner Consent agreement is required for all applications, except for onsite, open LOP/SAM site assessment cases, Caltrans properties and military properties. Submit a separate sheet for additional parcels.

1. **ASSESSOR'S PARCEL NUMBER** 4516901800

Site Name Southwest of Intersection of Kettner Blvd. and Vine Street

Site Address SW of Kettner Blvd. and Vine St City San Diego Zip 92101

PROPERTY OWNER San Diego Gas & Electric.

Phone 858-637-3714 - Jim Seifert, Mgr - Real Estate Land Svc Fac Ext. _____ Fax _____

Mailing Address 8335 Century Park Court, CP 1-1D City San Diego State CA Zip92123

NUMBER OF WELLS 29 **TYPE OF WELLS** Geotechnical CPT Sounding

2. **ASSESSOR'S PARCEL NUMBER** _____

Site Address _____ City _____ Zip _____

PROPERTY OWNER _____

Phone _____ Ext. _____ Fax _____

Mailing Address _____ City _____ State _____ Zip _____

NUMBER OF WELLS _____ **TYPE OF WELLS** _____

G. QUESTIONNAIRE: Please answer all applicable questions completely *and submit any required supportive documentation.*

1. What is the purpose of the well/boring investigation?

☐ a. Part of an ongoing site assessment case in which a government regulator is the lead agency. If yes, indicate which government regulator is the lead agency and the case number.

DEH RWQCB DTSC

☐ b. Part of a Phase I investigation for property ownership transfer.

☒ c. Geotechnical investigation for proposed construction or land stabilization.

☐ d. Other: _____

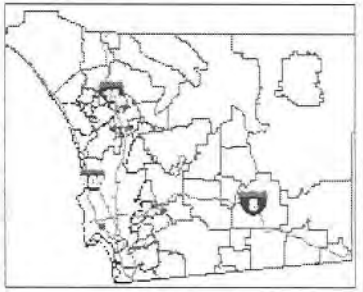
2. If wells are to be destroyed, provide a description of method of destruction _____

3. Are you proposing a variation from current SAM Manual Requirements for the construction or destruction of borings, Vadose and/or Groundwater Monitoring Wells? If yes, specify these variations and include a well construction diagram and all required supporting documentation. Refer to the SAM Manual Appendix B for monitoring well guidelines (www.sdcdeh.org). Yes ☐ No ☒

H. FEES (in effect beginning July 1, 2012, through June 30, 2013)

ACTIVITY	FEE SCHEDULE	AMOUNT	
Permit for Well Installations Only (Groundwater Monitoring Wells, Vadose, Vapor Extraction Wells)	$200.00 for the first monitoring well		**$200.00**
Each Additional New Well	$161.00 for each additional well installation	_____ **x $161.00**	
New Well Inspection	$99.00 for first new well inspection		**$99.00**
	$30.00 for each additional new well inspection	_____ **x $ 30.00**	
Permit for Borings Only *(CPT's, Hydropunch, Geoprobes, Temporary Well Points, etc.)*	$200.00 for the first boring	1 **x $200.00**	**200.00**
	$49.00 for each additional boring	28 **x $ 49.00**	**1,372.00**
Permit for Well Destructions Only	$200.00 for the first destruction	_____ **x $200.00**	_____
	$123.00 for each additional destruction	_____ **x $123.00**	_____
Permit for any Combination of Well Installations, Borings, & Destructions ***(Except Enhanced Leak Detection)***	$200.00 for the first activity	_____ **x $200.00**	_____
	$161.00 for each additional well	_____ **x $161.00**	_____
	$99.00 for first well maintenance inspection	_____ **x $ 99.00**	_____
	$ 30.00 for each additional well maintenance inspection	_____ **x $ 30.00**	_____
	$123.00 for each well destruction	_____ **x $123.00**	_____
	$ 49.00 for each additional boring	_____ **x $ 49.00**	_____
Permit for Enhanced Leak Detection	**$320.00 (Flat Fee)**		$_____
	TOTAL COST OF PERMIT		**$ 1,572.00**

APN - Kettner and Vine



Legend

- Assessor Parcels

Notes

0.1 0 0.07 0.1 Miles

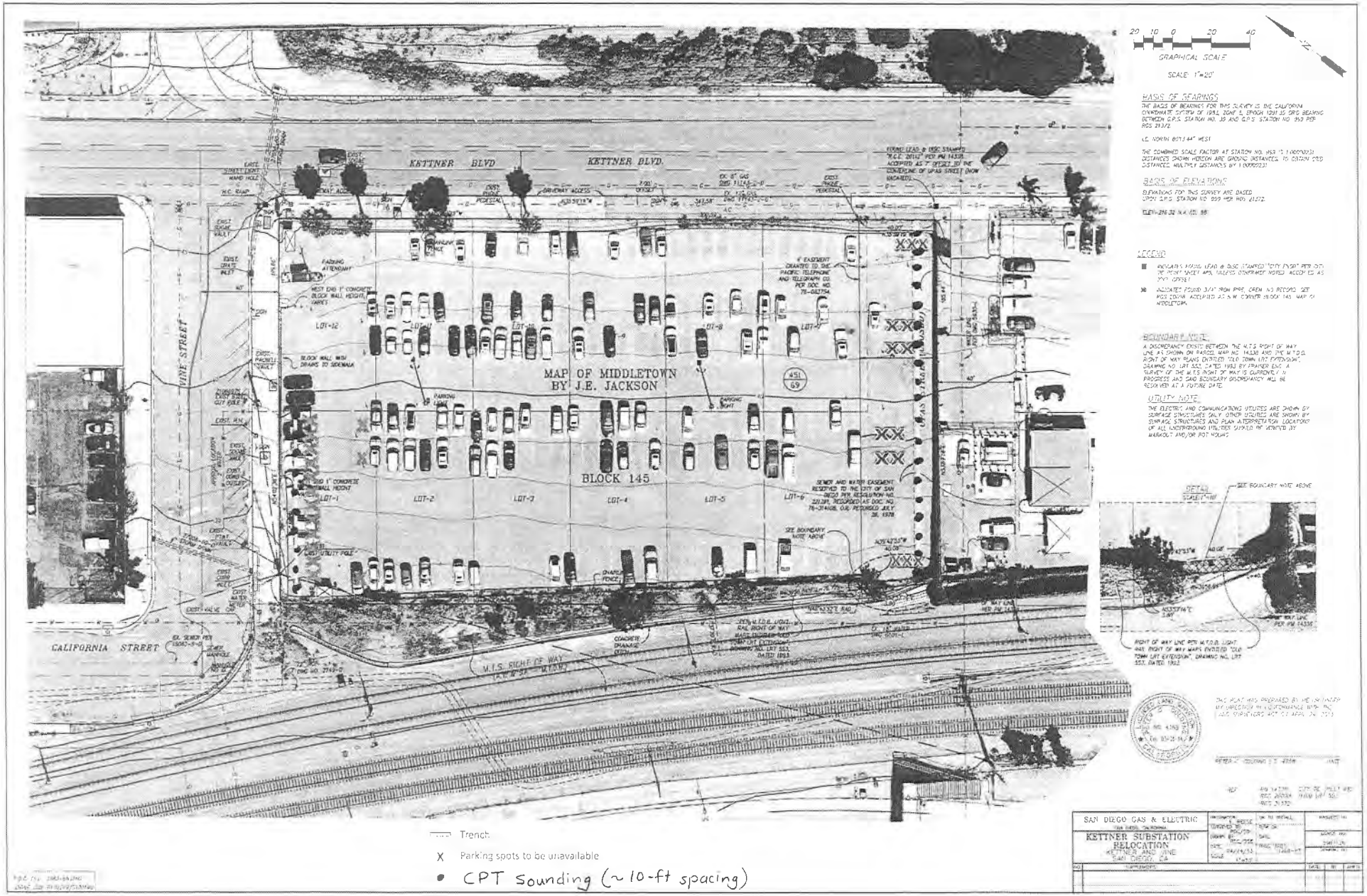
WGS_1984_Web_Mercator_Auxiliary_Sphere
Planning and Development Services

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

APN Information

Kettner and Vine

Thu Apr 18 2013 08:24:46 AM



KETTNER BLVD
KETTNER BLVD.
VINE STREET
CALIFORNIA STREET
MAP OF MIDDLETOWN
BY J.E. JACKSON
BLOCK 145
LOT-1
LOT-2
LOT-3
LOT-4
LOT-5
LOT-6
LOT-7
LOT-8
LOT-12
M.T.S. RIGHT OF WAY
GRAPHICAL SCALE
SCALE: 1"=20'
BASIS OF BEARINGS
BASIS OF ELEVATIONS
LEGEND
BOUNDARY NOTE
UTILITY NOTE
DETAIL
SAN DIEGO GAS & ELECTRIC
KETTNER SUBSTATION
RELOCATION
KETTNER AND VINE
SAN DIEGO, CA
Trench
X Parking spots to be unavailable
• CPT Sounding (~10-ft spacing)

County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
MONITORING WELL PROGRAM
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
858-505-6700/1-800-253-9933 FAX: 858-505-6891
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

PROPERTY OWNER CONSENT

Proposed locations for subsurface work:

Property Address:	**Assessor's Parcel Number (APN):**
Southwest of the Intersection of Kettner Blvd. and Vine Street	4516901800

I, San Diego Gas & Electric Company, owner of the property/properties listed above, give my permission to Geosyntec Consultants (consulting company, contractor) to conduct the following work at the locations stated above.

☐ Install _____ monitoring wells ☐ Destroy _____ monitoring wells ☒ Drill 29 CPT Soundings/ soil borings

I understand that Jennifer Nevius (registered professional) of Geosyntec Consultants (consulting company) and an authorized signer for Kehoe Testing and Engineering, Inc. (drilling company) have submitted a signed application to the Department of Environmental Health in which they have agreed to complete the above-stated work according the requirements of the current SAM Manual, all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction. I have arranged with the Responsible Party, the person who causes to have monitoring wells/borings installed or existing wells destroyed on this property, to ensure proper closure of the monitoring wells/borings.

Property Owner Signature: _____ Date: 7/22/13

Print Name: Jim Seifert Title: Manager of Corporate Real Estate, Land Services & Facilities

Company: San Diego Gas & Electric Company

Mailing Address: 8335 Century Park Court, CP1-1D, San Diego, CA 92123

Appendix C

Notice of receipt of Freedom of Information ACT
from the United States Environmental Protection Agency – Region IX

From: r9foia@epa.gov
Sent: Tuesday, March 25, 2014 1:10 PM
To: Shannon@EnvironmentalSupportServices.com
Subject: FOIA Request EPA-R9-2014-004985 Submitted

This message is to confirm your request submission to the FOIAonline application: View Request. Request information is as follows:

- Tracking Number: EPA-R9-2014-004985
- Requester Name: Shannon Castagno
- Date Submitted: Tue Mar 25 16:10:23 EDT 2014
- Request Status: Submitted
- Description: Site: Southwest corner of Vine Street and Kettner Blvd.
  San Diego, CA 92101
  APN 451-690-1800

  1. utilization, manufacture, storage, or discharge of hazardous materials/waste.
  2. previous or on-going site investigations/remediations pertaining to hazardous materials/ waste.
  3. hazardous materials disclosures concerning the site.
  4. information regarding underground and aboveground storage tank present or previously found at the site.

From: r9foia@epa.gov
Sent: Friday, March 28, 2014 5:45 PM
To: Shannon@EnvironmentalSupportServices.com
Subject: FOIA Request EPA-R9-2014-005124 Submitted

This message is to confirm your request submission to the FOIAonline application: View Request. Request information is as follows:

- Tracking Number: EPA-R9-2014-005124
- Requester Name: Shannon Castagno
- Date Submitted: Fri Mar 28 20:45:12 EDT 2014
- Request Status: Submitted
- Description: Site: 3548 & 3550 Kettner Blvd.
  San Diego, CA 92101
  1. utilization, manufacture, storage, or discharge of hazardous materials/waste.
  2. previous or on-going site investigations/remediations pertaining to hazardous materials/ waste.
  3. hazardous materials disclosures concerning the site.
  4. information regarding underground and aboveground storage tank present or previously found at the site.

Appendix D

Request for Records Search to the
Department of Toxic Substances Control – Cypress Office and
Response from that Agency

Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 24, 2014

Dept of Toxic Substances Control
Cypress Office
5796 Corporate Avenue
Cypress, CA 90630

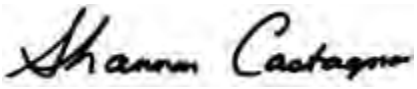
Attention: Julie Johnson/Jone Barrio

Dear Julie/Jone,

Please check for any files/information on the following site:

Site: Southwest corner of Vine Street and Kettner Blvd.
San Diego, CA 92101
APN 451-690-1800
(see attached map)

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

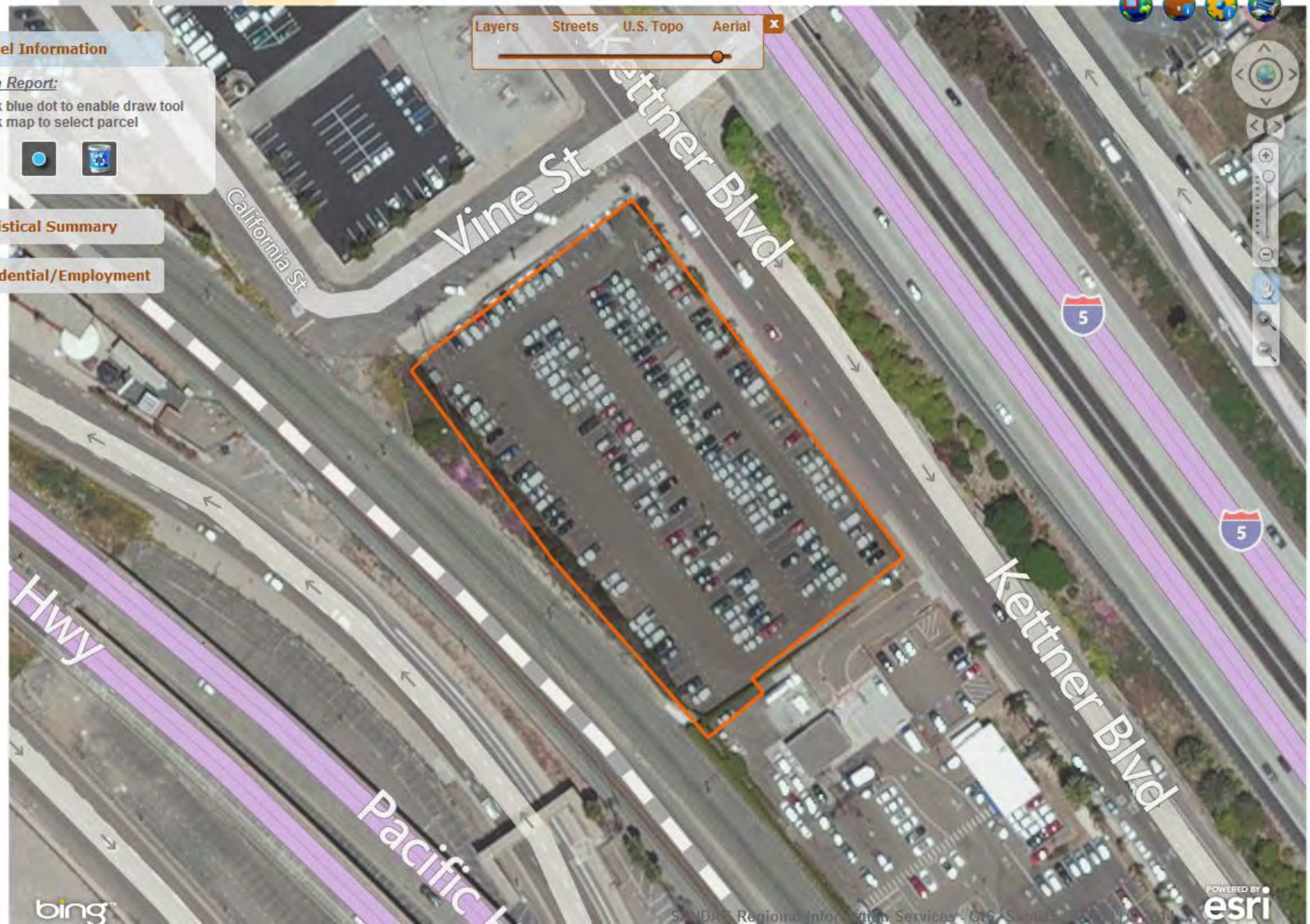
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 28, 2014

Dept of Toxic Substances Control
Cypress Office
5796 Corporate Avenue
Cypress, CA 90630

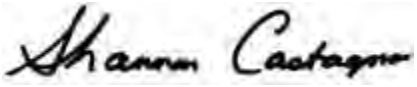
Attention: Julie Johnson/Jone Barrio

Dear Julie/Jone,

Please check for any files/information on the following site:

Site: 3548 & 3550 Kettner Blvd.
San Diego, CA 92101

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

Department of Toxic Substances Control

Deborah O. Raphael, Director
5796 Corporate Avenue
Cypress, California 90630

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

March 25, 2014

Shannon Castagno
ENVIRONMENTAL SUPPORT SERVICES
30251 Golden Lantern, #E-305
Laguna Niguel, CA 92677

SW CORNER OF VINE STREET AND KETTNER BLVD, SAN DIEGO, CA 92101
PR#40325141

Dear Ms. Castagno:

The Department of Toxic Substances Control has received your letter to review records under the Public Records Act.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would like to inform you about EnviroStor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accesses at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available at each DTSC Regional File Room Office for use by community members to view EnviroStor.

If you have any questions or would like further information regarding your request, please contact me at (714) 484-5337.

Sincerely,

Julie Johnson
Regional Records Coordinator

Printed on Recycled Paper

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Deborah O. Raphael, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

April 1, 2014

Shannon Castagno
ENVIRONMENTAL SUPPORT SERVICES
30251 Golden Lantern, E-305
Laguna Niguel, CA 92677

3548/3550 KETTNER BLVD, SAN DIEGO, CA
PR#40328147

Dear Ms. Castagno:

The Department of Toxic Substances Control has received your letter to review records under the Public Records Act.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

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Sincerely,

Julie Johnson
Regional Records Coordinator

Printed on Recycled Paper

Appendix E

Request for Records Search to the
Department of Toxic Substances Control – San Diego Office and
Response from that Agency

Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 24, 2014

Dept of Toxic Substances Control
San Diego Office
9174 Sky Park Court, Suite 150
San Diego, CA

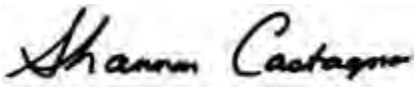
Attention: Cleo Munoz/Records/File Room

Dear Cleo Munoz,

Please check for any files/information on the following site:

Site: Southwest corner of Vine Street and Kettner Blvd.
San Diego, CA 92101
APN 451-690-1800
(see attached map)

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

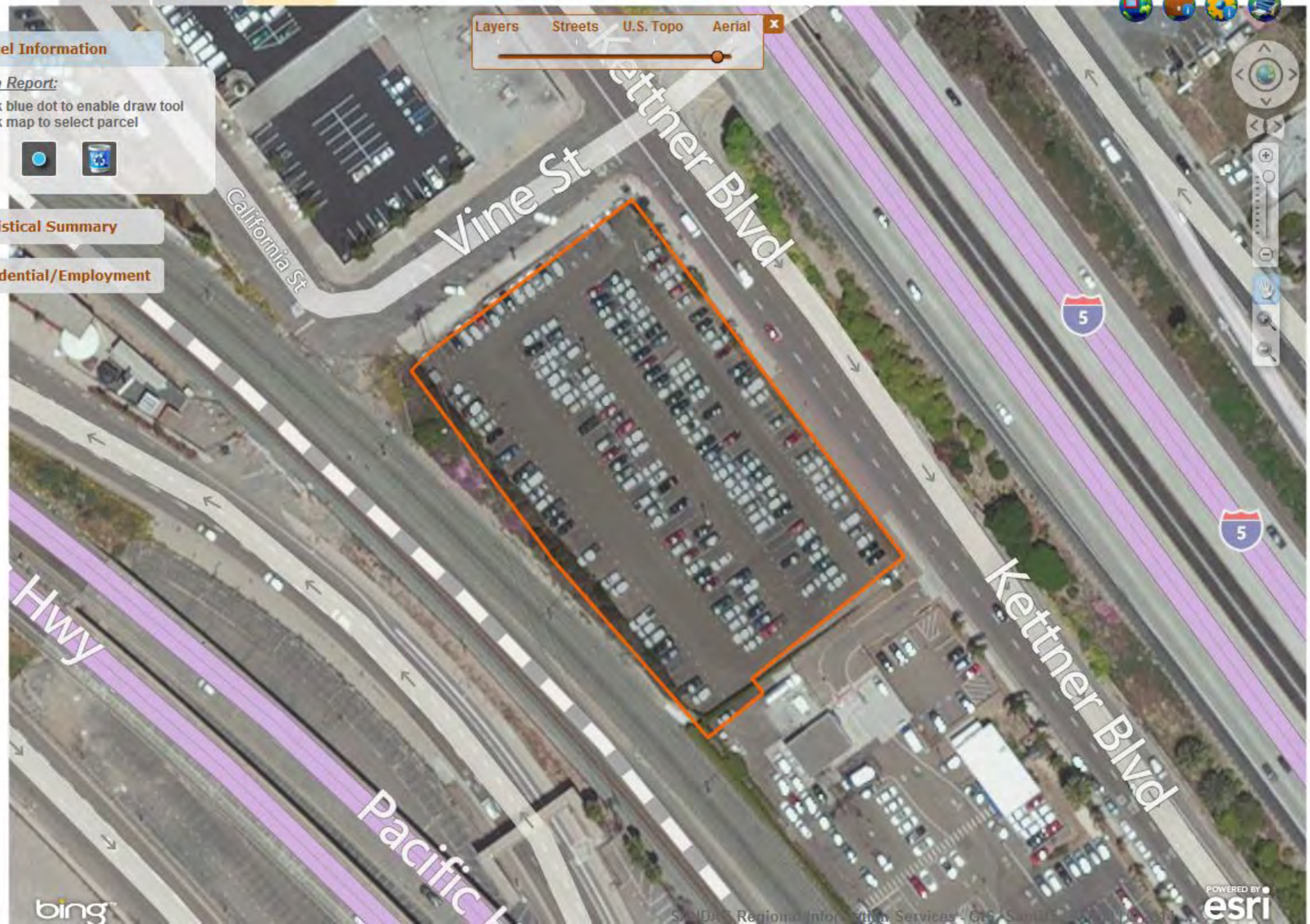
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 28, 2014

Dept of Toxic Substances Control
San Diego Office
9174 Sky Park Court, Suite 150
San Diego, CA

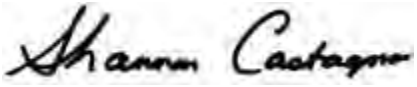
Attention: Cleo Munoz/Records/File Room

Dear Cleo Munoz,

Please check for any files/information on the following site:

Site: 3548 & 3550 Kettner Blvd.
San Diego, CA 92101

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Deborah O. Raphael, Director
2375 Northside Dr., Suite 100
San Diego, California 92108

Edmund G. Brown Jr.
Governor

April 1, 2014

Shannon Castagno
Project Manager
Environmental Support Services
30251 Golden Lantern, #E-305
Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com

Subject: Southwest corner of Vine Street and Kettner Blvd. San Diego, CA
PRS# 40401141

Dear Ms., Castagno:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions, would like further information regarding your request or would like an appointment to visit San Diego's Central Files, please contact me at (858) 637-5531.

Sincerely,

Cleo Muñoz
Regional Records Coordinator

Printed on Recycled Paper

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Deborah O. Raphael, Director
2375 Northside Dr., Suite 100
San Diego, California 92108

Edmund G. Brown Jr.
Governor

April 1, 2014

Shannon Castagno
Project Manager
Environmental Support Services
30251 Golden Lantern, #E-305
Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com

Subject: 3548 & 3550 Kettner Blvd. San Diego, CA 92101
PRS# 40401148

Dear Ms., Castagno:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

We would like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions, would like further information regarding your request or would like an appointment to visit San Diego's Central Files, please contact me at (858) 637-5531.

Sincerely,

Cleo Muñoz
Regional Records Coordinator

Printed on Recycled Paper

Appendix F

Request for Records Search to the
City of San Diego Fire Department

THE CITY OF SAN DIEGO

ENVIRONMENTAL ASSESSMENT RECORDS INFORMATION

Environmental Assessment Records Information requests, with payment, will be processed within five (5) working days of receipt of the request, if possible. Faxed requests are not accepted. Requests cannot be processed on the same day they are received. The EXACT STREET ADDRESS of each site must be provided. The current fee is $5 per street address (not per parcel). Make all checks payable to the CITY TREASURER. Record searches are done in the order requests are received, and you will receive a response by letter when the search is completed. Please mail requests, or related correspondence, to the Records Management Clerk.

Business Name: _____

Address: _____

City: _____

Date of Request: 3/24/14 Telephone: _____

Environmental Support Services
Environmental Research & Due Diligence Compliance

Shannon Castagno
Project Manager

Tel) 949-429-3564 Fax) 949-429-3563
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com - www.EnvironmentalSupportServices.com

REQUEST INFORMATION

Address: Southwest corner of Vine Street & Kettner Blvd.
San Diego, CA 92101
APN 451-690-1800
(See attached Map)

Address: _____

Address: _____

Address: _____

Address: _____

Site Inspection and Environmental Assessment Information forms are available at www.sannet.gov/fireandems/inspections

07/16/02

DIVERSITY

THE CITY OF SAN DIEGO

ENVIRONMENTAL ASSESSMENT RECORDS INFORMATION

Environmental Assessment Records Information requests, with payment, will be processed within five (5) working days of receipt of the request, if possible. Faxed requests are not accepted. Requests cannot be processed on the same day they are received. The EXACT STREET ADDRESS of each site must be provided. The current fee is $5 per street address (not per parcel). Make all checks payable to the CITY TREASURER. Record searches are done in the order requests are received, and you will receive a response by letter when the search is completed. Please mail requests, or related correspondence, to the Records Management Clerk.

Business Name: _____

Address: _____

City: _____

Date of Request: 3/28/14 Telephone: _____

Environmental Support Services
Environmental Research & Due Diligence Compliance

Shannon Castagno
Project Manager

Tel) 949-429-3564 Fax) 949-429-3563
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com - www.EnvironmentalSupportServices.com

REQUEST INFORMATION

Address: 3548 & 3550 Kettner Blvd., San Diego, CA 92101

Address: _____

Address: _____

Address: _____

Address: _____

Address: _____

Address: _____

Address: _____

Site Inspection and Environmental Assessment Information forms are available at www.sannet.gov/fireandems/inspections

07/16/02

DIVERSITY

Appendix G

Request for Records Search to the
City of San Diego – Industrial Waste Program and
Response from that Agency

INDUSTRIAL WASTEWATER CONTROL PROGRAM INFORMATION REQUEST

Complete top portion and return to:

Industrial Wastewater Control Program
9192 Topaz Wy, MS 901D
San Diego, CA 92123-1119

Phone: (858) 654-4100
Fax: (858) 654-4110

Requester Information:

Name _____

Company _____

Address _____

_____

Phone _____

Environmental Support Services
Environmental Research & Due Diligence Compliance

Shannon Castagno
Project Manager

Tel) 949-429-3564 Fax) 949-429-3563
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com - www.EnvironmentalSupportServices.com

3/24/14

Site Information:

Address Southwest corner of Vine Street & Kettner Blvd.
San Diego, CA 92101 APN 451-690-1800
(See attached map)

For IWCP Use Only

A search of our records was conducted and the following information about the above site was found:

Permit # _____ Issued ____/____/____

Permittee Name _____

Category _____ Permitted flow _____

Description of permitted wastestream: _____

_____

Violations: _____

_____

Other Information: _____

_____

_____ The above permit was inactivated on ____/____/____ due to ownership change, facility closure, or other significant changes in operations.

_____ No permit on file.

Inspector _____ Date _____

The above information is meant only to provide an overview of permitted industrial discharges to the sewer system. For additional information about environmental permits held by this facility, you may wish to contact the Hazardous Materials Management Division at (619) 338-2284 or the Air Pollution Control District at (858) 586-2650.

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

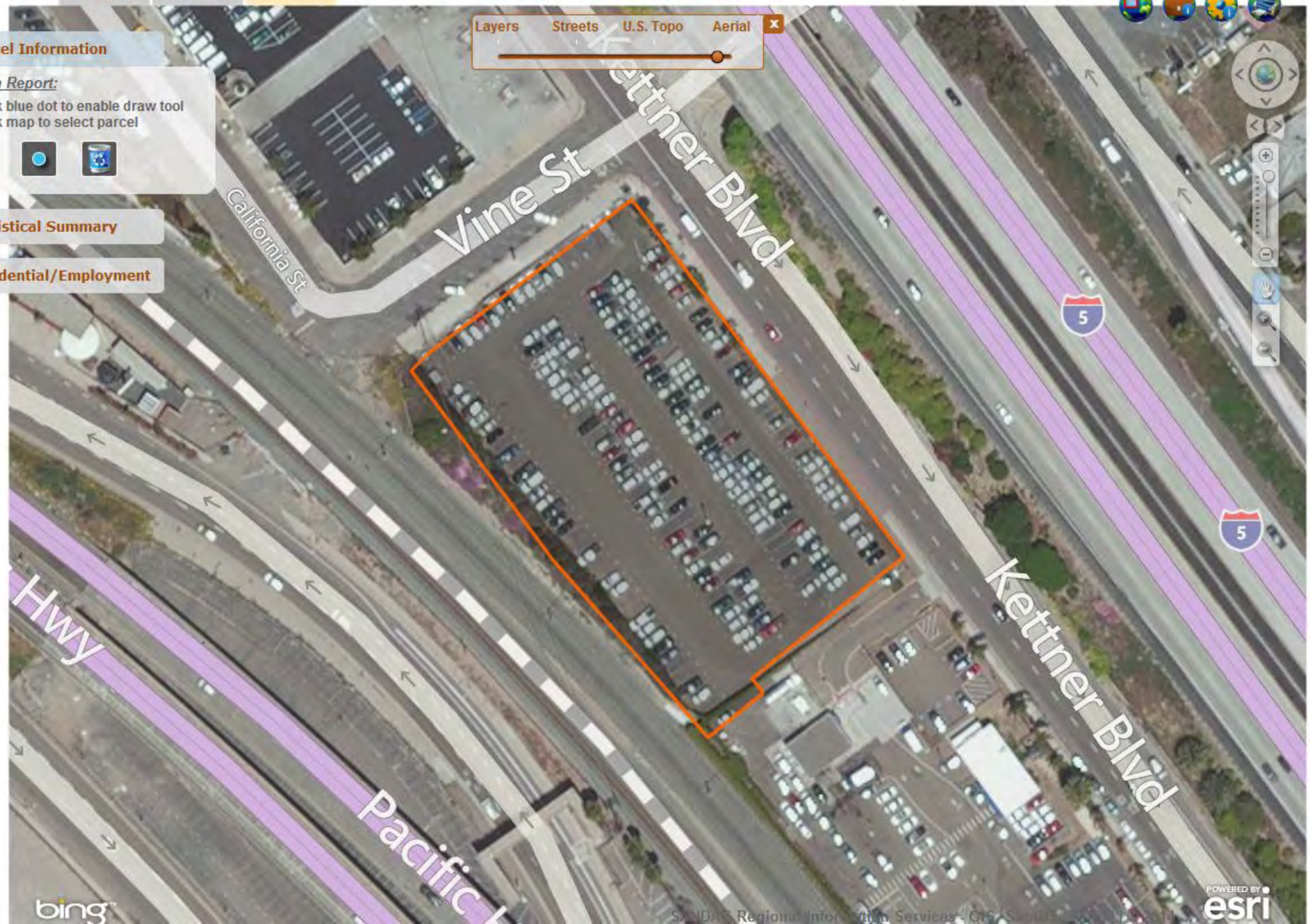
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



INDUSTRIAL WASTEWATER CONTROL PROGRAM INFORMATION REQUEST

Complete top portion and return to:

Industrial Wastewater Control Program
9192 Topaz Wy, MS 901D
San Diego, CA 92123-1119

Phone: (858) 654-4100
Fax: (858) 654-4110

Requester Information:

Name _____

Company _____

Address _____

_____

Phone _____

Environmental Support Services
Environmental Research & Due Diligence Compliance

Shannon Castagno
Project Manager

Tel) 949-429-3564 Fax) 949-429-3563
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Shannon@EnvironmentalSupportServices.com - www.EnvironmentalSupportServices.com

3/28/14

Site Information:

Address 3548 & 3550 Kettner Blvd.
San Diego, CA 92101

For IWCP Use Only

A search of our records was conducted and the following information about the above site was found:

Permit # _____ Issued ____/____/____

Permittee Name _____

Category _____ Permitted flow _____

Description of permitted wastestream: _____

_____

Violations: _____

_____

Other Information: _____

_____

_____ The above permit was inactivated on ____/____/____ due to ownership change, facility closure, or other significant changes in operations.

_____ No permit on file.

Inspector _____ Date _____

The above information is meant only to provide an overview of permitted industrial discharges to the sewer system. For additional information about environmental permits held by this facility, you may wish to contact the Hazardous Materials Management Division at (619) 338-2284 or the Air Pollution Control District at (858) 586-2650.

From: Taylor, Brian [BTaylor@sandiego.gov]
Sent: Tuesday, March 25, 2014 2:49 PM
To: Shannon@EnvironmentalSupportServices.com
Subject: Information request for SW corner of Vine St & Kettner Blvd.

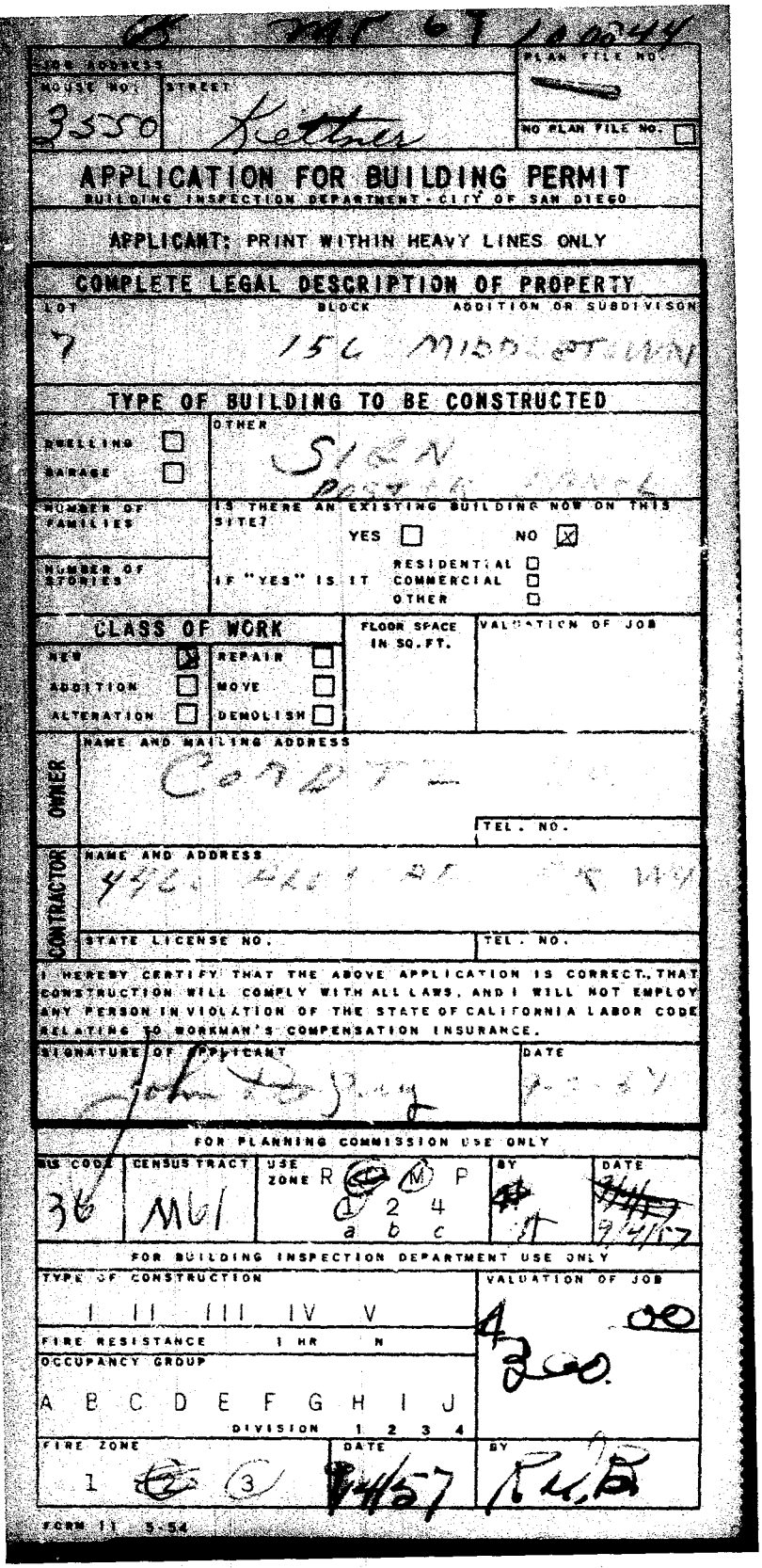
Hi Shannon,
Our Industrial User Discharge permits are recorded under the permitted facility's address. Please resubmit your information request with a street number or facility name. Thanks.

Brian Taylor
Pretreatment Inspector
Industrial Wastewater Control Program
9192 Topaz Way San Diego, CA 92123
858-654-4124
Fax 858-654-4110
BTaylor@sandiego.gov

Appendix H

Photocopies Obtained from the
City of San Diego Building Department

05 23 2003



B MP 67 100044

JOB ADDRESS		PLAN FILE NO.
HOUSE NO. 3550	STREET Kettner	NO PLAN FILE NO. ☐

APPLICATION FOR BUILDING PERMIT

BUILDING INSPECTION DEPARTMENT - CITY OF SAN DIEGO

APPLICANT: PRINT WITHIN HEAVY LINES ONLY

COMPLETE LEGAL DESCRIPTION OF PROPERTY

LOT	BLOCK	ADDITION OR SUBDIVISON
7	156	MIDDLETOWN

TYPE OF BUILDING TO BE CONSTRUCTED

DWELLING ☐ GARAGE ☐

OTHER SIGN POSTER BANK

NUMBER OF FAMILIES

IS THERE AN EXISTING BUILDING NOW ON THIS SITE? YES ☐ NO ☒

NUMBER OF STORIES

IF "YES" IS IT RESIDENTIAL ☐ COMMERCIAL ☐ OTHER ☐

CLASS OF WORK

NEW ☒ REPAIR ☐ ADDITION ☐ MOVE ☐ ALTERATION ☐ DEMOLISH ☐

FLOOR SPACE IN SQ. FT.

VALUATION OF JOB

OWNER — NAME AND MAILING ADDRESS: CONDT [illegible]

TEL. NO.

CONTRACTOR — NAME AND ADDRESS: 4460 [illegible] WY

STATE LICENSE NO.

TEL. NO.

I HEREBY CERTIFY THAT THE ABOVE APPLICATION IS CORRECT, THAT CONSTRUCTION WILL COMPLY WITH ALL LAWS, AND I WILL NOT EMPLOY ANY PERSON IN VIOLATION OF THE STATE OF CALIFORNIA LABOR CODE RELATING TO WORKMAN'S COMPENSATION INSURANCE.

SIGNATURE OF APPLICANT: John [illegible]

DATE: [illegible]

FOR PLANNING COMMISSION USE ONLY

BUS CODE	CENSUS TRACT	USE ZONE	BY	DATE
36	M61	R C M P 1 2 4 a b c	[illegible]	~~[illegible]~~ 9/4/57

FOR BUILDING INSPECTION DEPARTMENT USE ONLY

TYPE OF CONSTRUCTION: I II III IV V

VALUATION OF JOB: 4 00 200.

FIRE RESISTANCE 1 HR N

OCCUPANCY GROUP: A B C D E F G H I J

DIVISION 1 2 3 4

FIRE ZONE	DATE	BY
1 2 3	9/4/57	R.W.B.

FORM 11 5-54

05 23 2003

100844

JOB ADDRESS		PLAN FILE NO.
HOUSE NO. 3550	STREET Kettner	NO PLAN FILE NO. ☐

ROUTE SHEET

FOR BUILDING PERMIT APPLICATION

RESPONSIBILITY	ITEMS	DATE / INITIALS
APPLICANT	SIZE OF WATER METER: 5/8" ☐ 3/4" ☐ 1" ☐ OTHER LOCATION OF WATER METER: EXISTING, IF AVAILABLE ☐ NEW CENTER LINE OF PROPERTY ☐ OTHER	
PLANNING COMMISSION	REMARKS Posts Panel ____ BATH(S) ____ SINK(S)	9/4 [illegible]
WATER	ROUTE APPLICANT TO DEPARTMENT ☐ PLAT BOOK PAGE APPLICATION CLEARED: NO CHARGE ☑ SERVICE ORDER NO. $____ WATER MAIN NO. $____ SPECIAL FEES NO. $	9/4/57 [illegible]
CITY ENGINEER	ROUTE APPLICANT TO DEPARTMENT ☐ APPLICATION CLEARED, GRADE ELEVATIONS ARE ATTACHED ☐ UNNECESSARY ☐	
SEWER DIVISION	ROUTE APPLICANT TO DEPARTMENT ☐ PLAT BOOK PAGE APPLICATION CLEARED: NO CHARGE ☐ TYPE OF CONNECTION $____ SPECIAL FEES $	
BUILDING INSPECTION	STATEMENT ATTACHED NO. $2.50 TOTAL $	9/4/57 [illegible]
CASHIER	APPLICATION CLEARED [illegible] WELLE CITY TREAS	
BLDG INSP	PERMIT ISSUED	✓

CITY OF SAN DIEGO FORM 11-A 5-54

05 23 2003

ELECTRICAL Permit Application

SEPARATE APPLICATION REQUIRED FOR EACH BUILDING

JOB ADDRESS: 3550 Kettner Bl

CENSUS TRACT NUMBER: 6500

PERMIT NUMBER: 127861

OWNER

NAME (OR NAME OF BUSINESS): Jerry Traver

MAILING ADDRESS (NUMBER) (STREET): 4324 Pintoresco

(CITY): San Diego | ZIP: 92108 | TELEPHONE NUMBER: 284-5153

CONTRACTOR

NAME: So Bay Elect

ADDRESS (NUMBER) (STREET): 224 West Playa

(CITY): National City | ZIP: 92050 | TELEPHONE NUMBER: 264-7861

STATE LICENSE NO.: 260181 | CLASS NO.: C-10 | CITY LICENSE NUMBER:

BUILDING

JOB ADDRESS: 3550 Kettner

Check appropriate block

A — USE FEE SCHEDULE "A" FOR NEW RESIDENTIAL CONSTRUCTION ONLY — Res. ☐ Apt. ☐

B — USE FEE SCHEDULE "B" FOR REMODELS OR NEW COMM/IND ONLY — NEW COMM/IND ■ — REMODEL Apt. ☐ COM. ☐ Res. ☐ IND. ☐

Description Of Work To Be Done: Install 2 Flood Lights & 3 Floorcrete

I hereby acknowledge that I have read this application, that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. I agree to comply with city and state laws regulating construction; and in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

SIGNATURE (OWNER OR AGENT): [signature] | DATE SIGNED: 4/20/77

AGENT FOR: So Bay Elect

ADDRESS: 224 W Playa

NOTE: CONTRACTORS ARE AUTHORIZED TO CONSTRUCT ONLY WORK RECOGNIZED BY THE STATE CONTRACTORS LICENSE BOARD AS BEING WITHIN THE CLASSIFICATION.

CALL 236-6256 FOR INSPECTION

Do Not Write In This Space

3550 Kettner Bl

Fee Schedule A

		No. Amps	Fees
For New Residential Construction Only	10	x $.25	
For each ampere of service fuse or breaker size	30	x $.45	

Enter the number of circuits, feeders, and/or services to be installed, in the left-hand column by the correct size.
CIRCLE THE FEE IN THE APPROPRIATE COLUMN.

Fee Schedule B

For all electrical installations other than new residential construction.

NO. OF CIRCUITS	Circuit Size Amperes	115/230V 120/208V	Voltage 277/480	Over 600 V	Fees
5	0 – 20A 1 to 100 incl.	$ 1.50	$ 3.00	$ 6.00	7.50
	0 – 20A More than 100	.75	1.50	6.00	
	25 – 35A	2.00	4.00	8.00	
	40 – 45A	3.00	6.00	12.00	
	50 – 99A	4.00	8.00	16.00	5.00
1	100 – 199A	5.00	10.00	20.00	
	200 – 399A	6.00	12.00	24.00	
	400 – 599A	7.00	14.00	28.00	
	600 – 799A	8.00	16.00	32.00	
	800 – 999A	9.00	18.00	36.00	
	1000A & Larger	10.00	20.00	40.00	
	TEMPORARY SERVICE			5.00	
	TEMPORARY POLE CONST.			5.00	

ATTENTION: THIS PERMIT AUTHORIZES ONLY THE WORK NOTED. BUILDING INSPECTION DEPARTMENT — CITY OF SAN DIEGO — FILE

Min. Fee $5.00
NOT REFUNDABLE
SUB-TOTAL (SINGLE UNIT)

NO. OF UNITS	SINGLE UNIT FEE	TOTAL FEE DUE
		12.50

FUND 100 | REVENUE ACCT 7344

APPLICATION APPROVAL

THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY; AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN SPACE PROVIDED.

SIGNATURE OF BLDG. INSP. DEPUTY: [signature]

DATE: 4-21-77

METER SHEET NO. | Unit Numbers

PERMANENT METER

LT.	RANGE	A.C.	POWER	RESET	PERM. METER

TEMPORARY METER

LT.	RANGE	A.C.	POWER	CONST. METER	CONST. POLE

BID-259 (REV. 7-75)

Building Permit Application

APPLICANT FILL INSIDE HEAVY LINES

05 23 2003

JOB ADDRESS: 3450 KETTNER BLVD.

CENSUS TRACT NUMBER: 101.00

PERMIT NUMBER: L33842

OWNER

NAME (OR NAME OF BUSINESS): GALE TRAVER

MAILING ADDRESS (NUMBER) (STREET): 4324 PINTORESCO

CITY: SAN DIEGO ZIP: 92108 TELEPHONE NUMBER: 284-5153

ENGINEER

NAME:

ADDRESS (NUMBER) (STREET):

CITY: ZIP: TELEPHONE NUMBER:

BUILDER

NAME: AMERICAN FENCE CO

ADDRESS (NUMBER) (STREET): 1075 GRAND AVE

CITY: SAN MARCOS ZIP: 92069 TELEPHONE NUMBER: 744-4124

STATE LICENSE NUMBER: 170984 CLASS. NO.: C-13 CITY LICENSE NUMBER: 11847

JOB LOCATION

LOT: 1 & 12 BLOCK: 145 SUBDIVISION: MIDDLETON UNIT:

JOB ADDRESS: 3450 KETTNER BLVD

CONDITION OF SOIL AT JOB SITE: ☐ ORIGINAL ☑ COMPACTED FILL ☐ LOOSE FILL

NO. OF EXISTING BUILDINGS ON LOT AND USE: NONE

PROPOSED WORK

DESCRIBE WORK TO BE DONE: 6' HIGH CHAIN LINK FENCE 898 FEET

EXISTING USE OF BUILDING OR PROPERTY: VACANT

PROPOSED USE OF BUILDING OR PROPERTY: PARKING LOT

I hereby acknowledge that I have read this application, that the information given is correct, and that I am the owner, or the duly authorized agent of the owner. I agree to comply with city and state laws regulating construction; and in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

SIGNATURE (OWNER OR AGENT): [signature] DATE SIGNED: 3/28/77

AGENT FOR:

ADDRESS:

USE ZONE: M1 COORD. INDEX: 209-1714 PLAN FILE NO.: E50236

SETBACK: FRONT YARD | REAR YD | SIDE YD | (INT) | (STR) | NAME OF STREET

ALLOWABLE COVERAGE % | FLOOR AREA RATIO ALLOWED | MAX. ALLOWABLE HEIGHT (FT.) | VARIANCE NO.

LOT SPLIT DATE | AGREEMENT NO.: | NO. OF BAR SINKS | CURB TO P.L. F. S.

DATE PLANS SUBMITTED:

PLAN CHK. RECPT. NO.

PLAN CHK RECPT. AMT $

WORK TO BE DONE: ☐ SIGN ☐ MOVE ☐ ALTER ☐ DEMOLISH ☐ REPAIR ☒ NON-RESID ☐ NEW ☐ RESIDENTIAL ☒ ADD

B.C. CODE: 200 DWELL UNITS

BEDROOMS: S 1 2 3 4 5+

FUND & ACCT.		NO. UNITS	PER UNIT	TOTAL
	VALUATION OF WORK			3250 —
100 73421	PLAN CHECK FEE			13 —
	SUPPLEMENTAL PLAN CHK. FEE			
100 73422	BUILDING PERMIT FEE			26 —
320 9660	STATE FEE			60
506 79750	SEWER FEE			
500 79080	WATER FEE			
73423	PARK FEE			

SPECIAL INSPECTION REQUIRED FOR
☐ CONCRETE
☐ MASONRY
☐ WELDING, H.S. BOLTS
☐ PILE DRIVING
☐ OTHER (IDENTIFY)

TOTAL FEES DUE: 39 50

FIRE ZONE: 3 TYPE OF CONST.: V-N OCCUP. GRP.: U

BLDG AREA: NO. STORIES: TOT FLR AREA:

SPRINKLERS REQD FOR: HGT. INFT.

PLANS CHECKED: BID-7 DATE: 3/28/77

PLANS APPROVED: [signature] DATE: 3/28/77

PLOT PLAN CHK'D & APPR'D: ZONING DATE: 3/28/77

ATTENTION THIS PERMIT AUTHORIZES ONLY THE WORK NOTED

BUILDING INSPECTION DEPARTMENT

CITY OF SAN DIEGO

PMT 12-1-77 S.D. 12-1-77 PMT ****350.50

APPLICATION APPROVAL

THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY, AND FEES ARE PAID, AND RECEIPT IS ACKNOWLEDGED IN SPACE PROVIDED.

SIGNATURE OF BUILD. INSP. DEPT. DEPUTY: [signature]

DATE: 3/28/77 FILE

WATER

METER SIZE	SERVICE SIZE	CREDIT	CHECKED BY
REMARKS			

SEWER

NO. ADDITIONAL CONNECTIONS REQ'D	TYPE CONN	CHECKED BY
REMARKS		

IN-258 (REV. 9-75)

05 23 2003

APPLICANT NAME: San Diego Gas & Electric Co
ADDRESS: 3550 KETTNER ZIP CODE:
JOB ADDRESS: 3550 KETTNER
LEGAL DESCR: Change Elect - Overhead & Underground
LOT: BLOCK: SUBDIVISION:

3550 Kettner

CENSUS TRACT NUMBER: 65.02
PERMIT NUMBER: 24061
UNIT NUMBERS:
METER SHEET NO:

NEW | RESET | TEMP METER | TEMP POLE | PERM | RES | COM.

THIS PERMIT DOES NOT BECOME VALID UNTIL SIGNED BY THE DIRECTOR OF BUILDING INSPECTION, OR HIS DEPUTY AND FEES ARE PAID AND RECEIPT IS ACKNOWLEDGED IN THE SPACE PROVIDED

CONTRACTOR
NAME: SAN DIEGO GAS & ELECTRIC Co
ADDRESS: 3550 KETTNER
CITY: SAN DIEGO
NAME: Commercial Electric Co
ADDRESS: P.O. Box 13667
CITY: San Diego CA 92113
CITY LIC NUMBER: 0005 STATE LIC NUMBER: 233 935 CLASS: C-10

DESIGNER
NAME:
ADDRESS:
CITY:

LICENSED CONTRACTORS DECLARATION: I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.
Contractor: Commercial Electric Co Jerrell Jackson

OWNER-BUILDER DECLARATION: I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for the permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)

☐ I am exempt under Sec.

Owner

WORKER'S COMPENSATION DECLARATION
I hereby affirm that I have a certificate of Workers' compensation or a certificate of consent to self-insure for Workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.
My Workers' Compensation insurance carrier and policy number are:
Carrier: Commercial Casualty Ins. Co. Policy: PA72152649
Date: 7-11-95 Applicant: Jerrell Jackson

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE
I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation laws of California.
Applicant: Jerrell Jackson

CONSTRUCTION LENDING AGENCY
I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civil Code).
Lender's Name:
Lender's Address:
I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city or county to enter upon the above-mentioned property for inspection purposes. I also authorize representatives of the Contractors' State License Board to enter upon the above-mentioned property for inspection purposes. I agree that I shall be responsible for all work done under this permit that is not performed by a licensed contractor. I understand that my signature below is subject to the penalties of perjury. I also understand that I must comply with the provisions of Section 3097, Civil Code, with regard to securing construction financing or posting the property with a notice of non-responsibility.
Contractor's signature (or agent): Jerrell Jackson
APPLICANT'S SIGNATURE: Jerrell Jackson
☐ OWNER ☐ AGENT
Date: 7-11-95

TYPE OF STRUCTURE: ONE OR TWO FAMILY ☐ OTHER ☐

USE APPROPRIATE FEE SCHEDULE

A. NEW RESIDENTIAL CONSTRUCTION ONLY
NEW SINGLE-FAMILY ☐
NEW MULTI-FAMILY ☐
ENTER TYPE OF CONSTRUC. 10 x
TURN AND AMPERE RATING OF SERVICE TO BE INSTALLED 30 x

B. ALL OTHER WIRING INSTALLATIONS
ENTER TYPE OF CONSTRUCTION AND NUMBER OF CIRCUITS, INCLUDING FEEDERS AND/OR SERVICES, IN THE APPROPRIATE COLUMN FOR EACH SIZE AND VOLTAGE.

	NEW		REMODEL		
	COMMERCIAL	INDUSTRIAL	SINGLE FAMILY	MULTI-FAMILY	OVER 600V
			1		2.00

C. TEMPORARY SERVICE ☐ 4W ☐
TEMPORARY POLE CONST. ☐ OVER 200 ☐

ATTENTION
THIS PERMIT AUTHORIZES ONLY THE WORK NOTED

BUILDING PERMIT FEE
ELECTRICAL PERMIT FEE
ISSUING FEE NOT REFUNDABLE 7.50
SUB-TOTAL (SINGLE UNIT)
NO. OF UNITS
SINGLE UNIT FEE
NEW MH
9.50
TOTAL FEE DUE
AUDIT (MH)
DATE 7-12-95

APPLICATION APPROVAL
SPECIAL CONDITIONS

BUILDING PERMIT — SIGN | APPLICANT FILL INSIDE HEAVY LINES

SIGN OWNER
NAME OR NAME OF BUSINESS: Park + Ride Co.
MAILING ADDRESS (NUMBER) (STREET): 4324 Pintoresco
CITY: San Diego | ZIP: 92108 | TEL. NUMBER: 284-5153

SIGN USER
NAME: Park + Ride Co.
ADDRESS (NUMBER) (STREET): 3550 Kettner
CITY: San Diego | ZIP: 92101 | TEL. NUMBER: 295-2832

SIGN INSTALLER
NAME: Park + Ride Co.
ADDRESS (NUMBER) (STREET)
CITY | ZIP | TEL. NUMBER
STATE LICENSE NO. | CLASS. NO. | CITY LICENSE NO.

SITE
LOTS: 1 to 12 | BLOCK: 145 | SUBDIVISION: Middletown | UNIT
JOB ADDRESS: 3550 Kettner Blvd.

LIST EACH EXISTING SIGN GIVING TYPE AND AREA

SIGN TYPE	AREA
GROUND	36 sq FT

WORDING OF SIGN COPY: AIRPORT VALET SERVICE PARK + RIDE
2.25 PER 24 HOURS OR PART THERE OF INCLUDES TRANSPORTATION TO AND FROM AIRPORT

EXISTING SIGN BEING REPLACED: NO

I hereby acknowledge that I have read this application, that the information given is correct; and that I am the building or property owner, or the duly authorized agent of the building or property owner. I agree to comply with city and state laws regulating construction, in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

SIGNATURE (OWNER OR AGENT) | DATE SIGNED
AGENT FOR
ADDRESS

(IN-15 (2-76))

PLAN FILE NO. 89717-D | PLAN APPROVED | DATE

JOB ADDRESS: 3550 Kettner Blvd.
CENSUS TRACT NUMBER | BUILDING PERMIT NUMBER: 504474

TYPE OF NEW SIGN
- ☐ OFF-PREMISE
- ☒ GROUND
- ☐ WALL
- ☐ PROJECTING
- ☐ ROOF
- ☐ FRWY. OR.
- ☐ BLINKING
- ☐ ELECTRIC
- ☐ TURNING
- ☐ NOT VIS. R.W.

MAIN CERT. EXP. DATE: 9-30-79 | MAIN. CERT. NO.: 00099
VAR. NO. | EXP. DATE
C.U.P. NO. | EXP. DATE
SPECIAL DIST/C.S.P. | EXP. DATE
SIGN AREA: 36 ☐ | SIGN HGT.: [redacted] 5' | ZONE: M-1
COMM. CODE | LAND USE | PROJ. OVER RT. OF WAY | MAX. HT. ALLOW.: 30 | MAX. AREA ALLOW.: 100'
COORD. INDEX: 208-1713 | R/W WIDTH: -60 | SPEED ZONE: 35-40 | FRONTAGE: 300'
FRNT. YARD SET BACK | REQ. | ACT | REAR YD. | SIDE YARD (INT.) (STR.) | CURB TO P.L.
PLANNING DEPT. APP. BY: B Bennett | DATE: 6-15-77

SIGN TYPE	49 S.F. OR LESS	50 - 99 SQ. FT.	100 S.F. OR MORE	FEE	
WALL, NON-ELEC.	$28.65	$31.65	$34.65		
WALL, ELECTRIC	$34.65	$37.65	$40.65		
GRD. ROOF, PROJ.	$52.65	$55.65	$58.65	52	65
SPECIAL INSP. REQ.	EST. HRS.	$10.00 PER HR.			
OTHER					

ATTENTION: THIS PERMIT AUTHORIZES ONLY THE WORK NOTED. BUILD IN INSPECTION DEPARTMENT. CITY OF SAN DIEGO

FUND & ACC'T	SUB TOTAL 100-73602	52	65
320 9660	STATE FEE		.50
	TOTAL	53	15

APPROVAL
This permit does not become valid until signed by the Director of Building Inspection or his Deputy, fees paid, and receipt is acknowledged in space provided.

SIGNATURE OF BLDG. INSP. DEPT. DEPUTY: B. Nelford
DATE: 6/15/77

PLANNING | INSPECTION | FILE

05 23 2003

BUILDING PERMIT – SIGN

APPLICANT FILL INSIDE HEAVY LINES

3550 Kettner Blvd

CENSUS TRACT NUMBER [redacted]

SIGN OWNER
NAME OR NAME OF BUSINESS: PARK + RIDE Co
MAILING ADDRESS (NUMBER) (STREET): 4324 PINTORESCO
CITY: SAN DIEGO | ZIP: 92108 | TEL. NUMBER: 284-5153

SIGN USER
NAME: PARK & RIDE Co.
ADDRESS (NUMBER) (STREET): [redacted] 3550 KETTNER
CITY: SAN DIEGO | ZIP: 92101 | TEL. NUMBER: 295-2832

SIGN INSTALLER
NAME: PARK + RIDE Co
ADDRESS (NUMBER) (STREET):
CITY | ZIP | TEL. NUMBER
STATE LICENSE NO. | CLASS. NO. | CITY LICENSE NO.

SITE
LOT(S): 1 & 12 | BLOCK: 145 | SUBDIVISION: MIDDLETOWN | UNIT:
JOB ADDRESS: 3550 KETTNER BLVD

LIST EACH EXISTING SIGN GIVING TYPE AND AREA

SIGN TYPE	AREA
GROUND	18.4 FT

WORDING OF SIGN COPY: AIRPORT VALET SERVICE PARK+RIDE

IS AN EXISTING SIGN BEING REPLACED? NO

I hereby acknowledge that I have read this application, that the information given is correct, and that I am the building or property owner, or the duly authorized agent of the building or property owner. I agree to comply with city and state laws regulating construction; in doing the work authorized thereby, no person will be employed in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

SIGNATURE (OWNER OR AGENT): [signature] | DATE SIGNED: 6-15-77

AGENT FOR:

ADDRESS

IN-15 (2-76)

PLAN FILE NO. 89718-D | PLAN APPROVED | DATE

TYPE OF NEW SIGN
- ☐ OFF-PREMISE
- ☒ GROUND
- ☐ WALL
- ☐ PROJECTING
- ☐ ROOF
- ☐ FRWY. OR
- ☐ BLINKING
- ☐ ELECTRIC
- ☐ TURNING
- ☐ NOT VIS. R.W.

MAIN CONT. EXP. DATE: 9-30-79 | MAIN CONT. NO.: 00092

VAR. NO. | EXP. DATE
C.U.P. NO. | EXP. DATE
SPECIAL DIST/C.S.P. | EXP. DATE

SIGN AREA	SIGN HGT.	ZONE
184	5[redacted]	M-1

COMM. CODE	LAND USE	PROJ. OVER RT. OF WAY	MAX. HT. ALLOW.	MAX. AREA ALLOW.
			30'	100

COORD. INDEX	R/W WIDTH	SPEED ZONE	FRONTAGE
2-8-173	60+	25-30	200'

FRNT. YARD SET-BACK	REQ.	ACT	REAR YD.	SIDE YD.	(INT.)	(STR.)	CURB TO P.L.

PLANNING DEPT. APP. BY: [signature] | DATE: 6-15-77

SIGN TYPE	49 S.F. OR LESS	50 - 99 SQ. FT.	100 S.F. OR MORE	FEE
WALL, NON-ELEC.	$28.65	$31.65	$34.65	
WALL, ELECTRIC	$34.65	$37.65	$40.65	
GRD. ROOF, PROJ.	$52.65	$55.65	$58.65	52 65
SPECIAL INSP. REQ.	EST. HRS.	$10.00 PER HR.		
OTHER				

FUND & ACC.T		
	SUB TOTAL	52 65
100/73602		
320 S660	STATE FEE	.50
	TOTAL	53 15

APPROVAL
This permit does not become valid until signed by the Director of Building Inspection, or his Deputy; fees paid, and receipt is acknowledged in space provided

SIGNATURE OF BLDG. INSP. DEPT. DEPUTY: [signature]
DATE: 6/15/77

ATTENTION
THIS PERMIT
BUILDING INSPECTION DEPARTMENT
CITY OF SAN DIEGO

INSPECTION

FILE

Appendix I

Request for Records Search to the
San Diego Air Pollution Control District

SAN DIEGO AIR POLLUTION CONTROL DISTRICT

REQUEST FOR PUBLIC RECORDS

Date: 3/24/14

Name: Shannon Castagno Shannon@EnvironmentalSupportServices.com

Agency: Environmental Support Services

Address: 30251 Golden Lantern #E-305

City: Laguna Niguel State: CA Zip: 92677

Phone: (949) 429-3564 Fax: (949) 429-3563

I request to inspect the following Public Records (please be specific):

I would like copies of any permits to operate, equipment lists, notice of violations and notice to comply for:

Southwest Corner of Vine St. & Kettner Blvd.
San Diego, CA 92101
APN 451-690-1800
(See Attached Map)

INSPECTION OF PUBLIC RECORDS

The district shall make a determination if the records requested are available with the exception of those records specifically exempted from disclosure by state law and those records labeled as "TRADE SECRET" which are not emission data, within ten (10) days of the date of the receipt of the request. If, for good cause, the determination cannot be made within the ten (10) working days, the District will notify the requesting person the reasons for the delay and when the determination is expected to be made within an additional 14 days, as prescribed by law. Those records labeled as "TRADE SECRETS" shall be governed by the procedure set forth in District Rule 177 Section (g).

If you have any questions, please contact Public Records at (858) 586-2618.

Mail or fax completed form to:

San Diego APCD
Public Records
10124 Old Grove Road
San Diego, CA 92131 Phone: (858) 586-2600 Fax No.: (858) 586-2601

01/06

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

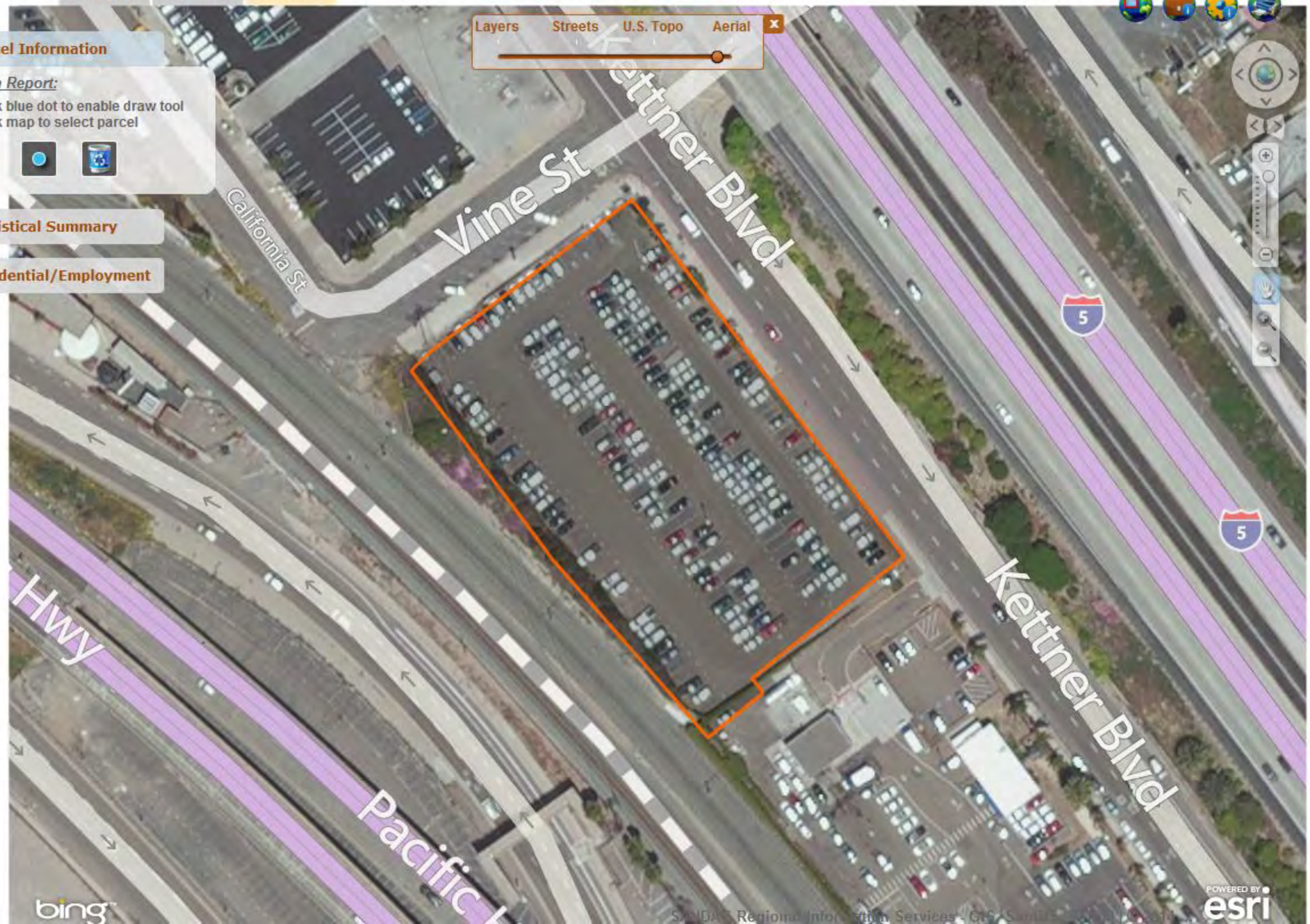
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



SAN DIEGO AIR POLLUTION CONTROL DISTRICT

REQUEST FOR PUBLIC RECORDS

Date: 3/28/14

Name: Shannon Castagno

Agency: Environmental Support Services

Address: 30251 Golden Lantern, # E305

City: Laguna Niguel State: CA Zip: 92677

Phone: (949) 429-3564 Fax: (949) 429-3563

I request to inspect the following Public Records (please be specific):

I would like copies of any permits to operate, equipment lists, notice of violations and notice to comply for : 3548 & 3550 Kettner Blvd. San Diego, CA 92101

INSPECTION OF PUBLIC RECORDS

The district shall make a determination if the records requested are available with the exception of those records specifically exempted from disclosure by state law and those records labeled as "TRADE SECRET" which are not emission data, within ten (10) days of the date of the receipt of the request. If, for good cause, the determination cannot be made within the ten (10) working days, the District will notify the requesting person the reasons for the delay and when the determination is expected to be made within an additional 14 days, as prescribed by law. Those records labeled as "TRADE SECRETS" shall be governed by the procedure set forth in District Rule 177 Section (g).

If you have any questions, please contact Public Records at (858) 586-2618.

Mail or fax completed form to:

San Diego APCD
Public Records
10124 Old Grove Road
San Diego, CA 92131 Phone: (858) 586-2600 Fax No.: (858) 586-2601

01/06

Appendix J

Request for Records Search to the
Regional Water Quality Control Board – San Diego Region and
Response from that Agency

Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 24, 2014

Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Ste 100
San Diego, CA 92123

Attention: LUST/WIP/SLIC/Site Mitigation Divisions

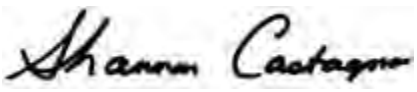
Dear Public Records Request,

Please check for any files/information on the following sites:

Site: Southwest corner of Vine Street and Kettner Blvd.
San Diego, CA 92101
APN 451-690-1800
(see attached map)

I would like to set up an appointment to review this file **as soon as possible**. Anything you can do to expedite this request would be greatly appreciated. Please call me at (949) 429-3564. Thanks!

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

REDI - Regional Economic Development Information System

SANDAG

Mapping | Locate | Reports

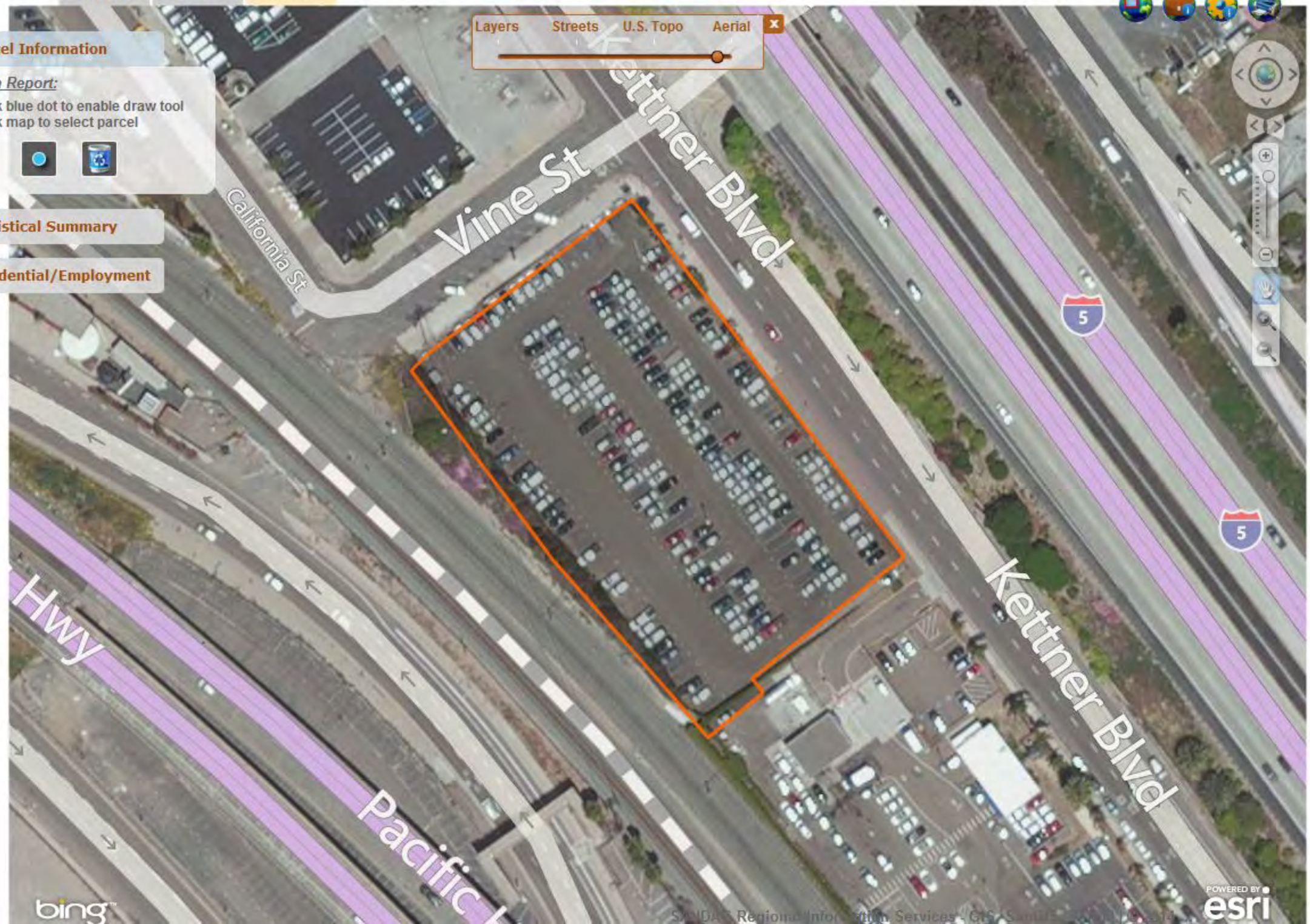
Parcel Information

To Run Report:

1 - Click blue dot to enable draw tool
2- Click map to select parcel

Statistical Summary

Residential/Employment



Environmental Support Services
Environmental Research & Due Diligence Compliance
30251 Golden Lantern, #E-305, Laguna Niguel, CA 92677
Tel) 949-429-3564 • Fax) 949-429-3563
www.EnvironmentalSupportServices.com • Info@EnvironmentalSupportServices.com

March 28, 2014

Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Ste 100
San Diego, CA 92123

Attention: LUST/WIP/SLIC/Site Mitigation Divisions

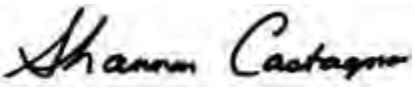
Dear Public Records Request,

Please check for any files/information on the following sites:

Site: 3548 & 3550 Kettner Blvd.
San Diego, CA 92101

I would like to set up an appointment to review this file **as soon as possible**. Anything you can do to expedite this request would be greatly appreciated. Please call me at (949) 429-3564. Thanks!

Sincerely,
Environmental Support Services



Shannon Castagno
Project Manager
Shannon@EnvironmentalSupportServices.com

From: ODonovan, Rachel@Waterboards [rachel.odonovan@waterboards.ca.gov] on behalf of RB9_Records, WB@Waterboards [WB.RB9_Records@waterboards.ca.gov]
Sent: Tuesday, April 01, 2014 10:45 AM
To: Shannon Castagno
Subject: RE: Public Records Request

Hi Shannon!

No records found for either address.....

Have a great day!!!!

Rachel O'Donovan
San Diego Regional Water Quality Control Board
Region 9
2375 Northside Drive, Suite 100
San Diego, CA 92108
619-521-3380

From: Shannon Castagno [mailto:Shannon@EnvironmentalSupportServices.com]
Sent: Friday, March 28, 2014 3:45 PM
To: RB9_Records, WB@Waterboards
Subject: RE: Public Records Request

Hi Rachel,

I just found two old addresses for the APN 451-690-1800, they are 3548 & 3550 Kettner Blvd., San Diego, CA 92101. I found them in the records I received from The San Diego County HMMD. I hope this helps and please let me know if you have any questions. Have a wonderful weekend J

Shannon Castagno
Project Manager
Environmental Support Services
Shannon@EnvironmentalSupportServices.com
(949) 429-3564

From: ODonovan, Rachel@Waterboards [mailto:rachel.odonovan@waterboards.ca.gov] **On Behalf Of** RB9_Records, WB@Waterboards
Sent: Tuesday, March 25, 2014 1:29 PM
To: Shannon Castagno

Subject: RE: Public Records Request

Okay, I will try to dig deeper or do google maps to see what other addresses are around. Please let me know if you come up with an address.

Thanks J

Rachel O'Donovan
San Diego Regional Water Quality Control Board
Region 9
2375 Northside Drive, Suite 100
San Diego, CA 92108
619-521-3380

From: Shannon Castagno [mailto:Shannon@EnvironmentalSupportServices.com]
Sent: Tuesday, March 25, 2014 12:03 PM
To: RB9_Records, WB@Waterboards
Subject: RE: Public Records Request

Hi Rachel,

We don't have a physical address for the site. It is currently a parking lot and was previously a gas station in the 1970's. If I come up with an address, I will get back with you. Thanks J

Shannon Castagno
Project Manager
Environmental Support Services
Shannon@EnvironmentalSupportServices.com
(949) 429-3564

From: ODonovan, Rachel@Waterboards [mailto:rachel.odonovan@waterboards.ca.gov] **On Behalf Of** RB9_Records, WB@Waterboards
Sent: Tuesday, March 25, 2014 7:40 AM
To: Shannon Castagno
Subject: RE: Public Records Request

Hi.
I need a physical address or I will have to pull everything up on the streets. May I have that?

Rachel O'Donovan
San Diego Regional Water Quality Control Board
Region 9

2375 Northside Drive, Suite 100
San Diego, CA 92108
619-521-3380

From: Shannon Castagno [mailto:Shannon@EnvironmentalSupportServices.com]
Sent: Monday, March 24, 2014 8:07 PM
To: RB9_Records, WB@Waterboards
Subject: Public Records Request

Please see attached public records request. Thanks and have a wonderful day.

Shannon Castagno
Project Manager
Environmental Support Services
Shannon@EnvironmentalSupportServices.com
(949) 429-3564

From: r9foia@epa.gov
Sent: Friday, March 28, 2014 5:45 PM
To: Shannon@EnvironmentalSupportServices.com
Subject: FOIA Request EPA-R9-2014-005124 Submitted

This message is to confirm your request submission to the FOIAonline application: View Request. Request information is as follows:

- Tracking Number: EPA-R9-2014-005124
- Requester Name: Shannon Castagno
- Date Submitted: Fri Mar 28 20:45:12 EDT 2014
- Request Status: Submitted
- Description: Site: 3548 & 3550 Kettner Blvd.
  San Diego, CA 92101
  1. utilization, manufacture, storage, or discharge of hazardous materials/waste.
  2. previous or on-going site investigations/remediations pertaining to hazardous materials/ waste.
  3. hazardous materials disclosures concerning the site.
  4. information regarding underground and aboveground storage tank present or previously found at the site.

From: r9foia@epa.gov
Sent: Thursday, April 17, 2014 3:27 PM
To: Shannon@EnvironmentalSupportServices.com
Subject: Final Disposition, Request EPA-R9-2014-005124

Request EPA-R9-2014-005124 has been processed with the following final disposition: No records

RECORDING REQUESTED BY:
Linda Ann Weir, Successor Co-Trustee
5715 Baltimore Drive, No. 141
La Mesa, California 91942

THE ORIGINAL OF THIS DOCUMENT
WAS RECORDED ON DEC 21, 2011
DOCUMENT NUMBER 2011-0688933
Ernest J. Dronenburg, Jr., COUNTY RECORDER
SAN DIEGO COUNTY RECORDER'S OFFICE
TIME: 4:59 PM

WHEN RECORDED, MAIL TO:
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630
Attention: Christine P. Brown, Engineering and Special Projects Office

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COVENANT TO RESTRICT USE OF PROPERTY
ENVIRONMENTAL RESTRICTION

Former Baron Blakeslee Facility South Parcel
3596 California Street
San Diego, CA 92101
San Diego County Assessor's Parcel No. 451-690-57
Department of Toxic Substances Control Site Code: 400208

This Covenant and Agreement ("Covenant") is made by and between Linda Ann Weir, Verna Gail Riley and Leslie Jo Bauman, Successor Co-Trustees of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968 (the "Covenantor"), and the California Department of Toxic Substances Control (the "Department"). Covenantor is the current owner of certain real property situated at 3596 California Street, San Diego, County of San Diego, State of California, described in Exhibit A, Legal Description of property, which is attached hereto and incorporated by this reference (the "Property"). Pursuant to Civil Code section 1471, the Department has determined that this Covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the Property of hazardous materials as defined in Health and Safety Code section 25260. The Covenantor and the Department, collectively referred to as the "Parties",

hereby agree that the use of the Property be restricted as set forth in this Covenant and the Parties further agree that the Covenant shall conform to the requirements of Civil Code section 1471, Health and Safety Code section 25202.5, and California Code of Regulations, title 22, section 67391.1.

ARTICLE I

STATEMENT OF FACTS

1.1. The Property is a roughly triangular parcel of land, covering approximately 0.592 acres, and is more particularly described and depicted in Exhibit "B" – Property Plot Plan. The Property is also identified as San Diego County Assessor Parcel Number 451-690-57. The Property consists of a limited part of the area generally bounded by California Street to the northeast, Bean Street to the northwest and land owned by the San Diego Metropolitan Transit System to the southwest. The Property is zoned for industrial use and is surrounded primarily by commercial and light industrial operations. The Property was formerly improved with an office and warehouse that were demolished in July 2008. Covenantor acquired ownership of the Property in 2003. Covenantor and prior owners leased the Property to the facility operators identified below.

1.2. The Property was the location of a virgin chemical sale business operated by T. O. Bateman Chemical Sales Corporation ("Bateman Chemical"). In 1969, Purex Corporation, Ltd. ("Purex") purchased Bateman Chemical and Bateman Chemical subsequently merged into Purex. In 1982, Purex transferred operation of the facility to an affiliate, Baron-Blakeslee, Inc.("BBI"). In 1985, Allied Signal, Inc. ("Allied") purchased BBI and BBI subsequently merged into Allied.

1.3. From December 1969 through 1993, the Property operated as an industrial waste management facility that stored, treated, and recycled waste solvents for refining by distillation or disposal. The facility acted as a distribution facility for the sale of virgin and re-refined chlorinated and fluorinated solvents stored in containers and bulk tanks. Solvents were blended, packaged, and delivered offsite by truck. In addition, spent chemical solvents generated offsite were accepted, stored, and recycled onsite for resale using a distillation unit. These wastes were stored in 55-gallon drums or portable tote tanks. From 1972 to 1988, facility operations also included the handling of acids.

1.4. Purex/BBI operated a hazardous waste facility pursuant to a grant of Interim Status on April 6, 1981 issued by the California Department of Health Services, the Department's predecessor agency. The Department issued a Hazardous Waste Facility Permit to BBI in September 1992.

1.5. In 1993, Allied /BBI ceased its operations and implemented the Closure Plan in the 1992 Hazardous Waste Facility Permit. Allied/BBI submitted a Closure Certification Report to the Department on July 1, 1994. The Department acknowledged the Closure Certification for the Distillation Unit Area and the Storm/Wash Water Tank Area on October 31, 1994. In 1999, Allied/BBI merged into Honeywell International, Inc. ("Honeywell").

1.6. From 1993 through 2005, Allied /BBI and Honeywell conducted a Corrective Action RCRA Facility Investigation ("RFI") of the Property. The RFI confirmed that contaminated soil at three locations exceeded the human-health-risk-based cleanup levels. In 1995, Allied /BBI excavated the soil that was above the cleanup levels as part of the Department-approved Interim Measures. Soil vapor sampling conducted in 2004 and 2005 and an indoor air risk evaluation conducted in

2008 revealed concentrations of tetrachloroethylene and trichloroethylene in soil vapor in excess of human-health-risk-based standards for indoor air in portions of the surface soil and subsurface soil within 10 feet of the surface of the Property.

1.7. There are no enclosed structures currently located on the Property. Based on the risk assessment conducted for the Property and the corrective measures undertaken to date, the Department has concluded that use of the Property as a residence, hospital, school for persons under the age of 21 or day care center would entail an unacceptable human health risk. The Department has further concluded that the Property, as remediated, and subject to the restrictions of this Covenant, does not present an unacceptable threat to human health or safety or the environment.

ARTICLE II

DEFINITIONS

2.1. Department. "Department" shall mean the California Department of Toxic Substances Control and shall include its successor agencies, if any.

2.2. Environmental Restrictions. "Environmental Restrictions" means all protective provisions, covenants, restrictions, prohibitions, and terms and conditions as set forth in any section of this Covenant.

2.3. Improvements. "Improvements" includes, but is not limited to: buildings, structures, roads, driveways, improved parking areas, wells, pipelines, or other utilities.

2.4. Lease. "Lease" means lease, rental agreement, or any other document that creates a right to use or occupy any portion of the Property.

2.5. Owner. "Owner" shall mean the Covenantor, its successors in interest, and their successors in interest, including heirs and assigns, who at any time hold fee title to all or any portion of the Property.

2.6. Occupant. "Occupant" shall mean Owners and any person or entity entitled by ownership, leasehold, or other legal relationship to the right to occupy any portion of the Property.

ARTICLE III

GENERAL PROVISIONS

3.1. Runs with the Land. This Covenant sets forth Environmental Restrictions that apply to and encumber the Property and every portion thereof no matter how it is improved, held, used, occupied, leased, sold, hypothecated, encumbered, or conveyed. This Covenant: (a) runs with the land pursuant to Health and Safety Code section 25202.5, Civil Code section 1471 and California Code of Regulations, title 22, section 67391.1; (b) inures to the benefit of and passes with each and every portion of the Property; (c) is for the benefit of, and is enforceable by the Department; and (d) is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof.

3.2. Binding upon Owners/Occupants. Pursuant to Health and Safety Code section 25202.5, Civil Code section 1471 and California Code of Regulations, title 22, section 67391.1, this Covenant binds all owners of the Property, their heirs, successors, and assignees, and the agents, employees, and lessees of the owners, heirs, successors, and assignees. Pursuant to Civil Code section 1471, all successive owners of the Property are expressly bound hereby for the benefit of the Department. It is intended that this Covenant binds all Owners and Occupants, and their respective successors and assigns, only during and with respect to their respective successive periods of ownership or occupancy such that an Owner's or Occupant's rights and obligations under this Covenant shall terminate upon transfer, expiration, or termination

of the Owner's or Occupant's interest in the Property, except that such Owner's or Occupant's liability for any violations of the requirements or restrictions of this Covenant or any acts or omissions during such ownership or occupancy shall survive any transfer, expiration or termination of the Owner's or Occupant's interest in the Property.

3.3. Incorporation into Deeds and Leases. This Covenant shall be incorporated by reference in each and every deed and Lease for any portion of the Property.

3.4. Conveyance of Property. The Owner shall provide written notice to the Department not later than thirty (30) days after any conveyance of any ownership interest in the Property (excluding Leases, and mortgages, liens, and other non-possessory encumbrances). The written notice shall include the name and mailing address of the new owner of the Property and shall reference the site name and site code as listed on page one of this Covenant. The notice shall also include the Assessor's Parcel Number (APN) noted on page one. If the new owner's property has been assigned a different APN, each such APN that covers the Property must be provided. The Department shall not, by reason of this Covenant, have authority to approve, disapprove, or otherwise affect the proposed conveyance, except as otherwise provided by law or by administrative order.

3.5. Costs of Administering and Enforcing the Covenant.

The Department will incur costs associated with the implementation, administration and enforcement of this Covenant. Therefore, the Covenantor hereby covenants for the Covenantor and for all subsequent Owners that, pursuant to California Code of Regulations, title 22, section 67391.1(h), the Owner agrees to pay the Department's costs in implementing, administering and enforcing the Covenant except for costs that

Honeywell agrees to pay under the Land Use Covenant Implementation and Enforcement Agreement entered into between DTSC and Honeywell, a copy of which is attached hereto as Exhibit C. In the event that Honeywell fails to comply with the terms of the Land Use Covenant Implementation and Enforcement Agreement, the Owner shall pay the Department's costs incurred in implementing, administering and enforcing this Covenant pursuant to California Code of Regulations, title 22, section 67391.1(h).

ARTICLE IV

RESTRICTIONS AND REQUIREMENTS

4.1. Prohibited Uses. The use of the Property shall be restricted for commercial and industrial purposes only. The Property shall not be used for any of the following purposes:

(a) A residence, including any mobile home or factory-built housing, constructed or installed for use as residential human habitation.

(b) A hospital for humans.

(c) A public or private school for persons under 21 years of age.

(d) A day care center for children.

4.2. Soil Management

(a) Activities that will disturb the soil, such as excavation, grading, removal, trenching, filling, earth movement or mining, shall only be permitted on the Property pursuant to a Soil Management Plan and a Health and Safety Plan as approved by the Department.

(b) Any contaminated soil brought to the surface by grading, excavation, trenching, or backfilling shall be managed in accordance with all applicable

provisions of state and federal laws.

4.3. Future Buildings.

No new buildings may be allowed on the Property unless there are Department-approved engineering controls, such as increased ventilation, thicker foundations and/or vapor barrier linings, to prevent potential indoor exposure to volatile organic compounds. For the purpose of this Section 4.3, the term "building" does not include roofed structures without walls, and Section 4.3 shall not apply to the construction of such structures.

4.4. Prohibited Activities. The following activities shall not be conducted at the Property:

(a) Raising of cattle, food crops or agricultural products.

(b) Drilling for drinking water, oil, or gas.

(c) Extraction of ground water for purposes other than the Department-approved groundwater monitoring or site remediation activities.

(d) Any activity that may interfere with the performance of any site investigation or remediation activities.

4.5. Access for Department. The Covenantor agrees that the Department shall have reasonable right of entry and access to the Property for inspection, monitoring, and other activities consistent with the purposes of this Covenant as deemed necessary by the Department in order to protect public health and safety or the environment.

4.6. Access for Implementing Operation and Maintenance Activities.

The Covenantor agrees that the entity or person responsible for implementing any operation and maintenance activities shall have reasonable right of entry and access to the Property for the purpose of implementing such operation and

maintenance activities until such time as the Department determines that no further operation and maintenance activities are required.

4.7. Inspection and Reporting Requirements.

The Owner shall conduct an annual inspection of the Property verifying compliance with this Covenant, and shall submit an annual report to the Department by January 15 of each calendar year. The annual report must include the dates, times, and names of those who conducted and reviewed the annual inspection. It also shall describe how the observations were performed and the basis for the statements and conclusions in the annual report (e.g., drive-by, walk-in, etc.). If violations of this Covenant are noted by the observer, the annual report must detail the steps taken to return to compliance. If the Owner identifies any violations of this Covenant during the annual inspections or at any other time, the Owner must within 10 days of identifying the violation, determine the identity of the party in violation, send a letter advising the party of the violation of this Covenant and demand that the violation cease immediately. Additionally, copies of any correspondence related to the enforcement of the Covenant shall be sent to the Department within 10 days of its original transmission.

ARTICLE V

ENFORCEMENT

5.1. Enforcement. Failure of the Owner or Occupant to comply with this Covenant shall be grounds for the Department to require modification or removal of any Improvements constructed or placed upon any portion of the Property in violation of this Covenant. Violation of this Covenant, including but not limited to, failure to submit, or the submission of any false statement, record or report to the Department, shall be grounds for the Department to pursue administrative, civil, or criminal actions, as

provided by law.

ARTICLE VI

VARIANCE, TERMINATION, AND TERM

6.1. Variance. The Owner, or any other aggrieved person, may apply to the Department for a written variance from the provisions of this Covenant. Such application and any response thereto by the Department shall be made in accordance with Health and Safety Code sections 25202.6 and/or 25233.

6.2. Termination or Partial Termination. The Owner, or any other aggrieved person, may apply to the Department for a termination or partial termination of one or more terms of this Covenant as they apply to all or any portion of the Property. Such application and any response thereto by the Department shall be made in accordance with Health and Safety Code sections 25202.6 and/or 25234.

6.3. Term. Unless ended in accordance with paragraph 6.2 above, by law, or by the Department in the exercise of its discretion, this Covenant shall continue in effect in perpetuity.

ARTICLE VII

MISCELLANEOUS

7.1. No Taking or Dedication Intended. Nothing set forth in this Covenant shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property, or any portion thereof to the general public or anyone else for any purpose whatsoever. Further, nothing set forth in this Covenant shall be construed to effect a taking under federal or state law.

7.2. Recordation. The Covenantor shall record this Covenant, with all referenced Exhibits, in San Diego County within ten (10) days of the Covenantor's

receipt of a fully executed original.

7.3. Notices. Whenever any person gives or serves any notice ("Notice" as used herein includes any demand or other communication with respect to this Covenant), each such Notice shall be in writing and shall be deemed effective: (a) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served, or (b) three business days after deposit in the mail, if mailed by United States mail, postage paid, certified, return receipt requested:

To Owner:

Covenantor: Linda Ann Weir, Successor Co-Trustee
5715 Baltimore Drive, No. 141
La Mesa, California 91942

With a Required Copy to:

R. Gordon Huckins, Esq.
Fox Johns Lazar Pekin & Wexler
525 B Street, Suite 1500
San Diego CA 92101

Or: (Name and address of any new owner as identified to the Department pursuant to Section 3.4 of this Covenant)

To Department: Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630
Attention: Project Manager

The Owner shall immediately forward any notice to the Occupant(s) if the Occupant(s) are affected by such notice. Any party may change its address or the individual to whose attention a notice is to be sent by giving written notice in compliance with this paragraph.

7.4. Partial Invalidity. If any portion of the Environmental Restrictions or other terms set forth herein is determined by a court of competent jurisdiction to be invalid for any reason, the surviving portions of this Covenant shall remain in full force and effect

as if such portion found invalid had not been included herein.

7.5. Statutory References. All statutory references include successor provisions.

7.6. Incorporation of Attachments. All attachments and exhibits to this Covenant are incorporated herein by reference.

IN WITNESS WHEREOF, the Parties execute this Covenant.

"Covenantor"

Date: 11.14.2011 By: Linda Ann Weir, TTE
Linda Ann Weir, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

Date: _____ By: _____
Verna Gail Riley, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

Date: _____ By: _____
Leslie Jo Bauman, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

"Department"

Date: _____ By: _____
Representing Department of Toxic Substances Control

_____
Print Name and Title

as if such portion found invalid had not been included herein.

7.5. Statutory References. All statutory references include successor provisions.

7.6. Incorporation of Attachments. All attachments and exhibits to this Covenant are incorporated herein by reference.

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"Covenantor"

Date: _____ By: _____
Linda Ann Weir, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

Date: 11/14/11 By: _____
Verna Gail Riley, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

Date: _____ By: _____
Leslie Jo Bauman, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

"Department"

Date: _____ By: _____
Representing Department of Toxic Substances Control

_____
Print Name and Title

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Date: 11-14-11 By: _____
Leslie Jo Bauman, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

"Department"

Date: _____ By: _____
Representing Department of Toxic Substances Control

_____
Print Name and Title

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Date: _____ By: _____
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Date: _____ By: _____
Verna Gail Riley, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

Date: _____ By: _____
Leslie Jo Bauman, Successor Co-Trustee of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968

"Department"

Date: 12/2/2011 By: _____
Representing Department of Toxic Substances Control

Jik-Tsong Liu, Supervising Hazardous Substances Engineer I
Print Name and Title

State of California

County of SAN DIEGO

On NOVEMBER 14, 2011 before me, MARIETTE A. PASCASIO, Notary Public, personally appeared LINDA ANN WEIR who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(i~~es~~), and that by ~~his~~/her/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

MARIETTE A. PASCASIO
Commission # 1898441
Notary Public - California
San Diego County
My Comm. Expires Aug 6, 2014

Signature Mariette A. Pascasio (Seal)

ACKNOWLEDGMENT CERTIFICATE

State of California,
County of San Luis Obispo } ss.

On November 16th, 2011, before me, Inigo F. Garate, Notary Public for said State, personally appeared Verna Gail Riley, who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose name~~(s)~~ is~~/are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she~~/they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity~~(ies)~~, and that by ~~his~~/her/~~their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

INIGO F. GARATE
Commission # 1923462
Notary Public - California
San Luis Obispo County
My Comm Expires Feb 20, 2015

Inigo F. Garate
Signature of Notary

Place Notary Seal Above

NOTORIAL ACKNOWLEDGEMENT

Type/Title of Document: COVENANT TO RESTRICT USE OF PROPERTY_

ENVIRONMENTAL RESTRICTION_____

Description of Document: _____

_____

_____

Signed by: _LESLIE JO BAUMAN_____

_____

Document Date: ___Signed 11/14/2011_____

Number of pages attached: ____15_____

****

State of ARIZONA

County of Pima

On this 14 day of November, 20 11, before me personally appeared Leslie Jo Bauman, whose identity was proven to me on the basis of satisfactory evidence to be the person who he or she claims to be, and acknowledged that he or she signed the ~~above~~/attached document.

(Seal) OFFICIAL SEAL
DAVID Y. FLOREZ
NOTARY PUBLIC-ARIZONA
PIMA COUNTY
My Comm. Exp. May 25, 2014

Notary Public Signature

My commission expires on May 25, 2014

Notary: 7/26/2011

State of California

County of Orange

On December 2nd 2011 before me, Randy DeTarr,

Notary Public, personally appeared Jyt Seng Liu who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

RANDY DETARR
COMM. #1851185
NOTARY PUBLIC -CALIFORNIA
ORANGE COUNTY
My Comm. Expires May 29, 2013

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

THAT PORTION OF PARCEL 1 OF PARCEL MAP NO. 2761, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JUNE 14, 1974 AS FILE NO. 74-159652 OF OFFICIAL RECORDS, LYING SOUTHWESTERLY OF THE FORMER CENTER LINE OF THAT PORTION OF KURTZ STREET VACATED AND CLOSED TO PUBLIC USE BY DOCUMENT NO. 74-157788 OF OFFICIAL RECORDS FILED JUNE 13,1974, DEPICTED AS ASSESSOR PARCEL NO. 451-690-57 ON SAN DIEGO COUNTY ASSESSOR MAP NO. 451-69 AS OF 2007, COMMONLY KNOWN AS 3596 CALIFORNIA STREET

EXHIBIT B

PROPERTY PLOT PLAN

EXHIBIT C

In the matter of: Former Baron Blakeslee Facility- South Parcel 3596 California Street San Diego, CA 92101 County of San Diego APN 451-690-57	)	LAND USE COVENANT IMPLEMENTATION AND ENFORCEMENT AGREEMENT Civil Code section 1471; Health and Safety Code section 25202.5; California Code of Regulations, title 22, section 67391.1

The California Department of Toxic Substances Control ("Department") and Honeywell International, Inc. ("Honeywell") enter into this Land Use Covenant Implementation and Enforcement Agreement ("Agreement") and agree as follows:

1. Land Use Covenant. The Department and Linda Ann Weir, Verna Gail Riley and Leslie Jo Bauman, Successor Co-Trustees of the Thomas O. Bateman and Ivarene Cornelius Bateman Trust dated July 10, 1968 ("Successor Co-Trustees") entered into a Covenant to Restrict Use of Property (also known as Land Use Covenant or "LUC") for the Former Baron Blakeslee Facility – South Parcel, located at 3596 California Street, San Diego, CA 92101 (the "Property") as part of the Corrective Measures Remedy approved by the Department for the Property. The Property is currently owned by Successor Co-Trustees. The Property is generally described as County of San Diego Assessor Parcel Number 451-690-57.

2. Reimbursement of Department's Costs. The Department may incur costs associated with the implementation, enforcement and administration of the LUC such as costs to be incurred in reviewing the Soil Management Plans or Health and Safety Plans required by Paragraph 4.2 of the LUC, or the annual inspection reports required by Paragraph 4.7 of the LUC. Pursuant to California Code of Regulations, title 22, section 67391.1(h), Honeywell agrees to reimburse the Department for its costs incurred in implementing, enforcing and administering the Land Use Covenant except that Honeywell will not pay for the Department's costs incurred solely for taking enforcement actions to address any violations of the LUC for which Honeywell or its employees or agents are not responsible. Honeywell agrees to make the payment within 30 days of

receipt of the Department's billing by check payable to the "Department of Toxic Substances Control", and bearing on its face the Site Code "400208".. Payments shall be sent to: Department of Toxic Substances Control, Accounting Office, P. O. Box 806, Sacramento, California 95812-0806. A photocopy of the check shall be sent concurrently to the Department's Project Manager. The Department shall retain all cost records associated with the work conducted under this Agreement as may be required by state law. The Department will make all documents that support the Department's cost determination available for inspection upon request in accordance with the Public Records Act, Government Code section 6250 et seq. Nothing in this paragraph bars Honeywell from seeking a remedy in any court of competent jurisdiction against any third party who may have caused or contributed to a violation of the LUC, including, but not limited to, an action to recover costs which Honeywell has paid to the Department pursuant to this paragraph.

3. Financial Assurance. Honeywell must assure that sufficient funds are available to implement all the requirements of this Agreement and to pay DTSC's costs as specified in Paragraph 2 of this Agreement. Honeywell has established an Irrevocable Standby Letter of Credit (No. 004657202) issued by Mizuho Corporate Bank (USA) for the amount of $30,000 as the financial assurance mechanism that meets DTSC's requirements.

4. Project Managers. For the purposes of implementing this Agreement, Mr. Tao Wu will serve as Honeywell's Project Manager and Ms. Christine Brown will serve as the Department's Project Manager. The Department and Honeywell shall promptly notify each other of any change in the identity of the Project Manager. Notices, submittals and other communications between the Department and Honeywell shall be sent to:

To: Department of Toxic Substances Control
Department of Toxic Substances Control
5796 Cypress Avenue
Cypress, CA 90630
Attention: Project Manager

To: Honeywell International, Inc.
Attention: Mr. Tao Wu
Health, Safety and Environmental Engines, Systems & Services

P.O. Box 52181
Phoenix, AZ 85072

5. Parties Bound. This Agreement applies to and is binding upon Honeywell and its officers, directors, agents, employees, contractors, consultants, receivers, trustees, successors and assignees, including but not limited to individuals, partners, and subsidiary and parent corporations, and upon the Department and any successor agency of the State of California that may have responsibility for and jurisdiction over the subject matter of this Agreement.

6. Effective Date. The effective date of this Agreement is the date of signature by the Department's authorized representative.

7. Representative Authority. Each undersigned representative of the parties to this Agreement certifies that she or he is fully authorized to enter into the terms and conditions of this Agreement and to execute and legally bind the parties to this Agreement.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

_____ Date: November 16, 2011

Name: Ju-Tsong Liu

Title: Supervising Hazardous Substances Engineer I.

HONEYWELL INTERNATIONAL, INC.

_____ Date: November 7, 2011

Name: TAO WU

Title: Remediation Manager

Work Plan

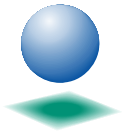
Groundwater Monitoring Well Installation Work Plan

Former Baron Blakeslee Facility, Inc.
San Diego, California

Prepared for

Honeywell International Inc.

Submitted by



CH2MHILL

May 2008

EXPLANATION

MW-9S 10.87 Groundwater Elevation (feet msl)

Shallow Groundwater Monitoring Well

Piezometer

11.80 Line of approximate equal groundwater elevation in feet relative to mean sea level (msl) Contour Interval = 0.10 feet (Inferred where dashed)

Approximate Site Boundary

0 60 120 240

Feet

FIGURE 2-5
SHALLOW WELL GROUNDWATER CONTOUR MAP – OCTOBER 2007
FORMER BARON BLAKESLEE FACILITY
SAN DIEGO, CALIFORNIA

EXPLANATION

MW-9D 11.87 Groundwater Elevation (feet msl)

Deep Groundwater Monitoring Well

Piezometer

12.10 Line of Approximate Equal Groundwater Elevation in Feet Relative to Mean Sea level (MSL) Contour Interval = 0.20 feet (Inferred where dashed)

Approximate Site Boundary

Note:
PZ3B and MW-5D were not used for contouring the deep water zone, because these wells are not screened in the same lithologic unit.

0 60 120 240
Feet

FIGURE 2-6
DEEP WELL GROUNDWATER CONTOUR MAP – OCTOBER 2007
FORMER BARON BLAKESLEE FACILITY
SAN DIEGO, CALIFORNIA

APPENDIX C
EDR Radius Map

Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Inquiry Number: 3889802.2s
March 24, 2014

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3550 KETTNER BLVD
SAN DIEGO, CA 92101

COORDINATES

Latitude (North):	32.7389000 - 32° 44' 20.04''
Longitude (West):	117.1790000 - 117° 10' 44.40''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	483229.1
UTM Y (Meters):	3622166.0
Elevation:	68 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	32117-F2 POINT LOMA, CA
Most Recent Revision:	1994
North Map:	32117-G2 LA JOLLA, CA
Most Recent Revision:	1996

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2012
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
SOLOMON JACOB 3550 KETTNER BLVD SAN DIEGO, CA	EDR US Hist Auto Stat	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
LUCIS ---------- Land Use Control Information System

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

CA RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

CA SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

CA VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
CA SWRCY ..... Recycler Database
CA HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
CA HIST Cal-Sites ..... Historical Calsites Database
CA SCH ..... School Property Evaluation Program
CA CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database

Local Land Records

LIENS 2 ..... CERCLA Lien Information
CA LIENS ..... Environmental Liens Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CA LDS ..... Land Disposal Sites Listing
CA MCS ..... Military Cleanup Sites Listing
CA SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS ..... Incident and Accident Data
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
US MINES ..... Mines Master Index File
TSCA ..... Toxic Substances Control Act
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS ..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS ..... Section 7 Tracking Systems
ICIS ..... Integrated Compliance Information System

PADS PCB Activity Database System
MLTS Material Licensing Tracking System
RADINFO Radiation Information Database
RAATS RCRA Administrative Action Tracking System
RMP Risk Management Plans
CA BOND EXP. PLAN Bond Expenditure Plan
CA UIC UIC Listing
CA Cortese "Cortese" Hazardous Waste & Substances Sites List
CA CUPA Listings CUPA Resources List
INDIAN RESERV Indian Reservations
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
CA PROC Certified Processors Database
CA HWT Registered Hazardous Waste Transporter Database
CA WDS Waste Discharge System
CA MWMP Medical Waste Management Program Listing
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER PCB Transformer Registration Database
PRP Potentially Responsible Parties
COAL ASH DOE Steam-Electric Plant Operation Data
2020 COR ACTION 2020 Corrective Action Program List
LEAD SMELTERS Lead Smelter Sites
EPA WATCH LIST EPA WATCH LIST

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

CA RGA LF Recovered Government Archive Solid Waste Facilities List
CA RGA LUST Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there are 3 CERC-NFRAP sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
GENERAL DYNAMICS CONVAIR DIVIS	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H47***	***135***
AMERICAN AGAR & CHEM CO	1751 HANCOCK ST	NW 1/4 - 1/2 (0.308 mi.)	P84	186

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 09/10/2013 has revealed that there are 3 CORRACTS sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
UOP INC FLUID SYSTEMS DIV	***2980 N HARBOR DRIVE***	***SSW 1/2 - 1 (0.758 mi.)***	***Z117***	***292***
SOLAR TURBINES INC	***2200 PACIFIC HWY***	***SSE 1/2 - 1 (0.888 mi.)***	***AA126***	***379***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 09/10/2013 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 09/10/2013 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/10/2013 has revealed that there are 5 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANCED COATINGS TECHNOLOGIES	***3554 KETTNER BLVD***	***N 0 - 1/8 (0.012 mi.)***	***A4***	***9***
ARTS AND CRAFTS PRESS	***3590 KETTNER BLVD***	***NNW 0 - 1/8 (0.037 mi.)***	***C8***	***13***
CHEVRON STATION 93509	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E15***	***29***
A T S	***3617 INDIA ST***	***N 0 - 1/8 (0.105 mi.)***	***G35***	***93***
Lower Elevation	**Address**	**Direction / Distance**	**Map ID**	**Page**
SAN DIEGO UNIFIED PORT DISTRIC	***3165 PACIFIC HIGHWAY***	***SSE 1/8 - 1/4 (0.247 mi.)***	***N76***	***158***

State- and tribal - equivalent CERCLIS

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 02/03/2014 has revealed that there are 20 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RYAN AIRCRAFT CO Status: Inactive - Needs Evaluation		SE 1/4 - 1/2 (0.474 mi.)	T106	236

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEYENESCH PRINTERS INC Status: No Further Action	***2750 KETTNER BL***	***SE 1/2 - 1 (0.517 mi.)***	***109***	***244***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC Status: Refer: RCRA Status: Active	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
CONSOLIDATED AIRCRAFT MAIN PLT Status: Inactive - Needs Evaluation		SW 0 - 1/8 (0.108 mi.)	36	94
GENERAL DYNAMICS- CONVAIR DIV Status: Refer: 1248 Local Agency	***3302 PACIFIC HY***	***S 1/8 - 1/4 (0.155 mi.)***	***H44***	***103***
AMERICAN AGAR AND CHEMICAL CO Status: Refer: Other Agency	***1751 HANCOCK ST***	***NW 1/4 - 1/2 (0.308 mi.)***	***P85***	***186***
SAN DIEGO MUNICIPAL AIRPORT Status: Inactive - Needs Evaluation		SW 1/4 - 1/2 (0.423 mi.)	S96	205
CAMP CONSAIR Status: Inactive - Needs Evaluation		SSW 1/4 - 1/2 (0.427 mi.)	S100	224
SAN DIEGO GUN TOWER #1 Status: Inactive - Needs Evaluation		WNW 1/2 - 1 (0.669 mi.)	112	247
PACIFIC SERVICES COMPANY Status: Refer: RWQCB	***4085 PACIFIC HIGHWAY***	***WNW 1/2 - 1 (0.744 mi.)***	***Y115***	***286***
U.O.P. INC - FLUID SYSTEMS DIV Status: Inactive - Needs Evaluation	***2980 N HARBOR DRIVE***	***SSW 1/2 - 1 (0.758 mi.)***	***Z118***	***296***
OLD TOWN TROLLEY Status: Refer: RWQCB	2105-2115 KURTZ ST	WNW 1/2 - 1 (0.763 mi.)	Y119	299
SOLAR AIRCRAFT CORP Status: Inactive - Needs Evaluation		SSE 1/2 - 1 (0.781 mi.)	120	300
HANCOCK ST. SELF-STORAGE DEVEL Status: Refer: 1248 Local Agency	2150-2182 HANCOCK STREE	WNW 1/2 - 1 (0.824 mi.)	121	301
POWAY INVESTMENT PROPERTIES Status: Refer: 1248 Local Agency	829 W. JUNIPER STREET	SE 1/2 - 1 (0.839 mi.)	123	302
COAST GUARD AIR BASE Status: Inactive - Needs Evaluation		SSW 1/2 - 1 (0.856 mi.)	124	303
SOLAR TURBINES, INCORPORATED Status: Refer: RCRA Status: Active	***2200 PACIFIC HWY***	***SSE 1/2 - 1 (0.888 mi.)***	***AA125***	***304***
VIETNAM VETERANS OF SD Status: No Further Action	***4141 PACIFIC HY***	***WNW 1/2 - 1 (0.890 mi.)***	***127***	***409***
SAN DIEGO BARRACKS Status: Inactive - Needs Evaluation		SSE 1/2 - 1 (0.918 mi.)	AA128	412
MFG PLANT ANX DPC, SAN DIEGO Status: Inactive - Needs Evaluation		WNW 1/2 - 1 (0.941 mi.)	129	413

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

CA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the CA LUST list, as provided by EDR, and dated 12/16/2013 has revealed that there are 27 CA LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
INDIA CHEVRON	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E14***	***25***
Status: Completed - Case Closed				
CHEVRON	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E16***	***30***
UNOCAL SERV STATION #5738	***3585 INDIA ST***	***NNE 0 - 1/8 (0.077 mi.)***	***C27***	***53***
Status: Completed - Case Closed				
J M A N AT THE CHARMER LLC	3625 INDIA ST	N 0 - 1/8 (0.122 mi.)	G38	95
Status: Completed - Case Closed				
WILLIAM W. NEWKIRK (MOBIL OIL)	***1809 W WASHINGTON ST***	***NNW 1/4 - 1/2 (0.296 mi.)***	***O80***	***177***
Status: Completed - Case Closed				
MOBILE STATION 18-GDR	***1809 WASHINGTON ST W***	***NNW 1/4 - 1/2 (0.298 mi.)***	***O81***	***183***
G&M STATION #106	***1832 W WASHINGTON ST***	***NNW 1/4 - 1/2 (0.303 mi.)***	***O82***	***184***
Status: Completed - Case Closed				
ALAMO RENT A CAR	2942(3066) KETTNER BLVD	SE 1/4 - 1/2 (0.376 mi.)	Q88	192
ALAMO RENT-A-CAR	***2942 KETTNER BLVD***	***SE 1/4 - 1/2 (0.402 mi.)***	***Q93***	***196***
ALAMO RENT A CAR	***2942 KETTNER BL***	***SE 1/4 - 1/2 (0.402 mi.)***	***Q94***	***200***
Status: Completed - Case Closed				
7-ELEVEN FOOD STORE #19974	***3070 REYNARD WY***	***ESE 1/4 - 1/2 (0.496 mi.)***	***V108***	***240***
Status: Completed - Case Closed				

Lower Elevation	Address	Direction / Distance	Map ID	Page
LINDBERGH FIELD	***3698 PACIFIC HWY***	***SW 0 - 1/8 (0.075 mi.)***	***B22***	***41***
LINDBERGH FIELD	***3698 PACIFIC***	***SW 0 - 1/8 (0.075 mi.)***	***B23***	***50***
Status: Completed - Case Closed				
GENERAL DYNAMICS- CONVAIR DIV	***3302 PACIFIC HY***	***S 1/8 - 1/4 (0.155 mi.)***	***H44***	***103***
Status: Completed - Case Closed				
Status: Open - Site Assessment				
GENERAL DYNAMICS- CONVAIR DIV	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H45***	***116***
GENERAL DYNAMICS CONVAIR DIVIS	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H47***	***135***
GENERAL DYNAMICS, LIND. FIELD	3302 PACIFIC HWY NO BLD	S 1/8 - 1/4 (0.155 mi.)	H48	142
GENERAL DYNAMICS CONVAIR DIV.	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H50***	***145***
AMERICAN AGAR AND CHEMICAL CO	***1751 HANCOCK ST***	***NW 1/4 - 1/2 (0.308 mi.)***	***P85***	***186***
Status: Completed - Case Closed				
SOUTHWEST CAR RENTAL	***2975 PACIFIC HY***	***SSE 1/4 - 1/2 (0.382 mi.)***	***R89***	***193***
Status: Completed - Case Closed				
JIMSAIR AVIATION SERVICES INC	***LINDBERGH FIELD***	***SSE 1/4 - 1/2 (0.426 mi.)***	***R98***	***207***
LANDMARK AVIATION	***2904 PACIFIC HWY***	***SSE 1/4 - 1/2 (0.426 mi.)***	***R99***	***215***
Status: Completed - Case Closed				
JONES FAMILY TRUST	***1411 PALM***	***SSE 1/4 - 1/2 (0.434 mi.)***	***T101***	***225***
AMERICAN VETERANS THRIFT STORE	***3441 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.440 mi.)***	***U102***	***226***
GRAYLINE/SAN DIEGO	***3442 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.442 mi.)***	***U103***	***230***
ALL COUNTY ENGINE SYSTEMS INC	***3442 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.442 mi.)***	***U104***	***232***
Status: Completed - Case Closed				

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
JONES FAMILY TRUST Status: Completed - Case Closed	NONE PALM AV	SE 1/4 - 1/2 (0.442 mi.)	T105	235

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, and dated 12/16/2013 has revealed that there are 10 CA SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HERTZ CORPORATION KETTNER Facility Status: Completed - Case Closed	3420 KETTNER BL	SE 0 - 1/8 (0.045 mi.)	D10	18
INDIA CHEVRON Facility Status: Completed - Case Closed	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E14***	***25***
READING FAMILY TRUST/RESIDENCE Facility Status: Completed - Case Closed	***3447 KITE ST***	***NE 1/4 - 1/2 (0.279 mi.)***	***78***	***176***
G&M STATION #106 Facility Status: Completed - Case Closed	***1832 W WASHINGTON ST***	***NNW 1/4 - 1/2 (0.303 mi.)***	***O82***	***184***

Lower Elevation	Address	Direction / Distance	Map ID	Page
GENERAL DYNAMICS- CONVAIR DIV Facility Status: Completed - Case Closed	***3302 PACIFIC HY***	***S 1/8 - 1/4 (0.155 mi.)***	***H44***	***103***
NORTHSIDE SAN DIEGO INTERNATIO Facility Status: Open - Site Assessment	3302 PACIFIC HIGHWAY	S 1/8 - 1/4 (0.155 mi.)	H46	134
MISSION APARTMENTS Facility Status: Completed - Case Closed	1847 HANCOCK STREET	NW 1/4 - 1/2 (0.409 mi.)	95	204
LANDMARK AVIATION Facility Status: Completed - Case Closed	***2904 PACIFIC HWY***	***SSE 1/4 - 1/2 (0.426 mi.)***	***R99***	***215***
JONES FAMILY TRUST Facility Status: Completed - Case Closed	***1411 PALM***	***SSE 1/4 - 1/2 (0.434 mi.)***	***T101***	***225***
AMERICAN VETERANS THRIFT STORE Facility Status: Completed - Case Closed	***3441 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.440 mi.)***	***U102***	***226***

CA SAN DIEGO CO. SAM: The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

A review of the CA SAN DIEGO CO. SAM list, as provided by EDR, and dated 03/23/2010 has revealed that there are 18 CA SAN DIEGO CO. SAM sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANTAGE RENT-A-CAR	***3420 KETTNER BL***	***SE 0 - 1/8 (0.045 mi.)***	***D9***	***16***
INDIA CHEVRON	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E14***	***25***
UNOCAL SERV STATION #5738	***3585 INDIA ST***	***NNE 0 - 1/8 (0.077 mi.)***	***C27***	***53***
READING FAMILY TRUST/RESIDENCE	***3447 KITE ST***	***NE 1/4 - 1/2 (0.279 mi.)***	***78***	***176***
WILLIAM W. NEWKIRK (MOBIL OIL)	1809 W WASHINGTON ST	NNW 1/4 - 1/2 (0.296 mi.)	O79	177
G&M STATION #106	1832 W WASHINGTON ST	NNW 1/4 - 1/2 (0.303 mi.)	O83	185
ALAMO RENT-A-CAR	***2942 KETTNER BLVD***	***SE 1/4 - 1/2 (0.402 mi.)***	***Q93***	***196***

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
7-ELEVEN FOOD STORE #19974	***3070 REYNARD WY***	***ESE 1/4 - 1/2 (0.496 mi.)***	***V107***	***237***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LINDBERGH FIELD	3698 PACIFIC HY	SW 0 - 1/8 (0.075 mi.)	B19	40
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
GENERAL DYNAMICS/ELECTRONICS	3302 PACIFIC HY	S 1/8 - 1/4 (0.155 mi.)	H41	98
GENERAL DYNAMICS- CONVAIR DIV	3302 PACIFIC HY	S 1/8 - 1/4 (0.155 mi.)	H43	101
AMERICAN AGAR AND CHEMICAL CO	***1751 HANCOCK ST***	***NW 1/4 - 1/2 (0.308 mi.)***	***P85***	***186***
SOUTHWEST CAR RENTAL	2975 PACIFIC HY	SSE 1/4 - 1/2 (0.382 mi.)	R90	195
EXECAIR MAINTENANCE INC.	2904 PACIFIC HY	SSE 1/4 - 1/2 (0.426 mi.)	R97	206
JONES FAMILY TRUST	***1411 PALM***	***SSE 1/4 - 1/2 (0.434 mi.)***	***T101***	***225***
AMERICAN VETERANS THRIFT STORE	***3441 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.440 mi.)***	***U102***	***226***
ALL COUNTY ENGINE SYSTEMS INC	***3442 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.442 mi.)***	***U104***	***232***

State and tribal registered storage tank lists

CA UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the CA UST list, as provided by EDR, and dated 12/16/2013 has revealed that there are 2 CA UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EXOTICAR	***3617 INDIA ST***	***N 0 - 1/8 (0.105 mi.)***	***G33***	***90***

Lower Elevation	Address	Direction / Distance	Map ID	Page
OGDEN AVIATION FUELING COINC	3698 PACIFIC HWY # C	SW 0 - 1/8 (0.075 mi.)	B21	41

CA AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the CA AST list, as provided by EDR, and dated 08/01/2009 has revealed that there is 1 CA AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANTAGE RENT-A-CAR	***3443 INDIA ST***	***ESE 0 - 1/8 (0.078 mi.)***	***D28***	***58***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the CA Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there

is 1 CA Toxic Pits site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAN DIEGO INTERNAT'L AIRPORT Closure Date: 05/25/89	LINDBERGH-FIRE FIGHT.TE	WSW 1/2 - 1 (0.529 mi.)	W110	247

Local Lists of Registered Storage Tanks

CA HIST UST: Historical UST Registered Database.

A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 CA HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
93509	3535 INDIA ST	NE 0 - 1/8 (0.062 mi.)	E13	24
AMFAC DRUG SUPPLY COMPANY	3555 INDIA ST	NNE 0 - 1/8 (0.063 mi.)	E18	39
UNION OIL SERVICE STATION #573	3585 INDIA ST	NNE 0 - 1/8 (0.077 mi.)	C25	52
NONE	3645 INDIA ST	NNW 1/8 - 1/4 (0.159 mi.)	J52	148

Lower Elevation	Address	Direction / Distance	Map ID	Page
LINDBERGH FIELD ATCT	3698 PACIFIC HWY	SW 0 - 1/8 (0.075 mi.)	B20	40
RECEIVER TRANSMITTER REMOTE	3698 PACIFIC HWY	SW 0 - 1/8 (0.075 mi.)	B24	51
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***

CA SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the CA SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 8 CA SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HERTZ CORPORATION KETTNER	***3420 KETTNER BLVD***	***SE 0 - 1/8 (0.045 mi.)***	***D11***	***18***
CHEVRON	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E16***	***30***
UNOCAL SERV STATION #5738	***3585 INDIA ST***	***NNE 0 - 1/8 (0.077 mi.)***	***C27***	***53***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TURKS INC	***3555 PACIFIC HWY***	***W 0 - 1/8 (0.048 mi.)***	***B12***	***21***
LINDBERGH FIELD	***3698 PACIFIC HWY***	***SW 0 - 1/8 (0.075 mi.)***	***B22***	***41***
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
GENERAL DYNAMICS- CONVAIR DIV	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H45***	***116***
SAN DIEGO UNIFIED PORT DIST	***3165 PACIFIC HWY***	***SSE 1/8 - 1/4 (0.247 mi.)***	***N77***	***174***

EXECUTIVE SUMMARY

Local Land Records

CA DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the CA DEED list, as provided by EDR, and dated 12/09/2013 has revealed that there is 1 CA DEED site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/10/2013 has revealed that there are 5 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHOUPE & CELESTE INC	***3615 INDIA ST***	***N 0 - 1/8 (0.102 mi.)***	***G32***	***88***
LANCE DICKSON INDEPENDENT VOLV	***3211 INDIA ST***	***SE 1/8 - 1/4 (0.216 mi.)***	***K67***	***153***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HUGHES MISSILE SYSTEMS CO	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H42***	***99***
GENERAL DYNAMICS CONVAIR DIVIS	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H47***	***135***
HUGHES MISSILE SYSTEMS CO	***3302 PACIFIC HWY***	***S 1/8 - 1/4 (0.155 mi.)***	***H49***	***143***

CA HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the CA HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 16 CA HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
INDIA CHEVRON	***3535 INDIA ST***	***NE 0 - 1/8 (0.062 mi.)***	***E14***	***25***
UNOCAL SERV STATION #5738	***3585 INDIA ST***	***NNE 0 - 1/8 (0.077 mi.)***	***C27***	***53***
MOBILE STATION 18-GDR	***1809 WASHINGTON ST W***	***NNW 1/4 - 1/2 (0.298 mi.)***	***O81***	***183***
ALAMO RENT A CAR	2942 3066 KETTNER BLVD	SE 1/4 - 1/2 (0.384 mi.)	Q91	195
ALAMO RENT A CAR	***2942 KETTNER BL***	***SE 1/4 - 1/2 (0.402 mi.)***	***Q94***	***200***
7-ELEVEN FOOD STORE #19974	***3070 REYNARD WY***	***ESE 1/4 - 1/2 (0.496 mi.)***	***V108***	***240***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LINDBERGH FIELD	***3698 PACIFIC***	***SW 0 - 1/8 (0.075 mi.)***	***B23***	***50***
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
GENERAL DYNAMICS- CONVAIR DIV	***3302 PACIFIC HY***	***S 1/8 - 1/4 (0.155 mi.)***	***H44***	***103***

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
GENERAL DYNAMICS, LIND. F	3302 PACIFIC BLDG#	SSW 1/8 - 1/4 (0.225 mi.)	70	156
AMERICAN AGAR AND CHEMICAL CO	***1751 HANCOCK ST***	***NW 1/4 - 1/2 (0.308 mi.)***	***P85***	***186***
SOUTHWEST CAR RENTAL	***2975 PACIFIC HY***	***SSE 1/4 - 1/2 (0.382 mi.)***	***R89***	***193***
LANDMARK AVIATION	***2904 PACIFIC HWY***	***SSE 1/4 - 1/2 (0.426 mi.)***	***R99***	***215***
JONES FAMILY TRUST	***1411 PALM***	***SSE 1/4 - 1/2 (0.434 mi.)***	***T101***	***225***
AMERICAN VETERANS THRIFT STORE	***3441 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.440 mi.)***	***U102***	***226***
ALL COUNTY ENGINE SYSTEMS INC	***3442 SUTHERLAND ST***	***WNW 1/4 - 1/2 (0.442 mi.)***	***U104***	***232***

CA Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the CA Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there are 9 CA Notify 65 sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EAST OF WAHINGTON AND INDIA ST		NNW 1/4 - 1/2 (0.319 mi.)	O86	192
3173 GOLDFINCH		E 1/4 - 1/2 (0.363 mi.)	87	192
KETTNER BLVD. AND PALM ST.		SE 1/4 - 1/2 (0.401 mi.)	Q92	195
Not reported	600 BUSH ST	NE 1/2 - 1 (0.825 mi.)	122	302
300 BLK OF BROOKS AVE		ENE 1/2 - 1 (0.965 mi.)	130	414
Not reported	1754 NORTH ARBOR	N 1/2 - 1 (0.990 mi.)	131	414

Lower Elevation	Address	Direction / Distance	Map ID	Page
3200 KETTNER BLVD		SSE 1/8 - 1/4 (0.184 mi.)	H58	151
FIRE FIGHTER TEST AREA	S.D. INTERNATIONAL AIRP	WSW 1/2 - 1 (0.557 mi.)	W111	247
TDY INDUSTRIES, INC.	***2701 NORTH HARBOR DRIVE***	***S 1/2 - 1 (0.737 mi.)***	***X113***	***248***

CA WIP: Well Investigation Program case in the San Gabriel and San Fernando Valley area.

A review of the CA WIP list, as provided by EDR, and dated 07/03/2009 has revealed that there is 1 CA WIP site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ENTERPRISE RENT A CAR Facility Status: Backlog	2201 W MAIN ST	NW 1/8 - 1/4 (0.233 mi.)	M72	157

CA HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the CA HWP list, as provided by EDR, and dated 02/24/2014 has revealed that there are 4 CA HWP sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HONEYWELL INC	***3596 CALIFORNIA ST***	***NW 0 - 1/8 (0.080 mi.)***	***F30***	***60***
TELEDYNE RYAN AERONAUTICAL	***2701 N HARBOR DR***	***S 1/2 - 1 (0.737 mi.)***	***X114***	***267***
U.O.P. INC - FLUID SYSTEMS DIV	2980 N HARBOR DRIVE	SSW 1/2 - 1 (0.758 mi.)	Z116	292
SOLAR TURBINES INC	***2200 PACIFIC HWY***	***SSE 1/2 - 1 (0.888 mi.)***	***AA126***	***379***

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 26 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
POWERS RON SHELL SERVICE	3526 KETTNER BLVD	NNE 0 - 1/8 (0.008 mi.)	A2	8
JEFF S GARAGE	3515 KETTNER BLVD	E 0 - 1/8 (0.010 mi.)	A3	8
GUYMON MEL CHEVRON SERVICE	3535 INDIA ST	NE 0 - 1/8 (0.062 mi.)	E17	39
TONYS UNION SEVENTY SIX	3585 INDIA ST	NNE 0 - 1/8 (0.077 mi.)	C26	53
Not reported	3443 INDIA ST	ESE 0 - 1/8 (0.078 mi.)	D29	60
JAMES AUTOMOTIVE SERVICE	3615 INDIA ST	N 0 - 1/8 (0.102 mi.)	G31	88
AUTOMATIC TRANSMISSION SERVICE	3617 INDIA ST	N 0 - 1/8 (0.105 mi.)	G34	92
QUALITY LUBRICATION SERVICE	3663 KETTNER BLVD	NW 1/8 - 1/4 (0.163 mi.)	I53	149
WALLACE W H	3674 KETTNER BLVD	NW 1/8 - 1/4 (0.176 mi.)	I54	149
Not reported	3265 INDIA ST	SE 1/8 - 1/4 (0.180 mi.)	K55	149
PURKEY R W	3661 INDIA	NNW 1/8 - 1/4 (0.181 mi.)	J57	150
LAMADRID SERVICE	3602 STATE ST	NNE 1/8 - 1/4 (0.185 mi.)	59	151
HAL S SIGNAL SERVICE	3657 INDIA ST	NNW 1/8 - 1/4 (0.187 mi.)	J60	151
CAMP INDIA	3661 INDIA ST	NNW 1/8 - 1/4 (0.191 mi.)	J61	151
MAURICE S FOREIGN & DOMESTIC A	3241 INDIA ST	SE 1/8 - 1/4 (0.195 mi.)	K62	152
AUTO IMPORT SERVICES	3231 INDIA ST	SE 1/8 - 1/4 (0.202 mi.)	K66	153
SCOTTY S FOREIGN CAR SERVICE	3211 INDIA ST	SE 1/8 - 1/4 (0.216 mi.)	K68	154
CASE A M	3205 KETTNER BLVD	SE 1/8 - 1/4 (0.222 mi.)	L69	156
BEHN WM	3171 INDIA	SE 1/8 - 1/4 (0.244 mi.)	L73	157
BATEMAN J B	3171 INDIA ST	SE 1/8 - 1/4 (0.245 mi.)	L74	157
WALTER NEAL C	3711 INDIA ST	NNW 1/8 - 1/4 (0.245 mi.)	75	157

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3555 PACIFIC HWY	SW 0 - 1/8 (0.028 mi.)	A5	11
Not reported	3565 PACIFIC HWY	WSW 0 - 1/8 (0.032 mi.)	A6	12
PACIFIC COAST AUTOMOTIVE	3569 PACIFIC HWY	WSW 0 - 1/8 (0.034 mi.)	B7	13
PARKER & THORNBURG	3625 PACIFIC HWY	WNW 0 - 1/8 (0.118 mi.)	37	95
RECYCLED TREASURES	3636 CALIFORNIA ST	NW 1/8 - 1/4 (0.131 mi.)	F40	98

EXECUTIVE SUMMARY

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 7 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SERVICEMASTER OF SAN DIEGO INC	3657 KETTNER BLVD	NW 1/8 - 1/4 (0.157 mi.)	I51	148
DUDNEY R W	3265 INDIA ST	SE 1/8 - 1/4 (0.180 mi.)	K56	150
MEAD SEAMAN	3672 INDIA ST	NNW 1/8 - 1/4 (0.198 mi.)	J63	152
MONTGOMERY R M	3232 INDIA ST	SE 1/8 - 1/4 (0.200 mi.)	K64	152
AMERICAN CLEANERS	3232 INDIA	SE 1/8 - 1/4 (0.201 mi.)	K65	152
BENOIT EASTON	1658 HANCOCK ST	NW 1/8 - 1/4 (0.230 mi.)	M71	156

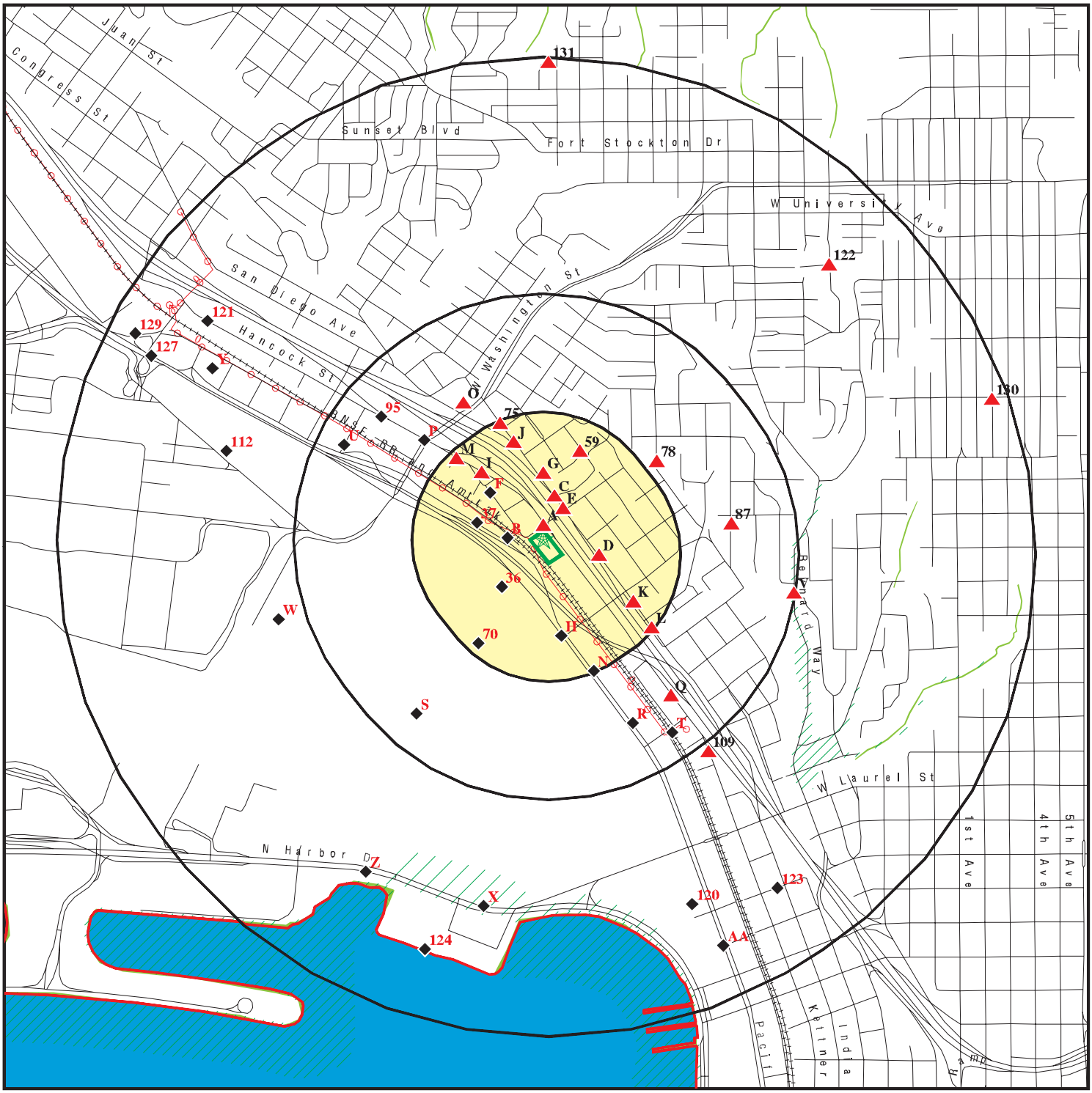
Lower Elevation	Address	Direction / Distance	Map ID	Page
IDEAL LAUNDRY	3630 CALIFORNIA ST	NW 0 - 1/8 (0.123 mi.)	F39	98

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

Site Name	Database(s)
CROW VENTURES MGMT	CA HIST CORTESE
CAMP ELLIOT, TIERRASANTA	CA HIST CORTESE
SAN DIEGO CO, MSW	CA HIST CORTESE
MARINE CORPS RECRUIT DEPOT	CA LUST, CA Notify 65
NORTH MIRAMAR	CA WMUDS/SWAT
INDIA STREET PROJECT	CA HAZNET
SHELL SERVICE STATION - 135897	RCRA-SQG
26TH STREET LANDFILL	FINDS
38TH AND QUINCE STREET	FINDS
QUINCE STREET BURN SITE	FINDS
SDG&E - CHICARITA SUBSTATION	FINDS
KELLY STREET BURNSITE	FINDS
SDG&E - ARTESIAN SUBSTATION	FINDS
NAVY BASE SAN DIEGO 28TH STREET NA	FINDS
SDG&E - RANCHO BERNARDO SUBSTATION	FINDS
ARIZONA STREET SLF	FINDS
NAVISTAR INTERNATIONAL TRANS. CORP	CA SLIC
CITY WALK CONDOS	CA ENVIROSTOR
JACKSON & BLANC FACILITY	CA ENVIROSTOR
W-HOTEL SAN DIEGO	CA SAN DIEGO CO. SAM

OVERVIEW MAP - 3889802.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego CA 92101 LAT/LONG: 32.7389 / 117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY #: 3889802.2s DATE: March 24, 2014 8:47 pm

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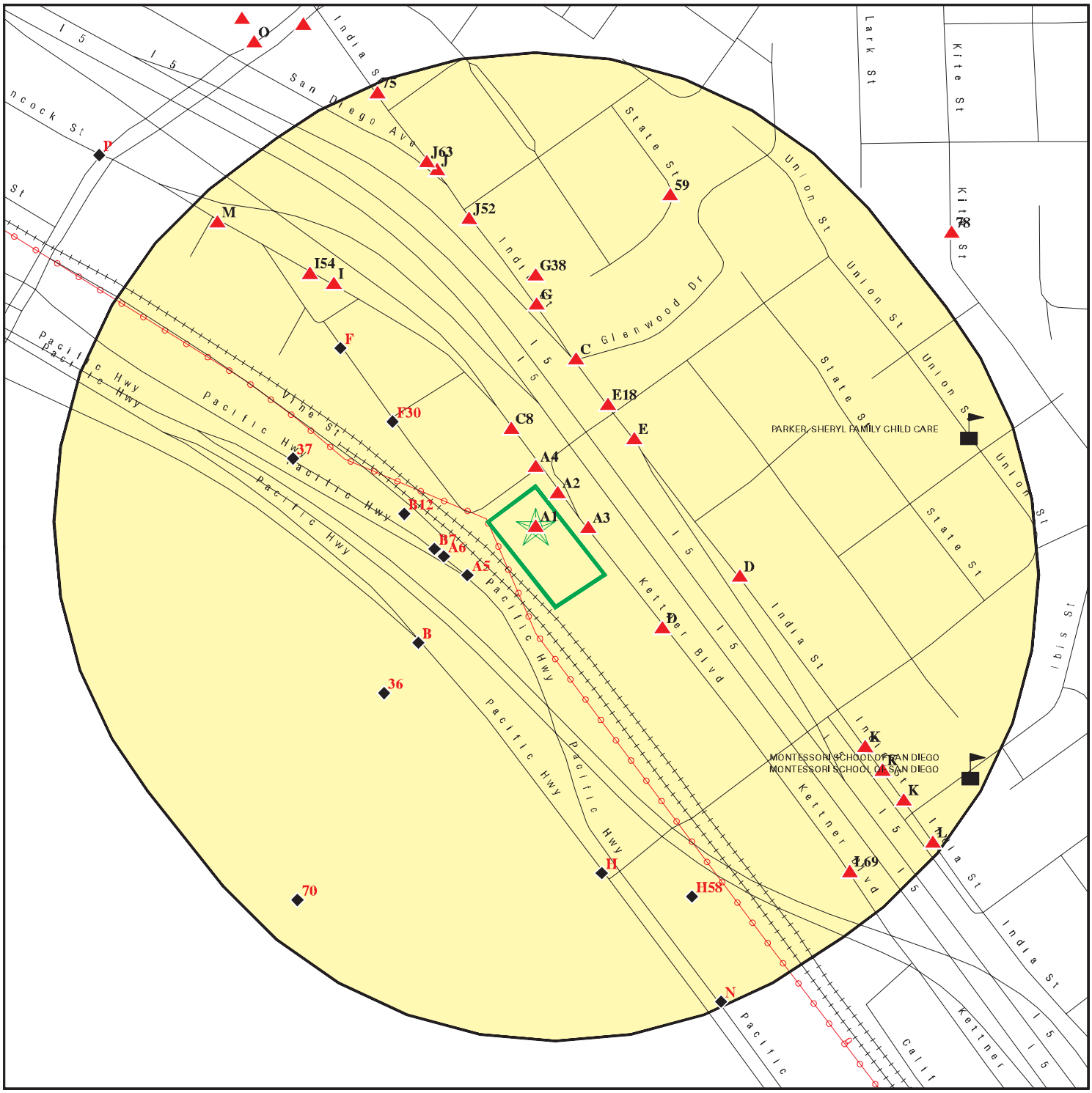
DETAIL MAP - 3889802.2s



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Vine Street Substation	CLIENT: GeoSyntec Consultants
ADDRESS: 3550 Kettner Blvd San Diego CA 92101	CONTACT: Doug Baumwirt
LAT/LONG: 32.7389 / 117.179	INQUIRY #: 3889802.2s DATE: March 24, 2014 8:48 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		1	1	1	NR	NR	3
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		1	0	0	2	NR	3
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		1	0	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		4	1	NR	NR	NR	5
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
CA RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
CA ENVIROSTOR	1.000		2	1	4	13	NR	20
State and tribal landfill and/or solid waste disposal site lists								
CA SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
CA LUST	0.500		6	5	16	NR	NR	27

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA SLIC	0.500		2	2	6	NR	NR	10
CA SAN DIEGO CO. SAM	0.500		5	2	11	NR	NR	18
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
CA UST	0.250		2	0	NR	NR	NR	2
CA AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	0	NR	0
CA SCH	0.250		0	0	NR	NR	NR	0
CA Toxic Pits	1.000		0	0	0	1	NR	1
CA CDL	TP		NR	NR	NR	NR	NR	0
CA San Diego Co. HMMD	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
CA HIST UST	0.250		6	1	NR	NR	NR	7
CA SWEEPS UST	0.250		6	2	NR	NR	NR	8
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
CA LIENS	TP		NR	NR	NR	NR	NR	0
CA DEED	0.500		1	0	0	NR	NR	1
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA CHMIRS	TP		NR	NR	NR	NR	NR	0
CA LDS	TP		NR	NR	NR	NR	NR	0
CA MCS	TP		NR	NR	NR	NR	NR	0
CA SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	4	NR	NR	NR	5
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
CA NPDES	TP		NR	NR	NR	NR	NR	0
CA UIC	TP		NR	NR	NR	NR	NR	0
CA Cortese	0.500		0	0	0	NR	NR	0
CA HIST CORTESE	0.500		4	2	10	NR	NR	16
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
NY MANIFEST	0.250		0	0	NR	NR	NR	0
CA Notify 65	1.000		0	1	3	5	NR	9
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA WIP	0.250		0	1	NR	NR	NR	1
CA ENF	TP		NR	NR	NR	NR	NR	0
CA HAZNET	TP		NR	NR	NR	NR	NR	0
CA EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
CA HWP	1.000		1	0	0	3	NR	4
CA Financial Assurance	TP		NR	NR	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
CA HWT	0.250		0	0	NR	NR	NR	0
CA WDS	TP		NR	NR	NR	NR	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250	1	11	15	NR	NR	NR	27
EDR US Hist Cleaners	0.250		1	6	NR	NR	NR	7
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	TP		NR	NR	NR	NR	NR	0
CA RGA LUST	TP		NR	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **SOLOMON JACOB** **EDR US Hist Auto Stat** **1008989280**
Target **3550 KETTNER BLVD** **N/A**
Property **SAN DIEGO, CA**

Site 1 of 6 in cluster A

Actual:
68 ft.

EDR Historical Auto Stations:

Name:	CHURCH WALTER
Year:	1927
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	CHURCH WALTER SUPER SERVICE
Year:	1927
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	SOLOMON JACOB
Year:	1930
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	SOLOMON JACOB
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	SOLOMON JACOB
Year:	1943
Type:	GASOLINE AND OIL SERVICE STATIONS

A2 **POWERS RON SHELL SERVICE** **EDR US Hist Auto Stat** **1008997442**
NNE **3526 KETTNER BLVD** **N/A**
< 1/8 **SAN DIEGO, CA**
0.008 mi.
43 ft. **Site 2 of 6 in cluster A**

Relative:
Higher

Actual:
84 ft.

EDR Historical Auto Stations:

Name:	POWERS RON SHELL SERVICE
Year:	1970
Type:	GASOLINE STATIONS

A3 **JEFF S GARAGE** **EDR US Hist Auto Stat** **1008997892**
East **3515 KETTNER BLVD** **N/A**
< 1/8 **SAN DIEGO, CA**
0.010 mi.
51 ft. **Site 3 of 6 in cluster A**

Relative:
Higher

Actual:
96 ft.

EDR Historical Auto Stations:

Name:	JEFF S GARAGE
Year:	1961
Type:	AUTOMOBILE REPAIRING

A4 **ADVANCED COATINGS TECHNOLOGIES** **RCRA-SQG** **1000151447**
North **3554 KETTNER BLVD** **FINDS** **CAD982488173**
< 1/8 **SAN DIEGO, CA** **CA HAZNET**
0.012 mi.
63 ft. **Site 4 of 6 in cluster A**

Relative:
Higher

Actual:
95 ft.

RCRA-SQG:

Date form received by agency:	04/19/1990
Facility name:	ADVANCED COATINGS TECHNOLOGIES
Facility address:	3554 KETTNER BLVD SAN DIEGO, CA 92101
EPA ID:	CAD982488173
Mailing address:	KETTNER BLVD SAN DIEGO, CA 92101
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3554 KETTNER BLVD SAN DIEGO, CA 92101
Contact country:	US
Contact telephone:	(619) 291-1680
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CATERPILLAR VENTURE
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

ADVANCED COATINGS TECHNOLOGIES (Continued) **1000151447**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002828539

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 1995
Gepaid: CAD982488173
Contact: LA MESA ACQUISITIONS INC
Telephone: 6192910104
Mailing Name: Not reported
Mailing Address: PO BOX 81406
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAT080010101
TSD County: Not reported
Waste Category: Paint sludge
Disposal Method: Transfer Station
Tons: .1459
Facility County: San Diego

Year: 1995
Gepaid: CAD982488173
Contact: LA MESA ACQUISITIONS INC
Telephone: 6192910104
Mailing Name: Not reported
Mailing Address: PO BOX 81406
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAT080010101
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Treatment, Tank
Tons: .0300
Facility County: San Diego

Year: 1995
Gepaid: CAD982488173
Contact: LA MESA ACQUISITIONS INC

ADVANCED COATINGS TECHNOLOGIES (Continued) **1000151447**

Telephone: 6192910104
Mailing Name: Not reported
Mailing Address: PO BOX 81406
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAT080010101
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Transfer Station
Tons: .0425
Facility County: San Diego

Year: 1995
Gepaid: CAD982488173
Contact: LA MESA ACQUISITIONS INC
Telephone: 6192910104
Mailing Name: Not reported
Mailing Address: PO BOX 81406
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAT080010101
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Transfer Station
Tons: .0250
Facility County: San Diego

Year: 1995
Gepaid: CAD982488173
Contact: LA MESA ACQUISITIONS INC
Telephone: 6192910104
Mailing Name: Not reported
Mailing Address: PO BOX 81406
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAT080010101
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Transfer Station
Tons: .0750
Facility County: San Diego

Click this hyperlink while viewing on your computer to access
11 additional CA_HAZNET: record(s) in the EDR Site Report.

A5 **EDR US Hist Auto Stat** **1015446134**
SW **3555 PACIFIC HWY** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.028 mi.
150 ft. **Site 5 of 6 in cluster A**

Relative:
Lower

Actual:
36 ft.

EDR Historical Auto Stations:
Name: GREENLIGHT AUTO REPAIR
Year: 2007
Address: 3555 PACIFIC HWY

Name: GEENLIGHT AUTO RPR
Year: 2008

(Continued) **1015446134**

Address: 3555 PACIFIC HWY

A6 **EDR US Hist Auto Stat** **1015446540**
WSW **3565 PACIFIC HWY** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.032 mi.
170 ft. **Site 6 of 6 in cluster A**

Relative:
Lower

Actual:
35 ft.

EDR Historical Auto Stations:

Name: SWEDISH AUTO A B
Year: 1999
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2000
Address: 3565 PACIFIC HWY

Name: A & B SAAB SERVICE
Year: 2001
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2002
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2007
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2008
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2009
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO AB
Year: 2010
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2011
Address: 3565 PACIFIC HWY

Name: SWEDISH AUTO A B
Year: 2012
Address: 3565 PACIFIC HWY

B7 **PACIFIC COAST AUTOMOTIVE** **EDR US Hist Auto Stat** **1008997648**
WSW **3569 PACIFIC HWY** **N/A**
< 1/8 **SAN DIEGO, CA**
0.034 mi.
182 ft. **Site 1 of 8 in cluster B**

Relative:
Lower

Actual:
34 ft.

EDR Historical Auto Stations:

Name:	PACIFIC COAST AUTOMOTIVE
Year:	1975
Type:	AUTOMOBILE REPAIRING
Name:	BLADES AUTOMOTIVE
Year:	2001
Address:	3569 PACIFIC HWY
Name:	BLADES AUTOMOTIVE
Year:	2002
Address:	3569 PACIFIC HWY
Name:	BLADES AUTOMOTIVE
Year:	2003
Address:	3569 PACIFIC HWY
Name:	BLADES AUTOMOTIVE
Year:	2004
Address:	3569 PACIFIC HWY

C8 **ARTS AND CRAFTS PRESS** **RCRA-SQG** **1000373286**
NNW **3590 KETTNER BLVD** **FINDS** **CAD008231144**
< 1/8 **SAN DIEGO, CA 92101** **CA HAZNET**
0.037 mi.
193 ft. **Site 1 of 4 in cluster C**

Relative:
Higher

Actual:
105 ft.

RCRA-SQG:

Date form received by agency:	08/13/1986
Facility name:	ARTS AND CRAFTS PRESS
Facility address:	3590 KETTNER BLVD SAN DIEGO, CA 92101
EPA ID:	CAD008231144
Mailing address:	PO BOX 84660 SAN DIEGO, CA 92138
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3590 KETTNER BLVD SAN DIEGO, CA 92101
Contact country:	US
Contact telephone:	(619) 297-0261
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	INTERMARK INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999

ARTS AND CRAFTS PRESS (Continued) **1000373286**

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002630350

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 1999
Gepaid: CAD008231144
Contact: CONSOLIDATED GRAPHICS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 8833 COMPLEX DR
Mailing City,St,Zip: SAN DIEGO, CA 921230000

ARTS AND CRAFTS PRESS (Continued) **1000373286**

Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .2293
Facility County: San Diego

Year: 1999
Gepaid: CAD008231144
Contact: CONSOLIDATED GRAPHICS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 8833 COMPLEX DR
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: .1000
Facility County: San Diego

Year: 1998
Gepaid: CAD008231144
Contact: CONSOLIDATED GRAPHICS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 8833 COMPLEX DR
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: Not reported
TSD EPA ID: 0971255088
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: .6880
Facility County: San Diego

Year: 1998
Gepaid: CAD008231144
Contact: CONSOLIDATED GRAPHICS
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 8833 COMPLEX DR
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .1459
Facility County: San Diego

Year: 1998
Gepaid: CAD008231144
Contact: CONSOLIDATED GRAPHICS
Telephone: 0000000000

ARTS AND CRAFTS PRESS (Continued) **1000373286**

Mailing Name:	Not reported
Mailing Address:	8833 COMPLEX DR
Mailing City,St,Zip:	SAN DIEGO, CA 921230000
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	.0500
Facility County:	San Diego

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

D9 **ADVANTAGE RENT-A-CAR** **CA San Diego Co. HMMD** **S105692675**
SE **3420 KETTNER BL** **CA SAN DIEGO CO. SAM** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.045 mi.
237 ft. **Site 1 of 5 in cluster D**

Relative:
Higher

Actual:
98 ft.

SAN DIEGO CO. HMMD:

Facility Id:	211720
Business Type:	6HK21
EPA Id Number:	Not reported
APN:	451-690-48-00
Last HMMD Inspection:	02/02/2012
Permit Status:	OPEN
Permit Expiration:	05/31/2013
Facility Owner:	HERTZ RENT-A-CAR
Facility Address:	3420 KETTNER BL
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92101
UST Owner:	Not reported
Handle Regulated Hazmat:	Y
Own Or Operate UST:	N
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

Active Permits:

Facility Id:	211720
Update Date:	11/02/2012
Case Number:	1310-73-2
Name:	CONCENTRATED CLEANER/
Other Information:	SODIUM HYDROXIDE
Material Waste:	Material
Hazardous Categories 1:	REACTIVE
Hazardous Categories 2:	ACUTE

Facility Id:	211720
Update Date:	11/02/2012
Case Number:	8006-61-9
Name:	PETROLEUM HYDROCARBONS
Other Information:	GASOLINE
Material Waste:	Material
Hazardous Categories 1:	FIRE

ADVANTAGE RENT-A-CAR (Continued) **S105692675**

Hazardous Categories 2: Not reported

Facility Id: 211720
Update Date: 11/02/2012
Case Number: Not reported
Name: CAR WASH SOAP
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 211720
Update Date: 11/02/2012
Case Number: Not reported
Name: GLASS CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 211720
Update Date: 11/02/2012
Case Number: Not reported
Name: FRESHWAVE 1AA ODORS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: CHRONIC

Violations Active Permits:
Facility Id: 211720
Update Date: 11/02/2012
Inspection Date: 01/28/2010
Violation Code: 6HV1002
Violation: HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation: Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity: ACTIVE

Facility Id: 211720
Update Date: 11/02/2012
Inspection Date: 02/02/2012
Violation Code: 6HV1018
Violation: INVENTORY INCOMPLETE/NOT AMENDED
Violation Citation: Inventory not amended for 100% increase of hazardous material onsite or inventory is incomplete. 25509, 25510
Activity: ACTIVE

Facility Id: 211720
Update Date: 11/02/2012
Inspection Date: 02/02/2012
Violation Code: 6HV1002
Violation: HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation: Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity: ACTIVE

ADVANTAGE RENT-A-CAR (Continued) **S105692675**

SAN DIEGO CO. SAM:

Case Number:	H21044-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**Non Billable**
Facility Type:	Failed Integrity Test
Facility Status:	Closed Case
Date:	1/7/1991
Date Began:	10/31/1991

D10 **HERTZ CORPORATION KETTNER** **CA SLIC** **S103654166**
SE **3420 KETTNER BL** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.045 mi.
237 ft. **Site 2 of 5 in cluster D**

Relative:
Higher

Actual:
98 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	01/07/1991
Global Id:	T0608187216
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H21044-001
Latitude:	32.737752
Longitude:	-117.178027
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

D11 **HERTZ CORPORATION KETTNER** **CA SWEEPS UST** **S106061803**
SE **3420 KETTNER BLVD** **CA San Diego Co. HMMD** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.045 mi.
237 ft. **Site 3 of 5 in cluster D**

Relative:
Higher

Actual:
98 ft.

SWEEPS UST:

Status:	Active
Comp Number:	21044
Number:	9
Board Of Equalization:	44-000468
Referral Date:	Not reported
Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-021044-000001
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P

HERTZ CORPORATION KETTNER (Continued) **S106061803**

Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 21044
Number: 9
Board Of Equalization: 44-000468
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021044-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 21044
Number: 9
Board Of Equalization: 44-000468
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021044-000003
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 21044
Number: 9
Board Of Equalization: 44-000468
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021044-000004
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: OIL
STG: W
Content: Not reported
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:
Facility Id: 121044
Business Type: 6HK28

HERTZ CORPORATION KETTNER (Continued) **S106061803**

EPA Id Number:	Not reported
APN:	451-690-48-00
Last HMMD Inspection:	09/22/1998
Permit Status:	INAC
Permit Expiration:	09/22/1998
Facility Owner:	THE HERTZ CORPORATION
Facility Address:	3202 N HARBOR DR
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92101-1124
UST Owner:	THE HERTZ CORPORATION
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 121044 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	121044
Tank Type:	SINGLE WALL
Additional Id:	001
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1998-08-26 00:00:00
Year Installed:	1984-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	PRESSURE
Monitor Code:	02
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121044 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	121044
Tank Type:	SINGLE WALL
Additional Id:	002
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1998-08-26 00:00:00
Year Installed:	1984-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	PRESSURE
Monitor Code:	02
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121044 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	121044
Tank Type:	SINGLE WALL
Additional Id:	003

HERTZ CORPORATION KETTNER (Continued) **S106061803**

Capacity Gallons:	5000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1998-08-26 00:00:00
Year Installed:	1984-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	PRESSURE
Monitor Code:	02
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANNUALLY
UST Name:	UNDERGROUND TANK 121044 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	121044
Tank Type:	SINGLE WALL
Additional Id:	004
Capacity Gallons:	550
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	REMOVED
Remove Close Date:	1998-08-26 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	GRAVITY
Monitor Code:	22
UST Monitor Method:	SW TANK (< 551 GALLONS) SW GRAVITY PIPE USING WEEKLY GAUGING: NON-EXEMPT PIPING TEST BIENNIALLY

B12 **TURKS INC** **CA SWEEPS UST** **S100729291**
West **3555 PACIFIC HWY** **CA San Diego Co. HMMD** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.048 mi.
255 ft. **Site 2 of 8 in cluster B**

Relative:
Lower

Actual:
36 ft.

SWEEPS UST:

Status:	Active
Comp Number:	13457
Number:	9
Board Of Equalization:	44-022790
Referral Date:	Not reported
Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-013457-000001
Tank Status:	A
Capacity:	200
Active Date:	Not reported
Tank Use:	PETROLEUM
STG:	W
Content:	Not reported
Number Of Tanks:	1

SAN DIEGO CO. HMMD:

Facility Id:	216652
Business Type:	6HK18

TURKS INC (Continued) **S100729291**

EPA Id Number:	Not reported
APN:	451-690-40-00
Last HMMD Inspection:	04/25/2012
Permit Status:	OPEN
Permit Expiration:	09/30/2013
Facility Owner:	ECOLA SERVICES, INC
Facility Address:	15314 DEXONSHIRE ST
Facility City:	MISSION HILLS
Facility State:	CA
Facility Zip:	91345
UST Owner:	Not reported
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

Active Permits:

Facility Id:	216652
Update Date:	11/02/2012
Case Number:	74-98-6
Name:	PROPANE
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Violations Active Permits:

Facility Id:	216652
Update Date:	11/02/2012
Inspection Date:	04/25/2012
Violation Code:	6HV1001
Violation:	NO UPF PERMIT FOR HAZMATS
Violation Citation:	A Unified Program Facility permit has not been obtained for hazardous materials. 68.905
Activity:	ACTIVE

Facility Id:	216652
Update Date:	11/02/2012
Inspection Date:	04/25/2012
Violation Code:	6HV1002
Violation:	HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation:	Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity:	ACTIVE

Facility Id:	113457
Business Type:	6HK26
EPA Id Number:	CAL000058517
APN:	451-690-40-00
Last HMMD Inspection:	08/08/2002
Permit Status:	CHNG
Permit Expiration:	02/29/2004
Facility Owner:	TURKS INC
Facility Address:	3555 PACIFIC HY

TURKS INC (Continued) **S100729291**

Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92101-1140
UST Owner: ERSIN KONUK
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 113457 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 113457
Tank Type: SINGLE WALL
Additional Id: AT4012
Capacity Gallons: 200
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1998-03-23 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: GRAVITY
Monitor Code: 22
UST Monitor Method: SW TANK (< 551 GALLONS) NON-EXEMPT PIPING TEST SW GRAVITY PIPE USING WEEKLY GAUGING: BIENNIALLY

Facility Id: 203933
Business Type: 6HK26
EPA Id Number: Not reported
APN: 451-690-40-00
Last HMMD Inspection: 08/17/2004
Permit Status: INAC
Permit Expiration: 12/31/2005
Facility Owner: G-LIGHT INC
Facility Address: 3555 PACIFIC HY
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92101
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

E13 **93509** **CA HIST UST** **U001572648**
NE **3535 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA 92103**
0.062 mi.
327 ft. **Site 1 of 6 in cluster E**

Relative:
Higher

Actual:
113 ft.

HIST UST:

Region:	STATE
Facility ID:	00000062452
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	KEYSER, LARRY J.
Telephone:	6192601787
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105

Tank Num:	001
Container Num:	1
Year Installed:	1967
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	1967
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	1967
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1967
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	0000130 unknown
Leak Detection:	Stock Inventor

E14
NE
< 1/8
0.062 mi.
327 ft.

INDIA CHEVRON
3535 INDIA ST
SAN DIEGO, CA 92103

Site 2 of 6 in cluster E

CA HIST CORTESE **S100470799**
CA LUST **N/A**
CA SLIC
CA San Diego Co. HMMD
CA SAN DIEGO CO. SAM

Relative:
Higher

Actual:
113 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT103

LUST:

Region:	STATE
Global Id:	T0607300047
Latitude:	32.739677
Longitude:	-117.177741
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/19/2000
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	SW
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	9UT103
LOC Case Number:	H15953-001
File Location:	Local Agency
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0607300047
Contact Type:	Local Agency Caseworker
Contact Name:	SCOTT WELDON
Organization Name:	SAN DIEGO COUNTY LOP
Address:	P.O. Box 129261
City:	San Diego
Email:	scott.weldon@sdcounty.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0607300047
Status:	Open - Case Begin Date
Status Date:	12/11/1986

Global Id:	T0607300047
Status:	Completed - Case Closed
Status Date:	05/19/2000

Regulatory Activities:

Global Id:	T0607300047
Action Type:	ENFORCEMENT
Date:	12/11/1986
Action:	Notice of Responsibility

INDIA CHEVRON (Continued) **S100470799**

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	05/04/1993
Global Id:	T0608198581
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H15953-002
Latitude:	32.739732
Longitude:	-117.177788
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	10/17/1995
Global Id:	T0608191671
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H15953-003
Latitude:	32.739732
Longitude:	-117.177788
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SAN DIEGO CO. HMMD:

Facility Id:	115953
Business Type:	6HK28
EPA Id Number:	CAD983664368
APN:	451-453-02-00
Last HMMD Inspection:	01/31/2005
Permit Status:	CHNG
Permit Expiration:	09/30/2006
Facility Owner:	ANDRE ATTISHA
Facility Address:	PO BOX 6004
Facility City:	SAN RAMON
Facility State:	CA
Facility Zip:	94583-
UST Owner:	CHEVRON USA INC
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Y
Subject To APSA:	Not reported

INDIA CHEVRON (Continued) **S100470799**

Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 115953 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 115953
Tank Type: DOUBLE WALL
Additional Id: RT0711
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1986-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 115953 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 115953
Tank Type: DOUBLE WALL
Additional Id: RT0711
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1986-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 115953 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 115953
Tank Type: DOUBLE WALL
Additional Id: RT0711
Capacity Gallons: 10000
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1986-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 115953 T004
Last Update: 2012-11-02 14:17:38

INDIA CHEVRON (Continued) **S100470799**

Permit Number:	115953
Tank Type:	SINGLE WALL
Additional Id:	NT0372-4
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1967-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 115953 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	115953
Tank Type:	SINGLE WALL
Additional Id:	NT0372-5
Capacity Gallons:	180
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

SAN DIEGO CO. SAM:

Case Number:	H15953-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	5/19/2000
Date Began:	12/11/1986

Case Number:	H15953-002
Agency:	DEH Site Assessment & Mitigation
Funding:	**Non Billable**
Facility Type:	Failed Integrity Test
Facility Status:	Closed Case
Date:	5/4/1993
Date Began:	3/10/1993

Case Number:	H15953-003
Agency:	DEH Site Assessment & Mitigation
Funding:	**Non Billable**
Facility Type:	Failed Integrity Test
Facility Status:	Closed Case
Date:	10/17/1995
Date Began:	9/25/1995

E15 **CHEVRON STATION 93509** **RCRA-SQG** **1000820401**
NE **3535 INDIA ST** **FINDS** **CAD983664368**
< 1/8 **SAN DIEGO, CA 92103**
0.062 mi.
327 ft. **Site 3 of 6 in cluster E**

Relative:
Higher

Actual:
113 ft.

RCRA-SQG:

Date form received by agency:	05/16/2002
Facility name:	CHEVRON STATION 93509
Facility address:	3535 INDIA ST SAN DIEGO, CA 921034739
EPA ID:	CAD983664368
Mailing address:	P O BOX 6004 SAN RAMON, CA 94583
Contact:	KATHY NORRIS
Contact address:	P O BOX 6004 SAN RAMON, CA 94583
Contact country:	US
Contact telephone:	(925) 842-5931
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CHEVRON PRODUCTS CO
Owner/operator address:	P O BOX 6004 SAN RAMON, CA 94583
Owner/operator country:	Not reported
Owner/operator telephone:	(925) 842-5931
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D001

CHEVRON STATION 93509 (Continued) **1000820401**

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110002896377

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E16 **CHEVRON** **CA LUST** **S104539564**
NE **3535 INDIA ST** **CA SWEEPS UST** **N/A**
< 1/8 **SAN DIEGO, CA 92103** **CA San Diego Co. HMMD**
0.062 mi. **CA EMI**
327 ft. **Site 4 of 6 in cluster E**

Relative:
Higher

Actual:
113 ft.

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT103
Local Case:	H15953-001
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Local Agency:	San Diego
How Found:	Not reported
How Stopped:	Not reported
Source:	Not reported
Cause:	Not reported
Lead Agency:	Local Agency
Case Type:	Other ground water affected
Date Found:	12/11/1986
Date Stopped:	12/11/1986
Confirm Date:	12/11/1986
Submit Workplan:	Not reported
Prelim Assess:	01/05/1987
Desc Pollution:	Not reported
Remed Plan:	12/15/1997

CHEVRON (Continued) **S104539564**

Remed Action: Not reported
Began Monitor: Not reported
Release Date: 01/05/1987
Enforce Date: 12/11/86
Closed Date: 5/8/00
Enforce Type: SEL
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 61.41
Beneficial Use: NBNB/E
NPDES Number: Not reported
Priority: Medium priority
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SWEEPS UST:
Status: Active
Comp Number: 15953
Number: 9
Board Of Equalization: 44-022932
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-015953-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 15953
Number: 9
Board Of Equalization: 44-022932
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-015953-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 15953
Number: 9
Board Of Equalization: 44-022932
Referral Date: Not reported

CHEVRON (Continued) **S104539564**

Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-015953-000003
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

SAN DIEGO CO. HMMD:

Facility Id:	206056
Business Type:	6HK28
EPA Id Number:	CAL000301916
APN:	451-453-02-00
Last HMMD Inspection:	12/28/2011
Permit Status:	OPEN
Permit Expiration:	11/30/2013
Facility Owner:	ANDRE ATTISHA
Facility Address:	3535 INDIA ST
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92103
UST Owner:	ANDRE ATTISHA
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Y
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 115953 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	206056
Tank Type:	DOUBLE WALL
Additional Id:	RT0711
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	1986-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	31F
UST Monitor Method:	DW TANK, DW PRESSURIZED PIPE W/ DRY TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 0.1 LLD; UDC W/STAND ALONE SENSOR

UST Name:	UNDERGROUND TANK 115953 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	206056
Tank Type:	DOUBLE WALL
Additional Id:	RT0711
Capacity Gallons:	10000

CHEVRON (Continued) **S104539564**

UST Contents: REGULAR UNLEADED
Other Content Info: MIDGRADE UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1986-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 31F
UST Monitor Method: DW TANK, DW PRESSURIZED PIPE W/ DRY TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 0.1 LLD; UDC W/STAND ALONE SENSOR

UST Name: UNDERGROUND TANK 115953 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 206056
Tank Type: DOUBLE WALL
Additional Id: RT0711
Capacity Gallons: 10000
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1986-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 31F
UST Monitor Method: DW TANK, DW PRESSURIZED PIPE W/ DRY TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 0.1 LLD; UDC W/STAND ALONE SENSOR

Active Permits:
Facility Id: 206056
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: REGULAR UNLEADED
Other Information: UNDERGROUND TANK 115953 T001
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 206056
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: PREMIUM UNLEADED
Other Information: UNDERGROUND TANK 115953 T003
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 206056
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: WATER & FUEL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 206056

CHEVRON (Continued) **S104539564**

Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: USED FUEL DISPENSER FILTE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 206056
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: MIDGRADE UNLEADED
Other Information: UNDERGROUND TANK 115953 T002
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Violations Active Permits:

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 12/07/2010
Violation Code: 6HV3411
Violation: LLD NOT INSTALLED/NOT FUNCTIONAL
Violation Citation: DOUBLE WALLED PRESSURIZED PIPING-Including Under Dispenser Containment (UDC):Line leak detector is not installed, not functional, or not tested. 2636(f)(2), 25284.1(a)(4)(C), 2641(j)
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 12/28/2011
Violation Code: 6HV3552
Violation: NO LLD SHUT DOWN W/LEAK/FAIL/DISCONNECT
Violation Citation: SINGLE WALLED PRESSURIZED PIPING:Line leak detector does not shut down pump with release and detector failure/disconnection. 2666 (c)
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 12/14/2007
Violation Code: 6HV3114
Violation: 2NDRY CONT TEST NOT DONE/SENT TO CUPA
Violation Citation: Secondary containment testing not done at 6/36 months and/or not sent to CUPA within 30 days. 25284.1; 2637(a)&(e)
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 11/06/2006
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity: ACTIVE

Facility Id: 206056

CHEVRON (Continued) **S104539564**

Update Date: 11/02/2012
Inspection Date: 12/07/2010
Violation Code: 6HV3114
Violation: 2NDRY CONT TEST NOT DONE/SENT TO CUPA
Violation Citation: Secondary containment testing not done at 6/36 months and/or not sent to CUPA within 30 days. 25284.1; 2637(a)&(e)
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 12/24/2008
Violation Code: 6HV3263
Violation: MONITOR SYSTEM NOT ALL FUNCTIONAL
Violation Citation: Monitoring system components &/or devices are not all functional. 2630, 2641(j), 2632
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 12/28/2011
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 206056
Update Date: 11/02/2012
Inspection Date: 11/17/2005
Violation Code: 6HV3252
Violation: AUDIO&VISUAL ALARMS NOT WORKING OK
Violation Citation: All audible and/or visual alarms not functioning properly. 2632(c)(2)(B), 2636(f)(1)
Activity: ACTIVE

EMI:

Year: 1999
County Code: 37
Air Basin: SD
Facility ID: 4497
Air District Name: SD
SIC Code: 5541
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 2
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 2000
County Code: 37
Air Basin: SD

CHEVRON (Continued) **S104539564**

Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

CHEVRON (Continued) **S104539564**

Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.1588658
Reactive Organic Gases Tons/Yr:	2.1588658
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.1588658
Reactive Organic Gases Tons/Yr:	2.1588658
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2006
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.58
Reactive Organic Gases Tons/Yr:	2.58
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0

CHEVRON (Continued) **S104539564**

Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2007
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.58
Reactive Organic Gases Tons/Yr:	2.58
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2008
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.58
Reactive Organic Gases Tons/Yr:	2.58
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2009
County Code:	37
Air Basin:	SD
Facility ID:	4497
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.5800000000000001
Reactive Organic Gases Tons/Yr:	2.5800000000000001
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2010
County Code:	37
Air Basin:	SD
Facility ID:	4497

CHEVRON (Continued) **S104539564**

Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2.5800000000000001
Reactive Organic Gases Tons/Yr:	2.5800000000000001
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

E17 **GUYMON MEL CHEVRON SERVICE** **EDR US Hist Auto Stat** **1008998602**
NE **3535 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA**
0.062 mi.
327 ft. **Site 5 of 6 in cluster E**

Relative: Higher

Actual: 113 ft.

EDR Historical Auto Stations:

Name:	GUYMON MEL CHEVRON SERVICE
Year:	1975
Type:	GASOLINE STATIONS
Name:	GUYMON MEL CHEVRON SERVICE
Year:	1980
Type:	GASOLINE STATIONS
Name:	KEYSER CHEVRON SERVICE
Year:	1984
Type:	GASOLINE STATIONS
Name:	CHEVRON STATIONS
Year:	1999
Address:	3535 INDIA ST
Name:	CHEVRON STATIONS
Year:	2000
Address:	3535 INDIA ST
Name:	CHEVRON OIL
Year:	2003
Address:	3535 INDIA ST

E18 **AMFAC DRUG SUPPLY COMPANY** **CA HIST UST** **U001572651**
NNE **3555 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA 92103**
0.063 mi.
334 ft. **Site 6 of 6 in cluster E**

Relative: Higher

Actual: 103 ft.

HIST UST:

Region:	STATE
Facility ID:	00000067862
Facility Type:	Other
Other Type:	PHARMACEUTICAL WHOLE
Total Tanks:	0001

AMFAC DRUG SUPPLY COMPANY (Continued) **U001572651**

Contact Name: NORMAN BENNETT
Telephone: 9162982196
Owner Name: SELMA J. BERMAN
Owner Address: 2620 SECOND AVENUE, APT. 5B
Owner City,St,Zip: SAN DIEGO, CA 92103

Tank Num: 001
Container Num: #1
Year Installed: 1968
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: 1
Tank Construction: Unkown inches
Leak Detection: Stock Inventor

B19 **LINDBERGH FIELD** **CA SAN DIEGO CO. SAM** **S105694333**
SW **3698 PACIFIC HY** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.075 mi.
394 ft. **Site 3 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

SAN DIEGO CO. SAM:
Case Number: H21052-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Closed Case
Date: 8/16/1988
Date Began: 10/30/1985

B20 **LINDBERGH FIELD ATCT** **CA HIST UST** **U001573997**
SW **3698 PACIFIC HWY** **N/A**
< 1/8 **SAN DIEGO, CA 92251**
0.075 mi.
394 ft. **Site 4 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

HIST UST:
Region: STATE
Facility ID: 00000059100
Facility Type: Other
Other Type: AIRPORT
Total Tanks: 0001
Contact Name: MATTHEW KING
Telephone: 6192935271
Owner Name: FEDERAL AVIATION ADMINISTRATIO
Owner Address: 8575 GIBBS DRIVE, SUITE 101
Owner City,St,Zip: SAN DIEGO, CA 92123

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

B21 **OGDEN AVIATION FUELING COINC** **CA UST** **U003940914**
SW **3698 PACIFIC HWY # C** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.075 mi.
394 ft. **Site 5 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

UST:
Facility ID: H34565
Latitude: 32.7381
Longitude: -117.18044
Permitting Agency SAN DIEGO COUNTY

B22 **LINDBERGH FIELD** **CA LUST** **S105035995**
SW **3698 PACIFIC HWY** **CA SWEEPS UST** **N/A**
< 1/8 **SAN DIEGO, CA 92101** **CA San Diego Co. HMMD**
0.075 mi.
394 ft. **Site 6 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

SWEEPS UST:
Status: Active
Comp Number: 21052
Number: 9
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000001
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: 4

Status: Active
Comp Number: 21052
Number: 9
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000003
Tank Status: A
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 21052
Number: 9
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88

LINDBERGH FIELD (Continued) **S105035995**

Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000005
Tank Status: A
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 21052
Number: 9
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000007
Tank Status: A
Capacity: 550
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 21052
Number: Not reported
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000002
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Status: Not reported
Comp Number: 21052
Number: Not reported
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000004
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL

LINDBERGH FIELD (Continued) **S105035995**

STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 21052
Number: Not reported
Board Of Equalization: 44-003165
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021052-000006
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: AVIA. GAS
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:
Facility Id: 121052
Business Type: 6HK52
EPA Id Number: Not reported
APN: DEH-121052
Last HMMD Inspection: 12/08/2010
Permit Status: OPEN
Permit Expiration: 06/30/2013
Facility Owner: FEDERAL AVIATION ADMIN
Facility Address: 9175 KEARNY VILLA RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92126-7009
UST Owner: FEDERAL AVIATION ADMIN
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Y
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 121052 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121052
Tank Type: SINGLE WALL
Additional Id: SAN/ATCT-1
Capacity Gallons: 1000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1994-01-07 00:00:00
Year Installed: Not reported
Pipe Type: SINGLE WALL
Delivery System: SUCTION
Monitor Code: 07

LINDBERGH FIELD (Continued) **S105035995**

UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY
UST Name:	UNDERGROUND TANK 121052 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/ATCT-2
Capacity Gallons:	4000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1988-02-03 00:00:00
Year Installed:	1980-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 121052 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/RTR-1
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1993-02-17 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY
UST Name:	UNDERGROUND TANK 121052 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/RTR-2
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1988-02-03 00:00:00
Year Installed:	1980-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY
UST Name:	UNDERGROUND TANK 121052 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	121052

LINDBERGH FIELD (Continued) **S105035995**

Tank Type:	SINGLE WALL
Additional Id:	SAN/GS
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1993-02-17 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121052 T006
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	UNKNOWN
Capacity Gallons:	500
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1975-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 121052 T007
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	DOUBLE WALL
Additional Id:	7
Capacity Gallons:	550
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	1988-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

Active Permits:

Facility Id:	121052
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 221 WASTE OIL & MIXED OIL
Other Information:	Not reported
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

LINDBERGH FIELD (Continued) **S105035995**

Facility Id: 121052
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 888 USED OIL FILTERS
Other Information: GENERATED BIANNUALLY
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121052
Update Date: 11/02/2012
Case Number: 68334-30-5
Name: DIESEL FUEL
Other Information: IN 2 SEPARATE AST (UBR, GS)
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121052
Update Date: 11/02/2012
Case Number: 7664-93-9
Name: SULFURIC ACID/LEAD BATTERIES
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: ACUTE

Facility Id: 121052
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 342 ORGANIC LIQUIDS W/METALS
Other Information: ANTIFREEZE GEN. BIENNALLY
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 121052
Update Date: 11/02/2012
Inspection Date: 05/13/2009
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity: ACTIVE

Facility Id: 121052
Update Date: 11/02/2012
Inspection Date: 12/08/2010
Violation Code: 6HV1016
Violation: ER RESPONSE PLAN NOT ADEQUATE
Violation Citation: Failure to have an adequate emergency response plan 25504 (b); 2731
Activity: ACTIVE

Facility Id: 121052

LINDBERGH FIELD (Continued) **S105035995**

Business Type:	6HK52
EPA Id Number:	Not reported
APN:	DEH-121052
Last HMMD Inspection:	12/08/2010
Permit Status:	OPEN
Permit Expiration:	06/30/2013
Facility Owner:	FEDERAL AVIATION ADMIN
Facility Address:	9175 KEARNY VILLA RD
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92126-7009
UST Owner:	FEDERAL AVIATION ADMIN
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 121052 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/ATCT-1
Capacity Gallons:	1000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1994-01-07 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121052 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/ATCT-2
Capacity Gallons:	4000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1988-02-03 00:00:00
Year Installed:	1980-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name:	UNDERGROUND TANK 121052 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL

LINDBERGH FIELD (Continued) **S105035995**

Additional Id:	SAN/RTR-1
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1993-02-17 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121052 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/RTR-2
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1988-02-03 00:00:00
Year Installed:	1980-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121052 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	SAN/GS
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1993-02-17 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 121052 T006
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	SINGLE WALL
Additional Id:	UNKNOWN
Capacity Gallons:	500
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00

LINDBERGH FIELD (Continued) **S105035995**

Year Installed:	1975-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 121052 T007
Last Update:	2012-11-02 14:17:38
Permit Number:	121052
Tank Type:	DOUBLE WALL
Additional Id:	7
Capacity Gallons:	550
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	1988-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

Active Permits:

Facility Id:	121052
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 221 WASTE OIL & MIXED OIL
Other Information:	Not reported
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	121052
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 888 USED OIL FILTERS
Other Information:	GENERATED BIANNUALLY
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	121052
Update Date:	11/02/2012
Case Number:	68334-30-5
Name:	DIESEL FUEL
Other Information:	IN 2 SEPARATE AST (UBR, GS)
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported
Facility Id:	121052
Update Date:	11/02/2012
Case Number:	7664-93-9
Name:	SULFURIC ACID/LEAD BATTERIES
Other Information:	Not reported
Material Waste:	Material

LINDBERGH FIELD (Continued) **S105035995**

Hazardous Categories 1: REACTIVE
Hazardous Categories 2: ACUTE

Facility Id: 121052
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 342 ORGANIC LIQUIDS W/METALS
Other Information: ANTIFREEZE GEN. BIENNALLY
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 121052
Update Date: 11/02/2012
Inspection Date: 05/13/2009
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity: ACTIVE

Facility Id: 121052
Update Date: 11/02/2012
Inspection Date: 12/08/2010
Violation Code: 6HV1016
Violation: ER RESPONSE PLAN NOT ADEQUATE
Violation Citation: Failure to have an adequate emergency response plan 25504 (b); 2731
Activity: ACTIVE

B23 **LINDBERGH FIELD** **CA HIST CORTESE** **S101335562**
SW **3698 PACIFIC** **CA LUST** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.075 mi.
394 ft. **Site 7 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT178

LUST:
Region: STATE
Global Id: T0607300570
Latitude: 32.740501
Longitude: -117.1845102
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/16/1988
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT178
LOC Case Number: H21052-001

LINDBERGH FIELD (Continued) **S101335562**

File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300570
Status: Open - Case Begin Date
Status Date: 10/30/1985

Global Id: T0607300570
Status: Completed - Case Closed
Status Date: 08/16/1988

Regulatory Activities:
Global Id: T0607300570
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300570
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300570
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300570
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

B24 **RECEIVER TRANSMITTER REMOTE** **CA HIST UST** **U001574000**
SW **3698 PACIFIC HWY** **N/A**
< 1/8 **SAN DIEGO, CA 92251**
0.075 mi.
394 ft. **Site 8 of 8 in cluster B**

Relative:
Lower

Actual:
22 ft.

HIST UST:
Region: STATE
Facility ID: 00000058814
Facility Type: Other
Other Type: AIRPORT
Total Tanks: 0004
Contact Name: MATTHEW KING
Telephone: 6192935271
Owner Name: FEDERAL AVIATION ADMINISTRATIO
Owner Address: 8575 GIBBS DRIVE, SUITE 101
Owner City,St,Zip: SAN DIEGO, CA 92123

Tank Num: 001
Container Num: FAA-004

RECEIVER TRANSMITTER REMOTE (Continued) **U001574000**

Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: FAA 005
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 003
Container Num: FAA-006
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 004
Container Num: FAA-007
Year Installed: 1980
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

C25 **UNION OIL SERVICE STATION #573** **CA HIST UST** **U001572616**
NNE **3585 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA 92101**
0.077 mi.
409 ft. **Site 2 of 4 in cluster C**

Relative:
Higher

Actual:
119 ft.

HIST UST:
Region: STATE
Facility ID: 00000055179
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: DOUGLAS T. YOUNCE
Telephone: 6192981618
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: 123 CAMINO DELA REINA
Owner City,St,Zip: SAN DIEGO, CA 92108

Tank Num: 001
Container Num: 1
Year Installed: 1966
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM

UNION OIL SERVICE STATION #573 (Continued) **U001572616**

Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 2
Year Installed: 1966
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 3
Year Installed: 1966
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

C26 **TONYS UNION SEVENTY SIX** **EDR US Hist Auto Stat** **1008998358**
NNE **3585 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA**
0.077 mi.
409 ft. **Site 3 of 4 in cluster C**

Relative:
Higher

Actual:
119 ft.

EDR Historical Auto Stations:
Name: BOB S UNION SERVICE
Year: 1975
Type: GASOLINE STATIONS

Name: TONYS UNION SEVENTY SIX
Year: 1984
Type: GASOLINE STATIONS

C27 **UNOCAL SERV STATION #5738** **CA HIST CORTESE** **S101302040**
NNE **3585 INDIA ST** **CA LUST** **N/A**
< 1/8 **SAN DIEGO, CA 92103** **CA SWEEPS UST**
0.077 mi. **CA San Diego Co. HMMD**
409 ft. **Site 4 of 4 in cluster C** **CA SAN DIEGO CO. SAM**

Relative:
Higher

Actual:
119 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1900

LUST:
Region: STATE
Global Id: T0607300681
Latitude: 32.7406
Longitude: -117.178472
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/30/2001

UNOCAL SERV STATION #5738 (Continued) **S101302040**

Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1900
LOC Case Number: H05821-001
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300681
Status: Open - Case Begin Date
Status Date: 06/27/1989

Global Id: T0607300681
Status: Completed - Case Closed
Status Date: 07/30/2001

Regulatory Activities:
Global Id: T0607300681
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300681
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300681
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300681
Action Type: ENFORCEMENT
Date: 02/04/1991
Action: Notice of Responsibility

Global Id: T0607300681
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 9:
Region: 9
Status: Remedial action (cleanup) Underway
Case Number: 9UT1900
Local Case: H05821-001
Substance: Unleaded Gasoline
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego

UNOCAL SERV STATION #5738 (Continued) **S101302040**

How Found: Other Means
How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 06/27/1989
Date Stopped: 06/27/1989
Confirm Date: 07/31/1989
Submit Workplan: 2/4/91
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 7/31/89
Began Monitor: Not reported
Release Date: 06/27/1989
Enforce Date: Not reported
Closed Date: Not reported
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: NBNB/E
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SWEEPS UST:
Status: Active
Comp Number: 5821
Number: 9
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-005821-000004
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 5821
Number: 9
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-005821-000005

UNOCAL SERV STATION #5738 (Continued) **S101302040**

Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 5821
Number: 9
Board Of Equalization: 44-000051
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-005821-000006
Tank Status: A
Capacity: 500
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:
Facility Id: 105821
Business Type: Not reported
EPA Id Number: CAL000030645
APN: 451-451-18-00
Last HMMD Inspection: 09/30/1992
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: UNION OIL CO OF CA
Facility Address: PO BOX 25376
Facility City: SANTA ANA
Facility State: CA
Facility Zip: 92799-5376
UST Owner: UNION OIL CO OF CA
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 105821 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 105821
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 10000
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: REMOVED
Remove Close Date: 1989-06-27 00:00:00

UNOCAL SERV STATION #5738 (Continued) **S101302040**

Year Installed:	1966-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 105821 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	105821
Tank Type:	SINGLE WALL
Additional Id:	2
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1989-06-27 00:00:00
Year Installed:	1966-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 105821 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	105821
Tank Type:	SINGLE WALL
Additional Id:	3
Capacity Gallons:	280
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	REMOVED
Remove Close Date:	1989-06-27 00:00:00
Year Installed:	1966-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY
UST Name:	UNDERGROUND TANK 105821 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	105821
Tank Type:	DOUBLE WALL
Additional Id:	4 UNLEADED
Capacity Gallons:	12000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1993-04-03 00:00:00
Year Installed:	1989-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

UNOCAL SERV STATION #5738 (Continued) **S101302040**

UST Name:	UNDERGROUND TANK 105821 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	105821
Tank Type:	DOUBLE WALL
Additional Id:	5 UNLEADED
Capacity Gallons:	12000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1993-04-03 00:00:00
Year Installed:	1989-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

UST Name:	UNDERGROUND TANK 105821 T006
Last Update:	2012-11-02 14:17:38
Permit Number:	105821
Tank Type:	DOUBLE WALL
Additional Id:	6
Capacity Gallons:	500
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	REMOVED
Remove Close Date:	1993-04-03 00:00:00
Year Installed:	1989-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

SAN DIEGO CO. SAM:

Case Number:	H05821-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	GW With No Beneficial Use Designation
Facility Status:	Closed Case
Date:	7/30/2001
Date Began:	6/27/1989

D28 **ADVANTAGE RENT-A-CAR** **CA AST** **S106065594**
ESE **3443 INDIA ST** **CA San Diego Co. HMMD** **N/A**
< 1/8 **SAN DIEGO, CA 92103**
0.078 mi.
411 ft. **Site 4 of 5 in cluster D**

Relative:
Higher

Actual:
133 ft.

AST:

Owner:	COAST LEASING CORP
Total Gallons:	5220
Certified Unified Program Agencies:	San Diego

SAN DIEGO CO. HMMD:

Facility Id:	206773
Business Type:	6HK26
EPA Id Number:	CAL000290835

ADVANTAGE RENT-A-CAR (Continued) **S106065594**

APN:	451-531-20-00
Last HMMD Inspection:	06/25/2008
Permit Status:	INAC
Permit Expiration:	12/31/2008
Facility Owner:	COAST LEASING CORP
Facility Address:	PO BOX 310001
Facility City:	SAN ANTONIO
Facility State:	TX
Facility Zip:	78213
UST Owner:	Not reported
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Y
Generate Haz Waste:	Not reported
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

Violations Inactive Permits:

Facility Id:	206773
Update Date:	11/02/2012
Inspection Date:	05/23/2006
Violation Code:	6HV0131
Violation:	UPF Permit NOT OBTAINED for HAZWASTE
Violation Citation:	A Unified Program Facility permit has not been obtained for the generation of hazardous waste. 68.905
Activity:	Inactive Permit

Facility Id:	206773
Update Date:	11/02/2012
Inspection Date:	05/23/2006
Violation Code:	6HV1002
Violation:	HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation:	Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity:	Inactive Permit

Facility Id:	206773
Update Date:	11/02/2012
Inspection Date:	05/23/2006
Violation Code:	6HV1011
Violation:	TRAINING RECORDS NOT AVAILABLE
Violation Citation:	Personnel training records not available. 19 CCR 2732
Activity:	Inactive Permit

Facility Id:	206773
Update Date:	11/02/2012
Inspection Date:	06/25/2008
Violation Code:	6HV1002
Violation:	HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation:	Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity:	Inactive Permit

Facility Id:	206773
Update Date:	11/02/2012
Inspection Date:	05/23/2006
Violation Code:	6HV1001
Violation:	NO UPF PERMIT FOR HAZMATS

ADVANTAGE RENT-A-CAR (Continued) **S106065594**

Violation Citation: A Unified Program Facility permit has not been obtained for hazardous materials. 68.905
Activity: Inactive Permit

Facility Id: 138332
Business Type: 6HK70
EPA Id Number: Not reported
APN: 451-531-19-00
Last HMMD Inspection: 03/27/2002
Permit Status: INAC
Permit Expiration: 08/31/2003
Facility Owner: BYRON ROSE
Facility Address: 3443 INDIA ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92103
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

D29 **EDR US Hist Auto Stat** **1015439391**
ESE **3443 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA 92103**
0.078 mi.
411 ft. **Site 5 of 5 in cluster D**

Relative:
Higher

Actual:
133 ft.

EDR Historical Auto Stations:
Name: ROSE AUTOMOTIVE
Year: 2003
Address: 3443 INDIA ST

F30 **HONEYWELL INC** **RCRA-TSDF** **1000338187**
NW **3596 CALIFORNIA ST** **CERC-NFRAP** **CAT000618652**
< 1/8 **SAN DIEGO, CA 92101** **CORRACTS**
0.080 mi. **RCRA-LQG**
421 ft. **Site 1 of 3 in cluster F** **CA HIST CORTESE**
CA HIST UST

Relative:
Lower

CA SWEEPS UST
CA DEED
CA San Diego Co. HMMD

Actual:
54 ft.

CA SAN DIEGO CO. SAM
CA ENVIROSTOR
CA HWP

RCRA-TSDF:
Date form received by agency: 07/02/2007
Facility name: HONEYWELL INC
Facility address: 3596 CALIFORNIA ST
SAN DIEGO, CA 92101
EPA ID: CAT000618652
Mailing address: 111 S 34TH ST

HONEYWELL INC (Continued) **1000338187**

MAILSTOP 158
PHOENIX, AZ 85034
Contact: TAO WU
Contact address: 111 S 34TH ST MAILSTOP 158
PHOENIX, AZ 85034
Contact country: US
Contact telephone: 602-231-2015
Contact email: TAO.WU@HONEYWELL.COM
EPA Region: 09
Land type: Private
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: HONEYWELL INTERNATIONAL INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/01/1999
Owner/Op end date: Not reported

Owner/operator name: BATEMAN TRUST C O R GORDON HUCKINS ESQ
Owner/operator address: 525 B ST STE 1500
SAN DIEGO, CA 92101
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/10/1968
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No

HONEYWELL INC (Continued) **1000338187**

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/05/2004
Facility name: HONEYWELL INC
Site name: FORMER BARON-BLAKESLEE SOLVENT CTR
Classification: Small Quantity Generator

Date form received by agency: 10/12/2000
Facility name: HONEYWELL INC
Site name: BBI SAN DIEGO
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: HONEYWELL INC
Site name: BARON-BLAKESLEE DIV OF ALLIED SIGNAL INC
Classification: Large Quantity Generator

Date form received by agency: 03/11/1996
Facility name: HONEYWELL INC
Site name: BARON-BLAKSLEE DIV. OF ALLIEDSIGNAL
Classification: Large Quantity Generator

Date form received by agency: 04/05/1994
Facility name: HONEYWELL INC
Site name: BARON-BLAKESLEE
Classification: Large Quantity Generator

Date form received by agency: 02/20/1992
Facility name: HONEYWELL INC
Site name: BARON-BLAKESLEE INC
Classification: Large Quantity Generator

Date form received by agency: 04/12/1990
Facility name: HONEYWELL INC
Site name: BARON-BLAKESLEE INC
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: HONEYWELL INC
Site name: BARON-BLAKESLEE DIV OF ALLIED SIGNAL INC
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET,

HONEYWELL INC (Continued) **1000338187**

WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Waste code: D040
Waste name: TRICHLOROETHYLENE

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: U002
Waste name: ACETONE (I)

Waste code: U080
Waste name: METHANE, DICHLORO-

HONEYWELL INC (Continued) **1000338187**

Waste code: U154
Waste name: METHANOL (I)

Waste code: U210
Waste name: ETHENE, TETRACHLORO-

Waste code: U226
Waste name: ETHANE, 1,1,1-TRICHLORO-

Waste code: U228
Waste name: ETHENE, TRICHLORO-

Corrective Action Summary:

Event date: 06/01/1985
Event: CA049PA

Event date: 10/12/1988
Event: CA049RE

Event date: 10/12/1988
Event: CA029ST

Event date: 10/12/1988
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 09/17/1990
Event: RFA Completed, Assessment was a PA-Plus.

Event date: 04/01/1992
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 04/01/1992
Event: RFA Completed

Event date: 04/01/1992
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 04/01/1992
Event: RFA Completed, Assessment was an RFA.

Event date: 04/01/1992
Event: RFA Completed

Event date: 08/27/1992
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 08/27/1992
Event: Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

HONEYWELL INC (Continued) **1000338187**

Event date:	08/27/1992
Event:	Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.
Event date:	11/05/1992
Event:	RFI Imposition, Focused data collection required for stabilization evaluation.
Event date:	06/29/1993
Event:	RFI Workplan Approved
Event date:	03/10/1994
Event:	RFI Workplan Approved
Event date:	10/28/1994
Event:	RFI Approved
Event date:	04/20/1995
Event:	RFI Workplan Approved
Event date:	10/27/1995
Event:	RFI Workplan Approved
Event date:	11/26/1996
Event:	RFI Workplan Approved
Event date:	01/16/1997
Event:	RFI Approved
Event date:	08/01/2002
Event:	RFI Approved
Event date:	12/15/2003
Event:	RFI Workplan Approved
Event date:	03/09/2004
Event:	RFI Workplan Approved
Event date:	09/20/2004
Event:	RFI Workplan Approved
Event date:	09/30/2004
Event:	RFI Workplan Approved
Event date:	02/09/2005
Event:	RFI Workplan Approved
Event date:	10/26/2009
Event:	RFI Approved
Event date:	09/23/2010
Event:	Date For Public Notice On Proposed Remedy

HONEYWELL INC (Continued) **1000338187**

Event date: Not reported
Event: CA021PC

Facility Has Received Notices of Violations:
Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 01/09/1991
Date achieved compliance: 05/24/1991
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 02/22/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 3000
Final penalty amount: 3000
Paid penalty amount: 2750

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 01/09/1991
Date achieved compliance: 05/24/1991
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 02/22/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 3000
Final penalty amount: 3000
Paid penalty amount: 2750

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 01/09/1991
Date achieved compliance: 05/24/1991
Violation lead agency: State
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 02/22/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: 3000
Final penalty amount: 3000
Paid penalty amount: 2750

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 01/30/1990
Date achieved compliance: 04/02/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/13/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

HONEYWELL INC (Continued) **1000338187**

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 07/13/1988
Date achieved compliance: 09/09/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 07/13/1988
Date achieved compliance: 09/09/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 07/13/1988
Date achieved compliance: 09/09/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 07/13/1988
Date achieved compliance: 09/09/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/22/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported

HONEYWELL INC (Continued) **1000338187**

Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 12/10/1987
Date achieved compliance: 04/14/1988
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/19/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 12/10/1987
Date achieved compliance: 07/13/1988
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/19/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 12/10/1987
Date achieved compliance: 07/13/1988
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 02/19/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/24/2002
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/27/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

HONEYWELL INC (Continued) **1000338187**

Evaluation date: 05/17/1993
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/26/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/09/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 05/24/1991
Evaluation lead agency: State

Evaluation date: 01/09/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 05/24/1991
Evaluation lead agency: State

Evaluation date: 01/02/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/22/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/30/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 04/02/1990
Evaluation lead agency: State

Evaluation date: 07/13/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 09/09/1988
Evaluation lead agency: State

Evaluation date: 07/13/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 09/09/1988
Evaluation lead agency: State

Evaluation date: 07/13/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements

HONEYWELL INC (Continued) **1000338187**

Date achieved compliance: 09/09/1988
Evaluation lead agency: State

Evaluation date: 12/10/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 07/13/1988
Evaluation lead agency: EPA

Evaluation date: 12/10/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 04/14/1988
Evaluation lead agency: EPA

CERC-NFRAP:
Site ID: 0902644
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13287235.00000
Person ID: 13003854.00000

Contact Sequence ID: 13292830.00000
Person ID: 13003858.00000

Contact Sequence ID: 13298688.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: 12/01/85
Date Completed: 12/01/86
Priority Level: Low priority for further assessment

Action: DISCOVERY
Date Started: / /
Date Completed: 02/01/86
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 11/04/88
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 11/04/88
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

CORRACTS:

EPA ID: CAT000618652
EPA Region: 09

HONEYWELL INC (Continued) **1000338187**

Area Name: SOUTH PARCEL
Actual Date: 19920401
Action: CA050RF - RFA Completed, Assessment was an RFA
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19920401
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19920401
Action: CA050 - RFA Completed
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19920401
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19920401
Action: CA050 - RFA Completed
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19920401
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

HONEYWELL INC (Continued) **1000338187**

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19920401
Action: CA050RF - RFA Completed, Assessment was an RFA
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19920401
Action: CA050 - RFA Completed
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920401
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 20020801
Action: CA200 - RFI Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 20020831
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19921105
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19921105
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: NORTH PARCEL
Actual Date: 20050209
Action: CA150 - RFI Workplan Approved

HONEYWELL INC (Continued) **1000338187**

NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: NORTH PARCEL
Actual Date: 20040309
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19940310
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19940310
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 20031215
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19970116
Action: CA200 - RFI Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09

HONEYWELL INC (Continued) **1000338187**

Area Name: TNKFRM
Actual Date: 19950420
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20040920
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20100923
Action: CA380 - Date For Public Notice On Proposed Remedy
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 20100930
Schedule end date: 20100930

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19961126
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: NORTH PARCEL
Actual Date: 20091026
Action: CA200 - RFI Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 20091125
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19920827
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the

HONEYWELL INC (Continued) **1000338187**

facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: 19920827
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19951027
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19941028
Action: CA200 - RFI Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19941028
Action: CA200 - RFI Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: SOUTH PARCEL
Actual Date: 19930629
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAT000618652
EPA Region: 09
Area Name: TNKFRM
Actual Date: 19930629
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 562211
Hazardous Waste Treatment and Disposal
Original schedule date: Not reported
Schedule end date: Not reported

HONEYWELL INC (Continued) **1000338187**

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: CALSI
Reg Id: 37510138

HIST UST:
Region: STATE
Facility ID: 00000002924
Facility Type: Other
Other Type: INDUSTRIAL CHEMICAL
Total Tanks: 0002
Contact Name: DAVID H THOMPSON
Telephone: 6192950041
Owner Name: T. O. BATOMAN, SR.
Owner Address: 11255 TIERRA SANTA BLVD
Owner City,St,Zip: SAN DIEGO, CA 92124

Tank Num: 001
Container Num: 01
Year Installed: 1979
Tank Capacity: 00001800
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 6 inches
Leak Detection: Visual

Tank Num: 002
Container Num: 02
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual

SWEEPS UST:
Status: Active
Comp Number: 173
Number: 9
Board Of Equalization: 44-021540
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000173-000001
Tank Status: A
Capacity: 1800
Active Date: Not reported
Tank Use: CHEMICAL
STG: W
Content: Not reported
Number Of Tanks: 2

Status: Active
Comp Number: 173

HONEYWELL INC (Continued) **1000338187**

Number: 9
Board Of Equalization: 44-021540
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000173-000002
Tank Status: A
Capacity: 500
Active Date: Not reported
Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: Not reported

DEED:
Area: Not reported
Sub Area: SOUTH PARCEL
Site Type: CORRECTIVE ACTION
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 12/21/2011
EDR Link ID: 80001798

SAN DIEGO CO. HMMD:
Facility Id: 100173
Business Type: Not reported
EPA Id Number: CAT000618652
APN: 451-690-17-00
Last HMMD Inspection: 06/21/1995
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: ALLIED SIGNAL INC.
Facility Address: 3596 CALIFORNIA ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92101-1116
UST Owner: T. O. BATOMAN, SR.
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 100173 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 100173
Tank Type: SINGLE WALL
Additional Id: SUMP RAINWATER RUNOFF-PUMPED TO ACID POND FOR TEST
Capacity Gallons: 1800
UST Contents: Not reported
Other Content Info: RAINWATER RUNOFF-PUMPED TO ACI
Reg Status: REMOVED
Remove Close Date: 1995-07-11 00:00:00

HONEYWELL INC (Continued) **1000338187**

Year Installed:	1979-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	24
UST Monitor Method:	VISUAL MONITORING: DAILY (MINIMUM) LOG OF INSPECTIONS
UST Name:	UNDERGROUND TANK 100173 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	100173
Tank Type:	SINGLE WALL
Additional Id:	ACID POND
Capacity Gallons:	500
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1995-07-11 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	24
UST Monitor Method:	VISUAL MONITORING: DAILY (MINIMUM) LOG OF INSPECTIONS
UST Name:	UNDERGROUND TANK 100173 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	100173
Tank Type:	SINGLE WALL
Additional Id:	at4271
Capacity Gallons:	500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1998-10-12 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100173 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	100173
Tank Type:	SINGLE WALL
Additional Id:	at4271
Capacity Gallons:	280
UST Contents:	Not reported
Other Content Info:	SOLVENT - SPECIFY TYPE
Reg Status:	REMOVED
Remove Close Date:	1998-10-12 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

HONEYWELL INC (Continued) **1000338187**

SAN DIEGO CO. SAM:
Case Number: H00173-001
Agency: CA Department of Toxic Substance Control
Funding: **Non Billable**
Facility Type: Soils Only
Facility Status: Preliminary Assessment
Date: 7/1/1994
Date Began: 7/1/1994

ENVIROSTOR:
Site Type: Historical
Site Type Detailed: * Historical
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Cypress
Facility ID: 37510138
Site Code: 400208
Assembly: 78
Senate: 39
Special Program: * Site Char & Assess Grant (CERCLA 104)
Status: Refer: RCRA
Status Date: 10/17/1994
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 32.73972
Longitude: -117.1802
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * HALOGENATED SOLVENTS, * HYDROCARBON SOLVENTS, * OTHER STILL BOTTOM WASTE, * OXYGENATED SOLVENTS, * CONTAMINATED SOIL, * STILL BOTTOMS WITH HALOGENATED ORGANICS, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED AQUEOUS SOLUTION, * UNSPECIFIED SOLVENT MIXTURES
Confirmed COC: * HALOGENATED SOLVENTS, * HYDROCARBON SOLVENTS, * OTHER STILL BOTTOM WASTE, * OXYGENATED SOLVENTS, * CONTAMINATED SOIL, * STILL BOTTOMS WITH HALOGENATED ORGANICS, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED AQUEOUS SOLUTION, * UNSPECIFIED SOLVENT MIXTURES, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: T.O.BATEMAN CO (1960-70)
Alias Type: Alternate Name
Alias Name: CAT000618652
Alias Type: EPA Identification Number
Alias Name: 400208
Alias Type: Project Code (Site Code)
Alias Name: 37510138
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/17/1994
Comments: CalSites Validation Program confirms NFA for DTSC.

HONEYWELL INC (Continued) **1000338187**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 06/07/1983
Comments: FACILITY IDENTIFIED VIA DRIVEBY FACILITY DRIVE-BY SEVERAL(100'S) CL I (55 GAL)DRUMS OBSERV VARIETY OF MATLS,CORROSIVES TO FLAMMABLE ON SITE. LOADING DOCK NEST TO RR TRACKS

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 1.5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: WM
Program Manager: S. Steven Hariri
Supervisor: Ju-Tseng Liu
Division Branch: Engineering & Special Projects
Facility ID: 80001798
Site Code: 400208
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Active
Status Date: 01/01/2008
Restricted Use: YES
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 32.74045
Longitude: -117.1810
APN: 4516905700
Past Use: ABOVE GROUND STORAGE TANKS, UNDERGROUND STORAGE TANKS
Potential COC: * HALOGENATED SOLVENTS, * HYDROCARBON SOLVENTS, * OTHER STILL BOTTOM WASTE, * OXYGENATED SOLVENTS, * CONTAMINATED SOIL, * STILL BOTTOMS WITH HALOGENATED ORGANICS, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED AQUEOUS SOLUTION, * UNSPECIFIED SOLVENT MIXTURES, NONE SPECIFIED, Lead, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethylene
Confirmed COC: * HALOGENATED SOLVENTS, * HYDROCARBON SOLVENTS, * OTHER STILL BOTTOM WASTE, * OXYGENATED SOLVENTS, * CONTAMINATED SOIL, * STILL BOTTOMS WITH HALOGENATED ORGANICS, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED AQUEOUS SOLUTION, * UNSPECIFIED SOLVENT MIXTURES, NONE SPECIFIED, Lead, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethylene, 30013-NO, 30022-NO, 30027-NO, 30194-NO
Potential Description: IA, OTH, SOIL, SV
Alias Name: 4516905700
Alias Type: APN
Alias Name: CAT000618652

HONEYWELL INC (Continued) **1000338187**

Alias Type: EPA Identification Number
Alias Name: 400208
Alias Type: Project Code (Site Code)
Alias Name: 37510138
Alias Type: Envirostor ID Number
Alias Name: 80001798
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 01/19/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 04/01/1992
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOUTH PARCEL
Completed Document Type: Land Use Restriction
Completed Date: 12/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/08/2008
Comments: FAST Team Evaulation

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: TNKFRM
Completed Document Type: RFI Workplan
Completed Date: 10/27/1995
Comments: Phase IV workplan

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: TNKFRM
Completed Document Type: RFI Workplan
Completed Date: 11/26/1996
Comments: Phase V workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/01/1985
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: TNKFRM
Completed Document Type: RFI Workplan
Completed Date: 04/20/1995
Comments: Phase III workplan

Completed Area Name: ENTIRE FACILITY, TNKFRM, SOUTH PARCEL

HONEYWELL INC (Continued) **1000338187**

Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 06/29/1993
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: TNKFRM
Completed Document Type: RFI Report
Completed Date: 01/16/1997
Comments: Not reported

Completed Area Name: ENTIRE FACILITY, TNKFRM, SOUTH PARCEL
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 03/10/1994
Comments: Phase II RFI workplan.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: RFI Workplan
Completed Date: 03/09/2004
Comments: For soil vapor survey - North Parcel

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 09/20/2004
Comments: Not reported

Completed Area Name: ENTIRE FACILITY, NORTH PARCEL
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 02/09/2005
Comments: Not reported

Completed Area Name: ENTIRE FACILITY, TNKFRM, SOUTH PARCEL
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 10/28/1994
Comments: Revised Health-Based Remediation Goal Evaluation for Inorganic Chemicals Present In Soil - June 1994

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 10/12/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/05/2009
Comments: Annual Cost Estimation letter sent.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire

HONEYWELL INC (Continued) **1000338187**

Completed Date: 08/27/1992
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: RFI Report
Completed Date: 10/26/2009
Comments: next step is submittal of Remedy proposal.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOUTH PARCEL
Completed Document Type: RFI Report
Completed Date: 03/25/2009
Comments: project needs public notice, no further action for South Parcel Soil.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOUTH PARCEL
Completed Document Type: Corrective Measures Study Report
Completed Date: 03/25/2009
Comments: A No Further Action for Soil on the South Parcel remedy decision needs to be public noticed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 08/12/2008
Comments: groundwater investigation is continuing.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: Corrective Measures Study Workplan
Completed Date: 11/02/2007
Comments: SVE pilot test.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 06/30/1994
Comments: further investigation needed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: RFI Report
Completed Date: 09/20/2004
Comments: further action required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 08/30/2005
Comments: modifications due to City of San Diego requirements.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOUTH PARCEL
Completed Document Type: RFI Workplan
Completed Date: 12/15/2003
Comments: FOR SOIL VAPOR SURVEY, SOUTH PARCEL. DATA VERIFIED BY C. BROWN

HONEYWELL INC (Continued) **1000338187**

2/4/04.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: RFI Report
Completed Date: 10/26/2009
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: SOUTH PARCEL
Completed Document Type: RFI Report
Completed Date: 08/01/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 09/23/2010
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: NORTH PARCEL
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/30/2011
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 05/16/2011
Comments: Discussed with consultant and completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 08/09/2011
Comments: Completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/23/2011
Comments: DTSC Comments constitute final document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/27/2012
Comments: DTSC comments constitute final document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 06/18/2012
Comments: completed via conference call and email.

Completed Area Name: PROJECT WIDE

HONEYWELL INC (Continued) **1000338187**

Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/28/2012
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 01/04/2013
Comments: Completed via conference call

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/25/2013
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/10/2013
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/23/2013
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/23/2013
Comments: completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Implementation Report
Completed Date: 10/08/2013
Comments: Not reported

Completed Area Name: ENTIRE FACILITY, TNKFRM, SOUTH PARCEL
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 04/01/1992
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Historical Operating Permit Authority
Completed Date: 11/05/1992
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

HONEYWELL INC (Continued) **1000338187**

Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Interim Measures Workplan
Schedule Due Date: 04/11/2014
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Interim Measures Workplan
Schedule Due Date: 04/28/2014
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Interim Measures Workplan
Schedule Due Date: 04/16/2014
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Certification
Schedule Due Date: 10/19/2013
Schedule Revised Date: Not reported

HWP:
EPA Id: CAT000618652
Cleanup Status: UNDERGOING CLOSURE
Latitude: 32.74045
Longitude: -117.1810
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: 400208
Assembly District: 78
Senate District: 39
Public Information Officer: Not reported

Activities:
EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 09/27/1990

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - TECHNICAL COMPLETE LETTER
Actual Date: 04/30/1992

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 11/05/1992

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1

HONEYWELL INC (Continued) **1000338187**

Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 04/29/1988

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 11/05/1992

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION RECEIVED
Actual Date: 12/02/1992

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 05/22/1992

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 11/03/1988

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 02/22/1992

Closure:
EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - Needs Review - ISSUE CLOSURE VERIFICATION
Actual Date: 10/31/1994

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - Needs Review - RECEIVE CLOSURE CERTIFICATION
Actual Date: 07/01/1994

Alias:
EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 400208

EPA Id: CAT000618652
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 37510138

G31 **JAMES AUTOMOTIVE SERVICE** **EDR US Hist Auto Stat** **1008997668**
North **3615 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA**
0.102 mi.
538 ft. **Site 1 of 6 in cluster G**

Relative:
Higher

Actual:
122 ft.

EDR Historical Auto Stations:

Name:	JAMES AUTOMOTIVE SERVICE
Year:	1980
Type:	A T S AUTOMATIC
Name:	JAMES AUTOMOTIVE SERVICE
Year:	1984
Type:	A T S AUTOMATIC

G32 **SHOUPE & CELESTE INC** **RCRA NonGen / NLR** **1000426625**
North **3615 INDIA ST** **FINDS** **CAD981983455**
< 1/8 **SAN DIEGO, CA** **CA HAZNET**
0.102 mi.
538 ft. **Site 2 of 6 in cluster G**

Relative:
Higher

Actual:
122 ft.

RCRA NonGen / NLR:

Date form received by agency:	04/08/1994
Facility name:	SHOUPE & CELESTE INC
Facility address:	3615 INDIA ST SAN DIEGO, CA 92103
EPA ID:	CAD981983455
Contact:	SALLYE MARTINEZ
Contact address:	5191 SANTA FE SAN DIEGO, CA 92109
Contact country:	US
Contact telephone:	(619) 298-8351
Contact email:	Not reported
EPA Region:	09
Land type:	Other land type
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SHOUPE DALE PRES
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

SHOUPE & CELESTE INC (Continued) **1000426625**

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Facility Has Received Notices of Violations:
- Regulation violated: FR - 262.10-12.A
- Area of violation: Generators - General
- Date violation determined: 06/22/1992
- Date achieved compliance: 06/22/1997
- Violation lead agency: State
  - Enforcement action: Not reported
  - Enforcement action date: Not reported
  - Enf. disposition status: Not reported
  - Enf. disp. status date: Not reported
  - Enforcement lead agency: Not reported
  - Proposed penalty amount: Not reported
  - Final penalty amount: Not reported
  - Paid penalty amount: Not reported

Evaluation Action Summary:
- Evaluation date: 06/22/1992
- Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
- Area of violation: Generators - General
- Date achieved compliance: 06/22/1997
- Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002764535

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
- Year: 1993
- Gepaid: CAD981983455
- Contact: Not reported

SHOUPE & CELESTE INC (Continued) **1000426625**

Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3615 INDIA ST
Mailing City,St,Zip:	SAN DIEGO, CA 921030000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	2.07999999999
Facility County:	San Diego

Year:	1993
Gepaid:	CAD981983455
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3615 INDIA ST
Mailing City,St,Zip:	SAN DIEGO, CA 921030000
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	0.1918
Facility County:	San Diego

G33 **EXOTICAR** **CA UST U003789473**
North **3617 INDIA ST** **CA San Diego Co. HMMD N/A**
< 1/8 **SAN DIEGO, CA 92103**
0.105 mi.
557 ft. **Site 3 of 6 in cluster G**

Relative:
Higher

Actual:
120 ft.

UST:

Facility ID:	H13594
Latitude:	32.74056
Longitude:	-117.17883
Permitting Agency	SAN DIEGO COUNTY

SAN DIEGO CO. HMMD:

Facility Id:	203469
Business Type:	6HK15
EPA Id Number:	Not reported
APN:	451-324-04-00
Last HMMD Inspection:	01/24/2006
Permit Status:	INAC
Permit Expiration:	08/31/2008
Facility Owner:	PAGANO & TYLER ENTERPRISES
Facility Address:	3617 INDIA ST
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92103
UST Owner:	Not reported
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported

EXOTICAR (Continued) **U003789473**

Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Violations Inactive Permits:
Facility Id: 203469
Update Date: 11/02/2012
Inspection Date: 05/05/2004
Violation Code: 6HV0131
Violation: UPF Permit NOT OBTAINED for HAZWASTE
Violation Citation: A Unified Program Facility permit has not been obtained for the generation of hazardous waste. 68.905
Activity: Inactive Permit

Facility Id: 203469
Update Date: 11/02/2012
Inspection Date: 05/05/2004
Violation Code: 6HV1002
Violation: HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation: Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity: Inactive Permit

Facility Id: 203469
Business Type: 6HK15
EPA Id Number: Not reported
APN: 451-324-04-00
Last HMMD Inspection: 01/24/2006
Permit Status: INAC
Permit Expiration: 08/31/2008
Facility Owner: PAGANO & TYLER ENTERPRISES
Facility Address: 3617 INDIA ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92103
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Violations Inactive Permits:
Facility Id: 203469
Update Date: 11/02/2012
Inspection Date: 05/05/2004
Violation Code: 6HV0131
Violation: UPF Permit NOT OBTAINED for HAZWASTE
Violation Citation: A Unified Program Facility permit has not been obtained for the generation of hazardous waste. 68.905
Activity: Inactive Permit

Facility Id: 203469
Update Date: 11/02/2012
Inspection Date: 05/05/2004
Violation Code: 6HV1002
Violation: HMBP NOT ESTABISHED/IMPLEMENTED.

EXOTICAR (Continued) **U003789473**

Violation Citation: Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity: Inactive Permit

Facility Id: 113594
Business Type: 6HK26
EPA Id Number: CAX000082131
APN: 451-324-04-00
Last HMMD Inspection: 01/15/1988
Permit Status: INAC
Permit Expiration: 01/15/1988
Facility Owner: GERALD MAROLDA
Facility Address: 3617 INDIA ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92103-4740
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 113594 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 113594
Tank Type: SINGLE WALL
Additional Id: 1 RT5046
Capacity Gallons: 350
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: CLOSED
Remove Close Date: 2004-03-26 00:00:00
Year Installed: 1988-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

G34 **AUTOMATIC TRANSMISSION SERVICE** **EDR US Hist Auto Stat** **1008995436**
North **3617 INDIA ST** **N/A**
< 1/8 **SAN DIEGO, CA**
0.105 mi.
557 ft. **Site 4 of 6 in cluster G**

Relative:
Higher

Actual:
120 ft.

EDR Historical Auto Stations:
Name: AUTOMATIC TRANSMISSION SERVICE
Year: 1961
Type: AUTOMOBILE REPAIRING

Name: AUTOMATIC TRANSMISSION SERVICE
Year: 1975
Type: AUTOMOBILE REPAIRING

AUTOMATIC TRANSMISSION SERVICE (Continued) **1008995436**

Name: A T S AUTOMATIC TRANSMISSION SERVICE
Year: 1980
Type: A T S AUTOMATIC

G35 **A T S** **RCRA-SQG** **1000130328**
North **3617 INDIA ST** **FINDS** **CAD981570054**
< 1/8 **SAN DIEGO, CA**
0.105 mi.
557 ft. **Site 5 of 6 in cluster G**

Relative:
Higher

Actual:
120 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: A T S
Facility address: 3617 INDIA ST
SAN DIEGO, CA 92103
EPA ID: CAD981570054
Mailing address: 3617-INDIA ST
SAN DIEGO, CA 92103
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ATS INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No

A T S (Continued) **1000130328**

Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	09/24/1986
Facility name:	A T S
Classification:	Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002717604

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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36 **CONSOLIDATED AIRCRAFT MAIN PLT** **CA ENVIROSTOR** **S107736161**
SW **N/A**
< 1/8 **SAN DIEGO, CA**
0.108 mi.
571 ft.

Relative:
Lower

Actual:
22 ft.

ENVIROSTOR:

Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Facility ID:	80000900
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED

CONSOLIDATED AIRCRAFT MAIN PLT (Continued) **S107736161**

Funding: DERA
Latitude: 32.7375
Longitude: -117.1805
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799FA04200
Alias Type: Federal Facility ID
Alias Name: J09CA7219
Alias Type: INPR
Alias Name: 80000900
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inventory Project Report (INPR)
Completed Date: 04/30/1999
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

37
WNW
< 1/8
0.118 mi.
623 ft.

PARKER & THORNBURG **EDR US Hist Auto Stat** **1008996022**
3625 PACIFIC HWY **N/A**
SAN DIEGO, CA

Relative:
Lower

Actual:
32 ft.

EDR Historical Auto Stations:
Name: PARKER & THORNBURG
Year: 1943
Type: GASOLINE AND OIL SERVICE STATIONS

G38
North
< 1/8
0.122 mi.
645 ft.

J M A N AT THE CHARMER LLC **CA LUST** **S110590774**
3625 INDIA ST **N/A**
SAN DIEGO, CA 92103

Site 6 of 6 in cluster G

Relative:
Higher

Actual:
121 ft.

LUST:
Region: STATE
Global Id: T10000002588
Latitude: 32.7413890562531
Longitude: -117.179301381111
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/18/2011

J M A N AT THE CHARMER LLC (Continued) **S110590774**

Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	EP
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	212781-001
File Location:	Local Agency
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	On October 1, 2010, an underground storage tank (UST) closure inspection was conducted at the site. The UST (approximately 500 gallons in capacity) was discovered during site construction and was already removed from the ground and placed on-site next to the original UST excavation pit. A plot map was provided to the Department of Environmental Health (DEH) with the UST closure permit application that identified the locations of the UST and the excavation. However, prior to the start of the inspection, DEH staff observed the removed UST at a different location than what the plot map showed, and the excavation was not apparent. The original excavation was compromised by grading and foundation construction. DEH staff was unable to complete the required soil sampling because the former location of the UST within the excavation was indeterminable, the soil surrounding the excavation had been removed, and the excavated soil stockpile could not be verified. Therefore, due to potential soil contamination, DEH opened Unauthorized Release Case #212781-001. An UST Removal Report completed by H.M. Pitt Labs, Inc. and dated January 20, 2011 was review by DEH staff. The approximate volume of the stockpiled impacted soil was estimated at one (1) cubic yard. Six (6) soil samples (1 sample from the stockpile and 5 samples from the UST excavation) where collected and analyzed for TPH, VOCs, and lead. TPH of up to 77.1 mg/kg and lead at 25.7 mg/kg were detected from the one sample of the stockpile. All five samples from the UST excavation tested non-detect (ND) for TPH, VOCs, and lead. The stockpiled soil was buried immediately beneath the asphalt paving (total depth of approximately 1-foot below the ground surface) of the parking space for Unit #15. The site is located in an area that has been designated as having no beneficial groundwater uses. Groundwater ranges to an estimated depth of 58 to 61 feet. The consultant concludes any impacted soils associated with the former UST have been excavated, stockpiled, and used on-site. In addition, any in situ soil remaining does not appear to have been impacted. The consultant recommends closure of this case and the DEH concurs with their recommendation.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000002588
Contact Type:	Local Agency Caseworker
Contact Name:	ED PAREDES
Organization Name:	SAN DIEGO COUNTY LOP
Address:	P.O. Box 129261
City:	SAN DIEGO
Email:	ed.paredes@sdcounty.ca.gov
Phone Number:	8585056806

Status History:

Global Id:	T10000002588

J M A N AT THE CHARMER LLC (Continued) **S110590774**

Status: Open - Case Begin Date
Status Date: 10/14/2010

Global Id: T10000002588
Status: Open - Site Assessment
Status Date: 10/14/2010

Global Id: T10000002588
Status: Completed - Case Closed
Status Date: 08/18/2011

Global Id: T10000002588
Status: Open - Site Assessment
Status Date: 08/18/2011

Regulatory Activities:
Global Id: T10000002588
Action Type: ENFORCEMENT
Date: 08/18/2011
Action: Technical Correspondence / Assistance / Other

Global Id: T10000002588
Action Type: ENFORCEMENT
Date: 08/18/2011
Action: Closure/No Further Action Letter

Global Id: T10000002588
Action Type: RESPONSE
Date: 01/02/2011
Action: Tank Removal Report / UST Sampling Report - Regulator Responded

Global Id: T10000002588
Action Type: RESPONSE
Date: 06/04/2011
Action: Tank Removal Report / UST Sampling Report

Global Id: T10000002588
Action Type: ENFORCEMENT
Date: 11/03/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T10000002588
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T10000002588
Action Type: ENFORCEMENT
Date: 11/01/2010
Action: Unauthorized Release Form

Global Id: T10000002588
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T10000002588

J M A N AT THE CHARMER LLC (Continued) **S110590774**

Action Type: ENFORCEMENT
Date: 10/19/2010
Action: Notice of Responsibility

Global Id: T10000002588
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

F39 **IDEAL LAUNDRY** **EDR US Hist Cleaners** **1009128994**
NW **3630 CALIFORNIA ST** **N/A**
< 1/8 **SAN DIEGO, CA**
0.123 mi.
651 ft. **Site 2 of 3 in cluster F**

Relative:
Lower

Actual:
64 ft.

EDR Historical Cleaners:
Name: IDEAL LAUNDRY
Year: 1961
Type: LAUNDRIES

F40 **RECYCLED TREASURES** **EDR US Hist Auto Stat** **1008998377**
NW **3636 CALIFORNIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.131 mi.
693 ft. **Site 3 of 3 in cluster F**

Relative:
Lower

Actual:
65 ft.

EDR Historical Auto Stations:
Name: RECYCLED TREASURES
Year: 1980
Type: A T S AUTOMATIC

Name: RECYCLED TREASURES
Year: 1984
Type: A T S AUTOMATIC

H41 **GENERAL DYNAMICS/ELECTRONICS** **CA SAN DIEGO CO. SAM** **S106162386**
South **3302 PACIFIC HY** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.155 mi.
821 ft. **Site 1 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

SAN DIEGO CO. SAM:
Case Number: H14427-006
Agency: DEH Site Assessment & Mitigation
Funding: **Non Billable**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 5/29/1992
Date Began: 7/19/1990

H42 **HUGHES MISSILE SYSTEMS CO** **RCRA NonGen / NLR** **1000819060**
South **3302 PACIFIC HWY** **CA HAZNET** **CAD983650268**
1/8-1/4 **SAN DIEGO, CA 92101**
0.155 mi.
821 ft. **Site 2 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

RCRA NonGen / NLR:
Date form received by agency: 03/06/1996
Facility name: HUGHES MISSILE SYSTEMS CO
Facility address: 3302 PACIFIC HWY
LINDBERGH FD BLDG 5 AND 51
SAN DIEGO, CA 92101
EPA ID: CAD983650268
Contact: CAROL L GOLDSMITH
Contact address: P O BOX 11337
TUCSON, AZ 857341337
Contact country: US
Contact telephone: (520) 794-5570
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: SAN DIEGO UNIFIED PORT DIST
Owner/operator address: P O BOX 488
SAN DIEGO, CA 92112
Owner/operator country: Not reported
Owner/operator telephone: (619) 542-7712
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/31/1994
Facility name: HUGHES MISSILE SYSTEMS CO
Site name: HUGHES MISSILE SYSTEMS CO.
Classification: Large Quantity Generator

Violation Status: No violations found

HUGHES MISSILE SYSTEMS CO (Continued) **1000819060**

HAZNET:

Year:	1994
Gepaid:	CAD983650268
Contact:	HUGHES MISSILE SYSTEMS COMPANY
Telephone:	6027943000
Mailing Name:	Not reported
Mailing Address:	PO BOX 11337 BLDG 801 MS N12
Mailing City,St,Zip:	TUCSON, AZ 857340000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	.8500
Facility County:	San Diego

Year:	1994
Gepaid:	CAD983650268
Contact:	HUGHES MISSILE SYSTEMS COMPANY
Telephone:	6027943000
Mailing Name:	Not reported
Mailing Address:	PO BOX 11337 BLDG 801 MS N12
Mailing City,St,Zip:	TUCSON, AZ 857340000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	Recycler
Tons:	.2250
Facility County:	San Diego

Year:	1994
Gepaid:	CAD983650268
Contact:	HUGHES MISSILE SYSTEMS COMPANY
Telephone:	6027943000
Mailing Name:	Not reported
Mailing Address:	PO BOX 11337 BLDG 801 MS N12
Mailing City,St,Zip:	TUCSON, AZ 857340000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method:	Transfer Station
Tons:	.0750
Facility County:	San Diego

Year:	1994
Gepaid:	CAD983650268
Contact:	HUGHES MISSILE SYSTEMS COMPANY
Telephone:	6027943000
Mailing Name:	Not reported
Mailing Address:	PO BOX 11337 BLDG 801 MS N12
Mailing City,St,Zip:	TUCSON, AZ 857340000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Not reported

HUGHES MISSILE SYSTEMS CO (Continued) **1000819060**

Disposal Method:	Recycler
Tons:	.5630
Facility County:	San Diego
Year:	1994
Gepaid:	CAD983650268
Contact:	HUGHES MISSILE SYSTEMS COMPANY
Telephone:	6027943000
Mailing Name:	Not reported
Mailing Address:	PO BOX 11337 BLDG 801 MS N12
Mailing City,St,Zip:	TUCSON, AZ 857340000
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	Transfer Station
Tons:	.9000
Facility County:	San Diego

Click this hyperlink while viewing on your computer to access
65 additional CA_HAZNET: record(s) in the EDR Site Report.

H43 **GENERAL DYNAMICS- CONVAIR DIV** **CA SAN DIEGO CO. SAM** **S108407064**
South **3302 PACIFIC HY** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.155 mi.
821 ft. **Site 3 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

SAN DIEGO CO. SAM:

Case Number:	H04497-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	Drinking Water Aquifer Impacted
Facility Status:	Closed Case
Date:	3/27/1997
Date Began:	11/13/1985
Case Number:	H04497-002
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - State Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	10/25/1990
Date Began:	2/4/1987
Case Number:	H04497-004
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - State Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	4/26/1991
Date Began:	10/27/1988
Case Number:	H04497-005
Agency:	DEH Site Assessment & Mitigation
Funding:	**Private - VAP**
Facility Type:	GW With No Beneficial Use Designation

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S108407064**

Facility Status: Closed Case
Date: 5/29/1992
Date Began: 5/29/1992

Case Number: H04497-008
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 7/28/1997
Date Began: 10/2/1995

Case Number: H04497-009
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 9/15/1997
Date Began: 8/26/1996

Case Number: H04497-012
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 7/28/1998
Date Began: 3/17/1997

Case Number: H04497-013
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 8/21/1997
Date Began: 2/11/1997

Case Number: H04497-015
Agency: DEH Site Assessment & Mitigation
Funding: **Non Billable**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 3/13/2000
Date Began: 3/13/2000

Case Number: H04497-016
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: Soils Only
Facility Status: Preliminary Assessment
Date: 10/11/2005
Date Began: Not reported

Case Number: H04497-006
Agency: DEH Site Assessment & Mitigation
Funding: **Private - For Non-LOP Tank**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S108407064**

Date: 9/15/1997
Date Began: 4/7/1992

Case Number: H04497-010
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 9/15/1997
Date Began: Not reported

Case Number: H04497-007
Agency: DEH Site Assessment & Mitigation
Funding: **Private - For Non-LOP Tank**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 6/30/1997
Date Began: 7/17/1995

Case Number: H04497-014
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 7/28/1998
Date Began: Not reported

Case Number: H04497-003
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - State Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 7/30/1991
Date Began: 2/4/1987

Case Number: H04497-011
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 9/15/1997
Date Began: Not reported

H44 **GENERAL DYNAMICS- CONVAIR DIV** **CA HIST CORTESE** **S100277370**
South **3302 PACIFIC HY** **CA LUST** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101** **CA SLIC**
0.155 mi. **CA CHMIRS**
821 ft. **Site 4 of 11 in cluster H** **CA ENVIROSTOR**

Relative:
Lower

Actual:
22 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1395

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Reg Id: 9UT1396

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3000

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3468

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3501

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT2371

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT190

LUST:
Region: STATE
Global Id: T0607300236
Latitude: 32.7359297
Longitude: -117.1783063
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/30/1991
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1396
LOC Case Number: H04497-003
File Location: Local Agency
Potential Media Affect: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300236
Status: Open - Case Begin Date
Status Date: 02/04/1987

Global Id: T0607300236
Status: Completed - Case Closed
Status Date: 07/30/1991

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Regulatory Activities:

Global Id:	T0607300236
Action Type:	RESPONSE
Date:	07/16/1991
Action:	Correspondence
Global Id:	T0607300236
Action Type:	ENFORCEMENT
Date:	02/04/1987
Action:	Notice of Responsibility
Region:	STATE
Global Id:	T0607300235
Latitude:	32.7359297
Longitude:	-117.1783063
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/25/1990
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT1395
LOC Case Number:	H04497-002
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T0607300235
Status:	Open - Case Begin Date
Status Date:	02/04/1987
Global Id:	T0607300235
Status:	Completed - Case Closed
Status Date:	10/25/1990

Regulatory Activities:

Global Id:	T0607300235
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped
Global Id:	T0607300235
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began
Global Id:	T0607300235
Action Type:	ENFORCEMENT
Date:	02/04/1987
Action:	Notice of Responsibility
Global Id:	T0607300235

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported
Global Id:	T0607300235
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Region:	STATE
Global Id:	T0607301139
Latitude:	32.7365338818632
Longitude:	-117.180497646332
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/26/1991
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT2371
LOC Case Number:	H04497-004
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T0607301139
Status:	Open - Case Begin Date
Status Date:	10/27/1988
Global Id:	T0607301139
Status:	Completed - Case Closed
Status Date:	04/26/1991

Regulatory Activities:

Global Id:	T0607301139
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0607301139
Action Type:	RESPONSE
Date:	04/22/1991
Action:	Correspondence
Global Id:	T0607301139
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped
Global Id:	T0607301139
Action Type:	Other
Date:	01/01/1950

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Action: Leak Began

Global Id: T0607301139
Action Type: ENFORCEMENT
Date: 11/01/1988
Action: Notice of Responsibility

Global Id: T0607301139
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607301768
Latitude: 32.7359297
Longitude: -117.1783063
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/15/1997
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT3000
LOC Case Number: H04497-006
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607301768
Status: Open - Case Begin Date
Status Date: 04/07/1992

Global Id: T0607301768
Status: Completed - Case Closed
Status Date: 09/15/1997

Regulatory Activities:
Global Id: T0607301768
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607301768
Action Type: RESPONSE
Date: 09/08/1997
Action: Correspondence

Global Id: T0607301768
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Global Id: T0607301768
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607301768
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607302268
Latitude: 32.7359297
Longitude: -117.1783063
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/30/1997
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT3501
LOC Case Number: H04497-007
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607302268
Status: Open - Case Begin Date
Status Date: 07/17/1995

Global Id: T0607302268
Status: Completed - Case Closed
Status Date: 06/30/1997

Regulatory Activities:
Global Id: T0607302268
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607302268
Action Type: RESPONSE
Date: 06/24/1997
Action: Correspondence

Global Id: T0607302268
Action Type: ENFORCEMENT
Date: 06/18/1997
Action: Closure/No Further Action Letter - #H04497-007

Global Id: T0607302268
Action Type: Other

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Date: 01/01/1950
Action: Leak Began

Global Id: T0607302268
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607300680
Latitude: 32.7359297
Longitude: -117.1783063
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/27/1997
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT190
LOC Case Number: H04497-001
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300680
Status: Open - Case Begin Date
Status Date: 11/04/1985

Global Id: T0607300680
Status: Completed - Case Closed
Status Date: 03/27/1997

Regulatory Activities:
Global Id: T0607300680
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300680
Action Type: RESPONSE
Date: 03/26/1997
Action: Correspondence

Global Id: T0607300680
Action Type: ENFORCEMENT
Date: 02/27/1997
Action: Closure/No Further Action Letter - #H04497-001

Global Id: T0607300680
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Global Id: T0607300680
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300680
Action Type: ENFORCEMENT
Date: 11/04/1985
Action: Notice of Responsibility

Global Id: T0607300680
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T10000005445
Latitude: 32.7338986140842
Longitude: -117.177772947083
Case Type: LUST Cleanup Site
Status: Open - Site Assessment
Status Date: 12/13/2013
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: CF
Local Agency: SAN DIEGO COUNTY LOP
RB Case Number: Not reported
LOC Case Number: DEH2013-LSAM-000213
File Location: Local Agency
Potential Media Affect: Not reported
Potential Contaminants of Concern: Not reported
Site History: This is a new LOP case. This section will be updated as data is recieved.

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T10000005445
Contact Type: Local Agency Caseworker
Contact Name: CAROL FENNER
Organization Name: SAN DIEGO COUNTY LOP
Address: P.O. Box 129261
City: San Diego
Email: carol.fenner@sdcounty.ca.gov
Phone Number: Not reported

Status History:
Global Id: T10000005445
Status: Open - Case Begin Date
Status Date: 12/06/2013

Global Id: T10000005445
Status: Open - Site Assessment
Status Date: 12/13/2013

Regulatory Activities:
Global Id: T10000005445

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T10000005445
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T10000005445
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 07/28/1998
Global Id: T0608142480
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H04497-014
Latitude: 32.7360645944831
Longitude: -117.180733680725
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: * Chlorinated Hydrocarbons
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 09/15/1997
Global Id: T0608144128
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H04497-010
Latitude: 32.7360465449191
Longitude: -117.180798053741
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 03/13/2000

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Global Id:	T0608172750
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-015
Latitude:	32.7362811889656
Longitude:	-117.180154323578
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	08/21/1997
Global Id:	T0607302231
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-013
Latitude:	32.7359297
Longitude:	-117.1783063
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT3468
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/15/1997
Global Id:	T0608137546
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-011
Latitude:	32.7353245593629
Longitude:	-117.180604934692
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	05/29/1992

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Global Id:	T0608199429
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-005
Latitude:	32.7368046234584
Longitude:	-117.180755138397
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT2372
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Other Acid or Corrosive
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	05/29/1992
Global Id:	T0608159413
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H14427-006
Latitude:	32.736242
Longitude:	-117.176874
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	09/15/1997
Global Id:	T0608173189
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-009
Latitude:	32.7370212161425
Longitude:	-117.18169927597
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	07/28/1998

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Global Id:	T0608164884
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-012
Latitude:	32.7359743466267
Longitude:	-117.180776596069
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	* Chlorinated Hydrocarbons
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	07/28/1997
Global Id:	T0608165720
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H04497-008
Latitude:	32.7352884599315
Longitude:	-117.181119918823
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Other Acid or Corrosive
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

CHMIRS:

OES Incident Number:	9115933
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	15-MAR-91
Date Completed:	**15-MAR-91**
Property Use:	700
Agency Id Number:	37140
Agency Incident Number:	45878
Time Notified:	1021
Time Completed:	1145
Surrounding Area:	700
Estimated Temperature:	57
Property Management:	P
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Resp Agncy Personel # Of Decontaminated: 0
Responding Agency Personel # Of Injuries: 0
Responding Agency Personel # Of Fatalities: 0
Others Number Of Decontaminated: 2
Others Number Of Injuries: 2
Others Number Of Fatalities: 0
Vehicle Make/year: UNKNOWN
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/ICC Number: Not reported
Company Name: PACIFIC TREATMENT
Reporting Officer Name/ID: JERRY GRAY 11306
Report Date: 15-MAR-91
Comments: N
Facility Telephone: 619 533-4300
Waterway Involved: Not reported
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Not reported
Containment: Not reported
What Happened: Not reported
Type: Not reported
Measure: Not reported
Other: Not reported
Date/Time: Not reported
Year: 88-92
Agency: Not reported
Incident Date: Not reported
Admin Agency: Not reported
Amount: Not reported
Contained: Not reported
Site Type: Not reported
E Date: 18-JUN-92
Substance: Not reported
Quantity Released: Not reported
BBLS: Not reported
Cups: Not reported
CUFT: Not reported
Gallons: Not reported
Grams: Not reported
Pounds: Not reported
Liters: Not reported
Ounces: Not reported
Pints: Not reported
Quarts: Not reported
Sheen: Not reported
Tons: Not reported
Unknown: Not reported
Evacuations: Not reported
Number of Injuries: Not reported
Number of Fatalities: Not reported
Description: Not reported

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100277370**

Acres: 0
NPL: NO
Regulatory Agencies: SAN DIEGO COUNTY
Lead Agency: SAN DIEGO COUNTY
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 37360092
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 03/23/2000
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 32.73598
Longitude: -117.1783
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: LINDBERGH FIELD FACILITY
Alias Type: Alternate Name
Alias Name: 110021004303
Alias Type: EPA (FRS #)
Alias Name: 37360092
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 03/23/2000
Comments: DTSC is not involved with this project.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

H45 **GENERAL DYNAMICS- CONVAIR DIV** **CA LUST** **S100726653**
South **3302 PACIFIC HWY** **CA SWEEPS UST** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101** **CA San Diego Co. HMMD**
0.155 mi.
821 ft. **Site 5 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT3000

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Local Case: H04497-006
Substance: Waste Oil
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Not reported
How Stopped: Not reported
Source: Tank
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 04/07/1992
Date Stopped: 08/03/1992
Confirm Date: 08/03/1992
Submit Workplan: Not reported
Prelim Assess: 08/18/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/05/1992
Enforce Date: Not reported
Closed Date: 9/15/97
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Medium priority
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SWEEPS UST:
Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000014
Tank Status: A
Capacity: 2500
Active Date: Not reported
Tank Use: CHEMICAL
STG: P
Content: Not reported
Number Of Tanks: 7

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000015
Tank Status: A
Capacity: 2500
Active Date: Not reported
Tank Use: CHEMICAL
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000016
Tank Status: A
Capacity: 15000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000017
Tank Status: A
Capacity: 15000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000019
Tank Status: A

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Capacity: 20000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000020
Tank Status: A
Capacity: 20000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 4497
Number: 9
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000021
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000001
Tank Status: Not reported
Capacity: 1500
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: 14

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000002
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000003
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000004
Tank Status: Not reported
Capacity: 1500
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-004497-000005
Tank Status:	Not reported
Capacity:	500
Active Date:	Not reported
Tank Use:	PETROLEUM
STG:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	4497
Number:	Not reported
Board Of Equalization:	44-008699
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-004497-000006
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	4497
Number:	Not reported
Board Of Equalization:	44-008699
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-004497-000007
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	OTHER
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	4497
Number:	Not reported
Board Of Equalization:	44-008699
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-004497-000008
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000009
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000010
Tank Status: Not reported
Capacity: 8600
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000011
Tank Status: Not reported
Capacity: 8600
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000012
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000013
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4497
Number: Not reported
Board Of Equalization: 44-008699
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004497-000018
Tank Status: Not reported
Capacity: 550
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:
Facility Id: 104497
Business Type: Not reported
EPA Id Number: CAD041512427
APN: 450-790-02-00
Last HMMD Inspection: 12/16/1997
Permit Status: INAC

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Permit Expiration:	12/16/1997
Facility Owner:	GENERAL DYNAMICS
Facility Address:	PO BOX 85377 M2 88-2 2507
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92186-
UST Owner:	GENERAL DYNAMICS CORP
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 104497 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0117-1 MACHINE COOLANT / CUTTING OIL
Capacity Gallons:	1500
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1960-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0468-1 MACHINE COOLANT / CUTTING OIL
Capacity Gallons:	10000
UST Contents:	Not reported
Other Content Info:	MACHINE COOLANT / CUTTING OIL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1950-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0468-2
Capacity Gallons:	4000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Remove Close Date: 1987-01-12 00:00:00
Year Installed: 1950-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0468-3
Capacity Gallons: 1500
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: 1983-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0468-4
Capacity Gallons: 500
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1988-10-14 00:00:00
Year Installed: 1950-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0468-5
Capacity Gallons: 4000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T007
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0469-1
Capacity Gallons:	10000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1950-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T008
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0469-2
Capacity Gallons:	10000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1950-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T009
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	AT0469-3
Capacity Gallons:	10000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1987-01-12 00:00:00
Year Installed:	1950-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T010
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Additional Id: AT0469-4
Capacity Gallons: 8600
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: 1956-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0469-5
Capacity Gallons: 8600
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: 1950-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T012
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0714-1
Capacity Gallons: 10000
UST Contents: LEADED
Other Content Info: LEADED
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: 1950-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T013
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: AT0714-2
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Year Installed:	1956-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 104497 T014
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	LF-21M MACHINE COOLANT / CUTTING OIL
Capacity Gallons:	2500
UST Contents:	Not reported
Other Content Info:	MACHINE COOLANT / CUTTING OIL
Reg Status:	REMOVED
Remove Close Date:	Not reported
Year Installed:	1983-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 104497 T015
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	LF-22M MACHINE COOLANT / CUTTING OIL
Capacity Gallons:	2500
UST Contents:	Not reported
Other Content Info:	MACHINE COOLANT / CUTTING OIL
Reg Status:	REMOVED
Remove Close Date:	Not reported
Year Installed:	1983-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 104497 T016
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	NT0564-1
Capacity Gallons:	15000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	1986-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	Not reported
UST Monitor Method:	Not reported

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

UST Name:	UNDERGROUND TANK 104497 T017
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	NT0564-2
Capacity Gallons:	15000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	1986-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	Not reported
UST Monitor Method:	Not reported

UST Name:	UNDERGROUND TANK 104497 T018
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	LF-19T
Capacity Gallons:	550
UST Contents:	LEADED
Other Content Info:	LEADED
Reg Status:	REMOVED
Remove Close Date:	1988-10-27 00:00:00
Year Installed:	Not reported
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	07
UST Monitor Method:	SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name:	UNDERGROUND TANK 104497 T019
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	BLDG 9 #1
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	1987-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING

UST Name:	UNDERGROUND TANK 104497 T020
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	BLDG 9 #2
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	1987-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING
UST Name:	UNDERGROUND TANK 104497 T021
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	NT0762
Capacity Gallons:	1000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	1987-01-01 00:00:00
Pipe Type:	SINGLE WALL
Delivery System:	SUCTION
Monitor Code:	26
UST Monitor Method:	EXTERNAL MONITORING: MONTHLY (MINIMUM) GROUND WATER MONITORING
UST Name:	UNDERGROUND TANK 104497 T022
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	AT3583
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 104497 T023
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	AT3583
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

UST Name:	UNDERGROUND TANK 104497 T024
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	AT3583
Capacity Gallons:	15000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T025
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	DOUBLE WALL
Additional Id:	AT3583
Capacity Gallons:	15000
UST Contents:	LEADED
Other Content Info:	LEADED
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T026
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	OTHER
Additional Id:	AT3583
Capacity Gallons:	1000
UST Contents:	Not reported
Other Content Info:	GASOLINE(TYPE UNKNOWN)
Reg Status:	REMOVED
Remove Close Date:	1996-09-04 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T027
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	SUMP #7 HEAT TREAT SUMP-WATER
Capacity Gallons:	6500

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

UST Contents:	Not reported
Other Content Info:	HEAT TREAT SUMP-WATER
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T028
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	SUMP #8 PHOTO DEVELOPMENT CHEMICAL
Capacity Gallons:	900
UST Contents:	Not reported
Other Content Info:	PHOTO DEVELOPMENT CHEMICAL
Reg Status:	REMOVED
Remove Close Date:	1996-12-17 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T029
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	SUMP #9 PAINT BOOTH WATER
Capacity Gallons:	175000
UST Contents:	Not reported
Other Content Info:	PAINT BOOTH WATER
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T030
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	SUMP #10 COOLANT SUMP
Capacity Gallons:	2750
UST Contents:	Not reported
Other Content Info:	COOLANT SUMP
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T031
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: UNKNOWN
Additional Id: SUMP #11 RACK STRIPPING SUMP-CHROMIUM SOLUTION
Capacity Gallons: 9500
UST Contents: Not reported
Other Content Info: RACK STRIPPING SUMP-CHROMIUM S
Reg Status: REMOVED
Remove Close Date: 1997-03-19 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T032
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: SUMP #12 RACK STRIPPING SUMP-CHROMIUM SOLUTION
Capacity Gallons: 9500
UST Contents: Not reported
Other Content Info: RACK STRIPPING SUMP-CHROMIUM S
Reg Status: REMOVED
Remove Close Date: 1997-03-19 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T033
Last Update: 2012-11-02 14:17:38
Permit Number: 104497
Tank Type: SINGLE WALL
Additional Id: SUMP #13 LUBRICATING OIL-PLANK MILL SUMP
Capacity Gallons: 2500
UST Contents: Not reported
Other Content Info: LUBRICATING OIL-PLANK MILL SUM
Reg Status: REMOVED
Remove Close Date: 1997-11-02 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104497 T034

GENERAL DYNAMICS- CONVAIR DIV (Continued) **S100726653**

Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	SINGLE WALL
Additional Id:	SUMP #14 LUBRICATING OIL-PLANK MILL SUMP
Capacity Gallons:	2500
UST Contents:	Not reported
Other Content Info:	LUBRICATING OIL-PLANK MILL SUM
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 104497 T035
Last Update:	2012-11-02 14:17:38
Permit Number:	104497
Tank Type:	UNKNOWN
Additional Id:	SUMP #15 MOLTEN SALT BATH SUMP
Capacity Gallons:	20000
UST Contents:	Not reported
Other Content Info:	MOLTEN SALT BATH SUMP
Reg Status:	REMOVED
Remove Close Date:	1997-11-02 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

H46 **NORTHSIDE SAN DIEGO INTERNATIONAL AIRPORT REDEVELOPMENT (FOR** **CA SLIC** **S113804553**
South **3302 PACIFIC HIGHWAY** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.155 mi.
821 ft. **Site 6 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	09/23/2010
Global Id:	T10000002563
Lead Agency:	SAN DIEGO RWQCB (REGION 9)
Lead Agency Case Number:	Not reported
Latitude:	32.7363353375039
Longitude:	-117.180948257446
Case Type:	Cleanup Program Site
Case Worker:	TCA
Local Agency:	Not reported
RB Case Number:	4090004
File Location:	Regional Board
Potential Media Affected:	Indoor Air, Other Groundwater (uses other than drinking water), Sediments, Soil, Soil Vapor, Surface water
Potential Contaminants of Concern:	Polychlorinated biphenyls (PCBs), Chromium
Site History:	This site is the former General Dynamics Conviar Division facility.

NORTHSIDE SAN DIEGO INTERNATIONAL AIRPORT REDEVELOPMENT (FOR (Continued) **S113804553**

Between 1935 and 1995, General Dynamics and its predecessors (including Consolidated Aircraft Company, Consolidated Vultee Aircraft Company and Convair) performed aircraft and aerospace manufacturing activities at the Facility. Facility decommissioning began in 1995 and ended in 1997. Chemicals of concern (COCs) used at the site included fuels, oils, solvents, paints, acids, metals, and paints. Attitudinally PCB-bearing building materials were used. Prior to plant decommissioning COCs were found in soil and groundwater. Several phases of investigations and remediation took place. During plant decommissioning remedial actions were taken when COCs were found. Recent soil and groundwater investigations encountered COCs in soil and groundwater. The San Diego Regional Airport Authority plans on redevelopment of the site to airport related businesses and is conducting additional investigations to assess the potential risk relative to the new site use.

Click here to access the California GeoTracker records for this facility:

H47 **GENERAL DYNAMICS CONVAIR DIVISION** **CERC-NFRAP** **1000213810**
South **3302 PACIFIC HWY** **RCRA NonGen / NLR** **CAD041512427**
1/8-1/4 **SAN DIEGO, CA 92101** **CA LUST**
0.155 mi.
821 ft. **Site 7 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

CERC-NFRAP:

Site ID:	0901329
Federal Facility:	Not a Federal Facility
NPL Status:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID:	13287872.00000
Person ID:	13003854.00000
Contact Sequence ID:	13293467.00000
Person ID:	13003858.00000
Contact Sequence ID:	13299325.00000
Person ID:	13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name:	PORT OF SAN DIEGO (OWNER)
Alias Address:	3165 PACIFIC HWY
	SAN DIEGO, CA 92138

CERCLIS-NFRAP Assessment History:

Action:	DISCOVERY
Date Started:	/ /
Date Completed:	02/01/86
Priority Level:	Not reported
Action:	SITE REASSESSMENT
Date Started:	/ /
Date Completed:	01/01/07
Priority Level:	Not reported

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Action: PRELIMINARY ASSESSMENT
Date Started: 12/01/85
Date Completed: 10/01/86
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 10/01/86
Priority Level: Not reported

RCRA NonGen / NLR:
Date form received by agency: 04/15/1999
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Site name: GENERAL DYNAMICS/ CONV AIR DIV.
Facility address: 3302 PACIFIC HWY
SAN DIEGO, CA 92101
EPA ID: CAD041512427
Mailing address: 8787 COMPLEX DR SUITE 202
SAN DIEGO, CA 92123
Contact: GERRY HARDACRE
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (619) 694-7319
Contact email: Not reported
EPA Region: 09
Land type: Other land type
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 11/17/1998
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Classification: Not a generator, verified

Date form received by agency: 09/01/1996
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Classification: Large Quantity Generator

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Date form received by agency: 02/27/1996
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Site name: GENERAL DYNAMICS COVAIR DIVISION
Classification: Large Quantity Generator

Date form received by agency: 03/28/1994
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Site name: GENERAL DYNAMICS, LINDBERGH FIELD PLANT
Classification: Large Quantity Generator

Date form received by agency: 03/31/1992
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Site name: GENERAL DYNAMICS LINDBERGH FIELD PLANT
Classification: Large Quantity Generator

Date form received by agency: 04/03/1991
Facility name: GENERAL DYNAMICS CONVAIR DIVISION
Site name: GENERAL DYNAMICS/LINDBERGH FILED PLANT 1
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 06/10/1994
Date achieved compliance: 06/10/1999
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/12/1991
Date achieved compliance: 06/10/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 04/20/1987
Date achieved compliance: 06/01/1987
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 04/20/1987
Date achieved compliance: 06/01/1987
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/18/1985
Date achieved compliance: 04/20/1987
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/10/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/10/1999
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/12/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/10/1994
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/20/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/20/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 06/01/1987

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/20/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 06/01/1987
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/18/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 04/20/1987
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/18/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1395
Local Case: H04497-002
Substance: Boiler Fuel
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 12/16/1986
Date Stopped: 12/16/1986
Confirm Date: 09/18/1987
Submit Workplan: Not reported
Prelim Assess: 03/24/1987
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 02/08/1987
Enforce Date: Not reported
Closed Date: 9/18/87
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT1396
Local Case: H04497-003
Substance: Waste Oil
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 01/01/1987
Date Stopped: 01/01/1987
Confirm Date: 02/04/1987
Submit Workplan: Not reported
Prelim Assess: 06/07/1989
Desc Pollution: 5/21/91
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 02/04/1987
Enforce Date: Not reported
Closed Date: 7/16/91
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 8'
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT190
Local Case: H04497-001
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: EDITVE
Local Agency: San Diego
How Found: Other Means
How Stopped: Close Tank
Source: Tank
Cause: Overfill
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 11/04/1985
Date Stopped: 12/01/1986

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Confirm Date: 11/13/1985
Submit Workplan: Not reported
Prelim Assess: 01/18/1989
Desc Pollution: Not reported
Remed Plan: 07/21/1992
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 11/04/1985
Enforce Date: Not reported
Closed Date: 3/27/97
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 5.3'
Beneficial Use: NBNB/E
NPDES Number: Not reported
Priority: 1B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT2371
Local Case: H04497-004
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 10/27/1988
Date Stopped: 10/27/1988
Confirm Date: 10/27/1988
Submit Workplan: Not reported
Prelim Assess: / /
Desc Pollution: 2/21/91
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 11/03/1988
Enforce Date: Not reported
Closed Date: 4/26/91
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 9'
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes

GENERAL DYNAMICS CONVAIR DIVISION (Continued) **1000213810**

Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

H48
South
1/8-1/4
0.155 mi.
821 ft.

GENERAL DYNAMICS, LIND. FIELD **CA LUST** **1000214009**
3302 PACIFIC HWY NO BLDG# **N/A**
SAN DIEGO, CA 92101

Site 8 of 11 in cluster H

Relative:
Lower

Actual:
22 ft.

LUST REG 9:

Region:	9
Status:	Preliminary site assessment workplan submitted
Case Number:	9UT2372
Local Case:	T00406
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency:	San Diego
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Tank
Cause:	Corrosion
Lead Agency:	Local Agency
Case Type:	Soil only
Date Found:	/ /
Date Stopped:	11/12/1986
Confirm Date:	/ /
Submit Workplan:	11/13/86
Prelim Assess:	/ /
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	11/13/1986
Enforce Date:	Not reported
Closed Date:	Not reported
Enforce Type:	Not reported
Pilot Program:	LOP
Basin Number:	908.21
GW Depth:	8’
Beneficial Use:	No Beneficial groundwater use
NPDES Number:	Not reported
Priority:	Not reported
File Dispn:	File discarded, case closed
Interim Remedial Actions:	Yes
Cleanup and Abatement order Number:	Not reported
Waste Discharge Requirement Number:	Not reported

H49 **HUGHES MISSILE SYSTEMS CO** **RCRA NonGen / NLR** **1008194833**
South **3302 PACIFIC HWY** **FINDS** **CAT000626747**
1/8-1/4 **SAN DIEGO, CA**
0.155 mi.
821 ft. **Site 9 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

RCRA NonGen / NLR:

Date form received by agency:	12/17/2002
Facility name:	LINDBERGH FIELD FACILITY
Facility address:	3302 PACIFIC HIGHWAY SAN DIEGO, CA 92101
EPA ID:	CAT000626747
Mailing address:	9665 CHESAPEAKE DRIVE SUITE 201 SAN DIEGO, CA 92123
Contact:	JOHN FIELDS
Contact address:	9665 CHESAPEAKE DRIVE SUITE 201 SAN DIEGO, CA 92123
Contact country:	US
Contact telephone:	858-514-8822
Contact email:	Not reported
EPA Region:	09
Land type:	District
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	SAN DIEGO UNIFIED PORT DISTRICT
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1962
Owner/Op end date:	Not reported

Owner/operator name:	SAN DIEGO UNIFIED PORT DISTRICT
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1962
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/0001
Owner/Op end date:	Not reported

Owner/operator name:	SAN DIEGO UNIFIED PORT DISTRICT
Owner/operator address:	Not reported

HUGHES MISSILE SYSTEMS CO (Continued) **1008194833**

Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: 06/30/1997
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Facility name: LINDBERGH FIELD FACILITY
Site name: GENERAL DYNAMICS ELECTRONICS DIVISION
Classification: Small Quantity Generator

Date form received by agency: 08/11/1980
Facility name: LINDBERGH FIELD FACILITY
Site name: GENERAL DYNAMICS ELECTRONICS DIVISION
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/07/1986
Date achieved compliance: 08/07/1991
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

HUGHES MISSILE SYSTEMS CO (Continued) **1008194833**

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/07/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/07/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/07/1991
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110009550333

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

H50 **GENERAL DYNAMICS CONVAIR DIV.** **CA LUST** **S100275487**
South **3302 PACIFIC HWY** **CA CHMIRS** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.155 mi.
821 ft. **Site 10 of 11 in cluster H**

Relative:
Lower

Actual:
22 ft.

LUST REG 9:
Region: 9
Status: Preliminary site assessment workplan submitted
Case Number: 9UT3468
Local Case: H04497-013
Substance: 0
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Remove Contents
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 02/11/1997
Date Stopped: 02/11/1997
Confirm Date: / /
Submit Workplan: 4/3/97
Prelim Assess: / /

GENERAL DYNAMICS CONVAIR DIV. (Continued) **S100275487**

Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 04/03/1997
Enforce Date: Not reported
Closed Date: Not reported
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 10’
Beneficial Use: No Beneficial groundwater use
NPDES Number: 2000-9
Priority: Not reported
File Dispn: Administratively opened on database, however no file physically exists
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT3501
Local Case: H04497-007
Substance: Waste Oil
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Spill
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 07/17/1995
Date Stopped: 07/17/1995
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 07/20/1995
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 07/17/1995
Enforce Date: Not reported
Closed Date: 6/30/97
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 8’
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Medium priority
File Dispn: Administratively opened on database, however no file physically exists
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

GENERAL DYNAMICS CONVAIR DIV. (Continued) **S100275487**

CHMIRS:

OES Incident Number:	8910973
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	31-DEC-89
Date Completed:	**31-DEC-89**
Property Use:	700
Agency Id Number:	37717
Agency Incident Number:	89-583
Time Notified:	1310
Time Completed:	Not reported
Surrounding Area:	700
Estimated Temperature:	73
Property Management:	C
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	MIKE VERNETTI
Report Date:	31-DEC-89
Comments:	Not reported
Facility Telephone:	619 338-2222
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	24-MAY-90
Substance:	Not reported

GENERAL DYNAMICS CONVAIR DIV. (Continued) **S100275487**

Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
Description:	Not reported

I51 **SERVICEMASTER OF SAN DIEGO INC** **EDR US Hist Cleaners** **1009128245**
NW **3657 KETTNER BLVD** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.157 mi.
828 ft. **Site 1 of 3 in cluster I**

Relative:
Higher

Actual:
82 ft.

EDR Historical Cleaners:

Name:	SERVICEMASTER OF SAN DIEGO INC
Year:	1961
Type:	CARPET AND RUG CLEANERS

J52 **NONE** **CA HIST UST** **U001572586**
NNW **3645 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.159 mi.
842 ft. **Site 1 of 5 in cluster J**

Relative:
Higher

Actual:
100 ft.

HIST UST:

Region:	STATE
Facility ID:	00000067265
Facility Type:	Other
Other Type:	STORAGE
Total Tanks:	0002
Contact Name:	Not reported
Telephone:	6192338762
Owner Name:	TRUST SERVICES OF AMERICA INC.
Owner Address:	1855 1ST. AVE. STE. 101
Owner City,St,Zip:	SAN DIEGO, CA 92101
Tank Num:	001
Container Num:	01
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	1
Tank Construction:	Unkown centimeters
Leak Detection:	None

NONE (Continued) **U001572586**

Tank Num: 002
Container Num: 02
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

I53 **QUALITY LUBRICATION SERVICE** **EDR US Hist Auto Stat** **1008998052**
NW **3663 KETTNER BLVD** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.163 mi.
863 ft. **Site 2 of 3 in cluster I**

Relative:
Higher

Actual:
82 ft.

EDR Historical Auto Stations:
Name: QUALITY LUBRICATION SERVICE
Year: 1961
Type: GASOLINE STATIONS

I54 **WALLACE W H** **EDR US Hist Auto Stat** **1008989575**
NW **3674 KETTNER BLVD** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.176 mi.
931 ft. **Site 3 of 3 in cluster I**

Relative:
Higher

Actual:
77 ft.

EDR Historical Auto Stations:
Name: DE PILLER E J
Year: 1930
Type: GASOLINE AND OIL SERVICE STATIONS

Name: WALLACE W H
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

K55 **EDR US Hist Auto Stat** **1015427513**
SE **3265 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA 92103**
0.180 mi.
949 ft. **Site 1 of 8 in cluster K**

Relative:
Higher

Actual:
128 ft.

EDR Historical Auto Stations:
Name: POWER TIRE AUTO CENTER
Year: 1999
Address: 3265 INDIA ST

Name: POWER TIRE AUTO CENTER
Year: 2000
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2002
Address: 3265 INDIA ST

Name: OAB AUTO BODY

(Continued) **1015427513**

Year: 2003
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2004
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2006
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2007
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2008
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2009
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2010
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2011
Address: 3265 INDIA ST

Name: OAB AUTO BODY
Year: 2012
Address: 3265 INDIA ST

K56 **DUDNEY R W** **EDR US Hist Cleaners** **1009128862**
SE **3265 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.180 mi.
949 ft. **Site 2 of 8 in cluster K**

Relative:
Higher

Actual:
128 ft.

EDR Historical Cleaners:
Name: DUDNEY R W
Year: 1948
Type: CLOTHES PRESSERS AND CLEANERS

J57 **PURKEY R W** **EDR US Hist Auto Stat** **1008989516**
NNW **3661 INDIA** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.181 mi.
956 ft. **Site 2 of 5 in cluster J**

Relative:
Higher

Actual:
102 ft.

EDR Historical Auto Stations:
Name: PURKEY R W
Year: 1930
Type: GASOLINE AND OIL SERVICE STATIONS

H58 **3200 KETTNER BLVD** **CA Notify 65** **S100178505**
SSE **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.184 mi.
974 ft. **Site 11 of 11 in cluster H**

Relative:
Lower

Actual:
38 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

---

59 **LAMADRID SERVICE** **EDR US Hist Auto Stat** **1008997900**
NNE **3602 STATE ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.185 mi.
979 ft.

Relative:
Higher

Actual:
165 ft.

EDR Historical Auto Stations:
Name: LAMADRID SERVICE
Year: 1961
Type: AUTOMOBILE REPAIRING

J60 **HAL S SIGNAL SERVICE** **EDR US Hist Auto Stat** **1008998392**
NNW **3657 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.187 mi.
989 ft. **Site 3 of 5 in cluster J**

Relative:
Higher

Actual:
103 ft.

EDR Historical Auto Stations:
Name: HAL S SIGNAL SERVICE
Year: 1961
Type: GASOLINE STATIONS

J61 **CAMP INDIA** **EDR US Hist Auto Stat** **1008995570**
NNW **3661 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.191 mi.
1011 ft. **Site 4 of 5 in cluster J**

Relative:
Higher

Actual:
104 ft.

EDR Historical Auto Stations:
Name: HAEUSGEN C F
Year: 1927
Type: GASOLINE AND OIL SERVICE STATIONS

Name: CAMP INDIA
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

K62 **MAURICE S FOREIGN & DOMESTIC AUTO REPAIR** **EDR US Hist Auto Stat** **1008998524**
SE **3241 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.195 mi.
1032 ft. **Site 3 of 8 in cluster K**

Relative:
Higher

Actual:
123 ft.

EDR Historical Auto Stations:

Name:	MAURICE S FOREIGN & DOMESTIC AUTO REPAIR
Year:	1975
Type:	AUTOMOBILE REPAIRING
Name:	MAURICE S FOREIGN & DOMESTIC AUTO REPAIR
Year:	1980
Type:	A T S AUTOMATIC

J63 **MEAD SEAMAN** **EDR US Hist Cleaners** **1009128873**
NNW **3672 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.198 mi.
1044 ft. **Site 5 of 5 in cluster J**

Relative:
Higher

Actual:
103 ft.

EDR Historical Cleaners:

Name:	MEAD SEAMAN
Year:	1948
Type:	CLOTHES PRESSERS AND CLEANERS

K64 **MONTGOMERY R M** **EDR US Hist Cleaners** **1009127700**
SE **3232 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.200 mi.
1058 ft. **Site 4 of 8 in cluster K**

Relative:
Higher

Actual:
112 ft.

EDR Historical Cleaners:

Name:	A-1 CLEANERS & DYERS
Year:	1933
Type:	DYERS AND CLEANERS
Name:	MONTGOMERY R M
Year:	1948
Type:	CLOTHES PRESSERS AND CLEANERS

K65 **AMERICAN CLEANERS** **EDR US Hist Cleaners** **1009124081**
SE **3232 INDIA** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.201 mi.
1063 ft. **Site 5 of 8 in cluster K**

Relative:
Higher

Actual:
112 ft.

EDR Historical Cleaners:

Name:	A-1 CLEANER
Year:	1930
Type:	CLOTHES PRESSERS AND CLEANERS
Name:	AMERICAN CLEANERS
Year:	1938
Type:	DYERS AND CLEANERS
Name:	AMERICAN CLEANERS

AMERICAN CLEANERS (Continued) **1009124081**

Year: 1943
Type: CLEANERS-GARMENTS CURTAINS AND DRAPERIES

Name: AMERICAN CLEANERS
Year: 1943
Type: CLOTHES PRESSERS AND CLEANERS

Name: AMERICAN CLEANERS OFC
Year: 1952
Type: CLEANERS AND DYERS

K66 **AUTO IMPORT SERVICES** **EDR US Hist Auto Stat** **1008996313**
SE **3231 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.202 mi.
1068 ft. **Site 6 of 8 in cluster K**

Relative:
Higher

Actual:
114 ft.

EDR Historical Auto Stations:
Name: BAY CITY ELECTRIC WORKS
Year: 1961
Type: AUTOMOBILE REPAIRING

Name: AUTO IMPORT SERVICES
Year: 1975
Type: AUTOMOBILE REPAIRING

K67 **LANCE DICKSON INDEPENDENT VOLVO** **RCRA NonGen / NLR** **1000168323**
SE **3211 INDIA ST** **FINDS** **CAD109158246**
1/8-1/4 **SAN DIEGO, CA**
0.216 mi.
1138 ft. **Site 7 of 8 in cluster K**

Relative:
Higher

Actual:
114 ft.

RCRA NonGen / NLR:
Date form received by agency: 07/22/1986
Facility name: LANCE DICKSON INDEPENDENT VOLVO
Facility address: 3211 INDIA ST
SAN DIEGO, CA 92103
EPA ID: CAD109158246
Mailing address: INDIA ST
SAN DIEGO, CA 92103
Contact: ENVIRONMENTAL MANAGER
Contact address: 3211 INDIA ST
SAN DIEGO, CA 92103
Contact country: US
Contact telephone: (619) 295-8686
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: DICKSON LANCE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212

LANCE DICKSON INDEPENDENT VOLVO (Continued) **1000168323**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002667285

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

K68 **SCOTTY S FOREIGN CAR SERVICE** **EDR US Hist Auto Stat** **1008998786**
SE **3211 INDIA ST** **N/A**
1/8-1/4 **SAN DIEGO, CA**
0.216 mi.
1138 ft. **Site 8 of 8 in cluster K**

Relative:
Higher

Actual:
114 ft.

EDR Historical Auto Stations:
Name: MIDTOWN AUTOMOTIVE
Year: 1975
Type: AUTOMOBILE REPAIRING

SCOTTY S FOREIGN CAR SERVICE (Continued) **1008998786**

Name: SCOTTY S FOREIGN CAR SERVICE
Year: 1975
Type: AUTOMOBILE REPAIRING

Name: A & N AUTO CONNECTION
Year: 2001
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CTR
Year: 2002
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CTR
Year: 2003
Address: 3211 INDIA ST

Name: MISSION HILLS AUTO BODY
Year: 2004
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER INC
Year: 2005
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER INC
Year: 2006
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER
Year: 2007
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER
Year: 2008
Address: 3211 INDIA ST

Name: MISSION HLS AUTO B
Year: 2009
Address: 3211 INDIA ST

Name: MISSION HILL COLLISION CTR
Year: 2010
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER
Year: 2011
Address: 3211 INDIA ST

Name: MISSION HILLS COLLISION CENTER
Year: 2012
Address: 3211 INDIA ST

L69
SE
1/8-1/4
0.222 mi.
1170 ft.

CASE A M
3205 KETTNER BLVD
SAN DIEGO, CA

Site 1 of 3 in cluster L

EDR US Hist Auto Stat **1008989507**
N/A

Relative:
Higher

Actual:
100 ft.

EDR Historical Auto Stations:

Name:	THOMPSON J D
Year:	1927
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	CASE A M
Year:	1930
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	THOMPSON J D
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	THOMPSON J D
Year:	1943
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	LAZEAR CHAS D
Year:	1952
Type:	GASOLINE STATIONS

70
SSW
1/8-1/4
0.225 mi.
1187 ft.

GENERAL DYNAMICS, LIND. F
3302 PACIFIC BLDG#
SAN DIEGO, CA 92108

CA HIST CORTESE **S105026123**
N/A

Relative:
Lower

Actual:
18 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT2372

M71
NW
1/8-1/4
0.230 mi.
1216 ft.

BENOIT EASTON
1658 HANCOCK ST
SAN DIEGO, CA

Site 1 of 2 in cluster M

EDR US Hist Cleaners **1009127683**
N/A

Relative:
Higher

Actual:
79 ft.

EDR Historical Cleaners:

Name:	BENOIT EASTON
Year:	1943
Type:	CLOTHES PRESSERS AND CLEANERS

M72
NW
1/8-1/4
0.233 mi.
1230 ft.

ENTERPRISE RENT A CAR — **CA WIP** — **S103241076**
2201 W MAIN ST — **N/A**
ALHAMBRA, CA 91801

Site 2 of 2 in cluster M

Relative:
Higher

Actual:
79 ft.

WIP:
Region: 4
File Number: 115.0125
File Status: Backlog
Staff: CCHARMLE
Facility Suite: Not reported

L73
SE
1/8-1/4
0.244 mi.
1287 ft.

BEHN WM — **EDR US Hist Auto Stat** — **1008989262**
3171 INDIA — **N/A**
SAN DIEGO, CA

Site 2 of 3 in cluster L

Relative:
Higher

Actual:
106 ft.

EDR Historical Auto Stations:
Name: BEHN WM
Year: 1930
Type: GASOLINE AND OIL SERVICE STATIONS

L74
SE
1/8-1/4
0.245 mi.
1291 ft.

BATEMAN J B — **EDR US Hist Auto Stat** — **1008995947**
3171 INDIA ST — **N/A**
SAN DIEGO, CA

Site 3 of 3 in cluster L

Relative:
Higher

Actual:
106 ft.

EDR Historical Auto Stations:
Name: BATEMAN J B
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: DOUGLAS BAYVIEW SERVICE
Year: 1952
Type: GASOLINE STATIONS

75
NNW
1/8-1/4
0.245 mi.
1292 ft.

WALTER NEAL C — **EDR US Hist Auto Stat** — **1008997686**
3711 INDIA ST — **N/A**
SAN DIEGO, CA

Relative:
Higher

Actual:
111 ft.

EDR Historical Auto Stations:
Name: WALTER NEAL C
Year: 1952
Type: AUTOMOBILE REPAIRING

N76 **SAN DIEGO UNIFIED PORT DISTRICT** **RCRA-SQG** **1000110642**
SSE **3165 PACIFIC HIGHWAY** **FINDS** **CAD009592825**
1/8-1/4 **SAN DIEGO, CA** **CA NPDES**
0.247 mi. **CA ENF**
1302 ft. **Site 1 of 2 in cluster N** **CA HAZNET**

Relative:
Lower

Actual:
24 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	SAN DIEGO UNIFIED PORT DISTRICT
Facility address:	3165 PACIFIC HIGHWAY SAN DIEGO, CA 92101
EPA ID:	CAD009592825
Mailing address:	P O BOX 488 SAN DIEGO, CA 92112
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	SAN DIEGO UNIFIED PORT DISTRICT
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 10/24/1980
Facility name: SAN DIEGO UNIFIED PORT DISTRICT
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002637291

Environmental Interest/Information System
NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NPDES:
Npdes Number: Not reported
Facility Status: Active
Agency Id: 39631
Region: 9
Regulatory Measure Id: 214387
Order No: R9-2007-0001
Regulatory Measure Type: Enrollee
Place Id: 255177
WDID: 9 0000510S2
Program Type: MNSTW1
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 07/16/1990
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: San Diego Unified Port District
Discharge Address: 3165 Pacific Hwy
Discharge City: San Diego
Discharge State: CA
Discharge Zip: 92101-1128

ENF:

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	248382
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	08/30/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	13267 requesting information to stop power washing illicit discharges to the MS4 and San Diego Bay
Program:	MNSTW1
Latest Milestone Completion Date:	2002-08-30
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	248378
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	07/30/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	07/30/2002
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	NOV for power washing discharge to MS4 and San Diego Bay
Program:	MNSTW1
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	245932
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice to Comply
Effective Date:	10/02/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	Notice to comply for violations observed at the Port's Municipal yard including: Storm Drain unprotected near small engine repair facility, oil and fuel storage, unprotected storm drains in the storage yard.
Program:	MNSTW1
Latest Milestone Completion Date:	2002-10-31
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	245930
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	01/16/2003
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	13267 letter requesting a required technical report including: 1) A detailed description of Port efforts to

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

	implement a local SUSMP including departmental roles and responsibilities. 2) An updated local SUSMP.
Program:	MNSTW1
Latest Milestone Completion Date:	2003-02-03
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	245929
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	01/16/2003
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	01/16/2003
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	Failure to submit a local SUSMP. The Port's submitted local SUSMP was a copy of the approved model SUSMP, containing no information specific to the Port of San Diego. In this respect, the submitted SUSMP is not "local."
Program:	MNSTW1
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	241967
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	08/11/2003

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	08/11/2003
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	SEL for violations found during an inspection of the Port's new Public Works maintenance yard. Violations included inadequate BMPs for the storage of oily equipment, outisde paint cooker was without secondary containment, and sweepers draining wash water
Program:	MNSTW1
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility
Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	240500
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	11/07/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	Request for PCB investigation and sample plan.
Program:	MNSTW1
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	9
Facility Id:	255177
Agency Name:	San Diego Unified Port District
Place Type:	Utility

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Place Subtype:	MS4
Facility Type:	Municipal/Domestic
Agency Type:	Special District
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0
Threat To Water Quality:	1
Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Stormwater runoff
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	MNSTW1
Program Category1:	NPDESSW
Program Category2:	NPDESSW
# Of Programs:	1
WDID:	9 0000510S2
Reg Measure Id:	214387
Reg Measure Type:	Enrollee
Region:	9
Order #:	R9-2007-0001
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Active
Status Date:	02/21/2001
Effective Date:	07/16/1990
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Fee Code:	52 - Area Wide Municipal Storm Water Permit
Direction/Voice:	Passive
Enforcement Id(EID):	238232
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	11/07/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 0000510S2
Description:	The Port and City were requested to investigate PCBs in the storm drains in the vicinity of Convair Lagoon.
Program:	MNSTW1
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

HAZNET:

Year:	1993
Gepaid:	CAD009592825
Contact:	SAN DIEGO UNIFIED PORT DISTRIC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 488
Mailing City,St,Zip:	SAN DIEGO, CA 921120000
Gen County:	Not reported
TSD EPA ID:	CAD981458466
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	9.17399999999
Facility County:	San Diego

Year:	1993
Gepaid:	CAD009592825
Contact:	SAN DIEGO UNIFIED PORT DISTRIC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 488
Mailing City,St,Zip:	SAN DIEGO, CA 921120000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Alkaline solution without metals pH >= 12.5
Disposal Method:	Recycler
Tons:	8.34000000000
Facility County:	San Diego

SAN DIEGO UNIFIED PORT DISTRICT (Continued) **1000110642**

Year:	1993
Gepaid:	CAD009592825
Contact:	SAN DIEGO UNIFIED PORT DISTRIC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 488
Mailing City,St,Zip:	SAN DIEGO, CA 921120000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	0.1668
Facility County:	San Diego

Year:	1993
Gepaid:	CAD009592825
Contact:	SAN DIEGO UNIFIED PORT DISTRIC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 488
Mailing City,St,Zip:	SAN DIEGO, CA 921120000
Gen County:	Not reported
TSD EPA ID:	CAL000027741
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	8.41999999999
Facility County:	San Diego

Year:	1993
Gepaid:	CAD009592825
Contact:	SAN DIEGO UNIFIED PORT DISTRIC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 488
Mailing City,St,Zip:	SAN DIEGO, CA 921120000
Gen County:	Not reported
TSD EPA ID:	CAD980883177
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Not reported
Tons:	5.83800000000
Facility County:	San Diego

Click this hyperlink while viewing on your computer to access
7 additional CA_HAZNET: record(s) in the EDR Site Report.

N77 **SAN DIEGO UNIFIED PORT DIST** **CA SWEEPS UST** **S106062885**
SSE **3165 PACIFIC HWY** **CA San Diego Co. HMMD** **N/A**
1/8-1/4 **SAN DIEGO, CA 92101**
0.247 mi.
1302 ft. **Site 2 of 2 in cluster N**

Relative:
Lower

Actual:
24 ft.

SWEEPS UST:

Status:	Not reported
Comp Number:	29233
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-029233-000001
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	2

Status:	Not reported
Comp Number:	29233
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-029233-000002
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

SAN DIEGO CO. HMMD:

Facility Id:	129233
Business Type:	6HK18
EPA Id Number:	Not reported
APN:	451-601-04-00
Last HMMD Inspection:	08/09/2012
Permit Status:	OPEN
Permit Expiration:	07/31/2013
Facility Owner:	SAN DIEGO UNIFIED PORT DIST
Facility Address:	P O BOX 488
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92112-0488
UST Owner:	Not reported
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported

SAN DIEGO UNIFIED PORT DIST (Continued) **S106062885**

Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 129233 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 129233
Tank Type: UNKNOWN
Additional Id: 001
Capacity Gallons: 10000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: CLOSED
Remove Close Date: 1989-06-07 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 129233 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 129233
Tank Type: UNKNOWN
Additional Id: 0002
Capacity Gallons: 10000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: CLOSED
Remove Close Date: 1989-06-07 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Active Permits:
Facility Id: 129233
Update Date: 11/02/2012
Case Number: 68476-34-6
Name: DIESEL FUEL
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Violations Active Permits:
Facility Id: 129233
Update Date: 11/02/2012
Inspection Date: 06/22/2004
Violation Code: 6HV1002
Violation: HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation: Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity: ACTIVE

SAN DIEGO UNIFIED PORT DIST (Continued) **S106062885**

Facility Id:	129233
Update Date:	11/02/2012
Inspection Date:	09/22/2006
Violation Code:	6HV1002
Violation:	HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation:	Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity:	ACTIVE

78
NE
1/4-1/2
0.279 mi.
1475 ft.

READING FAMILY TRUST/RESIDENCE
3447 KITE ST
SAN DIEGO, CA 92103

CA SLIC **S104756712**
CA San Diego Co. HMMD **N/A**
CA SAN DIEGO CO. SAM

Relative:
Higher

Actual:
227 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	04/12/1999
Global Id:	T0608193498
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H38274-001
Latitude:	32.741702
Longitude:	-117.174644
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SAN DIEGO CO. HMMD:

Facility Id:	138274
Business Type:	Not reported
EPA Id Number:	Not reported
APN:	451-343-02-00
Last HMMD Inspection:	Not reported
Permit Status:	INAC
Permit Expiration:	Not reported
Facility Owner:	Not reported
Facility Address:	Not reported
Facility City:	Not reported
Facility State:	Not reported
Facility Zip:	Not reported
UST Owner:	Not reported
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

READING FAMILY TRUST/RESIDENCE (Continued) **S104756712**

SAN DIEGO CO. SAM:
Case Number: H38274-001
Agency: DEH Site Assessment & Mitigation
Funding: Private - VAP
Facility Type: Soils Only
Facility Status: Closed Case
Date: 4/12/1999
Date Began: Not reported

O79 **WILLIAM W. NEWKIRK (MOBIL OIL)** **CA SAN DIEGO CO. SAM** **S105692365**
NNW **1809 W WASHINGTON ST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103**
0.296 mi.
1562 ft. **Site 1 of 6 in cluster O**

Relative: Higher

Actual: 100 ft.

SAN DIEGO CO. SAM:
Case Number: H13507-001
Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 11/9/1995
Date Began: 3/8/1991

O80 **WILLIAM W. NEWKIRK (MOBIL OIL)** **CA LUST** **U001572649**
NNW **1809 W WASHINGTON ST** **CA HIST UST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103** **CA SWEEPS UST**
0.296 mi.
1562 ft. **Site 2 of 6 in cluster O**

Relative: Higher

Actual: 100 ft.

LUST:
Region: STATE
Global Id: T0607300724
Latitude: 32.7428885
Longitude: -117.1815215
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/09/1995
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1949
LOC Case Number: H13507-001
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300724
Status: Open - Case Begin Date
Status Date: 03/08/1991

Global Id: T0607300724

WILLIAM W. NEWKIRK (MOBIL OIL) (Continued) **U001572649**

Status: Completed - Case Closed
Status Date: 11/09/1995

Regulatory Activities:
Global Id: T0607300724
Action Type: ENFORCEMENT
Date: 04/12/1991
Action: Notice of Responsibility

Global Id: T0607300724
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300724
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300724
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300724
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

HIST UST:
Region: STATE
Facility ID: 00000039456
Facility Type: Not reported
Other Type: Not reported
Total Tanks: 0004
Contact Name: Not reported
Telephone: 6192970617
Owner Name: MOBIL OIL CORPORATION
Owner Address: 612 S. FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90017

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT

WILLIAM W. NEWKIRK (MOBIL OIL) (Continued) **U001572649**

Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00000280
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 13507
Number: 9
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000009
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 13507
Number: 9
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000010
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

WILLIAM W. NEWKIRK (MOBIL OIL) (Continued) **U001572649**

Status: Active
Comp Number: 13507
Number: 9
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000011
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 13507
Number: 9
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000012
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 13507
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 8

Status: Not reported
Comp Number: 13507
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported

WILLIAM W. NEWKIRK (MOBIL OIL) (Continued) **U001572649**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-013507-000002
Tank Status:	Not reported
Capacity:	8000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	13507
Number:	Not reported
Board Of Equalization:	44-000400
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-013507-000003
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	13507
Number:	Not reported
Board Of Equalization:	44-000400
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-013507-000004
Tank Status:	Not reported
Capacity:	280
Active Date:	Not reported
Tank Use:	PETROLEUM
STG:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	13507
Number:	Not reported
Board Of Equalization:	44-000400
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-013507-000005
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported

WILLIAM W. NEWKIRK (MOBIL OIL) (Continued) **U001572649**

Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 13507
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000006
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 13507
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000007
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 13507
Number: Not reported
Board Of Equalization: 44-000400
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-013507-000008
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: PETROLEUM
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

O81 **MOBILE STATION 18-GDR** **CA HIST CORTESE** **S104406436**
NNW **1809 WASHINGTON ST W** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103**
0.298 mi.
1575 ft. **Site 3 of 6 in cluster O**

Relative:
Higher

Actual:
103 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1949

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1949
Local Case: H13507-001
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Other Means
How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 04/04/1991
Date Stopped: 04/04/1991
Confirm Date: 03/08/1991
Submit Workplan: 4/12/91
Prelim Assess: 12/01/1991
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 04/04/1991
Enforce Date: Not reported
Closed Date: 11/9/95
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 37’
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

O82 **G&M STATION #106** **CA LUST** **S103637508**
NNW **1832 W WASHINGTON ST** **CA SLIC** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103**
0.303 mi.
1602 ft. **Site 4 of 6 in cluster O**

Relative:
Higher

Actual:
97 ft.

LUST:

Region:	STATE
Global Id:	T0607300402
Latitude:	32.743127
Longitude:	-117.181989
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/26/2001
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	SW
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	9UT1582
LOC Case Number:	H13428-001
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0607300402
Contact Type:	Local Agency Caseworker
Contact Name:	SCOTT WELDON
Organization Name:	SAN DIEGO COUNTY LOP
Address:	P.O. Box 129261
City:	San Diego
Email:	scott.weldon@sdcounty.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0607300402
Status:	Open - Case Begin Date
Status Date:	10/27/1989
Global Id:	T0607300402
Status:	Completed - Case Closed
Status Date:	04/26/2001

Regulatory Activities:

Global Id:	T0607300402
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped
Global Id:	T0607300402
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began
Global Id:	T0607300402
Action Type:	ENFORCEMENT
Date:	12/01/1989

G&M STATION #106 (Continued) **S103637508**

Action: * Historical Enforcement

Global Id: T0607300402
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0607300402
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 10/08/1991
Global Id: T0608124224
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H13428-002
Latitude: 32.743182
Longitude: -117.181951
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

O83 **G&M STATION #106** **CA SAN DIEGO CO. SAM** **S105112895**
NNW **1832 W WASHINGTON ST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103**
0.303 mi.
1602 ft. **Site 5 of 6 in cluster O**

Relative:
Higher

Actual:
97 ft.

SAN DIEGO CO. SAM:
Case Number: H13428-002
Agency: DEH Site Assessment & Mitigation
Funding: **Non Billable**
Facility Type: Failed Integrity Test
Facility Status: Closed Case
Date: 10/8/1991
Date Began: 1/28/1990

Case Number: H13428-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 4/26/2001
Date Began: 10/27/1989

P84
NW
1/4-1/2
0.308 mi.
1626 ft.

AMERICAN AGAR & CHEM CO
1751 HANCOCK ST
SAN DIEGO, CA 92110

Site 1 of 2 in cluster P

CERC-NFRAP

1003878267
CAD008231516

Relative:
Lower

Actual:
63 ft.

CERC-NFRAP:
Site ID: 0900981
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13286558.00000
Person ID: 13003854.00000

Contact Sequence ID: 13292153.00000
Person ID: 13003858.00000

Contact Sequence ID: 13298011.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: FALLBROOK ANNEX
Alias Address: Not reported
CA

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /
Date Completed: 08/01/84
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: 08/01/84
Date Completed: 08/01/85
Priority Level: Low priority for further assessment

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 11/01/88
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 11/01/88
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

---

P85
NW
1/4-1/2
0.308 mi.
1626 ft.

AMERICAN AGAR AND CHEMICAL CO
1751 HANCOCK ST
SAN DIEGO, CA 92110

Site 2 of 2 in cluster P

CA HIST CORTESE
CA LUST
CA HIST UST
CA SWEEPS UST
CA San Diego Co. HMMD
CA SAN DIEGO CO. SAM
CA ENVIROSTOR

1000360644
N/A

Relative:
Lower

Actual:
63 ft.

HIST CORTESE:
Region: CORTESE

AMERICAN AGAR AND CHEMICAL CO (Continued) **1000360644**

Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT9

LUST:
Region: STATE
Global Id: T0607303142
Latitude: 32.7424
Longitude: -117.1842273
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 08/21/1997
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: LA
Local Agency: SAN DIEGO COUNTY LOP
RB Case Number: 9UT9
LOC Case Number: H00397-001
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0607303142
Contact Type: Local Agency Caseworker
Contact Name: LAURIE APECECHEA
Organization Name: SAN DIEGO COUNTY LOP
Address: P.O. Box 129261
City: San Diego
Email: laurie.apecechea@sdcounty.ca.gov
Phone Number: Not reported

Status History:
Global Id: T0607303142
Status: Open - Case Begin Date
Status Date: 05/12/1986

Global Id: T0607303142
Status: Completed - Case Closed
Status Date: 08/21/1997

Regulatory Activities:
Global Id: T0607303142
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607303142
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607303142
Action Type: ENFORCEMENT

AMERICAN AGAR AND CHEMICAL CO (Continued) **1000360644**

Date: 05/12/1986
Action: Notice of Responsibility

Global Id: T0607303142
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607303142
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT9
Local Case: H00397-001
Substance: Boiler Fuel
Qty Leaked: 0
Abate Method: Remove Free Product - remove floating product from water table
Local Agency: San Diego
How Found: Inventory Control
How Stopped: Close Tank
Source: Tank
Cause: Corrosion
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 05/09/1986
Date Stopped: 05/12/1986
Confirm Date: 05/12/1986
Submit Workplan: Not reported
Prelim Assess: 12/23/1986
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 8/12/87
Began Monitor: Not reported
Release Date: 05/09/1986
Enforce Date: Not reported
Closed Date: 8/21/97
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 14’
Beneficial Use: No Beneficial groundwater use
NPDES Number: 95-25
Priority: 1C
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

HIST UST:
Region: STATE
Facility ID: 00000027440

AMERICAN AGAR AND CHEMICAL CO (Continued) **1000360644**

Facility Type: Other
Other Type: DIESEL OIL
Total Tanks: 0001
Contact Name: RICHARD E. TAYLOR
Telephone: 6192973231
Owner Name: AMERICAN AGAR & CHEMICAL CO.
Owner Address: 1751 HANCOCK ST.
Owner City,St,Zip: SAN DIEGO, CA 92110

Tank Num: 001
Container Num: 0001
Year Installed: Not reported
Tank Capacity: 00019190
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 397
Number: 9
Board Of Equalization: 44-021560
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000397-000002
Tank Status: A
Capacity: 550
Active Date: Not reported
Tank Use: M.V. FUEL
STG: W
Content: OTHER
Number Of Tanks: 1

SAN DIEGO CO. HMMD:
Facility Id: 100397
Business Type: Not reported
EPA Id Number: CAD981388440
APN: 451-590-63-00
Last HMMD Inspection: 07/06/1987
Permit Status: INAC
Permit Expiration: 07/31/1995
Facility Owner: AMERICAN AGAR & CHEMICAL
Facility Address: 1751 HANCOCK ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92110-2006
UST Owner: AMERICAN AGAR & CHEMICAL CO
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

AMERICAN AGAR AND CHEMICAL CO (Continued) **1000360644**

UST:

UST Name:	UNDERGROUND TANK 100397 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	100397
Tank Type:	SINGLE WALL
Additional Id:	0001
Capacity Gallons:	19190
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

SAN DIEGO CO. SAM:

Case Number:	H00397-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	Drinking Water Aquifer Impacted
Facility Status:	Closed Case
Date:	8/21/1997
Date Began:	5/12/1986

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Mmonroy
Division Branch:	Cleanup Cypress
Facility ID:	37280004
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Refer: Other Agency
Status Date:	08/21/1995
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	32.74194
Longitude:	-117.1836
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* Pesticides - Wastes From Production, * CONTAMINATED SOIL, * UNSPECIFIED OIL CONTAINING WASTE
Confirmed COC:	* Pesticides - Wastes From Production, * CONTAMINATED SOIL, * UNSPECIFIED OIL CONTAINING WASTE, NONE SPECIFIED

AMERICAN AGAR AND CHEMICAL CO (Continued) **1000360644**

Potential Description: NONE SPECIFIED
Alias Name: MISSION BREWRY PLAZA
Alias Type: Alternate Name
Alias Name: CAD008231516
Alias Type: EPA Identification Number
Alias Name: 37280004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/27/1994
Comments: Site is already redeveloped. San Diego County oversaw the cleanup activities. In addition "Petroleum Exclusion" applicable. Staff recommends NFA for DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/19/1989
Comments: SITE SCREENING DONE FIT PA REASSESSMENT DONE 9/29/88 RECOM- MENDED NFA UNDER CERCLA DUE TO LACK OF POTENTIAL TO SCORE ABOVE 28.5; DHS RE- COMMENDS MED SI DUE TO PRESENCE OF STAINED SOIL OBSERVED AT SITE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/27/1984
Comments: WASTE TYPE: VERSENE,BULK AMMONIA,SULFITE (USED FOR CLEANING LAB EQUIP),ALGICIDES DIESEL FUEL. ALL WASTE OILS ARE NOW CONTAINERIZED FOR OFFSITE RECYCLING DISP DIESEL OIL DISP TO THE LAND CITY METRO SEWER DIST, 10/16/80 - SOURCE ACT: MFG OF BACTERIOLOGICL GRADE AGAR. YR OF OPER: 1950'S TO PRESENT CO AIR POLLUTION CONTROL DIST PERMIT 1983. DIESEL FUEL TANK. FINAL STRATEGY RECOM - SOIL SAMPLING SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 10/04/1982
Comments: FACILITY IDENTIFIED ID VIA 45 PHONE BOOK

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

O86
NNW
1/4-1/2
0.319 mi.
1682 ft.

EAST OF WAHINGTON AND INDIA ST
SAN DIEGO, CA

Site 6 of 6 in cluster O

CA Notify 65 **S100178348**
N/A

Relative:
Higher

Actual:
109 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

87
East
1/4-1/2
0.363 mi.
1919 ft.

3173 GOLDFINCH
SAN DIEGO, CA

CA Notify 65 **S100178360**
N/A

Relative:
Higher

Actual:
229 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

Q88
SE
1/4-1/2
0.376 mi.
1983 ft.

ALAMO RENT A CAR
2942(3066) KETTNER BLVD
SAN DIEGO, CA 92101

Site 1 of 5 in cluster Q

CA LUST **S104160494**
N/A

Relative:
Higher

Actual:
98 ft.

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1372
Local Case: H04878-002
Substance: Transmission Fluid
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Other Means
How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 08/17/1992
Date Stopped: 08/17/1992
Confirm Date: 08/17/1992
Submit Workplan: 9/1/92
Prelim Assess: 01/01/1993
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported

ALAMO RENT A CAR (Continued) **S104160494**

Began Monitor: Not reported
Release Date: 08/17/1992
Enforce Date: Not reported
Closed Date: 5/21/93
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

R89 **SOUTHWEST CAR RENTAL** **CA HIST CORTESE** **S102423347**
SSE **2975 PACIFIC HY** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.382 mi.
2015 ft. **Site 1 of 5 in cluster R**

Relative:
Lower

Actual:
32 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1656

LUST:
Region: STATE
Global Id: T0607300471
Latitude: 32.7336113
Longitude: -117.1760577
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/01/1991
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1656
LOC Case Number: H04041-001
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300471
Status: Open - Case Begin Date
Status Date: 03/22/1990

Global Id: T0607300471
Status: Completed - Case Closed
Status Date: 05/01/1991

SOUTHWEST CAR RENTAL (Continued) **S102423347**

Regulatory Activities:

Global Id:	T0607300471
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0607300471
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

Global Id:	T0607300471
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0607300471
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT1656
Local Case:	H04041-001
Substance:	Waste Oil
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency:	San Diego
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Tank
Cause:	Corrosion
Lead Agency:	Local Agency
Case Type:	Other ground water affected
Date Found:	03/22/1990
Date Stopped:	03/22/1990
Confirm Date:	03/22/1990
Submit Workplan:	Not reported
Prelim Assess:	/ /
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	03/23/1990
Enforce Date:	Not reported
Closed Date:	4/22/91
Enforce Type:	Not reported
Pilot Program:	LOP
Basin Number:	908.21
GW Depth:	11
Beneficial Use:	No Beneficial groundwater use
NPDES Number:	Not reported

SOUTHWEST CAR RENTAL (Continued) **S102423347**

Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

R90 **SOUTHWEST CAR RENTAL** **CA SAN DIEGO CO. SAM** **S105692968**
SSE **2975 PACIFIC HY** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.382 mi.
2015 ft. **Site 2 of 5 in cluster R**

Relative:
Lower

Actual:
32 ft.

SAN DIEGO CO. SAM:
Case Number: H04041-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - State Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 5/1/1991
Date Began: 3/22/1990

Q91 **ALAMO RENT A CAR** **CA HIST CORTESE** **S105026139**
SE **2942 3066 KETTNER BLVD** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.384 mi.
2028 ft. **Site 2 of 5 in cluster Q**

Relative:
Higher

Actual:
84 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1372

Q92 **KETTNER BLVD. AND PALM ST.** **CA Notify 65** **S100178346**
SE **N/A**
1/4-1/2 **SAN DIEGO, CA**
0.401 mi.
2117 ft. **Site 3 of 5 in cluster Q**

Relative:
Higher

Actual:
79 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

Q93 **ALAMO RENT-A-CAR** **CA LUST** **S102423820**
SE **2942 KETTNER BLVD** **CA San Diego Co. HMMD** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101** **CA SAN DIEGO CO. SAM**
0.402 mi.
2123 ft. **Site 4 of 5 in cluster Q**

Relative:
Higher

Actual:
97 ft.

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT256
Local Case:	H04878-001
Substance:	Unleaded Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Local Agency:	San Diego
How Found:	Other Means
How Stopped:	Not reported
Source:	Unknown
Cause:	Unknown
Lead Agency:	Local Agency
Case Type:	Other ground water affected
Date Found:	03/07/1986
Date Stopped:	03/07/1986
Confirm Date:	03/07/1986
Submit Workplan:	Not reported
Prelim Assess:	07/09/1986
Desc Pollution:	Not reported
Remed Plan:	/ /
Remed Action:	Not reported
Began Monitor:	Not reported
Release Date:	03/07/1986
Enforce Date:	Not reported
Closed Date:	9/14/88
Enforce Type:	Not reported
Pilot Program:	LOP
Basin Number:	908.21
GW Depth:	Not reported
Beneficial Use:	No Beneficial groundwater use
NPDES Number:	Not reported
Priority:	Low priority. Priority ranking can change over time.
File Dispn:	File discarded, case closed
Interim Remedial Actions:	No
Cleanup and Abatement order Number:	Not reported
Waste Discharge Requirement Number:	Not reported

SAN DIEGO CO. HMMD:

Facility Id:	211913
Business Type:	6HK21
EPA Id Number:	CAL000348969
APN:	451-625-16-00
Last HMMD Inspection:	04/18/2012
Permit Status:	OPEN
Permit Expiration:	08/31/2013
Facility Owner:	ENTERPRISE RENT-A-CAR-COMPANY OF LA
Facility Address:	17210 S MAIN ST
Facility City:	GARDENA
Facility State:	CA
Facility Zip:	90248
UST Owner:	ENTERPRISE RENT-A-CAR-COMPANY OF LA

ALAMO RENT-A-CAR (Continued) **S102423820**

Handle Regulated Hazmat: Y
Own Or Operate UST: Y
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 104878 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 211913
Tank Type: UNKNOWN
Additional Id: 001
Capacity Gallons: 8000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 31A
UST Monitor Method: DW TANK, DW PRESSURIZED PIPE W/ DRY TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 3.0 LLD; UDC W/ POSITIVE SHUT-OFF

UST Name: UNDERGROUND TANK 104878 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 211913
Tank Type: UNKNOWN
Additional Id: 002
Capacity Gallons: 8000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 31A
UST Monitor Method: DW TANK, DW PRESSURIZED PIPE W/ DRY TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 3.0 LLD; UDC W/ POSITIVE SHUT-OFF

UST Name: UNDERGROUND TANK 104878 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 211913
Tank Type: DOUBLE WALL
Additional Id: RT1237 UNLEADED, RT2711
Capacity Gallons: 12000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1987-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 30A
UST Monitor Method: DW TANK, DW PRESSURIZED PIPE W/ WET TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 3.0 LLD; UDC W/ POSITIVE SHUT-OFF

ALAMO RENT-A-CAR (Continued) **S102423820**

UST Name:	UNDERGROUND TANK 104878 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	211913
Tank Type:	DOUBLE WALL
Additional Id:	RT1237 DIESEL, RT2711
Capacity Gallons:	12000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	1987-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	30A
UST Monitor Method:	DW TANK, DW PRESSURIZED PIPE W/ WET TANK ANNULAR; POSITIVE SHUT-OFF & FAILSAFE, 3.0 LLD; UDC W/ POSITIVE SHUT-OFF

UST Name:	UNDERGROUND TANK 104878 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	211913
Tank Type:	DOUBLE WALL
Additional Id:	RT1237 WASTE OIL, RT2711
Capacity Gallons:	550
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	1987-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	GRAVITY
Monitor Code:	21
UST Monitor Method:	DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL

Active Permits:

Facility Id:	211913
Update Date:	11/02/2012
Case Number:	68476-34-6
Name:	DIESEL
Other Information:	UNDERGROUND TANK 104878 T004
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported

Facility Id:	211913
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 221 WASTE OIL & MIXED OIL
Other Information:	USED OIL
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	211913
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 888 USED OIL FILTERS

ALAMO RENT-A-CAR (Continued) **S102423820**

Other Information: USED OIL FILTERS & FUEL FILTERS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 211913
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 211913
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: REGULAR UNLEADED
Other Information: UNDERGROUND TANK 104878 T003
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 211913
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information: DIESEL FUEL MIX
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 211913
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information: OILY ABSORBENT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:

Facility Id: 211913
Update Date: 11/02/2012
Inspection Date: 05/05/2010
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 211913
Update Date: 11/02/2012
Inspection Date: 05/05/2010
Violation Code: 6HV3107
Violation: MONITORING PROCEDURES NOT AVAIL/TO HMD
Violation Citation: Monitoring procedures not available/complete/submitted to HMD 2632(b)&

ALAMO RENT-A-CAR (Continued) **S102423820**

(d), 2634(d), 2641(h), 2711(a)(9)
Activity: ACTIVE

Facility Id: 211913
Update Date: 11/02/2012
Inspection Date: 05/05/2010
Violation Code: 6HV3108
Violation: UST ER RESPONSE PLAN NOT COMPLETE/AVAIL
Violation Citation: Emergency Response Plan is not available/complete. 25289(b); 2632(b), 2634(e), 2641(h)
Activity: ACTIVE

Facility Id: 211913
Update Date: 11/02/2012
Inspection Date: 05/05/2010
Violation Code: 6HV3152
Violation: ALL MAINT/MONITOR RECORDS NOT AVAILABLE
Violation Citation: All maintenance/monitoring/calibration/ repair records not available. 25293; 2712 (b)
Activity: ACTIVE

SAN DIEGO CO. SAM:
Case Number: H04878-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - State Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 9/1/1988
Date Began: 3/7/1986

Case Number: H04878-002
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 5/28/1993
Date Began: 7/28/1992

Case Number: H04878-003
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - State Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 1/2/2008
Date Began: 11/9/2004

Q94 **ALAMO RENT A CAR** **CA HIST CORTESE** **S104746047**
SE **2942 KETTNER BL** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.402 mi.
2123 ft. **Site 5 of 5 in cluster Q**

Relative:
Higher

Actual:
97 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA

ALAMO RENT A CAR (Continued) **S104746047**

Reg Id: 9UT256

LUST:
Region: STATE
Global Id: T0607301306
Latitude: 32.7337968
Longitude: -117.1742071
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/01/1988
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT256
LOC Case Number: H04878-001
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607301306
Status: Open - Case Begin Date
Status Date: 03/07/1986

Global Id: T0607301306
Status: Completed - Case Closed
Status Date: 09/01/1988

Regulatory Activities:
Global Id: T0607301306
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607301306
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607301306
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607301306
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607300213
Latitude: 32.733655
Longitude: -117.173942

ALAMO RENT A CAR (Continued) **S104746047**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	05/28/1993
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT1372
LOC Case Number:	H04878-002
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T0607300213
Status:	Open - Case Begin Date
Status Date:	07/28/1992

Global Id:	T0607300213
Status:	Completed - Case Closed
Status Date:	05/28/1993

Regulatory Activities:

Global Id:	T0607300213
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0607300213
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

Global Id:	T0607300213
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0607300213
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0607300213
Action Type:	ENFORCEMENT
Date:	09/01/1992
Action:	Notice of Responsibility

Region:	STATE
Global Id:	T06019775828
Latitude:	32.733655
Longitude:	-117.173942
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed

ALAMO RENT A CAR (Continued) **S104746047**

Status Date:	01/02/2008
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	H04878-003
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T06019775828
Status:	Open - Case Begin Date
Status Date:	11/09/2004

Global Id:	T06019775828
Status:	Completed - Case Closed
Status Date:	01/02/2008

Regulatory Activities:

Global Id:	T06019775828
Action Type:	ENFORCEMENT
Date:	11/22/2004
Action:	Notice of Responsibility

Global Id:	T06019775828
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T06019775828
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T06019775828
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T06019775828
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

95
NW
1/4-1/2
0.409 mi.
2157 ft.

MISSION APARTMENTS
1847 HANCOCK STREET
SAN DIEGO, CA 92110

CA SLIC **S110770344**
N/A

Relative:
Lower

Actual:
63 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	03/15/2013
Global Id:	T10000002903
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H39766-001
Latitude:	32.742499
Longitude:	-117.185398
Case Type:	Cleanup Program Site
Case Worker:	EP
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Arsenic, Lead
Site History:	AMCAL Mission Fund, L.P. is redeveloping the Site into an affordable housing residential apartment complex with three levels of apartments on top of one level of subterranean parking. The residential units have been proposed to be constructed around the perimeter of the Site, with an open courtyard area in the center of the property that includes driveways for access to the parking, access for emergency vehicles, a tot lot, and an open community park space. As of March 9, 2011, the Site is currently used as a parking lot and contains one two-level commercial/office building adjacent to Hancock Street. SCS Engineers (SCS) prepared a Soil Management Plan (SMP) dated March 9, 2011, to address the potential constituents of concern (CoC) that may be encountered during the redevelopment process. The primary purpose of the SMP was to provide a methodology for the proper segregation, handling, and disposal/reuse of soil from the Site. The SMP proposed the excavation of approximately 7,800 cubic yards of soil to a subgrade elevation of approximately 23 feet above mean sea level (MSL). The SMP was approved by DEH on May 27, 2011, with a condition that two additional potholes be excavated in the approximate location of borings B11 and B12 due to the reported concentrations of lead that either did exceed or had the potential to exceed California hazardous waste criteria upon excavation and export from the Site. On June 3, 2011, DEH personnel completed a site visit and witnessed the on-site impacted soil evaluations performed by SCS, near borings B11 and B12 . On August 12, 2011, DEH concurred that SCS implemented the SMP as planned with soil mitigation measures being completed and approved the commencement of the foundation construction phase. The Property Closure Report (PCR) dated July 30, 2012 and prepared by SCS, documents the assessment of all known and suspected releases of hazardous substances/petroleum products and the mitigation of all known releases as required by the approved SMP. According to the PCR, the following is a summary of soil disposal. A total of 15,428.46 tons (approximately 9,950 cubic yards) of soil was excavated and exported off-site to different locations under the RWQCBs Conditional Waiver No. 8 for soil reuse. There were three deviations from the original SMP to the work actually completed in the PCR. On July 18, 2011, an underground storage tank (UST) was discovered in the northeast corner of the property. On August 3, 2011, the UST was

MISSION APARTMENTS (Continued) **S110770344**

closed by removal by Ace Excavating under DEH permit. A total of six soil samples were collected from below the UST and from the sides of the former UST excavation. All six samples were reported to have no detectable TPH concentrations. The excavated asphalt debris and soil was stockpiled onsite, then was characterized and disposed offsite. The samples were reported to have no detectable concentrations of VOCs, SVOCs, or PCBs. The metal concentrations were below hazardous waste criteria, and the TPH concentrations were within the waste discharge requirements for the Otay Landfill. A total of 51.94 tons of petroleum hydrocarbon-bearing soil and asphalt debris from the UST removal were disposed of at the Otay Landfill as non-hazardous waste. Approximately 150 cubic yards of olive-gray soil exhibiting an organic odor was discovered on top of a buried asphaltic concrete pad near pothole location T-B12. Six samples were collected from this stockpiled soil and analyzed for total lead by EPA Method 6010B. The samples ranged from 26.1 mg/kg to 48.1 mg/kg with an average concentration of 35.05 mg/kg. Approximately 225 tons of this soil was exported under the non-hazardous waste profile and sent off-site to the Otay Landfill. Once the Site was excavated to the subgrade, the geotechnical engineer for the project concluded that the upper 18 inches of soil below the subgrade elevation (i.e., from 21.5 to 23 feet MSL) needed to be cut and recompacted. Therefore, in tho

Click here to access the California GeoTracker records for this facility:

S96 **SAN DIEGO MUNICIPAL AIRPORT** **CA ENVIROSTOR** **S107737242**
SW **N/A**
1/4-1/2 **SAN DIEGO, CA**
0.423 mi.
2232 ft. **Site 1 of 2 in cluster S**

Relative:
Lower

Actual:
18 ft.

ENVIROSTOR:

Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Facility ID:	80000458
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	DERA
Latitude:	32.73361
Longitude:	-117.1836
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED

SAN DIEGO MUNICIPAL AIRPORT (Continued) **S107737242**

Alias Name: CA99799F560700
Alias Type: Federal Facility ID
Alias Name: J09CA0605
Alias Type: INPR
Alias Name: 80000458
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

R97 **EXECAIR MAINTENANCE INC.** **CA SAN DIEGO CO. SAM** **S107863208**
SSE **2904 PACIFIC HY** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.426 mi.
2250 ft. **Site 3 of 5 in cluster R**

Relative:
Lower

Actual:
32 ft.

SAN DIEGO CO. SAM:
Case Number: H30614-002
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 3/12/2007
Date Began: Not reported

Case Number: H30614-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 6/7/1995
Date Began: 2/13/1995

R98 **JIMSAIR AVIATION SERVICES INC** **RCRA NonGen / NLR** **1000376666**
SSE **LINDBERGH FIELD** **CA LUST** **CAD982027435**
1/4-1/2 **SAN DIEGO, CA 92101** **CA UST**
0.426 mi. **CA HIST UST**
2250 ft. **Site 4 of 5 in cluster R** **CA SWEEPS UST**
CA HAZNET
Relative: **CA EMI**
Lower

Actual: **32 ft.**

RCRA NonGen / NLR:

Date form received by agency:	01/29/1996
Facility name:	JIMSAIR AVIATION SERVICES INC
Facility address:	LINDBERGH FIELD SAN DIEGO, CA 92101
EPA ID:	CAD982027435
Contact:	PHIL BRACAMONTE
Contact address:	2904 PACIFIC HWY SAN DIEGO, CA 92101
Contact country:	US
Contact telephone:	(619) 298-7704
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	PORT OF SAN DIEGO
Owner/operator address:	2904 PACIFIC HWY SAN DIEGO, CA 92101
Owner/operator country:	Not reported
Owner/operator telephone:	(619) 298-7704
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT2991
Local Case: H30614-001
Substance: Gasoline
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 02/02/1995
Date Stopped: 02/02/1995
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 02/21/1995
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 02/13/1995
Enforce Date: Not reported
Closed Date: 6/7/95
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.22
GW Depth: Not reported
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 3B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

UST:
Facility ID: H10600
Latitude: 32.73279
Longitude: -117.17563
Permitting AgencySAN DIEGO COUNTY

HIST UST:
Region: STATE
Facility ID: 00000059143
Facility Type: Other
Other Type: AVIATION

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Total Tanks: 0011
Contact Name: MIKE BRACAMONTE
Telephone: 6192987704
Owner Name: JIMSAIR AVIATION SERVICES, INC
Owner Address: 2904 PACIFIC HWY.
Owner City,St,Zip: SAN DIEGO, CA 92101

Tank Num: 001
Container Num: 1
Year Installed: 1970
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1970
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 3
Year Installed: 1970
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None

Tank Num: 004
Container Num: 1
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 005
Container Num: 2
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 006
Container Num: 3
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 007
Container Num: 4
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 008
Container Num: 5
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 009
Container Num: 6
Year Installed: 1981
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 010
Container Num: 7
Year Installed: 1981
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: None

Tank Num: 011
Container Num: 8
Year Installed: 1981
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

SWEEPS UST:
Status: Active
Comp Number: 10600
Number: 9
Board Of Equalization: 44-018357
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-010600-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 1

Status: Not reported
Comp Number: 10600
Number: Not reported
Board Of Equalization: 44-018357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-010600-000002
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: WASTE
Content: Not reported
Number Of Tanks: 2

Status: Not reported
Comp Number: 10600
Number: Not reported
Board Of Equalization: 44-018357
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-010600-000003
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

HAZNET:
Year: 2006
Gepaid: CAD982027435
Contact: PHIL BRACAMONTE
Telephone: 6192987704
Mailing Name: Not reported
Mailing Address: 2904 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921010000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Tons: 0.5
Facility County: San Diego

Year: 2006
Gepaid: CAD982027435
Contact: PHIL BRACAMONTE
Telephone: 6192987704
Mailing Name: Not reported
Mailing Address: 2904 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921010000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.3
Facility County: San Diego

Year: 2005
Gepaid: CAD982027435
Contact: PHIL BRACAMONTE
Telephone: 6192987704
Mailing Name: Not reported
Mailing Address: 2904 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921010000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 1
Facility County: San Diego

Year: 2004
Gepaid: CAD982027435
Contact: PHIL BRACAMONTE
Telephone: 6192987704
Mailing Name: Not reported
Mailing Address: 2904 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921010000
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 0.7
Facility County: San Diego

Year: 2003
Gepaid: CAD982027435
Contact: PHIL BRACAMONTE
Telephone: 6192987704
Mailing Name: Not reported
Mailing Address: 2904 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921010000
Gen County: Not reported
TSD EPA ID: CAD982444481

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: 1.95
Facility County: San Diego

Click this hyperlink while viewing on your computer to access
10 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	2000
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2003
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2004
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.065102922
Reactive Organic Gases Tons/Yr:	0.061595499
Carbon Monoxide Emissions Tons/Yr:	0.06029208
NOX - Oxides of Nitrogen Tons/Yr:	0.23770269
SOX - Oxides of Sulphur Tons/Yr:	0.00257622
Particulate Matter Tons/Yr:	0.01650195
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.01650195
Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.065102922
Reactive Organic Gases Tons/Yr:	.061595499
Carbon Monoxide Emissions Tons/Yr:	.06029208
NOX - Oxides of Nitrogen Tons/Yr:	.23770269
SOX - Oxides of Sulphur Tons/Yr:	.00257622
Particulate Matter Tons/Yr:	.0168812814757396840
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.01650195
Year:	2006
County Code:	37

JIMSAIR AVIATION SERVICES INC (Continued) **1000376666**

Air Basin:	SD
Facility ID:	1886
Air District Name:	SD
SIC Code:	4581
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.065102922
Reactive Organic Gases Tons/Yr:	.061595499
Carbon Monoxide Emissions Tons/Yr:	.06029208
NOX - Oxides of Nitrogen Tons/Yr:	.23770269
SOX - Oxides of Sulphur Tons/Yr:	.00257622
Particulate Matter Tons/Yr:	.0168812814757396840
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.01650195

R99 **LANDMARK AVIATION** **CA NPDES** **S100728097**
SSE **2904 PACIFIC HWY** **CA HIST CORTESE** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101** **CA LUST**
0.426 mi. **CA SLIC**
2250 ft. **Site 5 of 5 in cluster R** **CA San Diego Co. HMMD**

Relative:
Lower

Actual:
32 ft.

NPDES:

Npdes Number:	CAS000002
Facility Status:	Active
Agency Id:	0
Region:	9
Regulatory Measure Id:	436945
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	9 37C367052
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	07/09/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	landmark aviation
Discharge Address:	2904 Pacific Hwy
Discharge City:	san diego
Discharge State:	California
Discharge Zip:	92101

HIST CORTESE:

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT2991

LUST:

Region:	STATE
Global Id:	T0607301758
Latitude:	32.7327074
Longitude:	-117.1754917
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/07/1995
Lead Agency:	SAN DIEGO COUNTY LOP

LANDMARK AVIATION (Continued) **S100728097**

Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT2991
LOC Case Number:	H30614-001
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T0607301758
Status:	Open - Case Begin Date
Status Date:	02/02/1995

Global Id:	T0607301758
Status:	Completed - Case Closed
Status Date:	06/07/1995

Regulatory Activities:

Global Id:	T0607301758
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0607301758
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0607301758
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

Global Id:	T0607301758
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	03/12/2007
Global Id:	T06019793192
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H30614-002
Latitude:	32.732621
Longitude:	-117.175384
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Not reported

LANDMARK AVIATION (Continued) **S100728097**

Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SAN DIEGO CO. HMMD:

Facility Id:	110600
Business Type:	6HK29
EPA Id Number:	CAL000031924
APN:	DEH-110600
Last HMMD Inspection:	04/17/2012
Permit Status:	OPEN
Permit Expiration:	02/28/2013
Facility Owner:	JIMSAIR AVIATION SERVICES INC
Facility Address:	2904 PACIFIC HY
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92101
UST Owner:	JIMSAIR AVIATION SERVICES INC
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Y
Subject To APSA:	Y
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 110600 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	110600
Tank Type:	UNKNOWN
Additional Id:	1 UNLEADED
Capacity Gallons:	10000
UST Contents:	REGULAR UNLEADED
Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	1995-02-02 00:00:00
Year Installed:	1970-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name:	UNDERGROUND TANK 110600 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	110600
Tank Type:	UNKNOWN
Additional Id:	2
Capacity Gallons:	1000
UST Contents:	Not reported
Other Content Info:	WASTE OIL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1970-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported

LANDMARK AVIATION (Continued) **S100728097**

Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 110600 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	110600
Tank Type:	UNKNOWN
Additional Id:	3
Capacity Gallons:	500
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1970-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 110600 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	110600
Tank Type:	DOUBLE WALL
Additional Id:	NT1803/ RT2374, RT3646, RT5102
Capacity Gallons:	15000
UST Contents:	AVIATION FUEL
Other Content Info:	AV-GAS
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	1995-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	SUCTION
Monitor Code:	21
UST Monitor Method:	DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL.

Active Permits:

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	JP4 JET FUEL
Other Information:	TANK TRUCK
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported
Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 213 HYDROCARBON SOLVENTS
Other Information:	PARTS CLEANER
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

LANDMARK AVIATION (Continued) **S100728097**

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information:	WASTE FUEL
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	100 LOW LEAD GASOLINE
Other Information:	AVGAS
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	68476-34-6
Name:	DIESEL FUEL
Other Information:	DIESEL #2 RED DYE
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 888 USED OIL FILTERS
Other Information:	USED OIL FILTERS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported
Name:	ETHYLENE GLYCOL
Other Information:	ANTIFREEZE/ COOLANT
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	CHRONIC

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	8006-61-9
Name:	UNLEADED GASOLINE
Other Information:	AUTOMOTIVE UNLEADED GAS
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported

Facility Id:	110600
Update Date:	11/02/2012
Case Number:	Not reported

LANDMARK AVIATION (Continued) **S100728097**

Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: WASTE OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 110600
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: CONTAM ABSRBT JT FL FLTRS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 110600
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 110600
Update Date: 11/02/2012
Inspection Date: 03/20/2007
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 110600
Update Date: 11/02/2012
Inspection Date: 03/24/2010
Violation Code: 6HV3114
Violation: 2NDRY CONT TEST NOT DONE/SENT TO CUPA
Violation Citation: Secondary containment testing not done at 6/36 months and/or not sent to CUPA within 30 days. 25284.1; 2637(a)&(e)
Activity: ACTIVE

Facility Id: 110600
Update Date: 11/02/2012
Inspection Date: 03/20/2007
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: ACTIVE

Facility Id: 110600
Update Date: 11/02/2012
Inspection Date: 03/14/2006
Violation Code: 6HV3252
Violation: AUDIO&VISUAL ALARMS NOT WORKING OK

LANDMARK AVIATION (Continued) **S100728097**

Violation Citation:	All audible and/or visual alarms not functioning properly. 2632(c)(2)(B), 2636(f)(1)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/14/2006
Violation Code:	6HV1006
Violation:	HMBP: INVENTORY INADEQUATE
Violation Citation:	Business Plan inventory does not list all hazardous materials on site in disclosable quantities. HSC 25504(a),25503.5
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	01/26/2004
Violation Code:	6HV1009
Violation:	HMBP: INADEQUATE SITE MAP
Violation Citation:	Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/24/2010
Violation Code:	6HV3255
Violation:	SPILL CONTAIN. NOT DRY/IN GOOD CONDITION
Violation Citation:	Spill container is not in good condition and/or liquid free. 2635(b)(1), 2636(a)(1)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/20/2007
Violation Code:	6HV3191
Violation:	NO D.O. CERT/NOTIFICATION/CHANGE
Violation Citation:	Designated Operator Notification/Change form not submitted and/or D.O. not ICC certified. 2715 (a)(b)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	01/26/2004
Violation Code:	6HV0202
Violation:	WASTE CONTAINER W/O LABELS
Violation Citation:	Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/14/2006
Violation Code:	6HV3105
Violation:	NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation:	Current evidence of financial responsibility not available.

LANDMARK AVIATION (Continued) **S100728097**

	25292.2(a), 25299.33; 2809
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/20/2007
Violation Code:	6HV0138
Violation:	NO TSDF SIGNED MANIFEST ONSITE
Violation Citation:	Generator has not maintained the required signed copy of the hazardous waste manifest from the TSD facility on site for review. CCR 66262.40(a)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/20/2007
Violation Code:	6HV3192
Violation:	NO D.O INSPECTION/INCOMPL;NO REPORTS
Violation Citation:	Designated Operator monthly inspection not conducted or incomplete; or DO inspection reports not onsite 2715 (c)(d)(e)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/20/2007
Violation Code:	6HV0407
Violation:	EMPLOYEE TRAINING NOT ADEQUATE
Violation Citation:	Employee training program for small quantity generator of hazardous waste is inadequate. CFR 262.34(d)(5)(iii)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/20/2007
Violation Code:	6HV0135
Violation:	MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation:	Hazardous waste manifests/receipts for 3 years are not maintained onsite to document proper disposal of hazardous waste. CCR 66262.40(a) & 25160.2(b)(3)
Activity:	ACTIVE
Facility Id:	110600
Update Date:	11/02/2012
Inspection Date:	03/25/2011
Violation Code:	6HV3105
Violation:	NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation:	Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity:	ACTIVE
Facility Id:	215216
Business Type:	6HK52
EPA Id Number:	CAL000346835
APN:	451-621-06-00
Last HMMD Inspection:	10/10/2010
Permit Status:	OPEN

LANDMARK AVIATION (Continued) **S100728097**

Permit Expiration:	08/31/2013
Facility Owner:	CERTIFIED AVIATION SERVICES, LLC
Facility Address:	8659 HAVEN AV #100
Facility City:	RANCHO CUCAMANGA
Facility State:	CA
Facility Zip:	91730
UST Owner:	Not reported
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Not reported
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

Active Permits:

Facility Id:	215216
Update Date:	11/02/2012
Case Number:	7727-37-9
Name:	NITROGEN GAS
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	215216
Update Date:	11/02/2012
Case Number:	7782-44-7
Name:	OXYGEN GAS
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Violations Active Permits:

Facility Id:	215216
Update Date:	11/02/2012
Inspection Date:	10/10/2010
Violation Code:	6HV1001
Violation:	NO UPF PERMIT FOR HAZMATS
Violation Citation:	A Unified Program Facility permit has not been obtained for hazardous materials. 68.905
Activity:	ACTIVE

Facility Id:	215216
Update Date:	11/02/2012
Inspection Date:	10/10/2010
Violation Code:	6HV1002
Violation:	HMBP NOT ESTABISHED/IMPLEMENTED.
Violation Citation:	Hazardous materials handler has not established/implemented a business plan. HSC 25503.5(a)
Activity:	ACTIVE

S100 **CAMP CONSAIR** **CA ENVIROSTOR** **S107736015**
SSW **N/A**
1/4-1/2 **SAN DIEGO, CA**
0.427 mi.
2252 ft. **Site 2 of 2 in cluster S**

Relative:
Lower

Actual:
15 ft.

ENVIROSTOR:

Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Facility ID:	80000906
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	DERA
Latitude:	32.73333
Longitude:	-117.1833
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799FA04800
Alias Type:	Federal Facility ID
Alias Name:	J09CA7225
Alias Type:	INPR
Alias Name:	80000906
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	04/28/1998
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

T101 **JONES FAMILY TRUST** **CA HIST CORTESE** **S100731190**
SSE **1411 PALM** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101** **CA SLIC**
0.434 mi. **CA SAN DIEGO CO. SAM**
2294 ft. **Site 1 of 3 in cluster T**

Relative:
Lower

Actual:
58 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3239

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT3239
Local Case: H30204-001
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Not reported
How Stopped: Not reported
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 06/13/1995
Date Stopped: 06/13/1995
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 07/19/1995
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 06/13/1995
Enforce Date: 7/24/95
Closed Date: 9/16/96
Enforce Type: SEL
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 12’
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 03/30/2000
Global Id: T0608150364
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H19954-001

JONES FAMILY TRUST (Continued) **S100731190**

Latitude:	32.732317
Longitude:	-117.174334
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SAN DIEGO CO. SAM:

Case Number:	H19954-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**Private - VAP**
Facility Type:	Complaint
Facility Status:	Closed Case
Date:	3/30/2000
Date Began:	11/4/1999

U102 **AMERICAN VETERANS THRIFT STORE** **CA HIST CORTESE** **S102441064**
WNW **3441 SUTHERLAND ST** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92110** **CA SLIC**
0.440 mi. **CA SWEEPS UST**
2323 ft. **Site 1 of 3 in cluster U** **CA San Diego Co. HMMD**
CA SAN DIEGO CO. SAM

Relative:
Lower

Actual:
22 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT319

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT319
Local Case:	H03815-001
Substance:	0
Qty Leaked:	0
Abate Method:	Not reported
Local Agency:	San Diego
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Tank
Cause:	Corrosion
Lead Agency:	Local Agency
Case Type:	Soil only
Date Found:	11/05/1986
Date Stopped:	11/05/1986
Confirm Date:	/ /
Submit Workplan:	Not reported
Prelim Assess:	03/13/1987
Desc Pollution:	Not reported
Remed Plan:	/ /

AMERICAN VETERANS THRIFT STORE (Continued) **S102441064**

Remed Action: 8/21/87
Began Monitor: Not reported
Release Date: 11/10/1986
Enforce Date: Not reported
Closed Date: 8/31/87
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 15'
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 08/27/1987
Global Id: T0607301953
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H03815-001
Latitude: 32.741862
Longitude: -117.185696
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT319
File Location: Local Agency
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SWEEPS UST:
Status: Active
Comp Number: 3815
Number: 9
Board Of Equalization: 44-021956
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

AMERICAN VETERANS THRIFT STORE (Continued) **S102441064**

SAN DIEGO CO. HMMD:

Facility Id:	103815
Business Type:	6HK42
EPA Id Number:	CAL000173152
APN:	451-590-52-00
Last HMMD Inspection:	09/19/2012
Permit Status:	OPEN
Permit Expiration:	05/31/2013
Facility Owner:	AMERICAN VETERANS THRIFT STORE
Facility Address:	3441 SUTHERLAND ST
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92110-
UST Owner:	SAN DIEGO MODERN FURNITURE CO
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 103815 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	103815
Tank Type:	UNKNOWN
Additional Id:	1
Capacity Gallons:	1000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Active Permits:

Facility Id:	103815
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 461 PAINT SLUDGE
Other Information:	PAINT WASTE
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	103815
Update Date:	11/02/2012
Case Number:	Not reported
Name:	PROPANE GAS- CYLINDER (1 GALLON OF PROPANE = 37 CF)
Other Information:	Not reported
Material Waste:	Not reported
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

AMERICAN VETERANS THRIFT STORE (Continued) **S102441064**

Facility Id:	103815
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 221 WASTE OIL & MIXED OIL
Other Information:	USED OIL
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Violations Active Permits:

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	09/19/2012
Violation Code:	6HV0227
Violation:	HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation:	Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity:	ACTIVE

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	02/03/2009
Violation Code:	6HV0225
Violation:	ACCUMULATED HW>180 OR >270 DAYS
Violation Citation:	Accumulated waste too long (>180 or 270 days). 66262.34(d), CFR 262.34(e)&(f), &/or 25201(a) [>90 days for AHW waste]
Activity:	ACTIVE

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	02/03/2009
Violation Code:	6HV0226
Violation:	HW NOT ACCUMULATED IN TANK/CONTAINER
Violation Citation:	Did not accumulate waste in container or tank. 66262.34 (d)(2)
Activity:	ACTIVE

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	02/03/2009
Violation Code:	6HV0229
Violation:	HW CONTAINERS NOT INSPECTED WEEKLY
Violation Citation:	Failed to conduct weekly inspections. CFR 265.174
Activity:	ACTIVE

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	02/03/2009
Violation Code:	6HV0407
Violation:	EMPLOYEE TRAINING NOT ADEQUATE
Violation Citation:	Employee training program for small quantity generator of hazardous waste is inadequate. CFR 262.34(d)(5)(iii)
Activity:	ACTIVE

Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	09/19/2012
Violation Code:	6HV0135

AMERICAN VETERANS THRIFT STORE (Continued) **S102441064**

Violation:	MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation:	Hazardous waste manifests/receipts for 3 years are not maintained onsite to document proper disposal of hazardous waste. CCR 66262.40(a) & 25160.2(b)(3)
Activity:	ACTIVE
Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	01/24/2007
Violation Code:	6HV0227
Violation:	HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation:	Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity:	ACTIVE
Facility Id:	103815
Update Date:	11/02/2012
Inspection Date:	02/03/2009
Violation Code:	6HV0227
Violation:	HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation:	Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity:	ACTIVE

SAN DIEGO CO. SAM:

Case Number:	H03815-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**Private - VAP**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	8/27/1987
Date Began:	11/10/1986

U103 **GRAYLINE/SAN DIEGO** **CA LUST** **S103472131**
WNW **3442 SUTHERLAND ST** **CA SWEEPS UST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92110**
0.442 mi.
2333 ft. **Site 2 of 3 in cluster U**

Relative:
Lower

Actual:
22 ft.

LUST REG 9:

Region:	9
Status:	Preliminary site assessment workplan submitted
Case Number:	9UT3761
Local Case:	H31269-001
Substance:	Diesel
Qty Leaked:	0
Abate Method:	Not reported
Local Agency:	San Diego
How Found:	Tank Closure
How Stopped:	Close Tank
Source:	Unknown
Cause:	Unknown
Lead Agency:	Local Agency
Case Type:	Soil only
Date Found:	08/26/1998
Date Stopped:	08/26/1998

GRAYLINE/SAN DIEGO (Continued) **S103472131**

Confirm Date: 10/30/1998
Submit Workplan: 11/12/98
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 10/21/1998
Enforce Date: Not reported
Closed Date: Not reported
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 15'
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2A
File Dispn: Administratively opened on database, however no file physically exists
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SWEEPS UST:
Status: Active
Comp Number: 31269
Number: 9
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-031269-000001
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: 2

Status: Active
Comp Number: 31269
Number: 9
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-031269-000002
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

U104 **ALL COUNTY ENGINE SYSTEMS INC** **CA HIST CORTESE** **S102863500**
WNW **3442 SUTHERLAND ST** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92110** **CA San Diego Co. HMMD**
0.442 mi. **CA SAN DIEGO CO. SAM**
2333 ft. **Site 3 of 3 in cluster U**

Relative:
Lower

Actual:
22 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3761

LUST:
Region: STATE
Global Id: T0607302528
Latitude: 32.7418809
Longitude: -117.1862293
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/05/2001
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT3761
LOC Case Number: H31269-001
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607302528
Status: Open - Case Begin Date
Status Date: 08/26/1998

Global Id: T0607302528
Status: Completed - Case Closed
Status Date: 10/05/2001

Regulatory Activities:
Global Id: T0607302528
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607302528
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607302528
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607302528
Action Type: Other

ALL COUNTY ENGINE SYSTEMS INC (Continued) **S102863500**

Date: 01/01/1950
Action: Leak Reported

SAN DIEGO CO. HMMD:
Facility Id: 129101
Business Type: 6HK26
EPA Id Number: CAL000056601
APN: 450-632-10-00
Last HMMD Inspection: 11/24/1992
Permit Status: INAC
Permit Expiration: 05/31/1993
Facility Owner: ALL COUNTY ENGINE INC.
Facility Address: 3442 SUTHERLAND ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92110-
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Facility Id: 216684
Business Type: 6HK26
EPA Id Number: CAL000374683
APN: 450-632-10-00
Last HMMD Inspection: 08/10/2012
Permit Status: OPEN
Permit Expiration: 11/30/2012
Facility Owner: CENTURY PARK CAPITAL PARTNERS
Facility Address: 3442 SUTHERLAND ST
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92110
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Active Permits:
Facility Id: 216684
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information: OILY ABSORBENT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012

ALL COUNTY ENGINE SYSTEMS INC (Continued) **S102863500**

Case Number: Not reported
Name: ANTIFREEZE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 342 ORGANIC LIQUIDS W/METALS
Other Information: USED ANTIFREEZE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: 74-86-2
Name: ACETYLENE GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 888 USED OIL FILTERS
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 444 USED BATTERIES
Other Information: Not reported

ALL COUNTY ENGINE SYSTEMS INC (Continued) **S102863500**

Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 216684
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

SAN DIEGO CO. SAM:
Case Number: H31269-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 2/16/2010
Date Began: 8/26/1998

T105 **JONES FAMILY TRUST** **CA LUST** **S106916185**
SE **NONE PALM AV** **N/A**
1/4-1/2 **SAN DIEGO, CA 92101**
0.442 mi.
2334 ft. **Site 2 of 3 in cluster T**

Relative:
Lower

Actual:
63 ft.

LUST:
Region: STATE
Global Id: T0607301992
Latitude: 32.7330308
Longitude: -117.1743221
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/19/1996
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT3239
LOC Case Number: H30204-001
File Location: Local Agency
Potential Media Affect: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607301992
Status: Open - Case Begin Date
Status Date: 06/13/1995

Global Id: T0607301992
Status: Completed - Case Closed
Status Date: 09/19/1996

JONES FAMILY TRUST (Continued) **S106916185**

Regulatory Activities:
Global Id: T0607301992
Action Type: ENFORCEMENT
Date: 07/24/1995
Action: Notice of Responsibility

T106 **RYAN AIRCRAFT CO** **CA ENVIROSTOR** **S107737180**
SE **N/A**
1/4-1/2 **SAN DIEGO, CA**
0.474 mi.
2501 ft. **Site 3 of 3 in cluster T**

Relative:
Higher

Actual:
76 ft.

ENVIROSTOR:
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Facility ID: 80000903
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 07/01/2005
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: DERA
Latitude: 32.73277
Longitude: -117.1738
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799FA04500
Alias Type: Federal Facility ID
Alias Name: J09CA7222
Alias Type: INPR
Alias Name: 80000903
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inventory Project Report (INPR)
Completed Date: 09/21/1999
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

RYAN AIRCRAFT CO (Continued) **S107737180**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

V107 **7-ELEVEN FOOD STORE #19974** **CA San Diego Co. HMMD** **S104749685**
ESE **3070 REYNARD WY** **CA EMI** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103** **CA SAN DIEGO CO. SAM**
0.496 mi.
2621 ft. **Site 1 of 2 in cluster V**

Relative:
Higher

Actual:
100 ft.

SAN DIEGO CO. HMMD:
Facility Id: 121085
Business Type: 6HK28
EPA Id Number: CAD981406937
APN: 451-580-13-00
Last HMMD Inspection: 07/10/2003
Permit Status: INAC
Permit Expiration: 06/30/2004
Facility Owner: 7-ELEVEN, INC.
Facility Address: P O BOX 711
Facility City: DALLAS
Facility State: TX
Facility Zip: 75221-
UST Owner: 7-ELEVEN, INC.
Handle Regulated Hazmat: Y
Own Or Operate UST: Y
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 121085 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121085
Tank Type: SINGLE WALL
Additional Id: RT1389 UNLEADED RT2304/AT4989
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 2004-02-02 00:00:00
Year Installed: 1977-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 15
UST Monitor Method: SW TANK DW PRESSURE PIPE W/ SHUTOFF AND ALARM ON LLD AND CERTIFIED ATG: IN-TANK TEST MONTHLY

UST Name: UNDERGROUND TANK 121085 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 121085
Tank Type: SINGLE WALL
Additional Id: RT1389 UNLEADED RT2304/AT4989
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED

7-ELEVEN FOOD STORE #19974 (Continued) **S104749685**

Other Content Info:	REGULAR UNLEADED
Reg Status:	REMOVED
Remove Close Date:	2004-02-02 00:00:00
Year Installed:	1977-01-01 00:00:00
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	15
UST Monitor Method:	SW TANK DW PRESSURE PIPE W/ SHUTOFF AND ALARM ON LLD AND CERTIFIED ATG: IN-TANK TEST MONTHLY
UST Name:	UNDERGROUND TANK 121085 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	121085
Tank Type:	SINGLE WALL
Additional Id:	RT1389 UNLEADED RT2304/AT4989
Capacity Gallons:	6000
UST Contents:	PREMIUM UNLEADED
Other Content Info:	PREMIUM UNLEADED
Reg Status:	REMOVED
Remove Close Date:	2004-02-02 00:00:00
Year Installed:	Not reported
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	15
UST Monitor Method:	SW TANK DW PRESSURE PIPE W/ SHUTOFF AND ALARM ON LLD AND CERTIFIED ATG: IN-TANK TEST MONTHLY

Violations Inactive Permits:

Facility Id:	121085
Update Date:	11/02/2012
Inspection Date:	07/10/2003
Violation Code:	6HV3152
Violation:	ALL MAINT/MONITOR RECORDS NOT AVAILABLE
Violation Citation:	All maintenance/monitoring/calibration/ repair records not available. 25293; 2712 (b)
Activity:	Inactive Permit
Facility Id:	121085
Update Date:	11/02/2012
Inspection Date:	07/10/2003
Violation Code:	6HV0401
Violation:	TRAINING RECORDS UNAVAILABLE
Violation Citation:	Personnel training records are not maintained to document compliance with requirements for current and former employees. CCR 66265.16(d)&(e)
Activity:	Inactive Permit

EMI:

Year:	2003
County Code:	37
Air Basin:	SD
Facility ID:	3997
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD

7-ELEVEN FOOD STORE #19974 (Continued) **S104749685**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	37
Air Basin:	SD
Facility ID:	3997
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.3238074
Reactive Organic Gases Tons/Yr:	0.3238074
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	3997
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3238074
Reactive Organic Gases Tons/Yr:	.3238074
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2006
County Code:	37
Air Basin:	SD
Facility ID:	3997
Air District Name:	SD
SIC Code:	5541
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.3238074
Reactive Organic Gases Tons/Yr:	.3238074
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0

7-ELEVEN FOOD STORE #19974 (Continued) **S104749685**

SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

SAN DIEGO CO. SAM:
Case Number: H21085-001
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Closed Case
Date: 2/17/1999
Date Began: 6/4/1991

V108 **7-ELEVEN FOOD STORE #19974** **CA HIST CORTESE** **1000281957**
ESE **3070 REYNARD WY** **CA LUST** **N/A**
1/4-1/2 **SAN DIEGO, CA 92103** **CA HIST UST**
0.496 mi. **CA San Diego Co. HMMD**
2621 ft. **Site 2 of 2 in cluster V**

Relative:
Higher

Actual:
100 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1974

LUST:
Region: STATE
Global Id: T0607300749
Latitude: 32.737373
Longitude: -117.170199
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 02/17/1999
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1974
LOC Case Number: H21085-001
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300749
Status: Open - Case Begin Date
Status Date: 06/04/1991

Global Id: T0607300749
Status: Completed - Case Closed
Status Date: 02/17/1999

Regulatory Activities:
Global Id: T0607300749
Action Type: ENFORCEMENT

7-ELEVEN FOOD STORE #19974 (Continued) **1000281957**

Date: 06/27/1991
Action: Notice of Responsibility

Global Id: T0607300749
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300749
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300749
Action Type: ENFORCEMENT
Date: 02/10/1999
Action: Closure/No Further Action Letter - #H21085-001

Global Id: T0607300749
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300749
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT1974
Local Case: H21085-001
Substance: Unleaded Gasoline
Qty Leaked: 0
Abate Method: FPVE
Local Agency: San Diego
How Found: Subsurface Monitoring
How Stopped: Repair Piping
Source: Piping
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 06/10/1991
Date Stopped: 06/10/1991
Confirm Date: 06/25/1991
Submit Workplan: 7/1/91
Prelim Assess: 05/22/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 2/7/94
Began Monitor: Not reported
Release Date: 06/10/1991
Enforce Date: Not reported
Closed Date: 2/17/99
Enforce Type: Not reported

7-ELEVEN FOOD STORE #19974 (Continued) **1000281957**

Pilot Program: LOP
Basin Number: 908.21
GW Depth: 22.3
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 1B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

HIST UST:
Region: STATE
Facility ID: 00000010215
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: ROBERT MELOY
Telephone: 6192787861
Owner Name: THE SOUTHLAND CORPORATION
Owner Address: 7839 UNIVERSITY AVENUE
Owner City,St,Zip: LA MESA, CA 92041

Tank Num: 001
Container Num: 19974-1
Year Installed: 1977
Tank Capacity: 00005737
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 0.25 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 19974-2
Year Installed: 1977
Tank Capacity: 00009528
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 0.25 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 19974-3
Year Installed: Not reported
Tank Capacity: 00009528
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 0.25 inches
Leak Detection: Stock Inventor

SAN DIEGO CO. HMMD:
Facility Id: 215994
Business Type: 6HK28
EPA Id Number: Not reported
APN: 451-580-13-00
Last HMMD Inspection: 08/02/2012

7-ELEVEN FOOD STORE #19974 (Continued) **1000281957**

Permit Status:	EXPR
Permit Expiration:	08/31/2012
Facility Owner:	CLOVERLEAF MARKET, INC.
Facility Address:	3070 REYNARD WY
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92103
UST Owner:	CLOVERLEAF MARKET, INC
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Y
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Not reported
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 215994 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	215994
Tank Type:	DOUBLE WALL
Additional Id:	NT2530
Capacity Gallons:	11000
UST Contents:	REGULAR UNLEADED
Other Content Info:	Not reported
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	Not reported
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	43
UST Monitor Method:	DW TANK DW PRESSURIZED PIPE W INTERSTITIAL HYDROSTATIC SUMPS & UDCS; CONSTANT VACUUM FOR TANK AND PIPING WITH POSITIVE SHUT-OFF & ALA

UST Name:	UNDERGROUND TANK 215994 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	215994
Tank Type:	DOUBLE WALL
Additional Id:	NT2530
Capacity Gallons:	4000
UST Contents:	PREMIUM UNLEADED
Other Content Info:	Not reported
Reg Status:	ACTIVE
Remove Close Date:	Not reported
Year Installed:	Not reported
Pipe Type:	DOUBLE WALL
Delivery System:	PRESSURE
Monitor Code:	43
UST Monitor Method:	DW TANK DW PRESSURIZED PIPE W INTERSTITIAL HYDROSTATIC SUMPS & UDCS; CONSTANT VACUUM FOR TANK AND PIPING WITH POSITIVE SHUT-OFF & ALA

Active Permits:

Facility Id:	215994
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information:	WATER & FUEL
Material Waste:	Waste

7-ELEVEN FOOD STORE #19974 (Continued) **1000281957**

Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	215994
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information:	FUEL FILTERS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

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109 **NEYENESCH PRINTERS INC** **CA NPDES S109282111**
SE **2750 KETTNER BL** **CA EMI N/A**
1/2-1 **SAN DIEGO, CA 92101** **CA ENVIROSTOR**
0.517 mi.
2732 ft.

Relative:
Higher

Actual:
91 ft.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	9
Regulatory Measure Id:	218960
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	9 37I018869
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/23/2004
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Neyenesch Printers
Discharge Address:	2750 Kettner Blvd
Discharge City:	San Diego
Discharge State:	California
Discharge Zip:	92101

EMI:

Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	558
Air District Name:	SD
SIC Code:	2752
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.38
Reactive Organic Gases Tons/Yr:	8.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

NEYENESCH PRINTERS INC (Continued) **S109282111**

Year:	2006
County Code:	37
Air Basin:	SD
Facility ID:	558
Air District Name:	SD
SIC Code:	2752
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.38
Reactive Organic Gases Tons/Yr:	8.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2007
County Code:	37
Air Basin:	SD
Facility ID:	558
Air District Name:	SD
SIC Code:	2752
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.38
Reactive Organic Gases Tons/Yr:	8.26
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2008
County Code:	37
Air Basin:	SD
Facility ID:	558
Air District Name:	SD
SIC Code:	2752
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.58
Reactive Organic Gases Tons/Yr:	7.58
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED

NEYENESCH PRINTERS INC (Continued) **S109282111**

Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Mmonroy
Division Branch:	Cleanup Cypress
Facility ID:	37370015
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	* CERC2
Status:	No Further Action
Status Date:	06/28/1988
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	32.73219
Longitude:	-117.1733
APN:	NONE SPECIFIED
Past Use:	PHOTOGRAPHIC PROCESSING
Potential COC:	Silver
Confirmed COC:	Silver, 30021-NO
Potential Description:	SOIL
Alias Name:	37370015
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	11/17/1994
Comments:	CALSITES VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	06/28/1988
Comments:	PRELIM ASSESS DONE THERE APPEAR TO BE NO PROBLEM AT THE AT THIS TIME.RUNOFF NOTED IN 1983 IS FROM ROOF DRAIN. LESS THAN 55 GALLONS TOTAL WASTE GENERATED PER QUARTER.NO TARGET POPULATION NEAR THE SITE. NO FURTHER ACTION

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	06/02/1987
Comments:	SITE SCREENING DONE NEED TO INVESTIGATE THE BLACK SLUDGE THAT DRAINED TO THE RR

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	10/15/1982
Comments:	FACILITY IDENTIFIED ID VIA 45 PHONE BOOK

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported

NEYENESCH PRINTERS INC (Continued) **S109282111**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

W110 **SAN DIEGO INTERNAT'L AIRPORT** **CA Toxic Pits** **S100676406**
WSW **LINDBERGH-FIRE FIGHT.TEST AREA** **N/A**
1/2-1 **SAN DIEGO, CA**
0.529 mi.
2791 ft. **Site 1 of 2 in cluster W**

Relative:
Lower

Actual:
18 ft.

Toxic Pits:
Region: 09
Task #: 89010
Owner: SAN DIEGO UNIFIED PORT DIST.
1/2 Mi Limit: Y
Num. of Pits: 2
Cease Discharge Due: 09/30/88
Cease Discharge Complete: 09/30/88
Closure Due: 03/30/89
Closure Completed: 05/25/89
Status: CLOSED
Hydro Geological Assessment Report Due: / /
Final Hydro Geological Assessment Review Completed: 09/14/88

W111 **FIRE FIGHTER TEST AREA** **CA Notify 65** **S100178536**
WSW **S.D. INTERNATIONAL AIRPOR** **N/A**
1/2-1 **SAN DIEGO, CA**
0.557 mi.
2941 ft. **Site 2 of 2 in cluster W**

Relative:
Lower

Actual:
18 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

---

112 **SAN DIEGO GUN TOWER #1** **CA ENVIROSTOR** **S107737235**
WNW **N/A**
1/2-1 **SAN DIEGO, CA**
0.669 mi.
3532 ft.

Relative:
Lower

Actual:
18 ft.

ENVIROSTOR:
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress

SAN DIEGO GUN TOWER #1 (Continued) **S107737235**

Facility ID:	80000452
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	DERA
Latitude:	32.74166
Longitude:	-117.1905
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F560100
Alias Type:	Federal Facility ID
Alias Name:	J09CA0598
Alias Type:	INPR
Alias Name:	80000452
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	03/24/1992
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

X113 **TDY INDUSTRIES, INC.** **RCRA-TSDF** **1000201840**
South **2701 NORTH HARBOR DRIVE** **RCRA-CESQG** **CAD008382475**
1/2-1 **SAN DIEGO, CA 92101** **CA WMUDS/SWAT**
0.737 mi. **CA NPDES**
3891 ft. **Site 1 of 2 in cluster X** **CA HIST CORTESE**
CA LUST
Relative: **CA SLIC**
Lower **CA HIST UST**
NY MANIFEST
Actual: **CA Notify 65**
12 ft. **CA ENF**
CA Financial Assurance
US FIN ASSUR

RCRA-TSDF:

Date form received by agency:	04/30/2002
Facility name:	TDY INDUSTRIES, INC.

TDY INDUSTRIES, INC. (Continued) **1000201840**

Facility address:	2701 NORTH HARBOR DRIVE SAN DIEGO, CA 92101
EPA ID:	CAD008382475
Mailing address:	1000 SIX PPG PLACE PITTSBURGH, PA 15222
Contact:	EDGARD BERTAUT
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	(412) 395-3052
Contact email:	EBERTAUT@ALLEGHENYTECHNOLOGIES.COM
EPA Region:	09
Land type:	Other land type
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	03/04/1999
Facility name:	TDY INDUSTRIES, INC.
Site name:	TELEDYNE RYAN AERONAUTICAL
Classification:	Large Quantity Generator

Date form received by agency: 02/06/1998

TDY INDUSTRIES, INC. (Continued) **1000201840**

Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL
Classification: Large Quantity Generator

Date form received by agency: 03/27/1996
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL CO
Classification: Large Quantity Generator

Date form received by agency: 03/02/1992
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICALCO
Classification: Large Quantity Generator

Date form received by agency: 04/13/1990
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICALCO
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: TDY INDUSTRIES, INC.
Site name: TELEDYNE RYAN AERONAUTICAL
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

TDY INDUSTRIES, INC. (Continued) **1000201840**

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/30/1993
Date achieved compliance: 07/30/1998
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 07/13/1992
Date achieved compliance: 07/30/1993
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 11/28/1990
Date achieved compliance: 07/13/1992
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/02/1986
Date achieved compliance: 10/14/1986
Violation lead agency: State

TDY INDUSTRIES, INC. (Continued) **1000201840**

Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 07/30/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/30/1998
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/13/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/30/1993
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/28/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/13/1992
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/02/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/02/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 10/14/1986
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/19/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

WMUDS/SWAT:

Edit Date: Not reported
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Primary Waste: PROCES
Primary Waste Type: Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to

TDY INDUSTRIES, INC. (Continued) **1000201840**

applicable DOHS standards.

Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	TELEDYNE RYAN AERONAUTICAL
Agency Department:	Not reported
Agency Address:	P.O. BOX 85311
Agency City,St,Zip:	SAN DIEGO ,CA 921385311
Agency Contact:	GENERAL COUNSEL
Agency Telephone:	6192604305
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	9
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	6192604392
SWAT Facility Name:	Not reported
Primary SIC:	3728
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Sub Chapter 15:	True
Regional Board Project Officer:	BDK
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Annual Submittal
Waste Discharge System ID:	9 000000381

TDY INDUSTRIES, INC. (Continued) **1000201840**

Solid Waste Information ID: Not reported

NPDES:

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	0
Region:	9
Regulatory Measure Id:	416233
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	9 37C361299
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/24/2011
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	11/19/2012
Discharge Name:	San Diego Unified Port District
Discharge Address:	3165 Pacific Highway
Discharge City:	San Diego
Discharge State:	California
Discharge Zip:	92101

HIST CORTESE:

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT1838

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT1571

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT533

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT2239

Region:	CORTESE
Facility County Code:	37
Reg By:	LTNKA
Reg Id:	9UT2255

LUST REG 9:

Region:	9
Status:	Preliminary site assessment underway
Case Number:	9UT1571
Local Case:	H00419-002
Substance:	Diesel
Qty Leaked:	Not reported

TDY INDUSTRIES, INC. (Continued) **1000201840**

Abate Method: Not reported
Local Agency: San Diego
How Found: Subsurface Monitoring
How Stopped: Not reported
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 10/30/1989
Date Stopped: / /
Confirm Date: 10/30/1989
Submit Workplan: 3/5/90
Prelim Assess: 06/25/1990
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 10/30/1989
Enforce Date: Not reported
Closed Date: Not reported
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 6.5'
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 1B
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT1838
Local Case: H00419-003
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Other Means
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 09/24/1990
Date Stopped: 12/21/1990
Confirm Date: 10/21/1990
Submit Workplan: 10/3/90
Prelim Assess: 08/02/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 09/24/1990

TDY INDUSTRIES, INC. (Continued) **1000201840**

Enforce Date: Not reported
Closed Date: 10/23/00
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 7'
Beneficial Use: NBNB/E
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT2239
Local Case: H00419-006
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Other Means
How Stopped: Other Means
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 05/06/1992
Date Stopped: 05/06/1992
Confirm Date: 05/20/1992
Submit Workplan: Not reported
Prelim Assess: 05/20/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 5/20/92
Began Monitor: Not reported
Release Date: 05/06/1992
Enforce Date: Not reported
Closed Date: 9/29/92
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 6.5'
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT2255
Local Case: H00419-007

TDY INDUSTRIES, INC. (Continued) **1000201840**

Substance: Diesel
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 05/27/1992
Date Stopped: 05/27/1992
Confirm Date: 06/10/1992
Submit Workplan: 6/16/92
Prelim Assess: 12/21/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 05/27/1992
Enforce Date: Not reported
Closed Date: 9/6/94
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: 11'
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT533
Local Case: H00419-001
Substance: Jet Fuel
Qty Leaked: 100
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Overfill
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 02/27/1986
Date Stopped: 05/14/1986
Confirm Date: 02/28/1986
Submit Workplan: Not reported
Prelim Assess: 01/10/1986
Desc Pollution: Not reported
Remed Plan: 02/13/1987
Remed Action: 8/31/87

TDY INDUSTRIES, INC. (Continued) **1000201840**

Began Monitor: 9/11/92
Release Date: 05/14/1986
Enforce Date: Not reported
Closed Date: 11/4/92
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: NBNB/E
NPDES Number: Not reported
Priority: 1B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SLIC:
Region: STATE
Facility Status: **Open - Remediation**
Status Date: 04/25/2011
Global Id: SL209054180
Lead Agency: SAN DIEGO RWQCB (REGION 9)
Lead Agency Case Number: H00419-001
Latitude: 32.7299546082809
Longitude: -117.185121774673
Case Type: Cleanup Program Site
Case Worker: TCA
Local Agency: Not reported
RB Case Number: 2090500
File Location: Regional Board
Potential Media Affected: Soil, Surface water
Potential Contaminants of Concern: Other Acid or Corrosive, 1,1,1-Trichloroethane (TCA), Tetrachloroethylene (PCE), Trichloroethylene (TCE), Polychlorinated biphenyls (PCBs), Diesel, Gasoline, Waste Oil / Motor / Hydraulic / Lubricating, * * PCB-1248, * * PCB-1260, * Petroleum - Jet Fuel / Aviation
Site History: The 44-acre Site is located adjacent to and south of the Airport runway and is owned by the San Diego Unified Port District ("Port") and is occupied at the current time by the Airport. The Site was originally tidelands of the San Diego Harbor but was filled with materials dredged from San Diego Harbor from 1936 to 1939 during the creation of Lindbergh Field and the U.S. Coast Guard Station. The Site was initially owned by the City of San Diego as part of its airport operations. The Site was leased to the Ryan Aeronautical Company (Ryan Aeronautical) commencing on or around 1939, and was later leased toTeledyne Industries, Inc., acting by and through its Teledyne Ryan Aeronautical Division (TRA) commencing in 1984. The westernmost portion of the Site was reportedly used by the City of San Diego for its operations during the early 1940s. The Port subsequently received title for the property from the City of San Diego in the early 1960s. Ryan Aeronautical and TRA manufactured aircraft and military planes for the U.S. Government from 1939 to 1999. The business and the majority of the assets of Ryan Aeronautical were sold in 1999 to Northrop Grumman. Operations at the Site ceased in 1999 and the Port terminated TDYs lease was terminated on November 1, 2002. A detailed site use history was developed by PES Environmental (PES, 2001). The activities described in the PES report

TDY INDUSTRIES, INC. (Continued) **1000201840**

are consistent with large scale manufacturing of aircraft and aeronautical equipment. As such, various chemicals of interest were utilized onsite, including polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), petroleum fuels, and metals.

Click here to access the California GeoTracker records for this facility:

HIST UST:

Region:	STATE
Facility ID:	00000004646
Facility Type:	Other
Other Type:	MANUFACTURING
Total Tanks:	0019
Contact Name:	R. P. SCHWARTZ
Telephone:	6192917311
Owner Name:	TELEDYNE RYAN AERONAUTICAL
Owner Address:	2701 HARBOR DRIVE
Owner City,St,Zip:	SAN DIEGO, CA 92138
Tank Num:	001
Container Num:	10
Year Installed:	1942
Tank Capacity:	00001120
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	6 inches
Leak Detection:	None
Tank Num:	002
Container Num:	11
Year Installed:	1956
Tank Capacity:	00000120
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	5 inches
Leak Detection:	None
Tank Num:	003
Container Num:	12
Year Installed:	1976
Tank Capacity:	00002000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	19
Year Installed:	1977
Tank Capacity:	00020000
Tank Used for:	WASTE
Type of Fuel:	DIESEL
Tank Construction:	Not reported
Leak Detection:	None
Tank Num:	005
Container Num:	1

TDY INDUSTRIES, INC. (Continued) **1000201840**

Year Installed: 1967
Tank Capacity: 00000475
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 5/16 inches
Leak Detection: None

Tank Num: 006
Container Num: 2
Year Installed: 1967
Tank Capacity: 00000475
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 5/16 inches
Leak Detection: None

Tank Num: 007
Container Num: 3
Year Installed: 1983
Tank Capacity: 00000120
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 6 inches
Leak Detection: Visual

Tank Num: 008
Container Num: 4
Year Installed: 1941
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 009
Container Num: 5
Year Installed: 1941
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 010
Container Num: 18
Year Installed: 1941
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 011
Container Num: 6
Year Installed: 1941
Tank Capacity: 00002000
Tank Used for: PRODUCT

TDY INDUSTRIES, INC. (Continued) **1000201840**

Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 012
Container Num: 7
Year Installed: 1975
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 013
Container Num: 8
Year Installed: 1945
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 014
Container Num: 9
Year Installed: 1945
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 015
Container Num: 13
Year Installed: 1982
Tank Capacity: 00000120
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 6 inches
Leak Detection: None

Tank Num: 016
Container Num: 14
Year Installed: 1965
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

Tank Num: 017
Container Num: 15
Year Installed: 1970
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

TDY INDUSTRIES, INC. (Continued) **1000201840**

Tank Num: 018
Container Num: 16
Year Installed: 1956
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 3/16 inches
Leak Detection: None

Tank Num: 019
Container Num: 17
Year Installed: 1954
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: None

NY MANIFEST:
EPA ID: CAD008382475
Country: USA
Mailing Name: TELEDYNE RYAN AERONAUTICAL
Mailing Contact: R W SHEPARD
Mailing Address: 2701 HARBOR DRIVE
Mailing Address 2: Not reported
Mailing City: SAN DIEGO
Mailing State: CA
Mailing Zip: 92101
Mailing Zip4: Not reported
Mailing Country: USA
Mailing Phone: 619-291-7311

Document ID: NYB2989944
Manifest Status: Completed copy
Trans1 State ID: 11341PNY
Trans2 State ID: 11278PNY
Generator Ship Date: 910501
Trans1 Recv Date: 910501
Trans2 Recv Date: 910506
TSD Site Recv Date: 910506
Part A Recv Date: 910510
Part B Recv Date: 910515
Generator EPA ID: CAD008382475
Trans1 EPA ID: NYD980769947
Trans2 EPA ID: NYD980769947
TSDF ID: NYD000632372
Waste Code: D003 - NON-LISTED REACTIVE WASTES
Quantity: 00001
Units: L
Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 100
Year: 91

TDY INDUSTRIES, INC. (Continued) **1000201840**

Notify 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	92113-3639

ENF:

Region:	9
Facility Id:	215608
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Industrial
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	372
SIC Desc 1:	Aircraft and parts
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	WDR
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported

TDY INDUSTRIES, INC. (Continued) **1000201840**

Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	248266
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	04/23/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	04/23/2002
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000719
Description:	SEL in response to failure to pay $2,500 for 2001/2002 fiscal year annual fee.
Program:	WDR
Latest Milestone Completion Date:	2002-05-15
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	9
Facility Id:	263119
Agency Name:	Not reported
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.727656
Place Longitude:	-117.181192
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported

TDY INDUSTRIES, INC. (Continued) **1000201840**

NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	327289
Region:	9
Order / Resolution Number:	R9-2007-0059
Enforcement Action Type:	13267 Letter
Effective Date:	03/26/2007
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported

TDY INDUSTRIES, INC. (Continued) **1000201840**

Status:	Active
Title:	Investigative Report No. R9-2007-0059
Description:	Issued to investigate and monitor the effects of PCBs discovered deposited on top of the Convair Lagoon Sand Cap and the stormwater conveyance system from the former Teledyne Ryan Facility.
Program:	LNDISP
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

CA Financial Assurance 1:

EPA ID Number:	CAD008382475
Sudden Amount1:	$2,000,000.00
Non Sudden Amount1:	Not reported
Closure Mechanism:	Not reported
Closure Amount:	Not reported
Post Closure Mechanism:	Not reported
Post Closure Amount:	Not reported
Corrective Action Mechanism:	LOC
Corrective Action Amount:	$340,000.00
Sudden Mechanism Type:	LOC
Sudden Mechanism Amount:	$1,000,000.00
Non Sudden Mechanism Type:	Not reported
Non Sudden Mechanism Amount:	Not reported
O&M Mechanism Type:	Not reported
O&M Amount:	Not reported

US FIN ASSUR:

EPA ID:	CAD008382475
Provider:	PNC BANK
EPA region:	9
County:	SAN DIEGO
Mechanism type:	LETTER OF CREDIT
Mechanism ID:	18105616-00-000
Cost estimate:	2000000
Face value:	2000000
Effective date:	2007-07-18 00:00:00

EPA ID:	CAD008382475
Provider:	PNC BANK
EPA region:	9
County:	SAN DIEGO
Mechanism type:	LETTER OF CREDIT
Mechanism ID:	18105616-00-000
Cost estimate:	221640
Face value:	2000000
Effective date:	2007-07-18 00:00:00

EPA ID: CAD008382475

TDY INDUSTRIES, INC. (Continued) **1000201840**

Provider:	PNC BANK
EPA region:	9
County:	SAN DIEGO
Mechanism type:	LETTER OF CREDIT
Mechanism ID:	18105616-00-000
Cost estimate:	221640
Face value:	340000
Effective date:	2007-07-18 00:00:00

X114 **TELEDYNE RYAN AERONAUTICAL** **CA LUST** **S100216328**
South **2701 N HARBOR DR** **CA SWEEPS UST** **N/A**
1/2-1 **SAN DIEGO, CA 92101** **CA CHMIRS**
0.737 mi. **CA San Diego Co. HMMD**
3891 ft. **Site 2 of 2 in cluster X** **CA SAN DIEGO CO. SAM**
CA HWP

Relative:
Lower

Actual:
12 ft.

LUST:

Region:	STATE
Global Id:	T0607300391
Latitude:	32.7283932004549
Longitude:	-117.181849479675
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/11/2004
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	9UT1571
LOC Case Number:	H00419-002
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T0607300391
Status:	Open - Case Begin Date
Status Date:	10/11/1989
Global Id:	T0607300391
Status:	Completed - Case Closed
Status Date:	08/11/2004

Regulatory Activities:

Global Id:	T0607300391
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began
Global Id:	T0607300391
Action Type:	ENFORCEMENT
Date:	11/14/1989
Action:	Notice of Responsibility
Global Id:	T0607300391
Action Type:	Other

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Date: 01/01/1950
Action: Leak Reported

Global Id: T0607300391
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Region: STATE
Global Id: T0607300622
Latitude: 32.731136927804
Longitude: -117.187407016754
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/23/2000
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1838
LOC Case Number: H00419-003
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607300622
Status: Open - Case Begin Date
Status Date: 09/24/1990

Global Id: T0607300622
Status: Completed - Case Closed
Status Date: 10/23/2000

Regulatory Activities:
Global Id: T0607300622
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607300622
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607300622
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607300622
Action Type: ENFORCEMENT
Date: 10/03/1990
Action: Notice of Responsibility

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Global Id: T0607300622
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607301021
Latitude: 32.7299094812709
Longitude: -117.185196876526
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/06/1994
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT2255
LOC Case Number: H00419-007
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607301021
Status: Open - Case Begin Date
Status Date: 05/27/1992

Global Id: T0607301021
Status: Completed - Case Closed
Status Date: 09/06/1994

Regulatory Activities:
Global Id: T0607301021
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607301021
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607301021
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607301021
Action Type: ENFORCEMENT
Date: 06/16/1992
Action: Notice of Responsibility

Global Id: T0607301021
Action Type: Other

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Date: 01/01/1950
Action: Leak Reported

Region: STATE
Global Id: T0607301004
Latitude: 32.7296928713047
Longitude: -117.182396650314
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/29/1992
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT2239
LOC Case Number: H00419-006
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Status History:
Global Id: T0607301004
Status: Open - Case Begin Date
Status Date: 05/06/1992

Global Id: T0607301004
Status: Completed - Case Closed
Status Date: 09/29/1992

Regulatory Activities:
Global Id: T0607301004
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0607301004
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0607301004
Action Type: Other
Date: 01/01/1950
Action: Leak Began

Global Id: T0607301004
Action Type: ENFORCEMENT
Date: 05/29/1992
Action: Notice of Responsibility

Global Id: T0607301004
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

SWEEPS UST:

Status:	Active
Comp Number:	419
Number:	9
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000002
Tank Status:	A
Capacity:	120
Active Date:	Not reported
Tank Use:	CHEMICAL
STG:	W
Content:	Not reported
Number Of Tanks:	3

Status:	Active
Comp Number:	419
Number:	9
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000007
Tank Status:	A
Capacity:	20000
Active Date:	Not reported
Tank Use:	CHEMICAL
STG:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	419
Number:	9
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	06-26-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000015
Tank Status:	A
Capacity:	120
Active Date:	Not reported
Tank Use:	CHEMICAL
STG:	W
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000001
Tank Status: Not reported
Capacity: 1120
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: Not reported
Number Of Tanks: 16

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000003
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000004
Tank Status: Not reported
Capacity: 20000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: WASTE
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000005
Tank Status: Not reported
Capacity: 475

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Active Date: Not reported
Tank Use: UNKNOWN
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000006
Tank Status: Not reported
Capacity: 475
Active Date: Not reported
Tank Use: UNKNOWN
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000008
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: AVIA. GAS
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 419
Number: Not reported
Board Of Equalization: 44-021561
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-000419-000009
Tank Status: Not reported
Capacity: 2000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: AVIA. GAS
Number Of Tanks: Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000010
Tank Status:	Not reported
Capacity:	2000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	AVIA. GAS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000011
Tank Status:	Not reported
Capacity:	2000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	AVIA. GAS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000012
Tank Status:	Not reported
Capacity:	20000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	OTHER
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000013
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	OTHER
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000014
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	OTHER
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000016
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	AVIA. GAS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000017
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	AVIA. GAS
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000018
Tank Status:	Not reported
Capacity:	550
Active Date:	Not reported
Tank Use:	CHEMICAL
STG:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	419
Number:	Not reported
Board Of Equalization:	44-021561
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	37-000-000419-000019
Tank Status:	Not reported
Capacity:	20000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	AVIA. GAS
Number Of Tanks:	Not reported

CHMIRS:

OES Incident Number:	8803081
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	04-OCT-88
Date Completed:	**05-OCT-88**
Property Use:	700
Agency Id Number:	37140
Agency Incident Number:	19047
Time Notified:	1239
Time Completed:	223
Surrounding Area:	700
Estimated Temperature:	60
Property Management:	P
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Special Studies 4:	Not reported	
Special Studies 5:	Not reported	
Special Studies 6:	Not reported	
More Than Two Substances Involved?:		N
Resp Agncy Personel # Of Decontaminated:		Not reported
Responding Agency Personel # Of Injuries:		Not reported
Responding Agency Personel # Of Fatalities:		Not reported
Others Number Of Decontaminated:		Not reported
Others Number Of Injuries:		Not reported
Others Number Of Fatalities:		Not reported
Vehicle Make/year:	Not reported	
Vehicle License Number:	Not reported	
Vehicle State:	Not reported	
Vehicle Id Number:	Not reported	
CA/DOT/PUC/ICC Number:	Not reported	
Company Name:	Not reported	
Reporting Officer Name/ID:	JERRY GRAY	
Report Date:	04-OCT-88	
Comments:	N	
Facility Telephone:	619 236-7773	
Waterway Involved:	Not reported	
Waterway:	Not reported	
Spill Site:	Not reported	
Cleanup By:	Not reported	
Containment:	Not reported	
What Happened:	Not reported	
Type:	Not reported	
Measure:	Not reported	
Other:	Not reported	
Date/Time:	Not reported	
Year:	88-92	
Agency:	Not reported	
Incident Date:	Not reported	
Admin Agency:	Not reported	
Amount:	Not reported	
Contained:	Not reported	
Site Type:	Not reported	
E Date:	Not reported	
Substance:	Not reported	
Quantity Released:	Not reported	
BBLS:	Not reported	
Cups:	Not reported	
CUFT:	Not reported	
Gallons:	Not reported	
Grams:	Not reported	
Pounds:	Not reported	
Liters:	Not reported	
Ounces:	Not reported	
Pints:	Not reported	
Quarts:	Not reported	
Sheen:	Not reported	
Tons:	Not reported	
Unknown:	Not reported	
Evacuations:	Not reported	
Number of Injuries:	Not reported	
Number of Fatalities:	Not reported	
Description:	Not reported	

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

SAN DIEGO CO. HMMD:

Facility Id:	100419
Business Type:	6HK50
EPA Id Number:	CAD008382475
APN:	DEH-100419
Last HMMD Inspection:	10/31/1997
Permit Status:	INAC
Permit Expiration:	07/31/2000
Facility Owner:	TELEDYNE INC
Facility Address:	2701 N HARBOR DR
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92101-1027
UST Owner:	TELEDYNE RYAN AERONAUTICAL
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Y
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 100419 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	10
Capacity Gallons:	1120
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	CLOSED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1942-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	11
Capacity Gallons:	120
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	EXEMPT
Remove Close Date:	Not reported
Year Installed:	1956-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T003

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	12
Capacity Gallons:	2000
UST Contents:	LEADED
Other Content Info:	LEADED
Reg Status:	REMOVED
Remove Close Date:	1990-12-21 00:00:00
Year Installed:	1976-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name:	UNDERGROUND TANK 100419 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	19
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1992-05-27 00:00:00
Year Installed:	1977-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name:	UNDERGROUND TANK 100419 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	1
Capacity Gallons:	475
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	CLOSED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1967-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T006
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	2
Capacity Gallons:	475
UST Contents:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	CLOSED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1967-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T008
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	UNKNOWN
Additional Id:	4
Capacity Gallons:	2000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1941-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T009
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	UNKNOWN
Additional Id:	5
Capacity Gallons:	2000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1941-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T010
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	UNKNOWN
Additional Id:	18
Capacity Gallons:	2000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1941-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T011
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	UNKNOWN
Additional Id:	6
Capacity Gallons:	2000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1941-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T012
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	7
Capacity Gallons:	20000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1992-06-05 00:00:00
Year Installed:	1975-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	05
UST Monitor Method:	SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR
UST Name:	UNDERGROUND TANK 100419 T013
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	8
Capacity Gallons:	6000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1945-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T014
Last Update:	2012-11-02 14:17:38

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	9
Capacity Gallons:	6000
UST Contents:	DIESEL
Other Content Info:	DIESEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1945-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T016
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	14
Capacity Gallons:	6000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1965-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T017
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	15
Capacity Gallons:	6000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1970-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name:	UNDERGROUND TANK 100419 T018
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	16
Capacity Gallons:	550
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1956-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T019
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	17
Capacity Gallons:	20000
UST Contents:	AVIATION FUEL
Other Content Info:	AVIATION FUEL
Reg Status:	REMOVED
Remove Close Date:	1986-11-08 00:00:00
Year Installed:	1954-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.
UST Name:	UNDERGROUND TANK 100419 T020
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	AT4912
Capacity Gallons:	275
UST Contents:	Not reported
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2003-06-27 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION
UST Name:	UNDERGROUND TANK 100419 T021
Last Update:	2012-11-02 14:17:38
Permit Number:	100419
Tank Type:	SINGLE WALL
Additional Id:	AT4912
Capacity Gallons:	700
UST Contents:	Not reported
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2003-06-23 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100419 T022
Last Update: 2012-11-02 14:17:38
Permit Number: 100419
Tank Type: SINGLE WALL
Additional Id: AT4912
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2003-06-27 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100419 T023
Last Update: 2012-11-02 14:17:38
Permit Number: 100419
Tank Type: SINGLE WALL
Additional Id: AT5532
Capacity Gallons: 1100
UST Contents: Not reported
Other Content Info: Not reported
Reg Status: PLCK
Remove Close Date: 2012-02-23 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

SAN DIEGO CO. SAM:

Case Number: H00419-001
Agency: CA Regional Water Quality Control Board
Funding: **LOP - State Fund**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Remedial Investigation
Date: 5/9/2005
Date Began: 2/28/1986

Case Number: H00419-002
Agency: DEH Site Assessment & Mitigation
Funding: **LOP - Federal Fund**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 8/11/2004
Date Began: 10/11/1989

Case Number: H00419-003
Agency: DEH Site Assessment & Mitigation

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Funding:	**LOP - Federal Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	10/23/2000
Date Began:	9/24/1990
Case Number:	H00419-004
Agency:	CA Regional Water Quality Control Board
Funding:	**Non Billable**
Facility Type:	Soils Only
Facility Status:	Remedial Investigation
Date:	8/28/1991
Date Began:	8/28/1991
Case Number:	H00419-005
Agency:	CA Regional Water Quality Control Board
Funding:	**Non Billable**
Facility Type:	Soils Only
Facility Status:	Preliminary Assessment
Date:	8/29/1991
Date Began:	8/29/1991
Case Number:	H00419-006
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	9/29/1992
Date Began:	5/6/1992
Case Number:	H00419-007
Agency:	DEH Site Assessment & Mitigation
Funding:	**LOP - Federal Fund**
Facility Type:	Soils Only
Facility Status:	Closed Case
Date:	9/6/1994
Date Began:	5/27/1992
Case Number:	H00419-008
Agency:	CA Regional Water Quality Control Board
Funding:	**Non Billable**
Facility Type:	GW With No Beneficial Use Designation
Facility Status:	Remedial Investigation
Date:	12/15/1992
Date Began:	3/25/1992

HWP:

EPA Id:	CAD008382475
Cleanup Status:	CLOSED
Latitude:	32.72765
Longitude:	-117.1811
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported
Supervisor:	Not reported
Site Code:	540029
Assembly District:	78

TELEDYNE RYAN AERONAUTICAL (Continued) **S100216328**

Senate District: 39
Public Information Officer: Not reported

Activities:
EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 01/01/1986

EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/17/1980

Closure:
EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Unit Names: HWMU #1, HWMU #2
Event Description: Closure - ISSUE CLOSURE VERIFICATION
Actual Date: 08/10/2010

EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Unit Names: HWMU #1, HWMU #2
Event Description: Closure - CLOSURE PLAN RECEIVED
Actual Date: 11/01/2006

EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Unit Names: HWMU #1, HWMU #2
Event Description: Closure - CLOSURE PLAN REQUESTED
Actual Date: 06/14/2005

Alias:
EPA Id: CAD008382475
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 540029

Y115 **PACIFIC SERVICES COMPANY** **RCRA-SQG** **1000250154**
WNW **4085 PACIFIC HIGHWAY** **FINDS** **CAD981579303**
1/2-1 **SAN DIEGO, CA** **CA DRYCLEANERS**
0.744 mi. **CA HAZNET**
3929 ft. **Site 1 of 2 in cluster Y** **CA EMI**
CA ENVIROSTOR
Relative: **CA SAN DIEGO CO. SAM**
Lower

RCRA-SQG:
Actual: Date form received by agency: 09/01/1996
17 ft. Facility name: PACIFIC SERVICES CO
Facility address: 4085 PACIFIC HWY
SAN DIEGO, CA 92110
EPA ID: CAD981579303
Contact: Not reported

PACIFIC SERVICES COMPANY (Continued) **1000250154**

Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: THOMPSON V
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 11/18/1986
Facility name: PACIFIC SERVICES CO
Classification: Large Quantity Generator

PACIFIC SERVICES COMPANY (Continued) **1000250154**

Violation Status: No violations found

FINDS:

Registry ID: 110013822587

Environmental Interest/Information System

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

DRYCLEANERS:

EPA Id:	CAD981579303
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	04/10/1987
Facility Active:	No
Inactive Date:	06/30/2000
Facility Addr2:	Not reported
Owner Name:	TERISITA THOMPSON
Owner Address:	4085 PACIFIC HWY
Owner Address 2:	Not reported
Owner Telephone:	6192986060
Contact Name:	PHIL WARZEKA/GEN MGR
Contact Address:	INACT 00VQ FINAL NOTICE - BATCH
Contact Address 2:	4/10/01
Contact Telephone:	6192986060

HAZNET:

Year:	2002
Gepaid:	CAD981579303
Contact:	PHIL WARZEKA/GEN MGR
Telephone:	6192986060
Mailing Name:	Not reported
Mailing Address:	4085 PACIFIC HWY
Mailing City,St,Zip:	SAN DIEGO, CA 921102029
Gen County:	Not reported
TSD EPA ID:	CAT000613976
TSD County:	Not reported
Waste Category:	Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method:	Transfer Station
Tons:	0.45
Facility County:	San Diego

Year:	2002
Gepaid:	CAD981579303
Contact:	PHIL WARZEKA/GEN MGR

PACIFIC SERVICES COMPANY (Continued) **1000250154**

Telephone: 6192986060
Mailing Name: Not reported
Mailing Address: 4085 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921102029
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 0.39
Facility County: San Diego

Year: 2001
Gepaid: CAD981579303
Contact: PHIL WARZEKA/GEN MGR
Telephone: 6192986060
Mailing Name: Not reported
Mailing Address: 4085 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921102029
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 1.65
Facility County: San Diego

Year: 2000
Gepaid: CAD981579303
Contact: PHIL WARZEKA/GEN MGR
Telephone: 6192986060
Mailing Name: Not reported
Mailing Address: 4085 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921102029
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 2.25
Facility County: San Diego

Year: 1999
Gepaid: CAD981579303
Contact: TERISITA THOMPSON
Telephone: 6192986060
Mailing Name: Not reported
Mailing Address: 4085 PACIFIC HWY
Mailing City,St,Zip: SAN DIEGO, CA 921102029
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Transfer Station
Tons: 1.8900
Facility County: San Diego

PACIFIC SERVICES COMPANY (Continued) **1000250154**

Click this hyperlink while viewing on your computer to access
9 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1999
County Code:	37
Air Basin:	SD
Facility ID:	981
Air District Name:	SD
SIC Code:	7216
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000
County Code:	37
Air Basin:	SD
Facility ID:	981
Air District Name:	SD
SIC Code:	7216
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	981
Air District Name:	SD
SIC Code:	7216
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

PACIFIC SERVICES COMPANY (Continued) **1000250154**

Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: H. Alan Hsu
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Facility ID: 60001520
Site Code: 401594
Assembly: 76
Senate: 39
Special Program: EPA - PASI
Status: Refer: RWQCB
Status Date: 03/06/2013
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: EPA Grant
Latitude: 32.74410
Longitude: -117.1912
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 401594
Alias Type: Project Code (Site Code)
Alias Name: 60001520
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Site Screening
Completed Date: 10/17/2012
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SAN DIEGO CO. SAM:
Case Number: H00685-001
Agency: DEH Site Assessment & Mitigation
Funding: **Non Billable**
Facility Type: GW With No Beneficial Use Designation
Facility Status: Preliminary Assessment
Date: 7/8/1993
Date Began: 7/8/1993

Z116 **U.O.P. INC - FLUID SYSTEMS DIVISION** **CA HWP** **S109467212**
SSW **2980 N HARBOR DRIVE** **N/A**
1/2-1 **SAN DIEGO, CA 92101**
0.758 mi.
4000 ft. **Site 1 of 3 in cluster Z**

Relative:
Lower

Actual:
12 ft.

HWP:

EPA Id:	CAD020201893
Cleanup Status:	PROTECTIVE FILER
Latitude:	32.72888
Longitude:	-117.1858
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported
Supervisor:	Not reported
Site Code:	Not reported
Assembly District:	78
Senate District:	39
Public Information Officer:	Not reported

Activities:

EPA Id:	CAD020201893
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Protective Filer Status - PROTECTIVE FILER (RECEIVED)
Actual Date:	05/19/1988

EPA Id:	CAD020201893
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Protective Filer Status - PROTECTIVE FILER (APPROVED)
Actual Date:	11/14/1988

Alias:

EPA Id:	CAD020201893
Facility Type:	Historical - Non-Operating
Alias Type:	FRS
Alias:	110009529475

Z117 **UOP INC FLUID SYSTEMS DIV** **RCRA-TSDF** **1000119218**
SSW **2980 N HARBOR DRIVE** **CERC-NFRAP** **CAD020201893**
1/2-1 **SAN DIEGO, CA 92101** **CORRACTS**
0.758 mi. **RCRA NonGen / NLR**
4000 ft. **Site 2 of 3 in cluster Z**

Relative:
Lower

Actual:
12 ft.

RCRA-TSDF:

Date form received by agency:	09/21/1993
Facility name:	UOP INC FLUID SYSTEMS DIV
Facility address:	2980 N HARBOR DRIVE SAN DIEGO, CA 92101
EPA ID:	CAD020201893
Mailing address:	2980 HARBOR DR SAN DIEGO, CA 92101
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported

UOP INC FLUID SYSTEMS DIV (Continued) **1000119218**

EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: UOP INC
Owner/operator address: 10 UOP PLAZA
DES PLAINES, IL 60016
Owner/operator country: Not reported
Owner/operator telephone: (312) 391-2000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: UOP INC
Owner/operator address: 10 UOP PLAZA
CITY NOT REPORTED, IL 99999
Owner/operator country: Not reported
Owner/operator telephone: (312) 391-2000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/18/1980
Facility name: UOP INC FLUID SYSTEMS DIV
Classification: Large Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: CA029ST

UOP INC FLUID SYSTEMS DIV (Continued) **1000119218**

Event date: 09/04/1991
Event: CA049PA

Event date: 09/04/1991
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 09/04/1991
Event: CA029ST

Event date: 03/30/1992
Event: Stabilization Measures Evaluation,This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

Event date: 03/31/1992
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Facility Has Received Notices of Violations:
Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 06/17/1988
Date achieved compliance: 11/04/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 04/20/1988
Date achieved compliance: 04/20/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/17/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements

UOP INC FLUID SYSTEMS DIV (Continued) **1000119218**

Date achieved compliance: 11/04/1988
Evaluation lead agency: State

Evaluation date: 04/20/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/20/1988
Evaluation lead agency: State

Evaluation date: 04/20/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/08/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/26/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CERC-NFRAP:
Site ID: 0900230
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13289780.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295375.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301233.00000
Person ID: 13004003.00000

Program Priority:
Description: RCRA Deferral Audit

UOP INC FLUID SYSTEMS DIV (Continued) **1000119218**

Description: RCRA Deferral - New Decision

Description: RCRA Deferral - Further Superfund Assessment

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /
Date Completed: 04/01/91
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/07/91
Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

CORRACTS:

EPA ID: CAD020201893
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910904
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 325211 333319
Plastics Material and Resin Manufacturing
Other Commercial and Service Industry Machinery Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD020201893
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19920331
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 325211 333319
Plastics Material and Resin Manufacturing
Other Commercial and Service Industry Machinery Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

Z118 **U.O.P. INC - FLUID SYSTEMS DIVISION** **CA CHMIRS S100279036**
SSW **2980 N HARBOR DRIVE** **CA ENVIROSTOR N/A**
1/2-1 **SAN DIEGO, CA 92101**
0.758 mi.
4000 ft. **Site 3 of 3 in cluster Z**

Relative:
Lower

Actual:
12 ft.

CHMIRS:
OES Incident Number: 8803325
OES notification: Not reported
OES Date: Not reported

U.O.P. INC - FLUID SYSTEMS DIVISION (Continued) **S100279036**

OES Time:	Not reported
Incident Date:	07-OCT-88
Date Completed:	**07-OCT-88**
Property Use:	942
Agency Id Number:	37140
Agency Incident Number:	20373
Time Notified:	1647
Time Completed:	1732
Surrounding Area:	942
Estimated Temperature:	70
Property Management:	F
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	JERRY GRAY #1250
Report Date:	07-OCT-88
Comments:	Y
Facility Telephone:	619 236-7773
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	Not reported
Substance:	Not reported
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported

U.O.P. INC - FLUID SYSTEMS DIVISION (Continued) **S100279036**

Gallons: Not reported
Grams: Not reported
Pounds: Not reported
Liters: Not reported
Ounces: Not reported
Pints: Not reported
Quarts: Not reported
Sheen: Not reported
Tons: Not reported
Unknown: Not reported
Evacuations: Not reported
Number of Injuries: Not reported
Number of Fatalities: Not reported
Description: Not reported

ENVIROSTOR:
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Greg Holmes
Division Branch: Cleanup Cypress
Facility ID: 80001350
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 12/13/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 32.72888
Longitude: -117.1858
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD020201893
Alias Type: EPA Identification Number
Alias Name: 110009529475
Alias Type: EPA (FRS #)
Alias Name: 80001350
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 09/04/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE

U.O.P. INC - FLUID SYSTEMS DIVISION (Continued) **S100279036**

Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 03/30/1992
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Y119 **OLD TOWN TROLLEY** **CA ENVIROSTOR** **S111120547**
WNW **2105-2115 KURTZ ST** **N/A**
1/2-1 **SAN DIEGO, CA 92110**
0.763 mi.
4028 ft. **Site 2 of 2 in cluster Y**

Relative:
Lower

Actual:
20 ft.

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: H. Alan Hsu
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Facility ID: 60001518
Site Code: 401592
Assembly: 76
Senate: 39
Special Program: EPA - PASI
Status: Refer: RWQCB
Status Date: 03/06/2013
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: EPA Grant
Latitude: 32.74446
Longitude: -117.1905
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: T0608155101
Alias Type: GeoTracker Global ID
Alias Name: 401592
Alias Type: Project Code (Site Code)
Alias Name: 60001518
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

OLD TOWN TROLLEY (Continued) **S111120547**

Completed Document Type: PA/SI Site Screening
Completed Date: 10/17/2012
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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120 SSE 1/2-1 0.781 mi. 4123 ft. **SOLAR AIRCRAFT CORP** **CA ENVIROSTOR** **S107737362 N/A**

SAN DIEGO, CA

Relative: Lower

Actual: 21 ft.

ENVIROSTOR:
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Facility ID: 80000904
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 07/01/2005
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: DERA
Latitude: 32.72777
Longitude: -117.1736
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799FA04600
Alias Type: Federal Facility ID
Alias Name: J09CA7223
Alias Type: INPR
Alias Name: 80000904
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inventory Project Report (INPR)

SOLAR AIRCRAFT CORP (Continued) **S107737362**

Completed Date: 03/13/1998
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

121
WNW
1/2-1
0.824 mi.
4351 ft.

HANCOCK ST. SELF-STORAGE DEVELOPMENT **CA ENVIROSTOR** **S106797710**
2150-2182 HANCOCK STREET **N/A**
SAN DIEGO, CA 92110

Relative:
Lower

Actual:
39 ft.

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 37420017
Site Code: Not reported
Assembly: 76
Senate: 39
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 11/13/2001
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 37420017
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported

HANCOCK ST. SELF-STORAGE DEVELOPMENT (Continued) **S106797710**

Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

122
NE
1/2-1
0.825 mi.
4355 ft.

600 BUSH ST
SAN DIEGO, CA 92103

CA Notify 65 **S100178368**
N/A

Relative:
Higher

Actual:
239 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92103-2910

123
SE
1/2-1
0.839 mi.
4428 ft.

POWAY INVESTMENT PROPERTIES
829 W. JUNIPER STREET
SAN DIEGO, CA 92101

CA ENVIROSTOR **S108754798**
N/A

Relative:
Lower

Actual:
66 ft.

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 37000023
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 01/27/2004
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 32.72798
Longitude: -117.1707
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: T06019785246

POWAY INVESTMENT PROPERTIES (Continued) **S108754798**

Alias Type: GeoTracker Global ID
Alias Name: 37000023
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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124 SSW 1/2-1 0.856 mi. 4522 ft.

Relative: Lower

Actual: 9 ft.

COAST GUARD AIR BASE **CA ENVIROSTOR** **S107736143 N/A**

SAN DIEGO, CA

ENVIROSTOR:
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Facility ID: 80000899
Site Code: Not reported
Assembly: 78
Senate: 39
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 07/01/2005
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: DERA
Latitude: 32.72638
Longitude: -117.1833
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799FA04100
Alias Type: Federal Facility ID
Alias Name: J09CA7218
Alias Type: INPR

COAST GUARD AIR BASE (Continued) **S107736143**

Alias Name: 80000899
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AA125 **SOLAR TURBINES, INCORPORATED** **CA NPDES** **S100277322**
SSE **2200 PACIFIC HWY** **CA HIST CORTESE** **N/A**
1/2-1 **SAN DIEGO, CA 92101** **CA LUST**
0.888 mi. **CA CHMIRS**
4688 ft. **Site 1 of 3 in cluster AA** **CA DEED**
CA San Diego Co. HMMD
Relative: **CA ENVIROSTOR**
Lower **CA Financial Assurance**

Actual: **23 ft.**

NPDES:
Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 9
Regulatory Measure Id: 218194
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 9 37I001827
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 03/30/1992
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Solar Turbines Inc
Discharge Address: PO Box 85376
Discharge City: San Diego
Discharge State: California
Discharge Zip: 92186

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT506

LUST:

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Region:	STATE
Global Id:	T10000005351
Latitude:	0
Longitude:	0
Case Type:	LUST Cleanup Site
Status:	Open - Site Assessment
Status Date:	06/11/1986
Lead Agency:	SWRCB
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T10000005351
Status:	Open - Case Begin Date
Status Date:	06/11/1986

Regulatory Activities:

Global Id:	T10000005351
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported
Global Id:	T10000005351
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began
Global Id:	T10000005351
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

CHMIRS:

OES Incident Number:	009350
OES notification:	Not reported
OES Date:	8/1/1995
OES Time:	05:37:24 AM
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	san diego bay
Spill Site:	Not reported
Cleanup By:	solar turbines
Containment:	Not reported
What Happened:	Not reported
Type:	OTHER
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1995
Agency:	solar turbines
Incident Date:	8/1/95 0330
Admin Agency:	Not reported
Amount:	10 - 15 gallons
Contained:	YES
Site Type:	OTHER
E Date:	Not reported
Substance:	metalworking water soluable coolant
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Evacuations:	NO
Number of Injuries:	NO

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Number of Fatalities:	NO
Description:	operator error, a container fell off a forklift causing the spill. spill entered a storm drain which leads to san diego bay.
OES Incident Number:	9115701
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	01-MAR-91
Date Completed:	**01-MAR-91**
Property Use:	600
Agency Id Number:	37140
Agency Incident Number:	4337
Time Notified:	302
Time Completed:	445
Surrounding Area:	500
Estimated Temperature:	50
Property Management:	P
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	GREGORY P. DONNELLY
Report Date:	01-MAR-91
Comments:	N
Facility Telephone:	619 533-4300
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	Not reported
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Site Type: Not reported
E Date: 16-JUN-92
Substance: Not reported
Quantity Released: Not reported
BBLS: Not reported
Cups: Not reported
CUFT: Not reported
Gallons: Not reported
Grams: Not reported
Pounds: Not reported
Liters: Not reported
Ounces: Not reported
Pints: Not reported
Quarts: Not reported
Sheen: Not reported
Tons: Not reported
Unknown: Not reported
Evacuations: Not reported
Number of Injuries: Not reported
Number of Fatalities: Not reported
Description: Not reported

DEED:
Area: Not reported
Sub Area: Not reported
Site Type: CLOSED
Status: CLOSED
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
EDR Link ID: CAD008314908

Area: Not reported
Sub Area: Not reported
Site Type: CLOSED
Status: CLOSED
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): Not reported
EDR Link ID: CAD008314908

Area: PROJECT WIDE
Sub Area: Not reported
Site Type: CORRECTIVE ACTION
Status: ACTIVE
Agency: Not reported
Covenant Uploaded: Not reported
Deed Date(s): 06/03/2010
EDR Link ID: 80001550

SAN DIEGO CO. HMMD:
Facility Id: 108828
Business Type: 6HK35
EPA Id Number: CAD008314908
APN: DEH-108828
Last HMMD Inspection: 08/23/2011

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Permit Status:	OPEN
Permit Expiration:	05/31/2013
Facility Owner:	SOLAR TURBINES INCORPORATED
Facility Address:	P O BOX 85376
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92186-5376
UST Owner:	SOLAR TURBINES
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	N
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 108828 T016
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	STAND-ALONE TANK
Capacity Gallons:	500
UST Contents:	OTHER
Other Content Info:	MACHINE COOLANT
Reg Status:	EXEMPT
Remove Close Date:	Not reported
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	99
UST Monitor Method:	OTHER - BLIND REMARK REQUIRED

UST Name:	UNDERGROUND TANK 108828 T017
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	1300
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2009-11-19 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name:	UNDERGROUND TANK 108828 T018
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	1300
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Remove Close Date:	2009-11-19 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION
UST Name:	UNDERGROUND TANK 108828 T019
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	3000
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2009-11-23 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION
UST Name:	UNDERGROUND TANK 108828 T020
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	3000
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2009-12-23 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION
UST Name:	UNDERGROUND TANK 108828 T001
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	KEROSENE-1
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-04-06 00:00:00
Year Installed:	1973-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-2
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-04-06 00:00:00
Year Installed: 1973-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-3
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-04-06 00:00:00
Year Installed: 1973-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-4
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Additional Id: GASOLINE-5
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: DIESEL-6
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-4FUEL-7
Capacity Gallons: 6000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: GASOLINE-8
Capacity Gallons: 6000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T009
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JET-AFUEL
Capacity Gallons: 5000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T010
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-5FUEL10
Capacity Gallons: 5000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: 1978-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-4FUEL11
Capacity Gallons: 10000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-09-06 00:00:00
Year Installed: 1972-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

UST Name:	UNDERGROUND TANK 108828 T012
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	DIESEL-12
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	1974-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T013
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	DIESEL-13
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	1974-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T014
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	COOLANTS14
Capacity Gallons:	4000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-08-29 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T015
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	AT3366
Capacity Gallons:	80

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1995-10-18 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Active Permits:

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	1317-65-3
Name:	PAINT: WATER BASE
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7757-79-1
Name:	Powder Electrolyte
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information:	OILY SLUDGE/STEAM CLNG SL
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS-OTHER-WST PETROLEU
Other Information:	WASTE PETROLEUM
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	141-43-5
Name:	Coolant, Machining (water base)
Other Information:	UNDERGROUND TANK 108828 T016 - EXEMPT
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	106-97-8
Name:	FUEL: BUTANE
Other Information:	LIQUID BULK
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-37-1
Name:	Gas Blk Liquid Argon
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7782-44-7
Name:	Gas Blk liquid oxygen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	74-98-6
Name:	Gas Blk Liquid Propane
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 151 ASBESTOS CONTAINING WASTE
Other Information:	ASBESTOS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information:	ACETONE, TOLUENE, FLAM LQ
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information: WASTE PETROLEUM OIL/WATER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 261 POLYCHLORINATED BIPHENYLS
Other Information: PCB BALLASTS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 461 PAINT SLUDGE
Other Information: OIL BASED PAINT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10124-37-5
Name: Compound Cryscoat
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, 45% Helium in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas, Hydrocarbon Free Air
Other Information: Not reported
Material Waste: Material

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 343 UNSPEC ORGANIC LIQUID MIXTURE
Other Information: WATER BASE PAINT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information: GRINDING GRIT/CHROME - ERM
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas Blk Liquid Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-73-9
Name: Gas, Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: Gas, Oxygen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 63449-39-8
Name: Oil Cutting
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	8008-20-6
Name:	Oil Lubricating
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information:	WATER, OIL, COOLANT
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	527-7-1
Name:	Cleaner Machine Coolant (<10%)
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7664-38-2
Name:	Compound Manganese
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	91-20-3
Name:	DIESEL
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	CHRONIC

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	8008-20-6
Name:	Fuel Diesel
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	630-8-0

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Name: Gas, <4.6 PPM Co <9.1% Co2 in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 124-38-0
Name: Gas, CO2 Syphon
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64741-65-7
Name: PAINT: OIL BASE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7691-52-9
Name: SODIUM HYPOCHLORITE
Other Information: BLEACH
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 78-93-3
Name: Solvent MEK
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 111-76-2
Name: Stripper Waxie
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: FILTERS W/METALS
Material Waste: Waste

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS
Other Information: RESINS ORGANICS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: RAGS WITH ACETONE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7697-37-2
Name: Acid Nitric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: EXTREMELY HAZARDOUS

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-93-9
Name: Acid Sulfuric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8002-9-3
Name: Cleaner Kleen Pine, Pineoil
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10102-43-9
Name: Gas, <250 PPM Nitric Oxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	124-38-9
Name:	Gas, <76% Carbon Dioxide in Nitrogen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	74-82-8
Name:	Gas, <910 PPM Methane in Air
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-37-1
Name:	Gas, 95% Argon 5% Hydrogen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	74-86-2
Name:	Gas, Acetylene
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7664-41-7
Name:	Gas, Ammonia, Anhydrous
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	EXTREMELY HAZARDOUS

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-37-1
Name:	Gas, Argon
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-59-7

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Name: Gas, Helium, Grade A
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas, Zero Grade Nitrogen 99.998%
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: TURCO RUST BLOC
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 902 INFECTIOUS WASTE, SHARPS
Other Information: SHARPS ISOLYZER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 67-64-1
Name: Acetone
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64-02-8
Name: ALAC CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 112-34-5
Name: BLUEGOLD CLEANER
Other Information: Not reported
Material Waste: Material

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10028-22-5
Name: Deoxidizer Surface
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 76-13-1
Name: Freon PCA CC12FCC1F2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 12-43-8
Name: Gas, CO2 Weld Grade
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 115-7-1
Name: Gas, Propylene
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: GAS; BLK HYDROGEN
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: TRIDENT 6137
Other Information: COOLING TOWER TREATMENT
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information:	LITHIUM BATTS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information:	FILTER PRESS OILY DEBRIS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7647-1-0
Name:	Acid Hydrochloric
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	1312-76-1
Name:	Cleaner Alkaline, Sodium Hydroxide
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	107-41-5
Name:	Emulsifier Hydrophilic
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	124-38-9
Name:	Gas Blk liquid Carbon Dioxide
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	1333-74-0

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Name: Gas, 40% Hydrogen 60% Helium
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, 90% Helium 7 1/2% Argon 2 1/2% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64742-47-2
Name: Oil Water Displacing
Other Information: AQUASORB (TURBO)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE
Other Information: LIQUID BULK
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8052-41-3
Name: Solvent Stoddard
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 11-76-2
Name: TURCO CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information: USED OIL TANKS
Material Waste: Waste

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 630-8-0
Name: Gas, <5% Carbon Monoxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, 75% Argon 25% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: Gas, Hydrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-02-0
Name: Metal Spray Powder
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Violations Active Permits:

Facility Id: 108828
Update Date: 11/02/2012
Inspection Date: 08/23/2011
Violation Code: 6HV0303
Violation: WASTE TRANSPORT W/O MANIFEST
Violation Citation: Hazardous waste generator has transported a hazardous waste off-site without preparing a manifest prior to transport. 66262.20(a), 25160.2(b)9
Activity: ACTIVE

Facility Id: 108828
Update Date: 11/02/2012
Inspection Date: 01/25/2006
Violation Code: 6HV0209
Violation: WASTE ONSITE >90/180/270 DAYS
Violation Citation: Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) &

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

	66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1017
Violation:	HMBP NOT CERTIFIED ANNUALLY
Violation Citation:	Business Plan not certified annually. 25505(d) & (e)(2)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0148
Violation:	WASTE ANALYSIS RECORDS NOT AVAILABLE.
Violation Citation:	Failed to keep copies of analytical results, waste analysis records, or waste determination results. (3 years) 66262.40(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0146
Violation:	NO ERM EXEMPTION CLAIM DOCUMENTS
Violation Citation:	Failed to have adequate records demonstrating claim of exemption for Excluded Recyclable Material (ERM). 25143.2(f) & 66261.2(g)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0238
Violation:	FAILED TO MANAGE UW IN A MANNER TO PREVE
Violation Citation:	Failed to manage UW in a manner to prevent release(s) to the environment. 66273.33 & 66273.33.5
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/16/2004
Violation Code:	6HV1601
Violation:	HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation:	Failed to obtain a P.E. assessment for hazardous waste tank system. 66265.191(a) or 66265.192(a)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0145
Violation:	ERM REPORT NOT SUBMITTED TO HMD
Violation Citation:	Excluded recyclable materials report not submitted biennially to HMD &/or available. 25143.10
Activity:	ACTIVE
Facility Id:	108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0401
Violation:	TRAINING RECORDS UNAVAILABLE
Violation Citation:	Personnel training records are not maintained to document compliance with requirements for current and former employees. CCR 66265.16(d)&(e)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1603
Violation:	NO 2ND CONTAINMENT FOR HW TANK
Violation Citation:	Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0202
Violation:	WASTE CONTAINER W/O LABELS
Violation Citation:	Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV1014
Violation:	HMBP INCOMPLETE/NOT AMENDED
Violation Citation:	HMBP is incomplete/inadequate/not amended to reflect changes. 25504, 25505(a)(2) &/or 25509(a); 25505(b); 19 CCR 2729
Activity:	ACTIVE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Business Type:	6HK35
EPA Id Number:	CAD008314908
APN:	DEH-108828
Last HMMD Inspection:	08/23/2011
Permit Status:	OPEN
Permit Expiration:	05/31/2013
Facility Owner:	SOLAR TURBINES INCORPORATED
Facility Address:	P O BOX 85376
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92186-5376
UST Owner:	SOLAR TURBINES
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	Y
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 108828 T016
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	STAND-ALONE TANK
Capacity Gallons:	500
UST Contents:	OTHER
Other Content Info:	MACHINE COOLANT
Reg Status:	EXEMPT
Remove Close Date:	Not reported
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	99
UST Monitor Method:	OTHER - BLIND REMARK REQUIRED

UST Name:	UNDERGROUND TANK 108828 T017
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	1300
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2009-11-19 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name:	UNDERGROUND TANK 108828 T018
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Additional Id: AT5437
Capacity Gallons: 1300
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-11-19 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T019
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: SINGLE WALL
Additional Id: AT5437
Capacity Gallons: 3000
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-11-23 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T020
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: SINGLE WALL
Additional Id: AT5437
Capacity Gallons: 3000
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-12-23 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-1
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-04-06 00:00:00

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Year Installed: 1973-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-2
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-04-06 00:00:00
Year Installed: 1973-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-3
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-04-06 00:00:00
Year Installed: 1973-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: KEROSENE-4
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

UST Name:	UNDERGROUND TANK 108828 T005
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	GASOLINE-5
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-05-30 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T006
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	DIESEL-6
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-05-30 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T007
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	JP-4FUEL-7
Capacity Gallons:	6000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-05-30 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T008
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	GASOLINE-8
Capacity Gallons:	6000

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UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-05-30 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T009
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	JET-AFUEL
Capacity Gallons:	5000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T010
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	JP-5FUEL10
Capacity Gallons:	5000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	1978-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T011
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	JP-4FUEL11
Capacity Gallons:	10000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-09-06 00:00:00
Year Installed:	1972-01-01 00:00:00
Pipe Type:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T012
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: DIESEL-12
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T013
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: DIESEL-13
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T014
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: COOLANTS14
Capacity Gallons: 4000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-08-29 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T015

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	AT3366
Capacity Gallons:	80
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1995-10-18 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Active Permits:

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	1317-65-3
Name:	PAINT: WATER BASE
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7757-79-1
Name:	Powder Electrolyte
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information:	OILY SLUDGE/STEAM CLNG SL
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS-OTHER-WST PETROLEU
Other Information:	WASTE PETROLEUM
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	141-43-5
Name:	Coolant, Machining (water base)

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: UNDERGROUND TANK 108828 T016 - EXEMPT
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 106-97-8
Name: FUEL: BUTANE
Other Information: LIQUID BULK
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas Blk Liquid Argon
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: Gas Blk liquid oxygen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-98-6
Name: Gas Blk Liquid Propane
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 151 ASBESTOS CONTAINING WASTE
Other Information: ASBESTOS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information: ACETONE, TOLUENE, FLAM LQ
Material Waste: Waste
Hazardous Categories 1: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information: WASTE PETROLEUM OIL/WATER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 261 POLYCHLORINATED BIPHENYLS
Other Information: PCB BALLASTS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 461 PAINT SLUDGE
Other Information: OIL BASED PAINT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10124-37-5
Name: Compound Cryscoat
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, 45% Helium in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Case Number:	7727-37-9
Name:	Gas, Hydrocarbon Free Air
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 343 UNSPEC ORGANIC LIQUID MIXTURE
Other Information:	WATER BASE PAINT
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information:	GRINDING GRIT/CHROME - ERM
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7727-37-9
Name:	Gas Blk Liquid Nitrogen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7727-73-9
Name:	Gas, Nitrogen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7782-44-7
Name:	Gas, Oxygen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	63449-39-8
Name:	Oil Cutting

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8008-20-6
Name: Oil Lubricating
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: WATER, OIL, COOLANT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 527-7-1
Name: Cleaner Machine Coolant (<10%)
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-38-2
Name: Compound Manganese
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 91-20-3
Name: DIESEL
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: CHRONIC

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8008-20-6
Name: Fuel Diesel
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 630-8-0
Name: Gas, <4.6 PPM Co <9.1% Co2 in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 124-38-0
Name: Gas, CO2 Syphon
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64741-65-7
Name: PAINT: OIL BASE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7691-52-9
Name: SODIUM HYPOCHLORITE
Other Information: BLEACH
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 78-93-3
Name: Solvent MEK
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 111-76-2
Name: Stripper Waxie
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information:	FILTERS W/METALS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS
Other Information:	RESINS ORGANICS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information:	RAGS WITH ACETONE
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7697-37-2
Name:	Acid Nitric
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	EXTREMELY HAZARDOUS
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7664-93-9
Name:	Acid Sulfuric
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	8002-9-3
Name:	Cleaner Kleen Pine, Pineoil
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported
Facility Id:	108828
Update Date:	11/02/2012
Case Number:	10102-43-9
Name:	Gas, <250 PPM Nitric Oxide in Nitrogen

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 124-38-9
Name: Gas, <76% Carbon Dioxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-82-8
Name: Gas, <910 PPM Methane in Air
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, 95% Argon 5% Hydrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-86-2
Name: Gas, Acetylene
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-41-7
Name: Gas, Ammonia, Anhydrous
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: EXTREMELY HAZARDOUS

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, Argon
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, Helium, Grade A
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas, Zero Grade Nitrogen 99.998%
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: TURCO RUST BLOC
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 902 INFECTIOUS WASTE, SHARPS
Other Information: SHARPS ISOLYZER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 67-64-1
Name: Acetone
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64-02-8
Name: ALAC CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date: 11/02/2012
Case Number: 112-34-5
Name: BLUEGOLD CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10028-22-5
Name: Deoxidizer Surface
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 76-13-1
Name: Freon PCA CC12FCC1F2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 12-43-8
Name: Gas, CO2 Weld Grade
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 115-7-1
Name: Gas, Propylene
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: GAS; BLK HYDROGEN
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: TRIDENT 6137

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: COOLING TOWER TREATMENT
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: LITHIUM BATTS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information: FILTER PRESS OILY DEBRIS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7647-1-0
Name: Acid Hydrochloric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1312-76-1
Name: Cleaner Alkaline, Sodium Hydroxide
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 107-41-5
Name: Emulsifier Hydrophilic
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 124-38-9
Name: Gas Blk liquid Carbon Dioxide
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: Gas, 40% Hydrogen 60% Helium
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, 90% Helium 7 1/2% Argon 2 1/2% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64742-47-2
Name: Oil Water Displacing
Other Information: AQUASORB (TURBO)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE
Other Information: LIQUID BULK
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8052-41-3
Name: Solvent Stoddard
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 11-76-2
Name: TURCO CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information: USED OIL TANKS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 630-8-0
Name: Gas, <5% Carbon Monoxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, 75% Argon 25% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: Gas, Hydrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-02-0
Name: Metal Spray Powder
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 108828
Update Date: 11/02/2012
Inspection Date: 08/23/2011
Violation Code: 6HV0303
Violation: WASTE TRANSPORT W/O MANIFEST
Violation Citation: Hazardous waste generator has transported a hazardous waste off-site without preparing a manifest prior to transport. 66262.20(a), 25160.2(b)9
Activity: ACTIVE

Facility Id: 108828
Update Date: 11/02/2012

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Inspection Date:	01/25/2006
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1017
Violation:	HMBP NOT CERTIFIED ANNUALLY
Violation Citation:	Business Plan not certified annually. 25505(d) & (e)(2)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0148
Violation:	WASTE ANALYSIS RECORDS NOT AVAILABLE.
Violation Citation:	Failed to keep copies of analytical results, waste analysis records, or waste determination results. (3 years) 66262.40(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0146
Violation:	NO ERM EXEMPTION CLAIM DOCUMENTS
Violation Citation:	Failed to have adequate records demonstrating claim of exemption for Excluded Recyclable Material (ERM). 25143.2(f) & 66261.2(g)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0238
Violation:	FAILED TO MANAGE UW IN A MANNER TO PREVE
Violation Citation:	Failed to manage UW in a manner to prevent release(s) to the environment. 66273.33 & 66273.33.5
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/16/2004
Violation Code:	6HV1601
Violation:	HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation:	Failed to obtain a P.E. assessment for hazardous waste tank system. 66265.191(a) or 66265.192(a)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0145
Violation:	ERM REPORT NOT SUBMITTED TO HMD

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Violation Citation:	Excluded recyclable materials report not submitted biennially to HMD &/or available. 25143.10
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0401
Violation:	TRAINING RECORDS UNAVAILABLE
Violation Citation:	Personnel training records are not maintained to document compliance with requirements for current and former employees. CCR 66265.16(d)&(e)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1603
Violation:	NO 2ND CONTAINMENT FOR HW TANK
Violation Citation:	Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0202
Violation:	WASTE CONTAINER W/O LABELS
Violation Citation:	Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV1014

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Violation:	HMBP INCOMPLETE/NOT AMENDED
Violation Citation:	HMBP is incomplete/inadequate/not amended to reflect changes. 25504, 25505(a)(2) &/or 25509(a); 25505(b); 19 CCR 2729
Activity:	ACTIVE
Facility Id:	108828
Business Type:	6HK35
EPA Id Number:	CAD008314908
APN:	DEH-108828
Last HMMD Inspection:	08/23/2011
Permit Status:	OPEN
Permit Expiration:	05/31/2013
Facility Owner:	SOLAR TURBINES INCORPORATED
Facility Address:	P O BOX 85376
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92186-5376
UST Owner:	SOLAR TURBINES
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Y
Generate Haz Waste:	Y
Treat Haz Waste:	N
Generate Medical Waste:	Not reported

UST:

UST Name:	UNDERGROUND TANK 108828 T016
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	STAND-ALONE TANK
Capacity Gallons:	500
UST Contents:	OTHER
Other Content Info:	MACHINE COOLANT
Reg Status:	EXEMPT
Remove Close Date:	Not reported
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	99
UST Monitor Method:	OTHER - BLIND REMARK REQUIRED
UST Name:	UNDERGROUND TANK 108828 T017
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	SINGLE WALL
Additional Id:	AT5437
Capacity Gallons:	1300
UST Contents:	JET FUEL
Other Content Info:	Not reported
Reg Status:	REMOVED
Remove Close Date:	2009-11-19 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	90
UST Monitor Method:	NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T018
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: SINGLE WALL
Additional Id: AT5437
Capacity Gallons: 1300
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-11-19 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T019
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: SINGLE WALL
Additional Id: AT5437
Capacity Gallons: 3000
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-11-23 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T020
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: SINGLE WALL
Additional Id: AT5437
Capacity Gallons: 3000
UST Contents: JET FUEL
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-12-23 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 108828 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Additional Id:	KEROSENE-1
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-04-06 00:00:00
Year Installed:	1973-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T002
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	KEROSENE-2
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-04-06 00:00:00
Year Installed:	1973-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T003
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	KEROSENE-3
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-04-06 00:00:00
Year Installed:	1973-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name:	UNDERGROUND TANK 108828 T004
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	KEROSENE-4
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-05-30 00:00:00

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Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: GASOLINE-5
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: DIESEL-6
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-4FUEL-7
Capacity Gallons: 6000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

UST Name: UNDERGROUND TANK 108828 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: GASOLINE-8
Capacity Gallons: 6000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-05-30 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T009
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JET-AFUEL
Capacity Gallons: 5000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T010
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-5FUEL10
Capacity Gallons: 5000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-06 00:00:00
Year Installed: 1978-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: JP-4FUEL11
Capacity Gallons: 10000

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-09-06 00:00:00
Year Installed:	1972-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY
UST Name:	UNDERGROUND TANK 108828 T012
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	DIESEL-12
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	1974-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY
UST Name:	UNDERGROUND TANK 108828 T013
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	DIESEL-13
Capacity Gallons:	12000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-11-06 00:00:00
Year Installed:	1974-01-01 00:00:00
Pipe Type:	Not reported
Delivery System:	Not reported
Monitor Code:	01
UST Monitor Method:	SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY
UST Name:	UNDERGROUND TANK 108828 T014
Last Update:	2012-11-02 14:17:38
Permit Number:	108828
Tank Type:	UNKNOWN
Additional Id:	COOLANTS14
Capacity Gallons:	4000
UST Contents:	Not reported
Other Content Info:	SEE FILE FOR CONTENTS
Reg Status:	REMOVED
Remove Close Date:	1986-08-29 00:00:00
Year Installed:	Not reported
Pipe Type:	Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Delivery System: Not reported
Monitor Code: 01
UST Monitor Method: SW TANK SW SUCTION PIPE W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALLY, PIPE TEST TRIENNIALLY

UST Name: UNDERGROUND TANK 108828 T015
Last Update: 2012-11-02 14:17:38
Permit Number: 108828
Tank Type: UNKNOWN
Additional Id: AT3366
Capacity Gallons: 80
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1995-10-18 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Active Permits:
Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1317-65-3
Name: PAINT: WATER BASE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7757-79-1
Name: Powder Electrolyte
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information: OILY SLUDGE/STEAM CLNG SL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS-OTHER-WST PETROLEU
Other Information: WASTE PETROLEUM
Material Waste: Waste
Hazardous Categories 1: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 141-43-5
Name: Coolant, Machining (water base)
Other Information: UNDERGROUND TANK 108828 T016 - EXEMPT
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 106-97-8
Name: FUEL: BUTANE
Other Information: LIQUID BULK
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas Blk Liquid Argon
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: Gas Blk liquid oxygen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-98-6
Name: Gas Blk Liquid Propane
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 151 ASBESTOS CONTAINING WASTE
Other Information: ASBESTOS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information:	ACETONE, TOLUENE, FLAM LQ
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 221 WASTE OIL & MIXED OIL
Other Information:	Not reported
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information:	WASTE PETROLEUM OIL/WATER
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 261 POLYCHLORINATED BIPHENYLS
Other Information:	PCB BALLASTS
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 461 PAINT SLUDGE
Other Information:	OIL BASED PAINT
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	10124-37-5
Name:	Compound Cryscoat
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	ACUTE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-59-7
Name:	Gas, 45% Helium in Nitrogen

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas, Hydrocarbon Free Air
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 343 UNSPEC ORGANIC LIQUID MIXTURE
Other Information: WATER BASE PAINT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information: GRINDING GRIT/CHROME - ERM
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: Gas Blk Liquid Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7727-73-9
Name: Gas, Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: Gas, Oxygen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 63449-39-8
Name: Oil Cutting
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8008-20-6
Name: Oil Lubricating
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: WATER, OIL, COOLANT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 527-7-1
Name: Cleaner Machine Coolant (<10%)
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-38-2
Name: Compound Manganese
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 91-20-3
Name: DIESEL
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: CHRONIC

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Case Number:	8008-20-6
Name:	Fuel Diesel
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	630-8-0
Name:	Gas, <4.6 PPM Co <9.1% Co2 in Nitrogen
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	PRESSURE RELEASE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	124-38-0
Name:	Gas, CO2 Syphon
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	ACUTE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	64741-65-7
Name:	PAINT: OIL BASE
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7691-52-9
Name:	SODIUM HYPOCHLORITE
Other Information:	BLEACH
Material Waste:	Material
Hazardous Categories 1:	REACTIVE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	78-93-3
Name:	Solvent MEK
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	ACUTE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	111-76-2
Name:	Stripper Waxie

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: FILTERS W/METALS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS
Other Information: RESINS ORGANICS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: RAGS WITH ACETONE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7697-37-2
Name: Acid Nitric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: EXTREMELY HAZARDOUS

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-93-9
Name: Acid Sulfuric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8002-9-3
Name: Cleaner Kleen Pine, Pineoil
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10102-43-9
Name: Gas, <250 PPM Nitric Oxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 124-38-9
Name: Gas, <76% Carbon Dioxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-82-8
Name: Gas, <910 PPM Methane in Air
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, 95% Argon 5% Hydrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-86-2
Name: Gas, Acetylene
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7664-41-7
Name: Gas, Ammonia, Anhydrous
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: EXTREMELY HAZARDOUS

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date:	11/02/2012
Case Number:	7440-37-1
Name:	Gas, Argon
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7440-59-7
Name:	Gas, Helium, Grade A
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	7727-37-9
Name:	Gas, Zero Grade Nitrogen 99.998%
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	PRESSURE RELEASE
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	TURCO RUST BLOC
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	CHRONIC
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	Not reported
Name:	WASTE 902 INFECTIOUS WASTE, SHARPS
Other Information:	SHARPS ISOLYZER
Material Waste:	Waste
Hazardous Categories 1:	Not reported
Hazardous Categories 2:	Not reported

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	67-64-1
Name:	Acetone
Other Information:	Not reported
Material Waste:	Material
Hazardous Categories 1:	FIRE
Hazardous Categories 2:	ACUTE

Facility Id:	108828
Update Date:	11/02/2012
Case Number:	64-02-8
Name:	ALAC CLEANER

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 112-34-5
Name: BLUEGOLD CLEANER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 10028-22-5
Name: Deoxidizer Surface
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 76-13-1
Name: Freon PCA CC12FCC1F2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 12-43-8
Name: Gas, CO2 Weld Grade
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 115-7-1
Name: Gas, Propylene
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: GAS; BLK HYDROGEN
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: TRIDENT 6137
Other Information: COOLING TOWER TREATMENT
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: LITHIUM BATTS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 491 UNSPECIFIED SLUDGE WASTE
Other Information: FILTER PRESS OILY DEBRIS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7647-1-0
Name: Acid Hydrochloric
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1312-76-1
Name: Cleaner Alkaline, Sodium Hydroxide
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 107-41-5
Name: Emulsifier Hydrophilic
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 108828

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Update Date: 11/02/2012
Case Number: 124-38-9
Name: Gas Blk liquid Carbon Dioxide
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: Gas, 40% Hydrogen 60% Helium
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-59-7
Name: Gas, 90% Helium 7 1/2% Argon 2 1/2% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 64742-47-2
Name: Oil Water Displacing
Other Information: AQUASORB (TURBO)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE
Other Information: LIQUID BULK
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 8052-41-3
Name: Solvent Stoddard
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 11-76-2
Name: TURCO CLEANER

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 222 OIL/WATER SEPARATION SLUDGE
Other Information: USED OIL TANKS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 630-8-0
Name: Gas, <5% Carbon Monoxide in Nitrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-37-1
Name: Gas, 75% Argon 25% CO2
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 1333-74-0
Name: Gas, Hydrogen
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 108828
Update Date: 11/02/2012
Case Number: 7440-02-0
Name: Metal Spray Powder
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 108828
Update Date: 11/02/2012
Inspection Date: 08/23/2011
Violation Code: 6HV0303
Violation: WASTE TRANSPORT W/O MANIFEST
Violation Citation: Hazardous waste generator has transported a hazardous waste off-site

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

	without preparing a manifest prior to transport. 66262.20(a), 25160.2(b)9
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	01/25/2006
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1017
Violation:	HMBP NOT CERTIFIED ANNUALLY
Violation Citation:	Business Plan not certified annually. 25505(d) & (e)(2)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0148
Violation:	WASTE ANALYSIS RECORDS NOT AVAILABLE.
Violation Citation:	Failed to keep copies of analytical results, waste analysis records, or waste determination results. (3 years) 66262.40(c)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0146
Violation:	NO ERM EXEMPTION CLAIM DOCUMENTS
Violation Citation:	Failed to have adequate records demonstrating claim of exemption for Excluded Recyclable Material (ERM). 25143.2(f) & 66261.2(g)
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0238
Violation:	FAILED TO MANAGE UW IN A MANNER TO PREVE
Violation Citation:	Failed to manage UW in a manner to prevent release(s) to the environment. 66273.33 & 66273.33.5
Activity:	ACTIVE
Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/16/2004
Violation Code:	6HV1601
Violation:	HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation:	Failed to obtain a P.E. assessment for hazardous waste tank system. 66265.191(a) or 66265.192(a)
Activity:	ACTIVE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0145
Violation:	ERM REPORT NOT SUBMITTED TO HMD
Violation Citation:	Excluded recyclable materials report not submitted biennially to HMD &/or available. 25143.10
Activity:	ACTIVE

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0401
Violation:	TRAINING RECORDS UNAVAILABLE
Violation Citation:	Personnel training records are not maintained to document compliance with requirements for current and former employees. CCR 66265.16(d)&(e)
Activity:	ACTIVE

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV0209
Violation:	WASTE ONSITE >90/180/270 DAYS
Violation Citation:	Hazardous waste is stored in excess of allowable time period (90 days) without a State permit or written variance. CCR 25201(a) & 66262.34(a)&(c)
Activity:	ACTIVE

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	05/01/2008
Violation Code:	6HV1603
Violation:	NO 2ND CONTAINMENT FOR HW TANK
Violation Citation:	Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)
Activity:	ACTIVE

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV0202
Violation:	WASTE CONTAINER W/O LABELS
Violation Citation:	Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity:	ACTIVE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Facility Id:	108828
Update Date:	11/02/2012
Inspection Date:	08/23/2011
Violation Code:	6HV1014
Violation:	HMBP INCOMPLETE/NOT AMENDED
Violation Citation:	HMBP is incomplete/inadequate/not amended to reflect changes. 25504, 25505(a)(2) &/or 25509(a); 25505(b); 19 CCR 2729
Activity:	ACTIVE

ENVIROSTOR:

Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	52
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Chatsworth
Facility ID:	37370021
Site Code:	400253
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Refer: RCRA
Status Date:	07/13/1989
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	32.72638
Longitude:	-117.1722
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* HALOGENATED SOLVENTS, * Laboratory Waste Chemicals, * Metals - Other Inorganic Solid Waste, * OIL/WATER SEPARATION SLUDGE, * OTHER ORGANIC SOLIDS, * AQUEOUS SOLUTION WITH METALS, * AQUEOUS SOLUTION WITH TOTAL ORGANIC RESIDUES > 10, * CONTAMINATED SOIL, * OFF-SPECIFICATION, AGED, OR SURPLUS ORGANICS, * ACID SOLUTION 2>PH WITH METALS, * ACID SOLUTION WITHOUT METALS, Asbestos Containing Materials (ACM, * BIOLOGICAL WASTE OTHER THAN SEWAGE SLUDGE, * Sludge - Paint, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED ALKALINE SOLUTIONS, * UNSPECIFIED OIL CONTAINING WASTE, * UNSPECIFIED SLUDGE WASTE, * UNSPECIFIED SOLVENT MIXTURES, * WASTE OIL & MIXED OIL, * OFF-SPECIFICATION, AGED, OR SURPLUS INORGANICS, * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS, * OTHER INORGANIC SOLID WASTE, * OTHER PESTICIDE CONTAINERS, 30 GALLONS OR MORE, * UNSPECIFIED ORGANIC LIQUID MIXTURE, * PHOSPHATE SLUDGE, Polychlorinated biphenyls (PCBs
Confirmed COC:	* HALOGENATED SOLVENTS, * Laboratory Waste Chemicals, * Metals - Other Inorganic Solid Waste, * OIL/WATER SEPARATION SLUDGE, * OTHER ORGANIC SOLIDS, * AQUEOUS SOLUTION WITH METALS, * AQUEOUS SOLUTION WITH TOTAL ORGANIC RESIDUES > 10, * CONTAMINATED SOIL, * OFF-SPECIFICATION, AGED, OR SURPLUS ORGANICS, * ACID SOLUTION 2>PH WITH METALS, * ACID SOLUTION WITHOUT METALS, Asbestos Containing Materials (ACM, * BIOLOGICAL WASTE OTHER THAN SEWAGE SLUDGE, * Sludge - Paint, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED ALKALINE SOLUTIONS, * UNSPECIFIED OIL CONTAINING WASTE, * UNSPECIFIED SLUDGE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

WASTE, * UNSPECIFIED SOLVENT MIXTURES, * WASTE OIL & MIXED OIL, * OFF-SPECIFICATION, AGED, OR SURPLUS INORGANICS, * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS, * OTHER INORGANIC SOLID WASTE, * OTHER PESTICIDE CONTAINERS, 30 GALLONS OR MORE, * UNSPECIFIED ORGANIC LIQUID MIXTURE, * PHOSPHATE SLUDGE, Polychlorinated biphenyls (PCBs, NONE SPECIFIED

Potential Description: NONE SPECIFIED
Alias Name: SOLAR AIRCRAFT
Alias Type: Alternate Name
Alias Name: CAD008314908
Alias Type: EPA Identification Number
Alias Name: 110000478741
Alias Type: EPA (FRS #)
Alias Name: 110017398948
Alias Type: EPA (FRS #)
Alias Name: CAD008314908
Alias Type: HWTS Identification Code
Alias Name: 400253
Alias Type: Project Code (Site Code)
Alias Name: 37370021
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/22/1989
Comments: PERMIT(OTHER) RCRA TSD PERMIT STATUS 1: PERMIT CANDIDATE SITE SCREENING DONE RATIONALE FOR REFERRED STATUS: TSD FACILITY

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/10/1987
Comments: SITE SCREENING DONE SOME SOIL CONTM FROM U/G TANKS. POTENTIAL FOR OTHER CONTM PROBLEMS FAC TYPE: QUEST. PROD MFG ASSEMBLE &SALE OF GAS TURBINE MACHINE. U/G TANK IS USED FOR A DRAIN FROM A SUMP. THIS LIQ IS SENT TO RECYCLER

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 10/14/1982
Comments: FACILITY IDENTIFIED ID VIA 50 PHONE BOOK

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 52

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	WM
Program Manager:	Vu Nguyen
Supervisor:	Philip Chandler
Division Branch:	Cleanup Chatsworth
Facility ID:	80001550
Site Code:	400253
Assembly:	33
Senate:	16
Special Program:	Not reported
Status:	Active
Status Date:	01/01/2008
Restricted Use:	YES
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.43105
Longitude:	-117.1573
APN:	NONE SPECIFIED
Past Use:	ABOVE GROUND STORAGE TANKS, MANUFACTURING - INDUSTRIAL MACHINERY, UNDERGROUND STORAGE TANKS
Potential COC:	* HALOGENATED SOLVENTS, * Laboratory Waste Chemicals, * Metals - Other Inorganic Solid Waste, * OIL/WATER SEPARATION SLUDGE, * OTHER ORGANIC SOLIDS, * AQUEOUS SOLUTION WITH METALS, * AQUEOUS SOLUTION WITH TOTAL ORGANIC RESIDUES > 10, * CONTAMINATED SOIL, * OFF-SPECIFICATION, AGED, OR SURPLUS ORGANICS, * ACID SOLUTION 2>PH WITH METALS, * ACID SOLUTION WITHOUT METALS, Asbestos Containing Materials (ACM, * BIOLOGICAL WASTE OTHER THAN SEWAGE SLUDGE, * Sludge - Paint, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED ALKALINE SOLUTIONS, * UNSPECIFIED OIL CONTAINING WASTE, * UNSPECIFIED SLUDGE WASTE, * UNSPECIFIED SOLVENT MIXTURES, * WASTE OIL & MIXED OIL, * OFF-SPECIFICATION, AGED, OR SURPLUS INORGANICS, * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS, * OTHER INORGANIC SOLID WASTE, * OTHER PESTICIDE CONTAINERS, 30 GALLONS OR MORE, * UNSPECIFIED ORGANIC LIQUID MIXTURE, * PHOSPHATE SLUDGE, Polychlorinated biphenyls (PCBs, NONE SPECIFIED, Tetrachloroethylene (PCE, 1,1,1-Trichloroethane (TCA, Trichloroethylene (TCE, Vinyl chloride, 1,1-Dichloroethylene, 1,4-Dioxane, Nickel, Polybrominated biphenyls
Confirmed COC:	* HALOGENATED SOLVENTS, * Laboratory Waste Chemicals, * Metals - Other Inorganic Solid Waste, * OIL/WATER SEPARATION SLUDGE, * OTHER ORGANIC SOLIDS, * AQUEOUS SOLUTION WITH METALS, * AQUEOUS SOLUTION WITH TOTAL ORGANIC RESIDUES > 10, * CONTAMINATED SOIL, * OFF-SPECIFICATION, AGED, OR SURPLUS ORGANICS, * ACID SOLUTION 2>PH WITH METALS, * ACID SOLUTION WITHOUT METALS, Asbestos Containing Materials (ACM, * BIOLOGICAL WASTE OTHER THAN SEWAGE SLUDGE, * Sludge - Paint, * UNSPECIFIED ACID SOLUTION, * UNSPECIFIED ALKALINE SOLUTIONS, * UNSPECIFIED OIL CONTAINING WASTE, * UNSPECIFIED SLUDGE WASTE, * UNSPECIFIED SOLVENT MIXTURES, * WASTE OIL & MIXED OIL, * OFF-SPECIFICATION, AGED, OR SURPLUS INORGANICS, * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS, * OTHER INORGANIC SOLID WASTE, * OTHER PESTICIDE CONTAINERS, 30 GALLONS OR MORE, * UNSPECIFIED ORGANIC LIQUID MIXTURE, * PHOSPHATE SLUDGE, Polychlorinated biphenyls (PCBs, NONE SPECIFIED, Tetrachloroethylene (PCE, 1,1,1-Trichloroethane (TCA, Trichloroethylene (TCE, Vinyl chloride, 1,1-Dichloroethylene, 1,4-Dioxane, Nickel, Polybrominated biphenyls, Tetrachloroethylene (PCE, 1,1,1-Trichloroethane (TCA, 1,4-Dioxane, Polybrominated biphenyls, Nickel, Trichloroethylene (TCE, 1,1-Dichloroethylene,

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Vinyl chloride
Potential Description: IA, SED, SOIL, SV, SURFW
Alias Name: CAD008314908
Alias Type: EPA Identification Number
Alias Name: 110000478741
Alias Type: EPA (FRS #)
Alias Name: SL209174192
Alias Type: GeoTracker Global ID
Alias Name: 400253
Alias Type: Project Code (Site Code)
Alias Name: 37370021
Alias Type: Envirostor ID Number
Alias Name: 80001550
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 06/03/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Questionnaire
Completed Date: 11/08/1994
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 04/30/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 01/03/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Workplan
Completed Date: 10/01/1980
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 11/03/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Workplan
Completed Date: 11/24/2004
Comments: Not reported

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 09/08/2011
Comments: DTSC has discussed and approved the Pilot Test Update document.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 02/10/2012
Comments: Comments discussed with facility.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 11/01/2008
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 02/28/2012
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 12/20/2012
Comments: Water Board and DTSC recommended additional parameters for testing. Facility ended EAB Pilot Study due to unsatisfactory results. No additional work will be on the EAB Pilot Study.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Implementation Report
Completed Date: 05/21/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot Study/Treatability Workplan
Completed Date: 03/12/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 03/11/2013
Comments: Site-visit completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/30/2013
Comments: Approval of field inspection.

Completed Area Name: PROJECT WIDE

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Completed Sub Area Name: Not reported
Completed Document Type: Interim Measures Implementation Report
Completed Date: 08/30/1986
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Report
Completed Date: 06/30/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RFI Workplan
Completed Date: 05/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 05/20/1991
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 07/15/2004
Comments: This report was approved in 2004.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 04/27/2010
Comments: Review completed, facility was notified by e-mail.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/20/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 09/30/2010
Comments: HRA review completed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 07/14/2011
Comments: DTSC concured with the findings in the report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 01/20/2011

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Comments: For information purposely only. Document is tracked by Post Closure Team.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 09/08/2011
Comments: DTSC has reviewed and approved the report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: RCRA Facility Assessment Report
Completed Date: 12/30/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 01/27/1997
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 10/01/1980
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Action Oversight Cost Recovery Estimate
Completed Date: 10/24/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Other Instrument
Completed Date: 11/24/2004
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Interim Measures Workplan
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Remedy Selection and Statement of Basis
Future Due Date: 2016
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CA Financial Assurance 1:
EPA ID Number: CAD008314908
Sudden Amount1: $2,000,000.00
Non Sudden Amount1: $6,000,000.00

SOLAR TURBINES, INCORPORATED (Continued) **S100277322**

Closure Mechanism:	CG
Closure Amount:	$13,417,949.00
Post Closure Mechanism:	CG
Post Closure Amount:	$1,577,809.00
Corrective Action Mechanism:	Not reported
Corrective Action Amount:	Not reported
Sudden Mechanism Type:	CG
Sudden Mechanism Amount:	$1,000,000.00
Non Sudden Mechanism Type:	CG
Non Sudden Mechanism Amount:	$3,000,000.00
O&M Mechanism Type:	Not reported
O&M Amount:	Not reported

AA126 **SOLAR TURBINES INC** **RCRA-TSDF** **1000154490**
SSE **2200 PACIFIC HWY** **CERC-NFRAP** **92101SLRTR2200P**
1/2-1 **SAN DIEGO, CA 92101** **CORRACTS**
0.888 mi. **RCRA-LQG**
4688 ft. **Site 2 of 3 in cluster AA** **US INST CONTROL**
TRIS
Relative: **NY MANIFEST**
Lower **CA EMI**
US FIN ASSUR
Actual: **CA HWP**
23 ft. **US AIRS**

RCRA-TSDF:

Date form received by agency:	03/02/2012
Facility name:	SOLAR TURBINES INCORPORATED
Facility address:	2200 PACIFIC HIGHWAY SAN DIEGO, CA 92101
EPA ID:	CAD008314908
Mailing address:	PACIFIC HIGHWAY SAN DIEGO, CA 92101
Contact:	RUTH G SOKLOW
Contact address:	PO BOX 85376 SAN DIEGO, CA 92186
Contact country:	Not reported
Contact telephone:	(619) 544-5394
Contact email:	SOKLOW_RUTH_G@SOLARTURBINES.COM
EPA Region:	09
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

SOLAR TURBINES INC (Continued) **1000154490**

Owner/Operator Summary:
Owner/operator name: CATERPILLAR
Owner/operator address: PACIFIC HIGHWAY
SAN DIEGO, CA 92101
Owner/operator country: Not reported
Owner/operator telephone: (619) 544-5394
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/21/1981
Owner/Op end date: Not reported

Owner/operator name: SOLAR TURBINES INCORPORATED
Owner/operator address: PO BOX 85376
SAN DIEGO, CA 92186
Owner/operator country: Not reported
Owner/operator telephone: (619) 544-5394
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/21/1981
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/14/2010
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURRBINES INCORPORATED - HARBOR DRIVE
Classification: Large Quantity Generator

Date form received by agency: 02/29/2008
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURRBINES INCORPORATED - HARBOR DRIVE
Classification: Large Quantity Generator

Date form received by agency: 02/10/2006
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INCORPORATED - HARBOR DR.
Classification: Large Quantity Generator

Date form received by agency: 02/25/2004
Facility name: SOLAR TURBINES INCORPORATED

SOLAR TURBINES INC (Continued) **1000154490**

Site name: SOLAR TURBINES INCORPORATED - HARBOR DR.
Classification: Large Quantity Generator

Date form received by agency: 02/26/2002
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INCORPORATED - HARBOR DR.
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES - HARBOR DRIVE
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Facility name: SOLAR TURBINES INCORPORATED
Classification: Large Quantity Generator

Date form received by agency: 02/02/1998
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INTERNATIONAL
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INTERNATIONAL
Classification: Large Quantity Generator

Date form received by agency: 03/01/1996
Facility name: SOLAR TURBINES INCORPORATED
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INC-HARBOR DRIVE FACILITY
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INC
Classification: Large Quantity Generator

Date form received by agency: 05/29/1990
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INC
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INTERNATIONAL
Classification: Large Quantity Generator

Date form received by agency: 08/14/1980
Facility name: SOLAR TURBINES INCORPORATED
Site name: SOLAR TURBINES INTERNATIONAL
Classification: Large Quantity Generator

SOLAR TURBINES INC (Continued) **1000154490**

Hazardous Waste Summary:

Waste code:	172
Waste name:	172
Waste code:	181
Waste name:	181
Waste code:	331
Waste name:	331
Waste code:	352
Waste name:	352
Waste code:	461
Waste name:	461
Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Waste code:	D002
Waste name:	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Waste code:	D005
Waste name:	BARIUM
Waste code:	D007
Waste name:	CHROMIUM
Waste code:	D008
Waste name:	LEAD
Waste code:	D035
Waste name:	METHYL ETHYL KETONE
Waste code:	F003
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

SOLAR TURBINES INC (Continued) **1000154490**

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 4133

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 1329

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 19758

Waste code: D008
Waste name: LEAD
Amount (Lbs): 6590

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 4133

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 2802

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF

SOLAR TURBINES INC (Continued) **1000154490**

ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs): 2802

Corrective Action Summary:

Event date:	10/01/1980
Event:	Stabilization Measures Implemented, Primary measure is source removal and/or treatment (e.g., soil or waste excavation, in-situ soil treatment, off-site treatment).
Event date:	08/30/1986
Event:	Stabilization Construction Completed
Event date:	04/30/1991
Event:	RFA Completed
Event date:	04/30/1991
Event:	RFA Completed, Assessment was a PA-Plus.
Event date:	05/20/1991
Event:	CA049PA
Event date:	05/20/1991
Event:	CA029ST
Event date:	05/20/1991
Event:	CA Prioritization, Facility or area was assigned a medium corrective action priority.
Event date:	11/08/1994
Event:	Stabilization Measures Evaluation,This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.
Event date:	11/08/1994
Event:	Stabilization Measures Evaluation,This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.
Event date:	11/14/1994
Event:	CA Prioritization, Facility or area was assigned a medium corrective action priority.
Event date:	12/30/1996
Event:	RFA Completed, Assessment was an RFA.
Event date:	01/01/1997
Event:	RFI Imposition
Event date:	06/30/1997
Event:	RFI Approved
Event date:	11/03/1997

SOLAR TURBINES INC (Continued) **1000154490**

Event: RFI Workplan Approved

Event date: 11/03/1997
Event: RFI Workplan Approved

Event date: 01/03/2000
Event: RFI Approved

Event date: 05/09/2001
Event: RFI Workplan Approved

Event date: 05/09/2001
Event: RFI Workplan Approved

Event date: 11/24/2004
Event: Stabilization Measures Implemented

Event date: 06/03/2010
Event: CA772PR

Event date: Not reported
Event: CMS Approved

Event date: Not reported
Event: Stabilization Measures Evaluation,This facility is not amenable to stabilization activity because of a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available.

Event date: Not reported
Event: CA03193

Event date: Not reported
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 07/17/2008
Date achieved compliance: 08/05/2008
Violation lead agency: State
Enforcement action: SINGLE SITE CA/FO
Enforcement action date: 09/08/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: 38000
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 07/17/2008
Date achieved compliance: 08/05/2008
Violation lead agency: State

SOLAR TURBINES INC (Continued) **1000154490**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/17/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 01/25/2006
Date achieved compliance: 01/25/2006
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/25/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.30-34.C
Area of violation: Generators - General
Date violation determined: 08/14/1996
Date achieved compliance: 10/01/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/14/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/14/1996
Date achieved compliance: 10/01/1997
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/14/1996
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.170-177.I
Area of violation: TSD - General
Date violation determined: 03/27/1995
Date achieved compliance: 04/04/1995
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

SOLAR TURBINES INC (Continued) **1000154490**

Enforcement action date: 03/27/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.10-18.B
Area of violation: TSD - General
Date violation determined: 11/03/1992
Date achieved compliance: 06/30/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.170-177.I
Area of violation: TSD - General
Date violation determined: 11/03/1992
Date achieved compliance: 06/30/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.30-37.C
Area of violation: TSD - General
Date violation determined: 11/03/1992
Date achieved compliance: 06/30/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 10/30/1992
Date achieved compliance: 06/30/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported

SOLAR TURBINES INC (Continued) **1000154490**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 02/20/1991
Date achieved compliance: 05/26/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 02/20/1991
Date achieved compliance: 05/26/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 270
Area of violation: TSD - General
Date violation determined: 02/20/1991
Date achieved compliance: 05/26/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL
Area of violation: LDR - General
Date violation determined: 05/16/1988
Date achieved compliance: 05/16/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

SOLAR TURBINES INC (Continued) **1000154490**

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 268.7
Area of violation: LDR - General
Date violation determined: 05/16/1988
Date achieved compliance: 05/16/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 04/16/1987
Date achieved compliance: 05/16/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/16/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/05/2008
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/17/2008
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 08/05/2008
Evaluation lead agency: State

Evaluation date: 07/17/2008
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/25/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/25/2006

SOLAR TURBINES INC (Continued) **1000154490**

Evaluation lead agency: Local

Evaluation date: 08/11/2003
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/17/2001
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/14/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/01/1997
Evaluation lead agency: State

Evaluation date: 03/27/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 04/04/1995
Evaluation lead agency: State

Evaluation date: 10/30/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 06/30/1994
Evaluation lead agency: State

Evaluation date: 10/30/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - General
Date achieved compliance: 06/30/1994
Evaluation lead agency: State

Evaluation date: 09/17/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/20/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 05/26/1992
Evaluation lead agency: State

Evaluation date: 02/20/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 05/26/1992
Evaluation lead agency: State

Evaluation date: 05/24/1988

SOLAR TURBINES INC (Continued) **1000154490**

Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/16/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 05/16/1988
Evaluation lead agency: State

Evaluation date: 05/16/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/16/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/16/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD - General
Date achieved compliance: 05/16/1988
Evaluation lead agency: State Contractor/Grantee

CERC-NFRAP:
Site ID: 0903104
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13289380.00000
Person ID: 13003854.00000

Contact Sequence ID: 13294975.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300833.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: SOLAR TURBINES INC
Alias Address: Not reported
CA

Program Priority:
Description: RCRA Deferral - Lead Confirmed

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /

SOLAR TURBINES INC (Continued) **1000154490**

Date Completed: 12/01/87
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 05/20/91
Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

CORRACTS:

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19970101
Action: CA100 - RFI Imposition
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19801001
Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20000103
Action: CA200 - RFI Approved
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 20100603
Action: CA772PR
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing

SOLAR TURBINES INC (Continued) **1000154490**

Air and Gas Compressor Manufacturing
Original schedule date: 20101026
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19971103
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19970930
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19971103
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19941108
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19941108
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19941108
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY

SOLAR TURBINES INC (Continued) **1000154490**

Actual Date: 20010509
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19941114
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910520
Action: CA049PA
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910520
Action: CA029ST
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910520
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY

SOLAR TURBINES INC (Continued) **1000154490**

Actual Date: 20041124
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910430
Action: CA050PA - RFA Completed, Assessment was a PA-Plus
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910430
Action: CA050 - RFA Completed
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19910430
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19860830
Action: CA650 - Stabilization Construction Completed
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19961230
Action: CA050RF - RFA Completed, Assessment was an RFA
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19960930
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium

SOLAR TURBINES INC (Continued) **1000154490**

corrective action priority
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19920707
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA03193
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19931001
Schedule end date: Not reported

EPA ID: CAD008314908
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: Not reported
Action: CA225IN - Stabilization Measures Evaluation, This facility is not, amenable to stabilization activity because of, a lack of technical data. An evaluation has been completed, but further data is necessary to determine stabilization measures, feasibility or appropriateness. This status should be changed when data becomes available
NAICS Code(s): 333611 333912
Turbine and Turbine Generator Set Units Manufacturing
Air and Gas Compressor Manufacturing
Original schedule date: 19920707
Schedule end date: Not reported

US INST CONTROL:
EPA ID: CAD008314908
Site ID: Not reported
Name: SOLAR TURBINES INCORPORATED
Action Name: Not reported
Address: 2200 PACIFIC HIGHWAY
SAN DIEGO, CA 92101
EPA Region: 09
County: SAN DIEGO
Event Code: CA772PR
Inst. Control: Not reported
Actual Date: 06/03/2010
Complet. Date: 01/01/1900
Operable Unit: Not reported
Contaminated Media : Not reported

TRIS:

Click this hyperlink while viewing on your computer to access
3 additional US_TRIS: record(s) in the EDR Site Report.

NY MANIFEST:
EPA ID: CAD008314908
Country: USA

SOLAR TURBINES INC (Continued) **1000154490**

Mailing Name:	SOLAR TURBINES
Mailing Contact:	GLENN M CASHMAN
Mailing Address:	P O BOX 85376
Mailing Address 2:	Not reported
Mailing City:	SAN DIEGO
Mailing State:	CA
Mailing Zip:	92186
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	619-544-5191

Document ID:	NYB1156833
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	Not reported
Trans2 State ID:	Not reported
Generator Ship Date:	931215
Trans1 Recv Date:	931215
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	940105
Part A Recv Date:	Not reported
Part B Recv Date:	940119
Generator EPA ID:	CAD008314908
Trans1 EPA ID:	MOD095038998
Trans2 EPA ID:	Not reported
TSDF ID:	NYD048148175
Waste Code:	D009 - MERCURY 0.2 MG/L TCLP
Quantity:	00025
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Waste Code:	Not reported
Quantity:	00070
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	93

Document ID:	NYB5421051
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	409403
Trans2 State ID:	Not reported
Generator Ship Date:	930701
Trans1 Recv Date:	930701
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	930729
Part A Recv Date:	930713
Part B Recv Date:	930810
Generator EPA ID:	CAD008314908
Trans1 EPA ID:	ILD047267364
Trans2 EPA ID:	Not reported
TSDF ID:	NYD048148175

SOLAR TURBINES INC (Continued) **1000154490**

Waste Code:	D009 - MERCURY 0.2 MG/L TCLP
Quantity:	00100
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	93

Document ID:	NYB5420835
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	409403
Trans2 State ID:	400126
Generator Ship Date:	931001
Trans1 Recv Date:	931001
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	931028
Part A Recv Date:	Not reported
Part B Recv Date:	931110
Generator EPA ID:	CAD008314908
Trans1 EPA ID:	MOD095038998
Trans2 EPA ID:	Not reported
TSDF ID:	NYD048148175
Waste Code:	D009 - MERCURY 0.2 MG/L TCLP
Quantity:	00040
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	93

Document ID:	NYB1156878
Manifest Status:	Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID:	440256
Trans2 State ID:	Not reported
Generator Ship Date:	941128
Trans1 Recv Date:	941128
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	941222
Part A Recv Date:	Not reported
Part B Recv Date:	950103
Generator EPA ID:	CAD008314908
Trans1 EPA ID:	MOD095038998
Trans2 EPA ID:	Not reported
TSDF ID:	NYD048148175
Waste Code:	D009 - MERCURY 0.2 MG/L TCLP
Quantity:	00150
Units:	P - Pounds
Number of Containers:	001
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	94

SOLAR TURBINES INC (Continued) **1000154490**

EMI:

Year:	1997
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	15
NOX - Oxides of Nitrogen Tons/Yr:	33
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	1998
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	15
NOX - Oxides of Nitrogen Tons/Yr:	33
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	1999
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	6
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	15
NOX - Oxides of Nitrogen Tons/Yr:	33
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	2000
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD

SOLAR TURBINES INC (Continued) **1000154490**

SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	21
NOX - Oxides of Nitrogen Tons/Yr:	29
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	13
NOX - Oxides of Nitrogen Tons/Yr:	19
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	13
NOX - Oxides of Nitrogen Tons/Yr:	19
SOX - Oxides of Sulphur Tons/Yr:	2
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3

Year:	2003
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	2

SOLAR TURBINES INC (Continued) **1000154490**

Carbon Monoxide Emissions Tons/Yr:	7
NOX - Oxides of Nitrogen Tons/Yr:	13
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2004
County Code:	37
Air Basin:	SD
Facility ID:	167
Air District Name:	SD
SIC Code:	3511
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.98228064
Reactive Organic Gases Tons/Yr:	2.10568585
Carbon Monoxide Emissions Tons/Yr:	7.49662019
NOX - Oxides of Nitrogen Tons/Yr:	12.9454925
SOX - Oxides of Sulphur Tons/Yr:	1.47202425
Particulate Matter Tons/Yr:	2.00387803
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.00387803

US FIN ASSUR:

EPA ID:	CAD008314908
Provider:	CATERPILLAR
EPA region:	9
County:	SAN DIEGO
Mechanism type:	CORPORATE GUARANTEE
Mechanism ID:	CG001
Cost estimate:	742955
Face value:	8742955
Effective date:	2011-03-26 00:00:00

EPA ID:	CAD008314908
Provider:	CATERPILLAR
EPA region:	9
County:	SAN DIEGO
Mechanism type:	CORPORATE GUARANTEE
Mechanism ID:	CG001
Cost estimate:	8000000
Face value:	8742955
Effective date:	2011-03-26 00:00:00

HWP:

EPA Id:	CAD008314908
Cleanup Status:	CLOSED
Latitude:	38.71527
Longitude:	-117.1972
Facility Type:	Historical - Non-Operating
Facility Size:	Large Postclosure
Team:	PHILLIP BLUM
Supervisor:	CHIA RIN YEN
Site Code:	400253
Assembly District:	Not reported
Senate District:	Not reported

SOLAR TURBINES INC (Continued) **1000154490**

Public Information Officer: Not reported

Activities:

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 06/30/1993

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 07/24/1987

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 07/24/1987

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 07/24/1992

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION RECEIVED
Actual Date: 01/30/1991

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 03/09/1983

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 01/15/1987

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/19/1980

Closure:

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date: 10/03/2013

SOLAR TURBINES INC (Continued) **1000154490**

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - RESPONSE TO 2ND NOD RECEIVED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - RESPONSE TO 1ST NOD RECEIVED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - FINAL CEQA
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - FINAL POST-CLOSURE PERMIT
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - TECHNICAL COMPLETE LETTER
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - 2ND NOTICE OF DEFICIENCY ISSUED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - 3RD NOTICE OF DEFICIENCY ISSUED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - ADMINISTRATIVE REVIEW COMPLETE
Actual Date: 04/11/2013

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - APPLICATION PART B RECEIVED
Actual Date: 03/11/2013

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump

SOLAR TURBINES INC (Continued) **1000154490**

Event Description: New Post-Closure Permit - APPLICATION PART A RECEIVED
Actual Date: 03/07/2013

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, CONTAIN2, OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 06/30/1995

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - PUBLIC COMMENT (BEGIN)
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - FINAL PART A & PART B RECEIVED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - DRAFT POST-CLOSURE PERMIT
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - RESPONSE TO 3RD NOD RECEIVED
Actual Date: Not reported

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Unit Names: OTHRTRT1-Distilation System, TANKTRT1-Chapel Sump
Event Description: New Post-Closure Permit - CEQA DETERMINATION
Actual Date: Not reported

Alias:

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 37370021

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110000478741

EPA Id: CAD008314908
Facility Type: Historical - Non-Operating
Alias Type: Project Code (Site Code)
Alias: 400253

Maintenance:

SOLAR TURBINES INC (Continued) **1000154490**

EPA Id: CAD008314908
Title: Agreement for land use restrictions
Document Type: Deed Restriction / LUC Issued
Received Date: 03/13/2009

EPA Id: CAD008314908
Title: Agreement for land use restrictions
Document Type: Deed Restriction / LUC Issued
Received Date: 03/13/2009

AIRS (AFS):

Compliance and Violation Data Major Sources:
EPA plant ID: 110000478741
Plant name: SOLAR TURBINES INC
Plant address: 2200 PACIFIC HWY
SAN DIEGO, CA 92101
County: SAN DIEGO
Region code: 09
Dunn & Bradst #: 042261099
Air quality cntrl region: 029
Sic code: 3511
Sic code desc: TURBINES AND TURBINE GENERATOR SETS
North Am. industrial classf: 333611
NAIC code description: Turbine and Turbine Generator Set Units Manufacturing
Default compliance status: IN COMPLIANCE - INSPECTION
Default classification: POTENTIAL EMISSIONS ARE BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS IF AND ONLY IF THE SOURCE COMPLIES WITH FEDERALLY ENFORCEABLE REGULATIONS OR LIMITATIONS.
Govt facility: ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV: Not reported

Compliance and Enforcement Major Issues:
Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 001212
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 001212
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 011128
Penalty amount: 000000000

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 011128
Penalty amount: 000000000

Air program: TITLE V PERMITS

SOLAR TURBINES INC (Continued) **1000154490**

National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 030403
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 030915
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 031118
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 041021
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 050104
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: COMPLIANCE CERTIFICATION STATE REVIEW
Date achieved: 050325
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 050615
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 050615
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 070612
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 090708
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 100625
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 110120

SOLAR TURBINES INC (Continued) **1000154490**

Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 120119
Penalty amount: Not reported

Air program: SIP SOURCE
National action type: STATE CONDUCTED FCE / ON-SITE
Date achieved: 130621
Penalty amount: Not reported

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 980121
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 980121
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 981222
Penalty amount: 000000000

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 981222
Penalty amount: 000000000

Air program: TITLE V PERMITS
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 991123
Penalty amount: 000000000

Air program: SIP SOURCE
National action type: MULTI MEDIA INSPECTION - LEVEL 2 OR GREATER
Date achieved: 991123
Penalty amount: 000000000

Historical Compliance Minor Sources:
State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1004
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1101
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1103
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1104

SOLAR TURBINES INC (Continued) **1000154490**

Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1202
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1203
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1301
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1302
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1303
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1101
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1102
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1104
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1201
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1202
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1204
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1301
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1303
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1102
Air prog code hist file: SIP SOURCE

SOLAR TURBINES INC (Continued) **1000154490**

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1201
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - INSPECTION
Hist compliance date: 1204
Air prog code hist file: SIP SOURCE

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1004
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1103
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1203
Air prog code hist file: TITLE V PERMITS

State compliance status: IN COMPLIANCE - SHUT DOWN
Hist compliance date: 1302
Air prog code hist file: TITLE V PERMITS

Permit Information:
Compliance plant ID: 00405
Permit number: 960989
Permit category: V
Permit category desc: TITLE V PERMIT - PLANT SP

Permit Source:
Compliance plant ID: 00405
Plant name: SOLAR TURBINES INC
Plant address: 2200 PACIFIC HWY
SAN DIEGO, CA 92101

Event Information:
Compliance permit ID: 00405
Permit number: 960989
Event action type: IF
Event description: *PERMIT AUTHORITY ISSUES FINAL PERMIT
Event action #: 001
Event date: 20010625

127
WNW
1/2-1
0.890 mi.
4698 ft.

VIETNAM VETERANS OF SD **CA LUST S109464081**
4141 PACIFIC HY **CA SLIC N/A**
SAN DIEGO, CA 92110 **CA ENVIROSTOR**

Relative:
Lower

Actual:
12 ft.

LUST:
Region: STATE
Global Id: T06019765361
Latitude: 32.744747
Longitude: -117.192346

VIETNAM VETERANS OF SD (Continued) **S109464081**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/23/2006
Lead Agency:	SAN DIEGO COUNTY LOP
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	Not reported
LOC Case Number:	H02853-002
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Status History:

Global Id:	T06019765361
Status:	Open - Case Begin Date
Status Date:	04/16/2004

Global Id:	T06019765361
Status:	Completed - Case Closed
Status Date:	06/23/2006

Regulatory Activities:

Global Id:	T06019765361
Action Type:	ENFORCEMENT
Date:	05/10/2004
Action:	Notice of Responsibility

Global Id:	T06019765361
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T06019765361
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T06019765361
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T06019765361
Action Type:	Other
Date:	01/01/1950
Action:	Leak Began

Global Id:	T06019765361
Action Type:	ENFORCEMENT
Date:	02/14/2005
Action:	Notice of Violation

VIETNAM VETERANS OF SD (Continued) **S109464081**

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	04/18/2002
Global Id:	T0608168930
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H02853-001
Latitude:	32.744747
Longitude:	-117.192346
Case Type:	Cleanup Program Site
Case Worker:	JC
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Voluntary Assistance Program case

Click here to access the California GeoTracker records for this facility:

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	H. Alan Hsu
Supervisor:	Manny Alonzo
Division Branch:	Cleanup Cypress
Facility ID:	60001523
Site Code:	401598
Assembly:	76
Senate:	39
Special Program:	EPA - PASI
Status:	No Further Action
Status Date:	12/07/2012
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	EPA Grant
Latitude:	32.74512
Longitude:	-117.1923
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	401598
Alias Type:	Project Code (Site Code)
Alias Name:	60001523
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	PA/SI Site Screening
Completed Date:	09/28/2012

VIETNAM VETERANS OF SD (Continued) **S109464081**

Comments:	USEPA final and signed
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AA128 **SAN DIEGO BARRACKS** **CA ENVIROSTOR** **S107737233**
SSE **N/A**
1/2-1 **SAN DIEGO, CA**
0.918 mi.
4846 ft. **Site 3 of 3 in cluster AA**

Relative:
Lower

Actual:
19 ft.

ENVIROSTOR:

Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Facility ID:	80000450
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	DERA
Latitude:	32.72583
Longitude:	-117.1730
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F559900
Alias Type:	Federal Facility ID
Alias Name:	J09CA0596
Alias Type:	INPR
Alias Name:	80000450
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

SAN DIEGO BARRACKS (Continued) **S107737233**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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129 WNW 1/2-1 0.941 mi. 4971 ft. **MFG PLANT ANX DPC, SAN DIEGO** **CA ENVIROSTOR** **S107737239 N/A**

SAN DIEGO, CA

Relative: Lower

Actual: 16 ft.

ENVIROSTOR:

Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Douglas Bautista
Division Branch:	Cleanup Cypress
Facility ID:	80000457
Site Code:	Not reported
Assembly:	78
Senate:	39
Special Program:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	07/01/2005
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	DERA
Latitude:	32.74527
Longitude:	-117.1938
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED, NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F560600
Alias Type:	Federal Facility ID
Alias Name:	J09CA0604
Alias Type:	INPR
Alias Name:	80000457
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inventory Project Report (INPR)
Completed Date:	06/26/1989
Comments:	Not reported
Future Area Name:	Not reported

MFG PLANT ANX DPC, SAN DIEGO (Continued) **S107737239**

Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

130
ENE
1/2-1
0.965 mi.
5097 ft.

300 BLK OF BROOKS AVE **CA Notify 65** **S100178115**
SAN DIEGO, CA **N/A**

Relative:
Higher

Actual:
288 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

131
North
1/2-1
0.990 mi.
5226 ft.

1754 NORTH ARBOR **CA Notify 65** **S100178157**
SAN DIEGO, CA 92103 **N/A**

Relative:
Higher

Actual:
284 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92103-1207

Count: 20 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MCRD SAN DIEGO	S100179577	MARINE CORPS RECRUIT DEPOT	BLDG 9 USMC RECRUIT DEPOT	92140	CA LUST, CA Notify 65
SAN DEIGO	S105026107	CROW VENTURES MGMT	120010 INDIA	92101	CA HIST CORTESE
SAN DEIGO	S105026118	CAMP ELLIOT, TIERRASANTA	NORTHERN PORTION OF SAN D	92103	CA HIST CORTESE
SAN DIEGO	S113792446	INDIA STREET PROJECT	1740, 1742, 1742 1/2 INDIA ST.	92101	CA HAZNET
SAN DIEGO	1006838101	26TH STREET LANDFILL	26TH ST NR. BALB. PK		FINDS
SAN DIEGO	1016301907	38TH AND QUINCE STREET	38TH AND QUINCE STREET		FINDS
SAN DIEGO	1010728396	QUINCE STREET BURN SITE	38TH-39TH AND QUINCE STREET		FINDS
SAN DIEGO	S106893841	CITY WALK CONDOS	600-614 & 620 UNION STREET	92101	CA ENVIROSTOR
SAN DIEGO	1016424797	SDG&E - CHICARITA SUBSTATION	AZUAGA ST N/E OF RANCHO PENASQ		FINDS
SAN DIEGO	1006829673	KELLY STREET BURNSITE	6500 BLOCK KELLY ST		FINDS
SAN DIEGO	1016435795	SDG&E - ARTESIAN SUBSTATION	17291 CAMINO DEL SUR		FINDS
SAN DIEGO	S106797708	JACKSON & BLANC FACILITY	2015 INDIA/602 GRAPE/1970 COLU	92101	CA ENVIROSTOR
SAN DIEGO	1014673652	NAVY BASE SAN DIEGO 28TH STREET NA	NBSD, BLDG 3156		FINDS
SAN DIEGO	S106519116	NAVISTAR INTERNATIONAL TRANS. CORP	2200 PACIFIC COAST HWY	92101	CA SLIC
SAN DIEGO	1004675676	SHELL SERVICE STATION - 135897	2008 PACIFIC HWY/GRAPE	92101	RCRA-SQG
SAN DIEGO	1016435786	SDG&E - RANCHO BERNARDO SUBSTATION	10800 RANCHO BERNARDO		FINDS
SAN DIEGO	S103442740	NORTH MIRAMAR	SAN CLEMENTE CANYON		CA WMUDS/SWAT
SAN DIEGO	1001832381	SAN DIEGO CO, MSW	SAN DIEGO CITY	92101	CA HIST CORTESE
SAN DIEGO	S108407333	W-HOTEL SAN DIEGO	STATE ST	92101	CA SAN DIEGO CO. SAM
SAN DIEGO	1006829655	ARIZONA STREET SLF	UPAS / FLORIDA CANYON		FINDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 01/09/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/31/2013
Date Data Arrived at EDR: 07/08/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 151

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/10/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/20/2013
Date Data Arrived at EDR: 11/21/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 95

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 02/07/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/14/2014
Date Data Arrived at EDR: 02/18/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 28

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/18/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/16/2014
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/13/2014
Date Data Arrived at EDR: 02/14/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 10

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/26/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/21/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/27/2013
Date Data Arrived at EDR: 08/27/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 66
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 01/29/2014
Date Data Arrived at EDR: 01/29/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 42
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/26/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 08/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 92

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 07/29/2013
Date Data Arrived at EDR: 07/30/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 129

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/13/2014
Date Data Arrived at EDR: 02/14/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 10

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/17/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/24/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/20/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/18/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/20/2013
Date Data Arrived at EDR: 11/25/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 36
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/04/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 65
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/04/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/06/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 39
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/28/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 20
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/04/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 01/17/2014
Date Data Arrived at EDR: 01/21/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/11/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/03/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 52

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 01/13/2014
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 10/14/2013
Date Data Arrived at EDR: 10/30/2013
Date Made Active in Reports: 12/03/2013
Number of Days to Update: 34

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/19/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 10/02/2013
Date Made Active in Reports: 12/16/2013
Number of Days to Update: 75

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/06/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/11/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/25/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 09/05/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 28

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/05/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/26/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/28/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/09/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013
Date Data Arrived at EDR: 07/17/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 107

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/28/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/09/2014
Date Data Arrived at EDR: 01/10/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/10/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/14/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/28/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 09/25/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/18/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/19/2013
Date Data Arrived at EDR: 11/21/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 42
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/18/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/30/2013
Date Data Arrived at EDR: 12/31/2013
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 42
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/31/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/16/2013
Number of Days to Update: 35
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 02/25/2014
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 19

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 41

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 06/25/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 58

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/07/2014
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: N/A

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 07/03/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 72

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/02/2014
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/13/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/18/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/28/2014
Date Data Arrived at EDR: 01/30/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/14/2014
Date Data Arrived at EDR: 02/18/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 28

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/20/2013
Date Data Arrived at EDR: 12/03/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/24/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/25/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/13/2014
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/14/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/11/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/26/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Annually

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/20/2013
Date Data Arrived at EDR: 12/11/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 24

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/22/2014
Date Data Arrived at EDR: 01/23/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 19

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2014
Date Data Arrived at EDR: 01/23/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 20

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 12/05/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 24

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 20

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 11/26/2013
Number of Days to Update: 56

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 12/05/2013
Date Data Arrived at EDR: 12/05/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 53

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 03/13/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/24/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 21

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/05/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 11/04/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/20/2014
Date Data Arrived at EDR: 02/21/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 27

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/04/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 28

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/27/2014
Date Data Arrived at EDR: 01/28/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 14

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/25/2014
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 21

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/06/2013
Date Data Arrived at EDR: 01/28/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 48
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/20/2014
Date Data Arrived at EDR: 01/21/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 21
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/21/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/10/2014
Date Data Arrived at EDR: 02/12/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 33
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/30/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 33
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/13/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 02/20/2014
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 01/03/2014
Date Data Arrived at EDR: 01/09/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 34

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/25/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 91

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 12/02/2013
Date Data Arrived at EDR: 12/03/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 30

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/09/2014
Date Data Arrived at EDR: 01/10/2014
Date Made Active in Reports: 02/14/2014
Number of Days to Update: 35

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/06/2014
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/06/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 12/04/2013
Number of Days to Update: 27
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2014
Date Data Arrived at EDR: 02/12/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 33
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/03/2014
Date Data Arrived at EDR: 02/13/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 33
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2014
Date Data Arrived at EDR: 02/12/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 34
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2013
Date Data Arrived at EDR: 12/10/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 28
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/14/2014
Date Data Arrived at EDR: 01/15/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/02/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/14/2014
Date Data Arrived at EDR: 01/15/2014
Date Made Active in Reports: 02/12/2014
Number of Days to Update: 28
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 01/09/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 33
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/06/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 01/09/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 33
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/06/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/26/2013
Date Data Arrived at EDR: 11/27/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 34

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/14/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/10/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/21/2013
Date Data Arrived at EDR: 11/25/2013
Date Made Active in Reports: 02/27/2014
Number of Days to Update: 94

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/13/2014
Date Data Arrived at EDR: 01/14/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 28

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2013
Date Data Arrived at EDR: 12/17/2013
Date Made Active in Reports: 01/07/2014
Number of Days to Update: 21

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 03/04/2014
Date Data Arrived at EDR: 03/06/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/03/2014
Next Scheduled EDR Contact: 06/16/2014
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/07/2014
Date Data Arrived at EDR: 02/11/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/10/2014
Next Scheduled EDR Contact: 05/26/2014
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 02/24/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 23

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/03/2013
Date Data Arrived at EDR: 12/04/2013
Date Made Active in Reports: 01/02/2014
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/16/2013
Date Data Arrived at EDR: 12/19/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 20

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/02/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 40

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/03/2014
Date Data Arrived at EDR: 01/03/2014
Date Made Active in Reports: 02/11/2014
Number of Days to Update: 39

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/30/2013
Next Scheduled EDR Contact: 04/14/2014
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/10/2013
Date Data Arrived at EDR: 12/11/2013
Date Made Active in Reports: 01/04/2014
Number of Days to Update: 24

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 06/23/2014
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/27/2014
Date Data Arrived at EDR: 01/28/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 48

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/27/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 01/28/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/20/2014
Number of Days to Update: 23

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/18/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/03/2014
Next Scheduled EDR Contact: 04/21/2014
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/17/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 10/02/2013
Date Data Arrived at EDR: 10/30/2013
Date Made Active in Reports: 11/27/2013
Number of Days to Update: 28

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 03/21/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2013
Date Data Arrived at EDR: 12/18/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2013
Date Data Arrived at EDR: 12/24/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 15

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/24/2014
Next Scheduled EDR Contact: 07/07/2014
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/11/2014
Date Data Arrived at EDR: 02/13/2014
Date Made Active in Reports: 03/17/2014
Number of Days to Update: 32

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 12/06/2013
Next Scheduled EDR Contact: 02/17/2014
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/21/2014
Next Scheduled EDR Contact: 06/02/2014
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/17/2014
Next Scheduled EDR Contact: 04/28/2014
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 11/07/2013
Date Made Active in Reports: 11/18/2013
Number of Days to Update: 11

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 03/12/2014
Next Scheduled EDR Contact: 05/19/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/20/2014
Next Scheduled EDR Contact: 05/05/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/24/2014
Next Scheduled EDR Contact: 06/09/2014
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 09/27/2013
Number of Days to Update: 49

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/17/2014
Next Scheduled EDR Contact: 06/30/2014
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

VINE STREET SUBSTATION
3550 KETTNER BLVD
SAN DIEGO, CA 92101

TARGET PROPERTY COORDINATES

Latitude (North):	32.7389 - 32° 44' 20.04''
Longitude (West):	117.179 - 117° 10' 44.40''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	483229.1
UTM Y (Meters):	3622166.0
Elevation:	68 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	32117-F2 POINT LOMA, CA
Most Recent Revision:	1994
North Map:	32117-G2 LA JOLLA, CA
Most Recent Revision:	1996

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

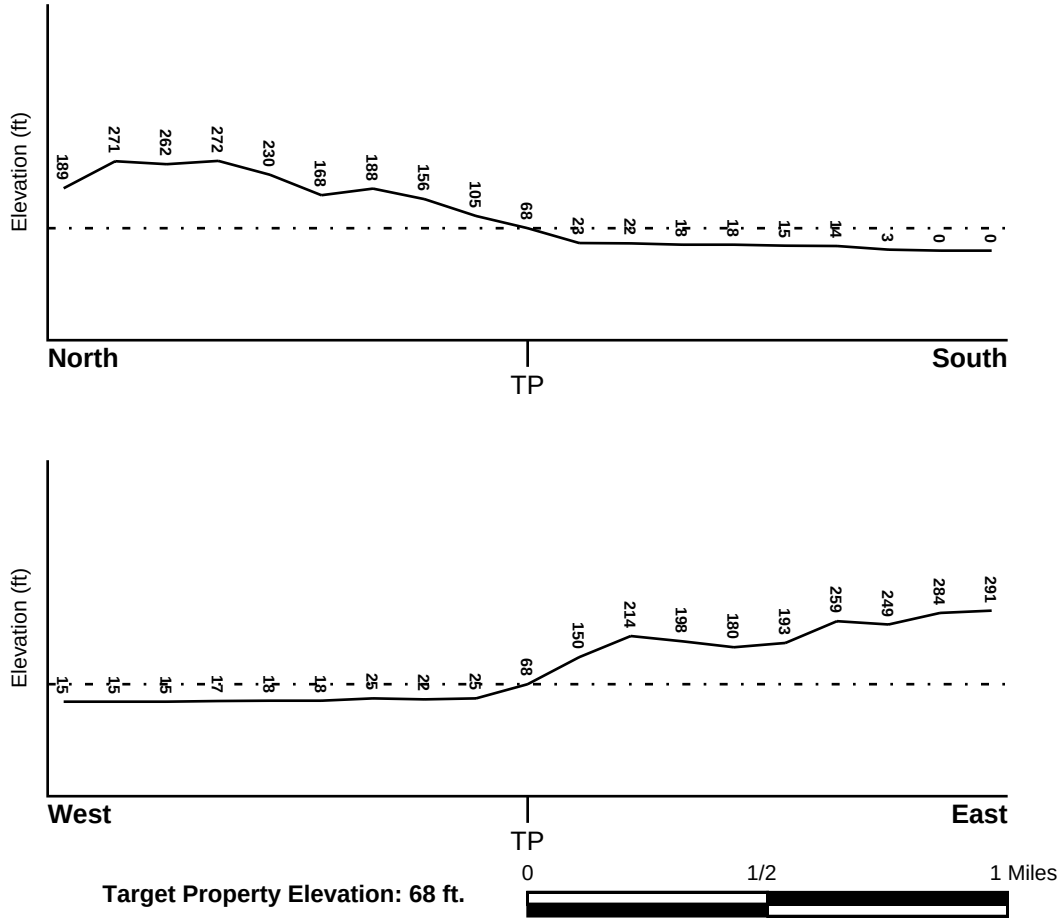
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
SAN DIEGO, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06073C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
POINT LOMA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/4 - 1/2 Mile NW	W
2	1/4 - 1/2 Mile SSE	Not Reported
3	1/4 - 1/2 Mile SE	Not Reported
A4	1/4 - 1/2 Mile WNW	Not Reported
A5	1/2 - 1 Mile WNW	Not Reported
6	1/2 - 1 Mile WNW	SW
7	1/2 - 1 Mile SSE	WSW
8	1/2 - 1 Mile WNW	Not Reported
9	1/2 - 1 Mile SSW	Not Reported

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
10	1/2 - 1 Mile SSE	WSW
11	1/2 - 1 Mile SW	Not Reported
12	1/2 - 1 Mile SSE	Not Reported
13	1/2 - 1 Mile SSE	E

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

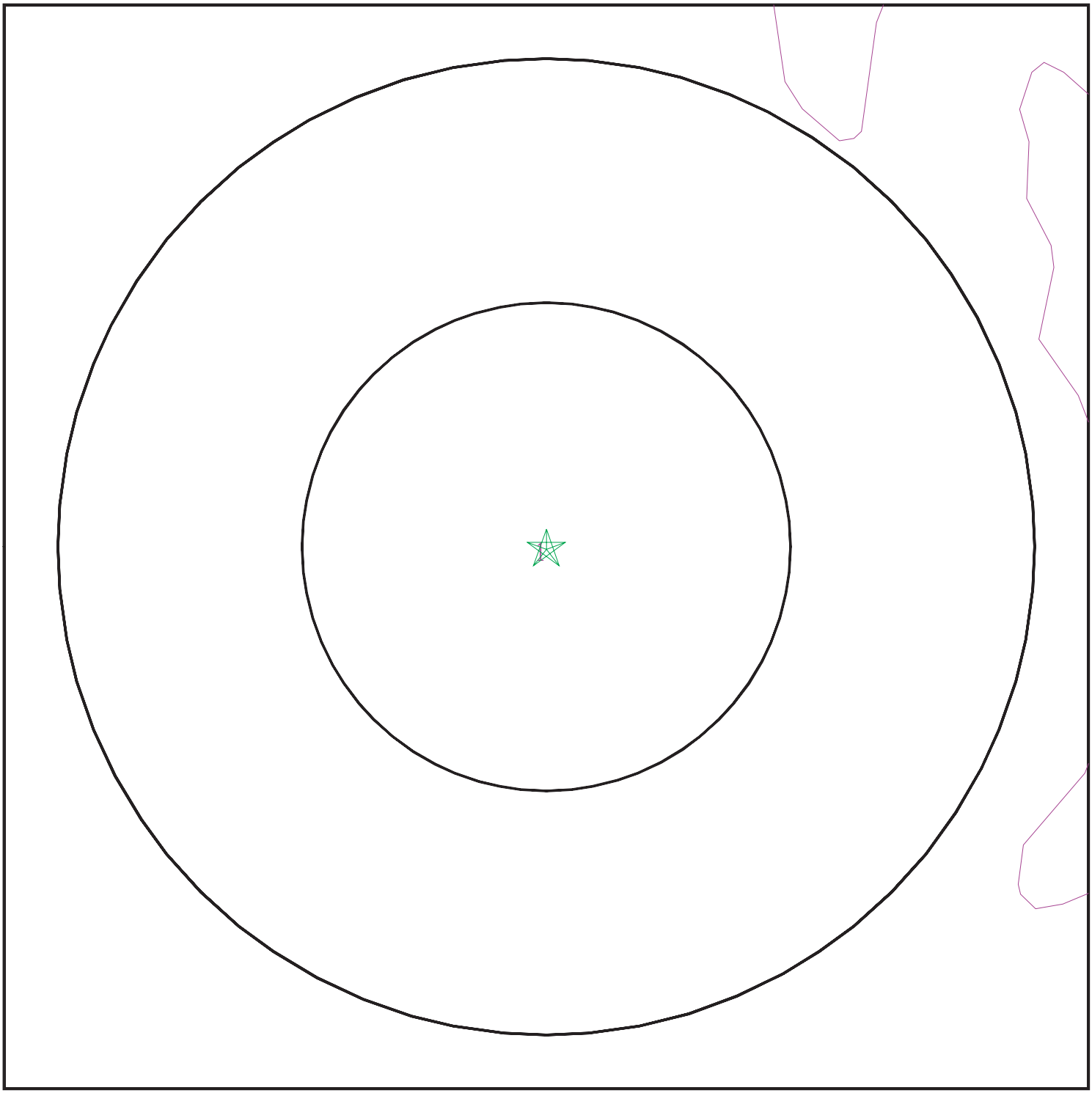
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tp *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3889802.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Vine Street Substation	CLIENT:	GeoSyntec Consultants
ADDRESS:	3550 Kettner Blvd San Diego CA 92101	CONTACT:	Doug Baumwirt
LAT/LONG:	32.7389 / 117.179	INQUIRY #:	3889802.2s
		DATE:	March 24, 2014 8:49 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

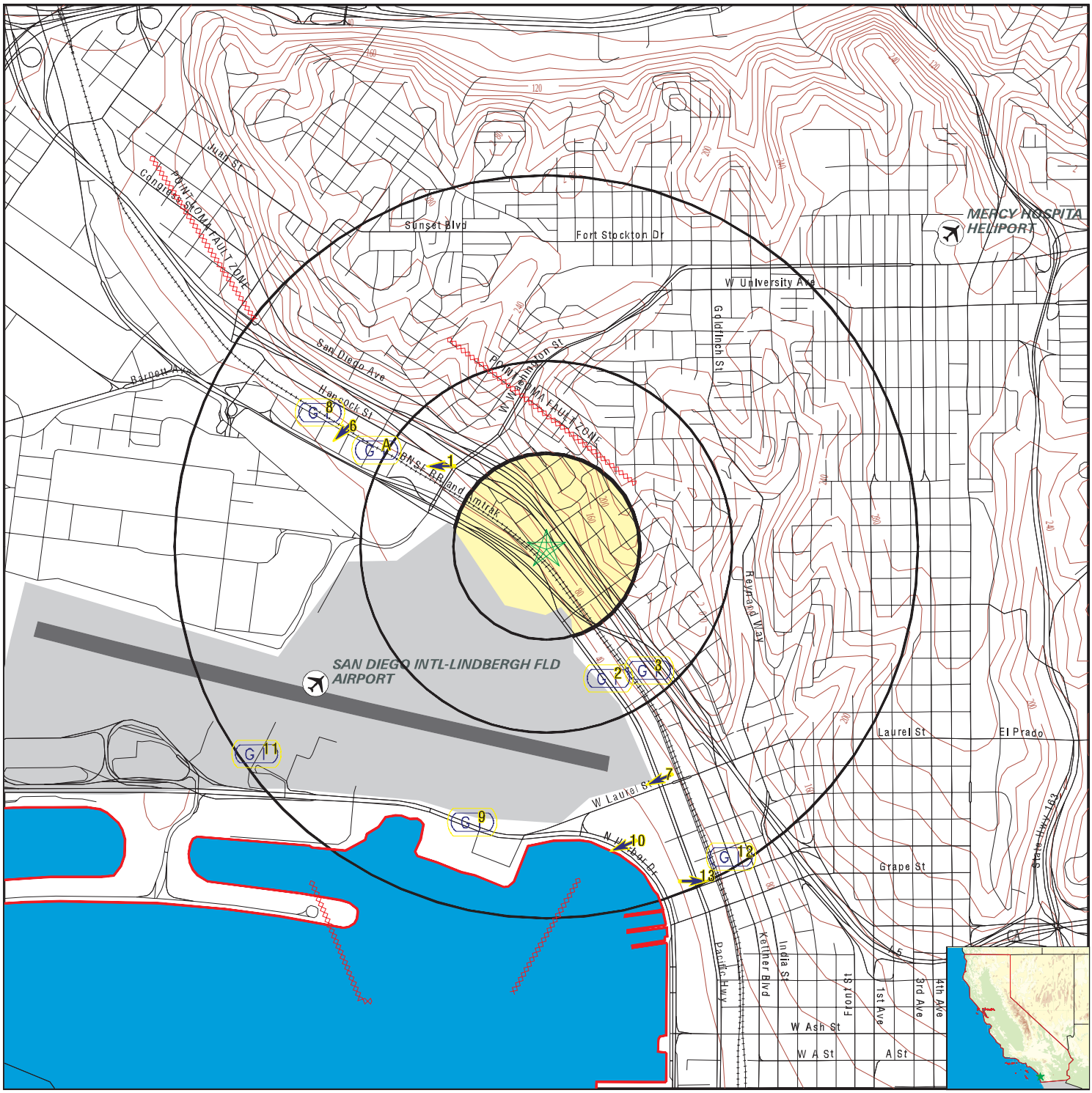
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 3889802.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Vine Street Substation	CLIENT:	GeoSyntec Consultants
ADDRESS:	3550 Kettner Blvd San Diego CA 92101	CONTACT:	Doug Baumwirt
		INQUIRY #:	3889802.2s
LAT/LONG:	32.7389 / 117.179	DATE:	March 24, 2014 8:49 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 **NW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9UT0121 W 18 22 Not Reported 05/20/1988	**AQUIFLOW**	**33847**
2 **SSE** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9UT1641 Not Reported Not Reported Not Reported 11 10/1990	**AQUIFLOW**	**38330**
3 **SE** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported Not Reported Not Reported 40 06/25/1986	**AQUIFLOW**	**38739**
A4 **WNW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9UT0403 Not Reported Not Reported Not Reported 16 07/20/1987	**AQUIFLOW**	**37935**
A5 **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported 15 22 Not Reported 01/11/1988	**AQUIFLOW**	**38003**
6 **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported SW 20 23 Not Reported 08/26/1997	**AQUIFLOW**	**37990**
7 **SSE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported WSW 18 20 Not Reported 08/12/1998	**AQUIFLOW**	**38333**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
8 **WNW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9UT0122 Not Reported 5 10 Not Reported 08/15/1986	**AQUIFLOW**	**38282**
9 **SSW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	9UT2174 Not Reported 6 Not Reported Not Reported 09/18/1989	**AQUIFLOW**	**34145**
10 **SSE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported WSW Not Reported Not Reported 20 09/02/1993	**AQUIFLOW**	**34108**
11 **SW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported Not Reported Not Reported 10 11/24/1987	**AQUIFLOW**	**38007**
12 **SSE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported Not Reported Not Reported Not Reported 28 11/29/1993	**AQUIFLOW**	**55147**
13 **SSE** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	Not Reported E 20.46 24.81 Not Reported 11/11/1993	**AQUIFLOW**	**38001**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92101	5	0

Federal EPA Radon Zone for SAN DIEGO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN DIEGO COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.677 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.400 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D
EDR Aerial Photo Decade Package

Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Inquiry Number: 3889802.9
March 31, 2014

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography March 31, 2014

Target Property:

3550 Kettner Blvd

San Diego, CA 92101

Year	***Scale***	***Details***	***Source***
1953	Aerial Photograph. Scale: 1"=500'	Flight Year: 1953	Park
1966	Aerial Photograph. Scale: 1"=500'	Flight Year: 1966	EDR
1975	Aerial Photograph. Scale: 1"=500'	Flight Year: 1975	EDR
1980	Aerial Photograph. Scale: 1"=500'	Flight Year: 1980	AMI
1990	Aerial Photograph. Scale: 1"=500'	Flight Year: 1990	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR

INQUIRY #: 3889802.9
YEAR: 1953
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 1966
= 500'
N
EDR

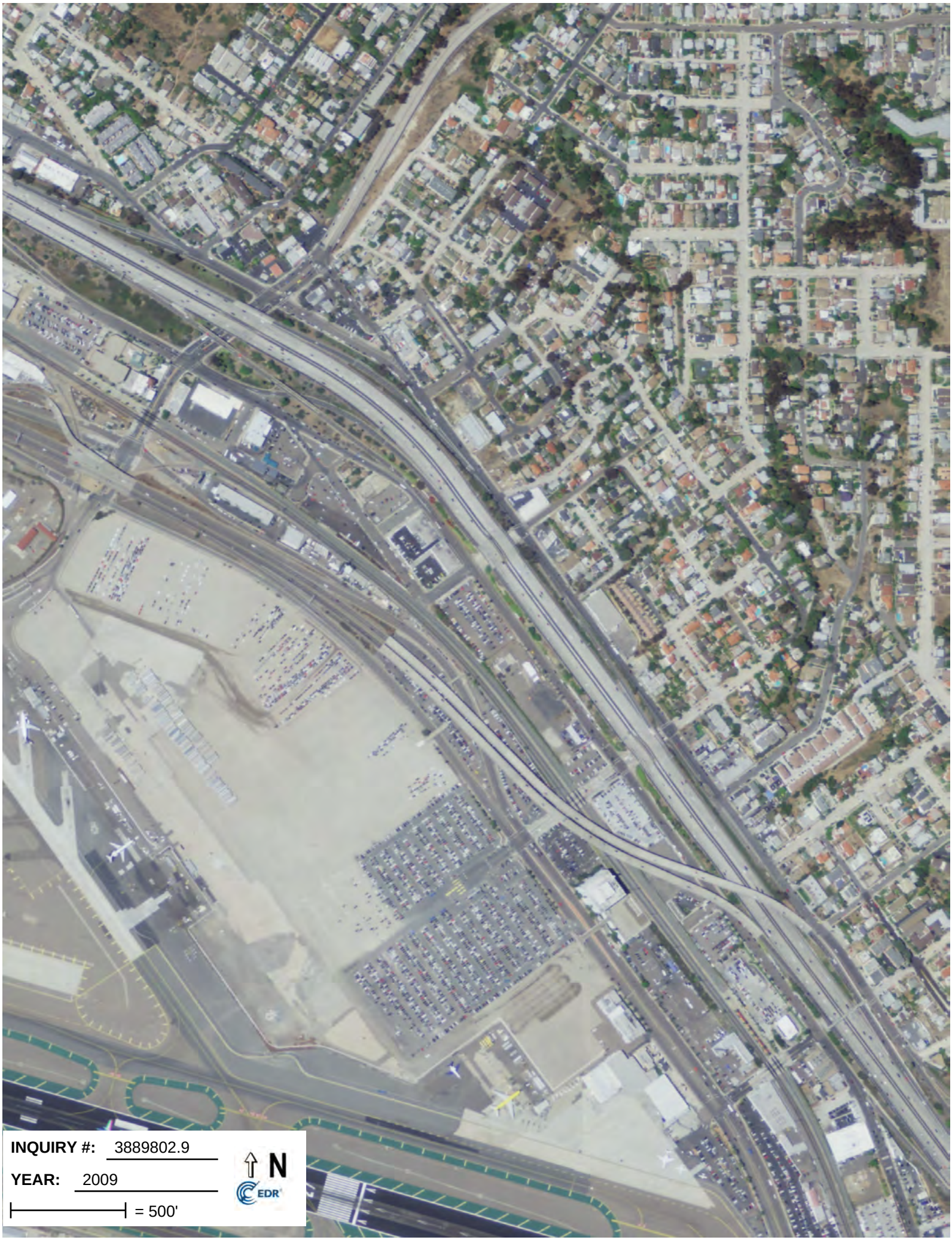
INQUIRY #: 3889802.9
YEAR: 1975
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 1980
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 1990
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 1994
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 2005
= 500'
N
EDR


INQUIRY #: 3889802.9
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 2010
= 500'
N
EDR

INQUIRY #: 3889802.9
YEAR: 2012
= 500'
N
EDR

APPENDIX E
EDR Historical Topographic Map Report

Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Inquiry Number: 3889802.4
March 25, 2014

EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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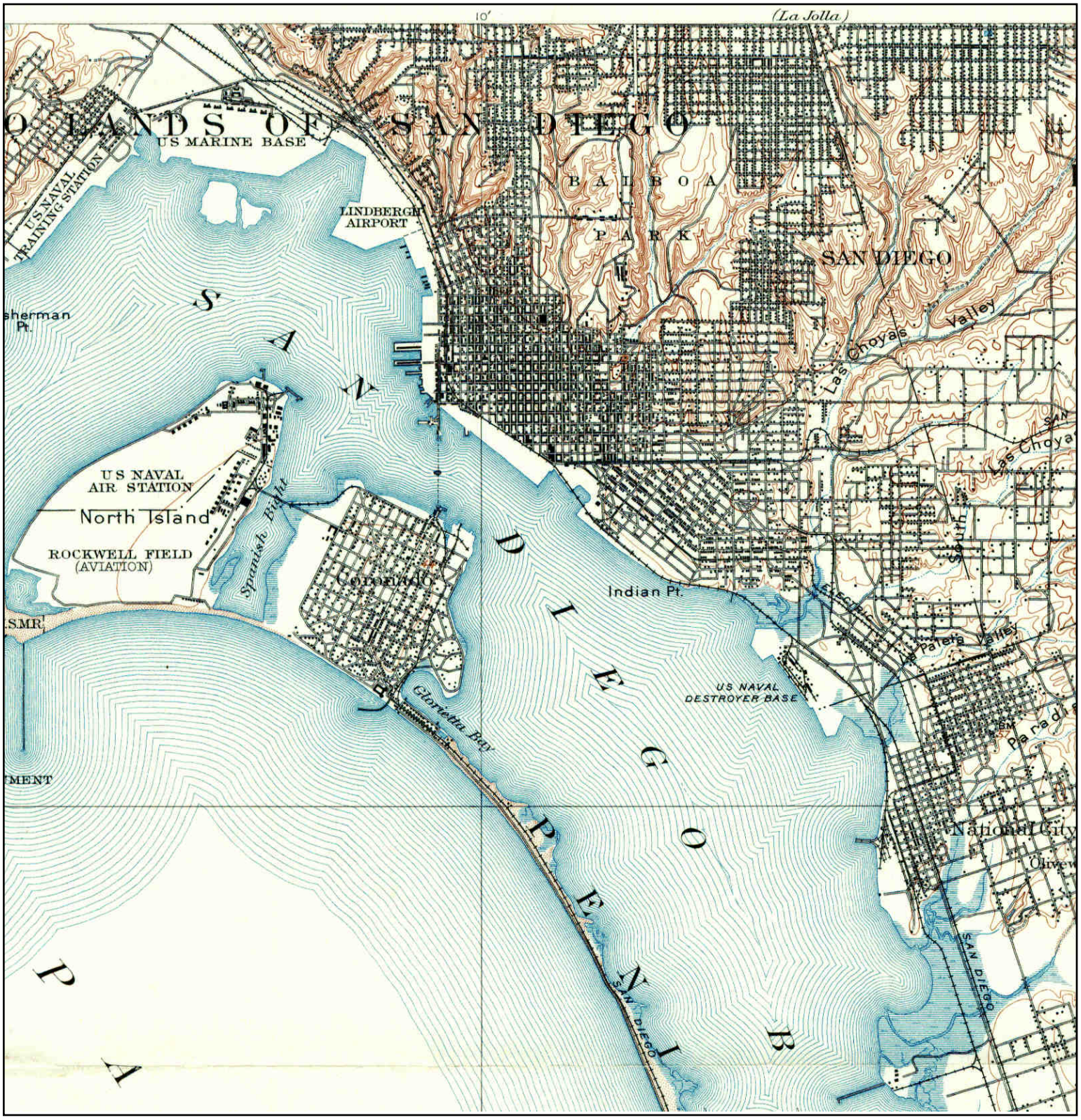
Historical Topographic Map

Unsurveyed Area on the Topographic Map

N	TARGET QUAD NAME: SOUTHERN CA SHEET 2 MAP YEAR: 1904 SERIES: 60 SCALE: 1:250000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map



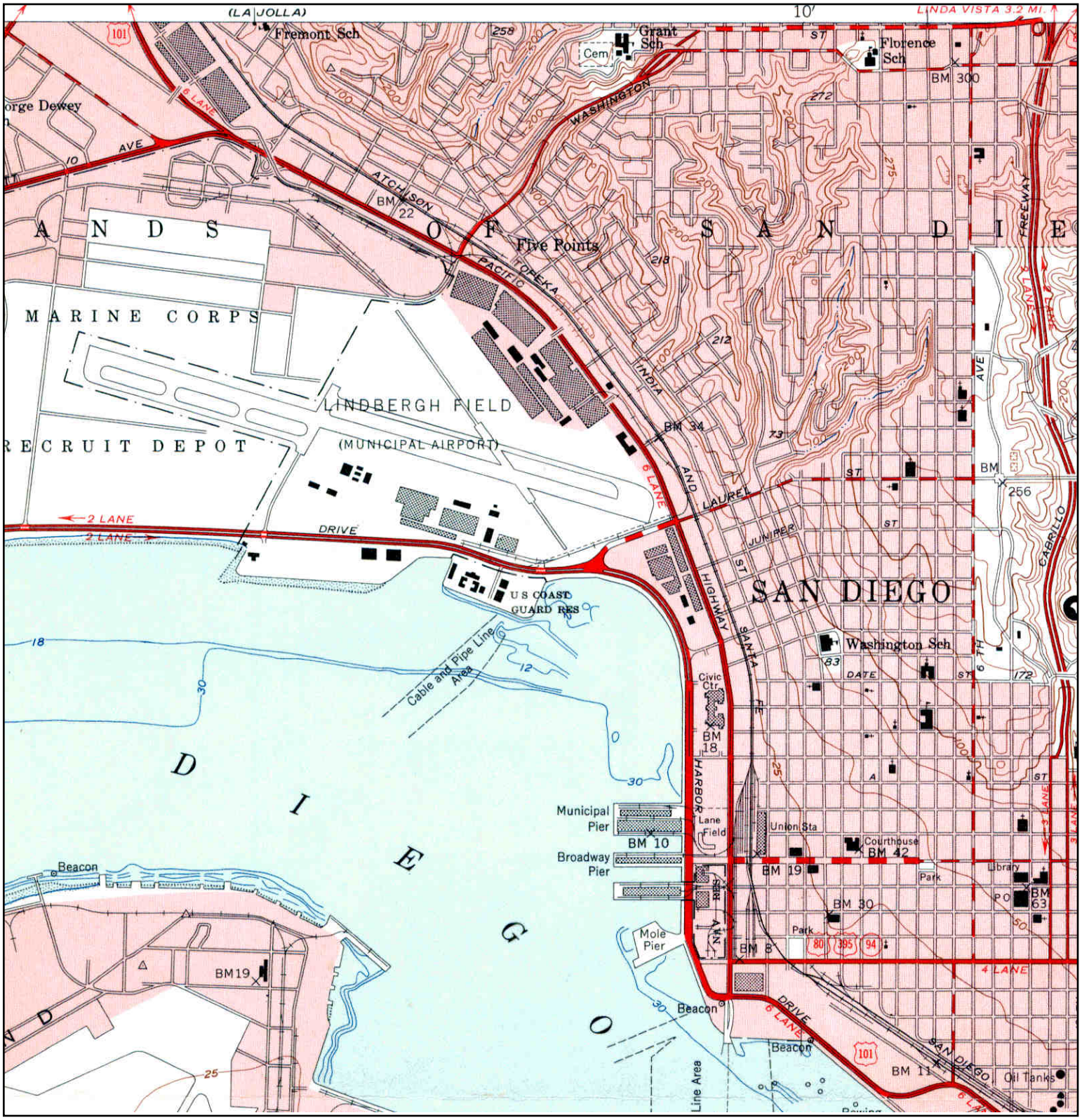
Unsurveyed Area on the Topographic Map

N	TARGET QUAD NAME: SAN DIEGO MAP YEAR: 1930 SERIES: 15 SCALE: 1:62500	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map

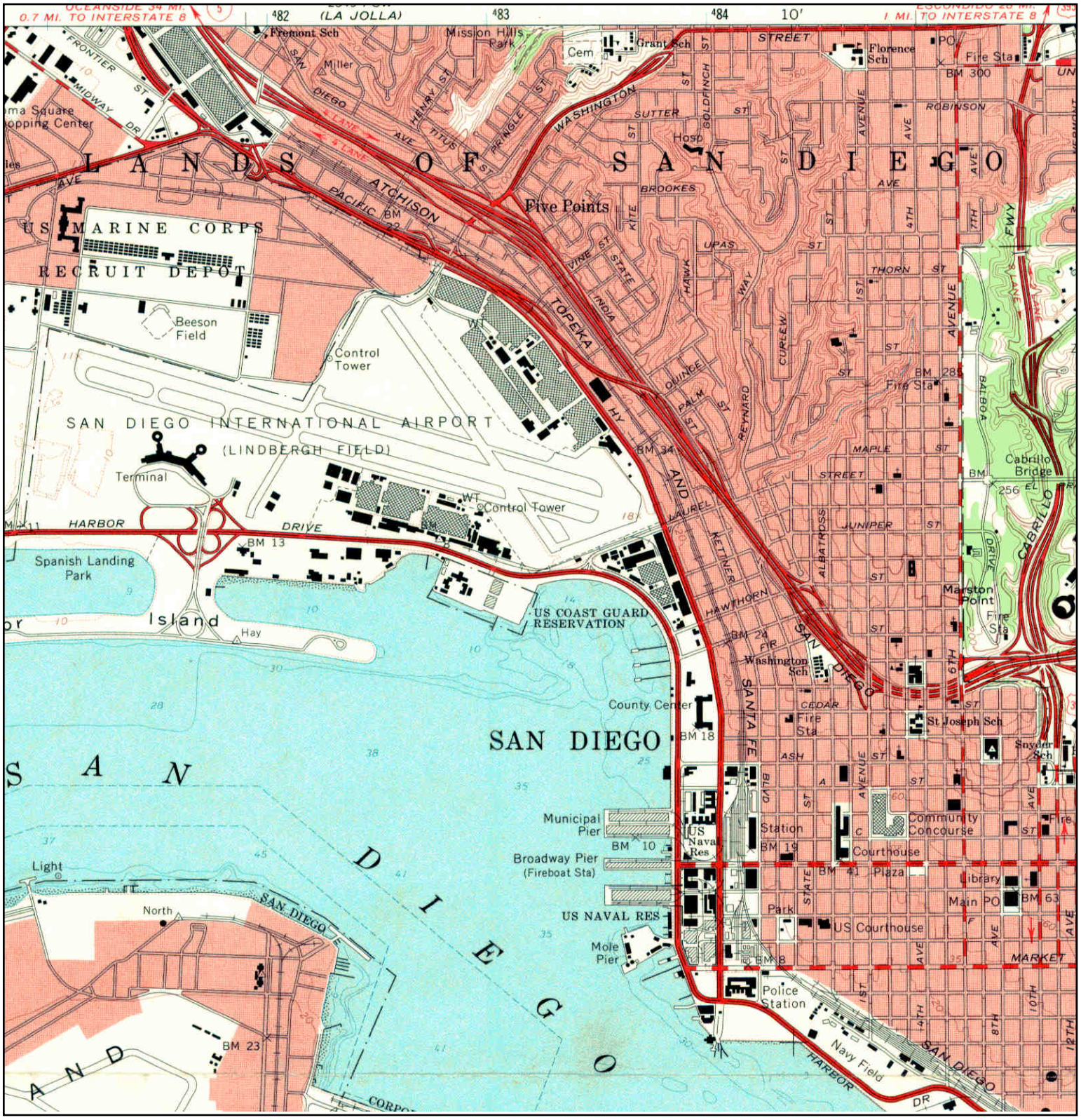
N	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1942 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map



N	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map



N	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

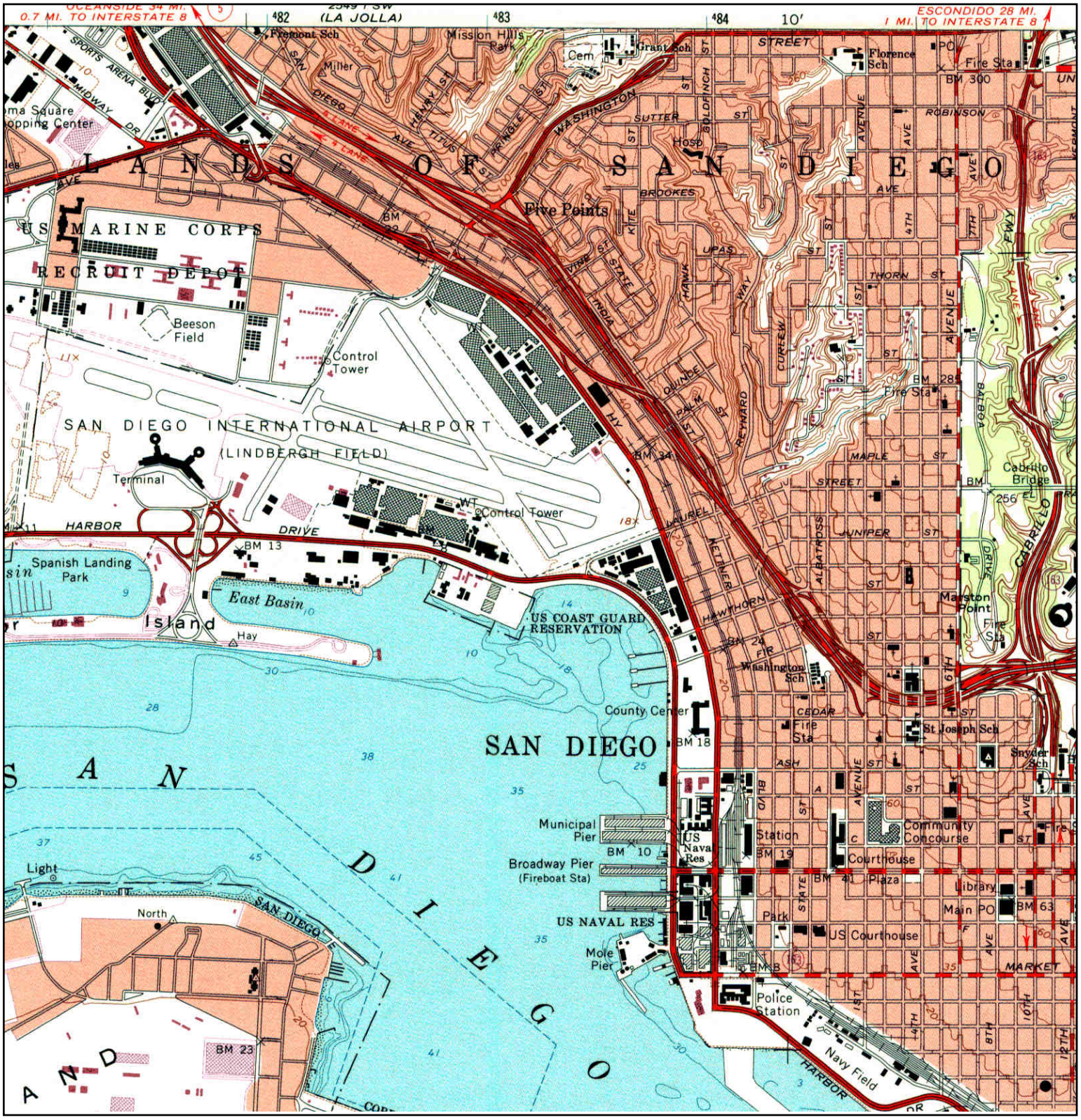
Historical Topographic Map

N	TARGET QUAD		SITE NAME:	Vine Street Substation	CLIENT:	GeoSyntec Consultants
	NAME:	POINT LOMA	ADDRESS:	3550 Kettner Blvd	CONTACT:	Doug Baumwirt
	MAP YEAR:	1975		San Diego, CA 92101	INQUIRY#:	3889802.4
	PHOTOREVISED FROM :	1967	LAT/LONG:	32.7389 / -117.179	RESEARCH DATE:	03/25/2014
	SERIES:	7.5				
	SCALE:	1:24000				

Historical Topographic Map

N	TARGET QUAD NAME: SAN DIEGO MAP YEAR: 1991 SERIES: 15 SCALE: 1:50000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map



N	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1994 REVISED FROM :1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

Historical Topographic Map

N	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1996 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Vine Street Substation ADDRESS: 3550 Kettner Blvd San Diego, CA 92101 LAT/LONG: 32.7389 / -117.179	CLIENT: GeoSyntec Consultants CONTACT: Doug Baumwirt INQUIRY#: 3889802.4 RESEARCH DATE: 03/25/2014

APPENDIX F
EDR Sanborn Map Report

Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Inquiry Number: 3889802.3
March 25, 2014

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

3/25/14

Site Name:
Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Client Name:
GeoSyntec Consultants
10875 Rancho Bernardo Road
San Diego, CA 92127

EDR Inquiry # 3889802.3

Contact: Doug Baumwirt

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by GeoSyntec Consultants were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: Vine Street Substation
Address: 3550 Kettner Blvd
City, State, Zip: San Diego, CA 92101
Cross Street:
P.O. # SC0368
Project: Vine Substation
Certification # 6807-4C26-B092

Maps Provided:

1970	1959
1969	1958
1967	1957
1965	1956
1963	1950
1960	1921

Sanborn® Library search results
Certification # 6807-4C26-B092

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets

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Volume 3, Sheet 399a

1969 Source Sheets

Volume 3, Sheet 399

Volume 3, Sheet 399a

1967 Source Sheets

Volume 3, Sheet 399

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1965 Source Sheets

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1963 Source Sheets

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1960 Source Sheets

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1959 Source Sheets

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1958 Source Sheets

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1956 Source Sheets

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1950 Source Sheets

Volume 3, Sheet 399

Volume 3, Sheet 399a

Volume 4, Sheet 408

1921 Source Sheets

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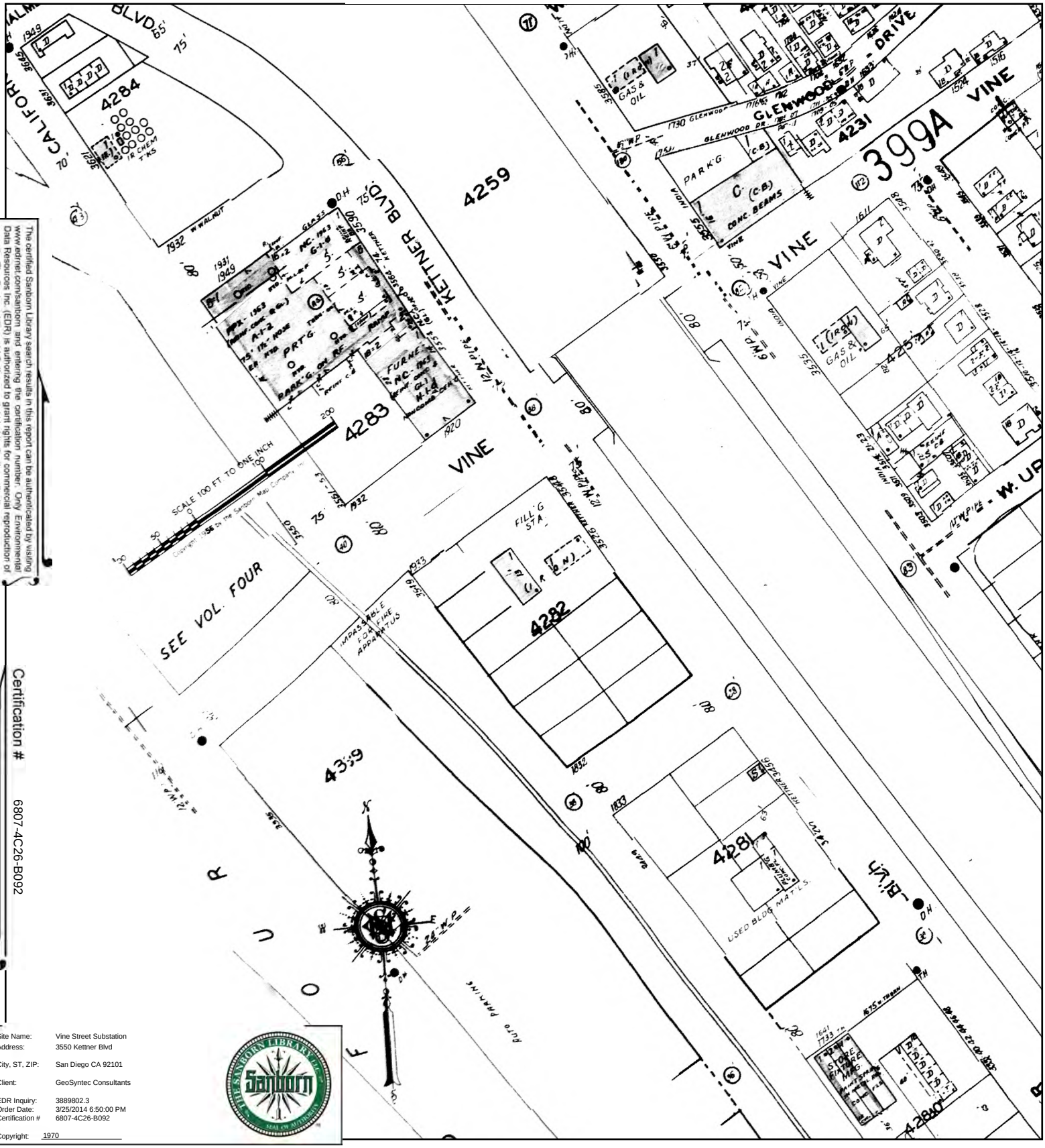
Volume 3, Sheet 399a

1970 Certified Sanborn Map



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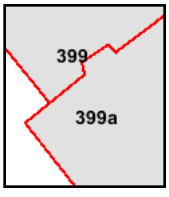

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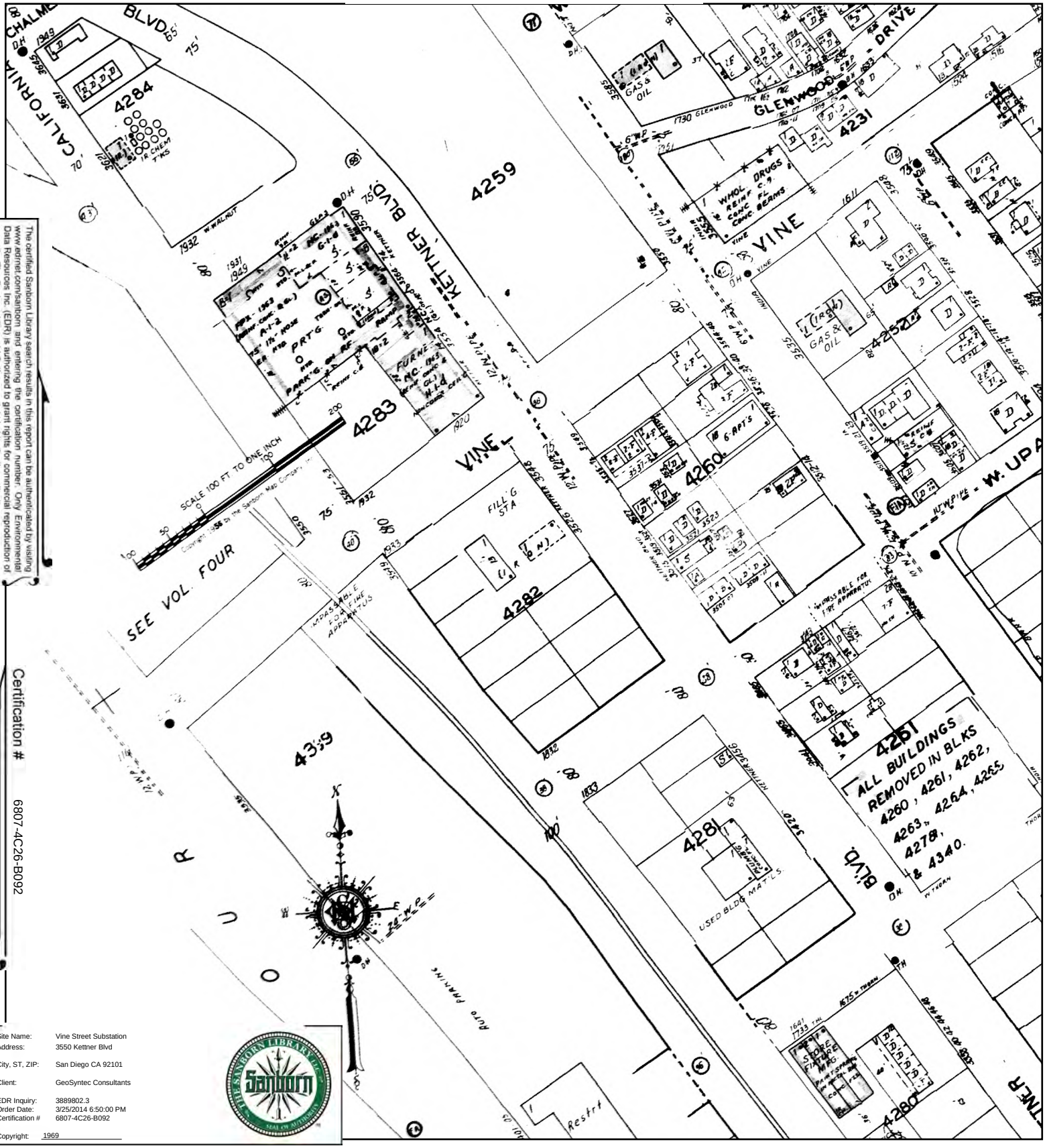

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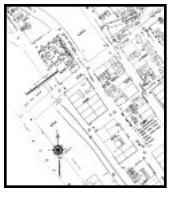

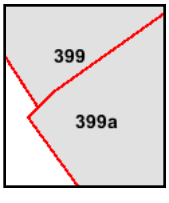

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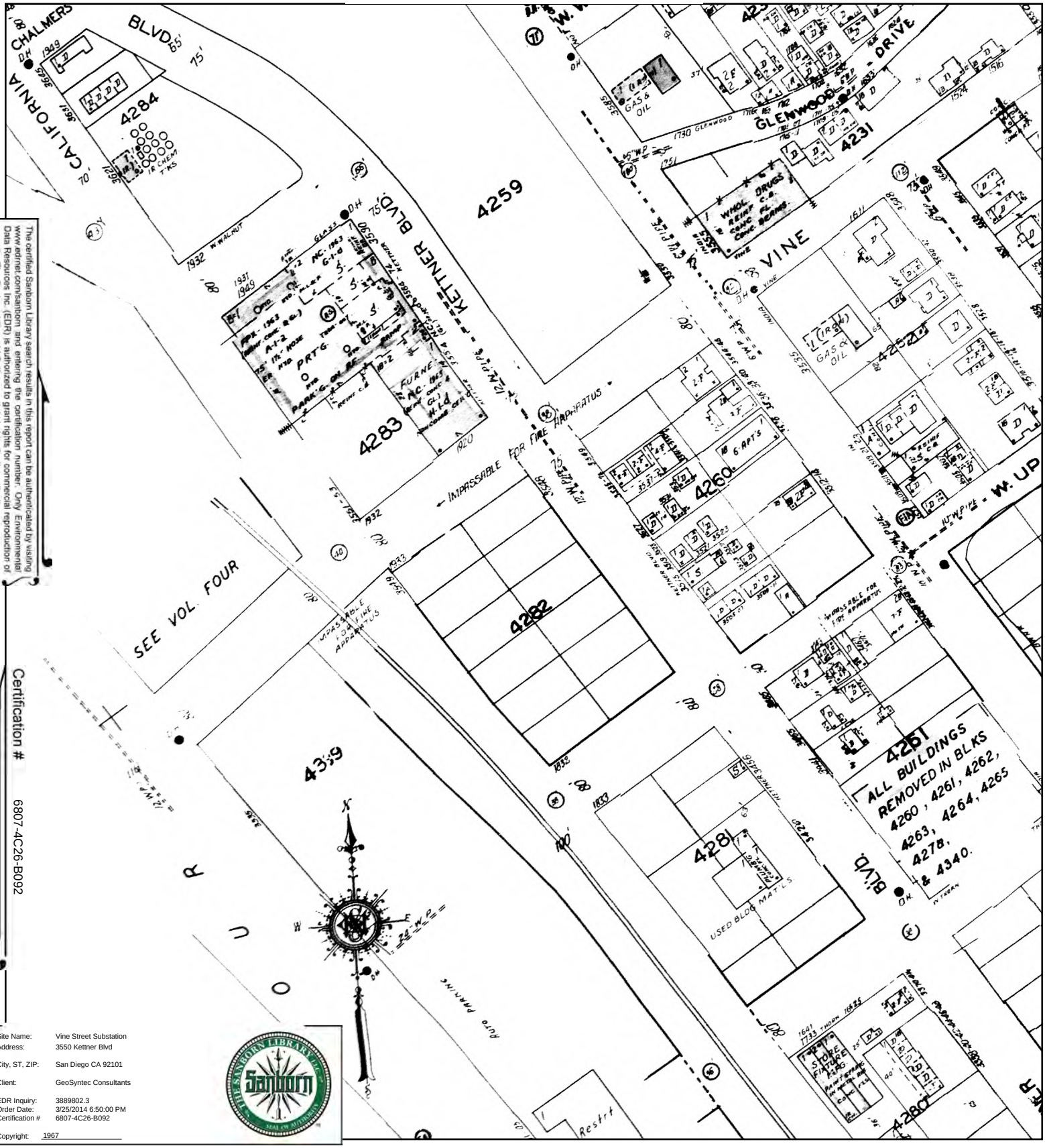
1967 Certified Sanborn Map



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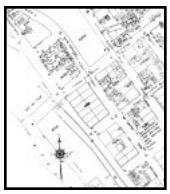

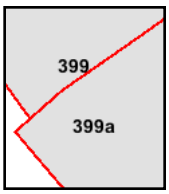

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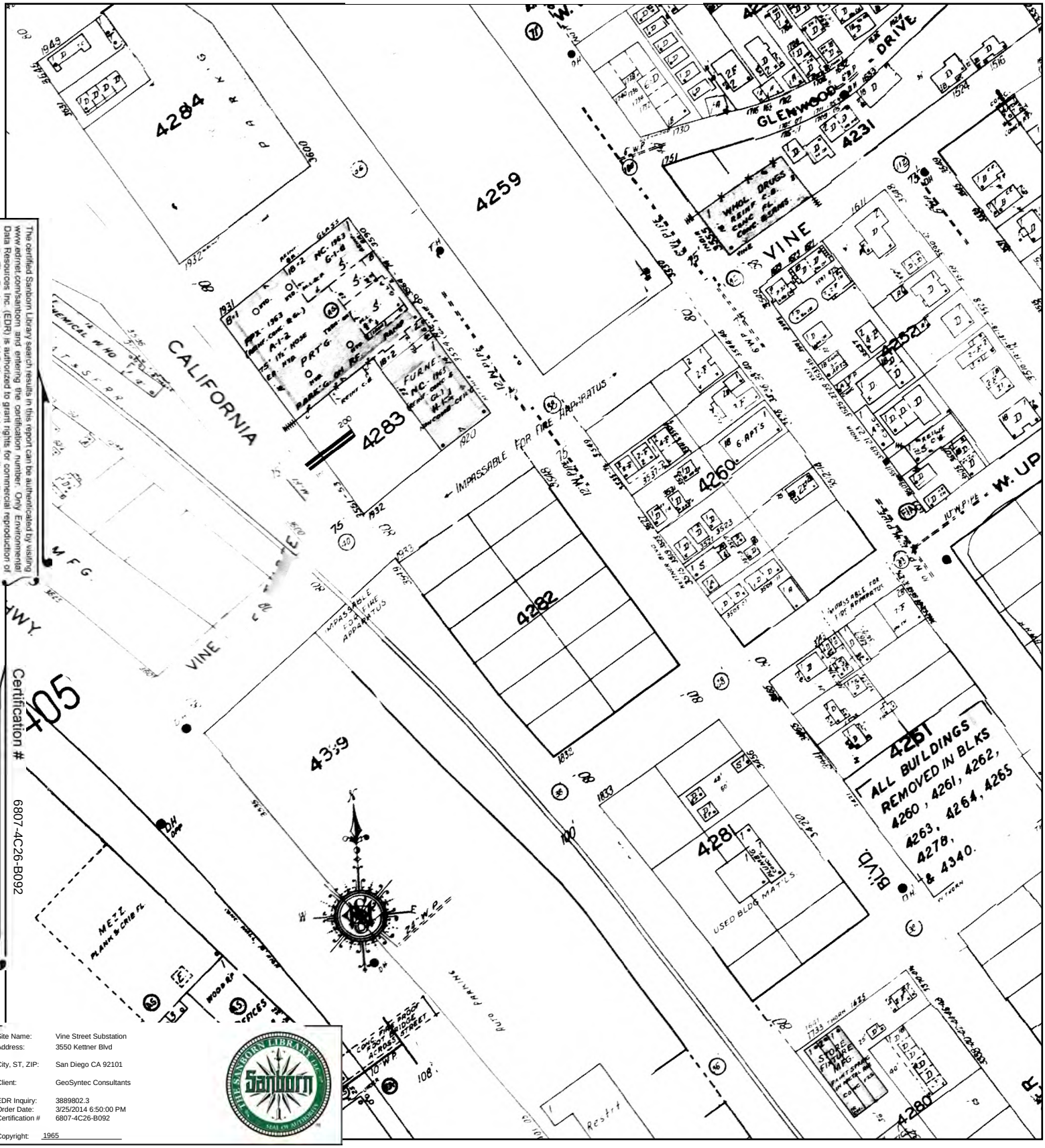

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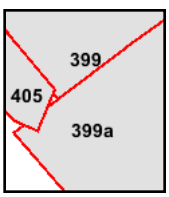

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0 Feet 150 300 600

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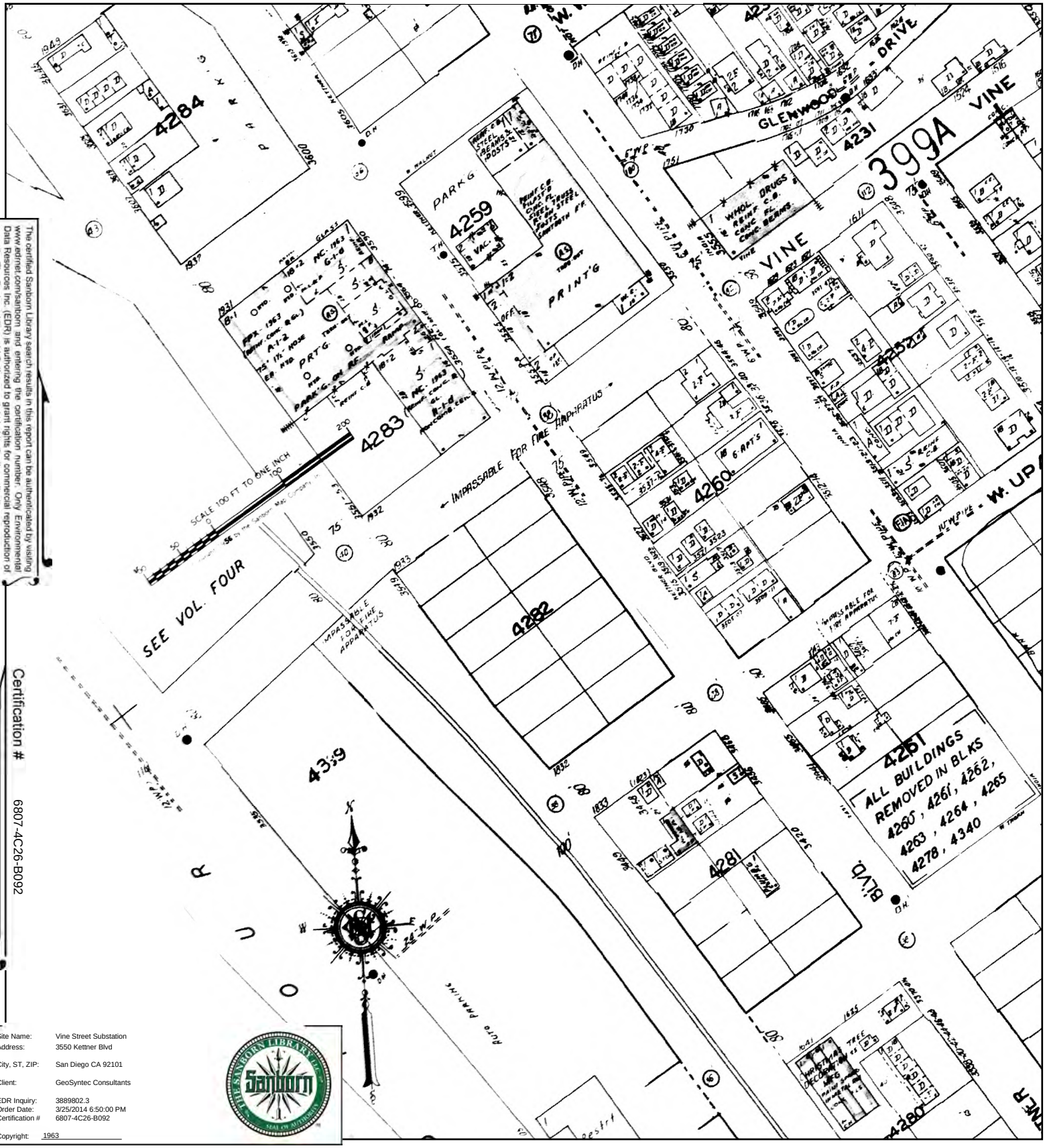
1963 Certified Sanborn Map



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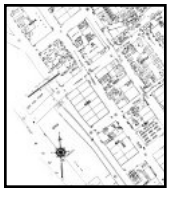

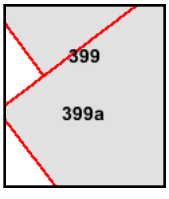

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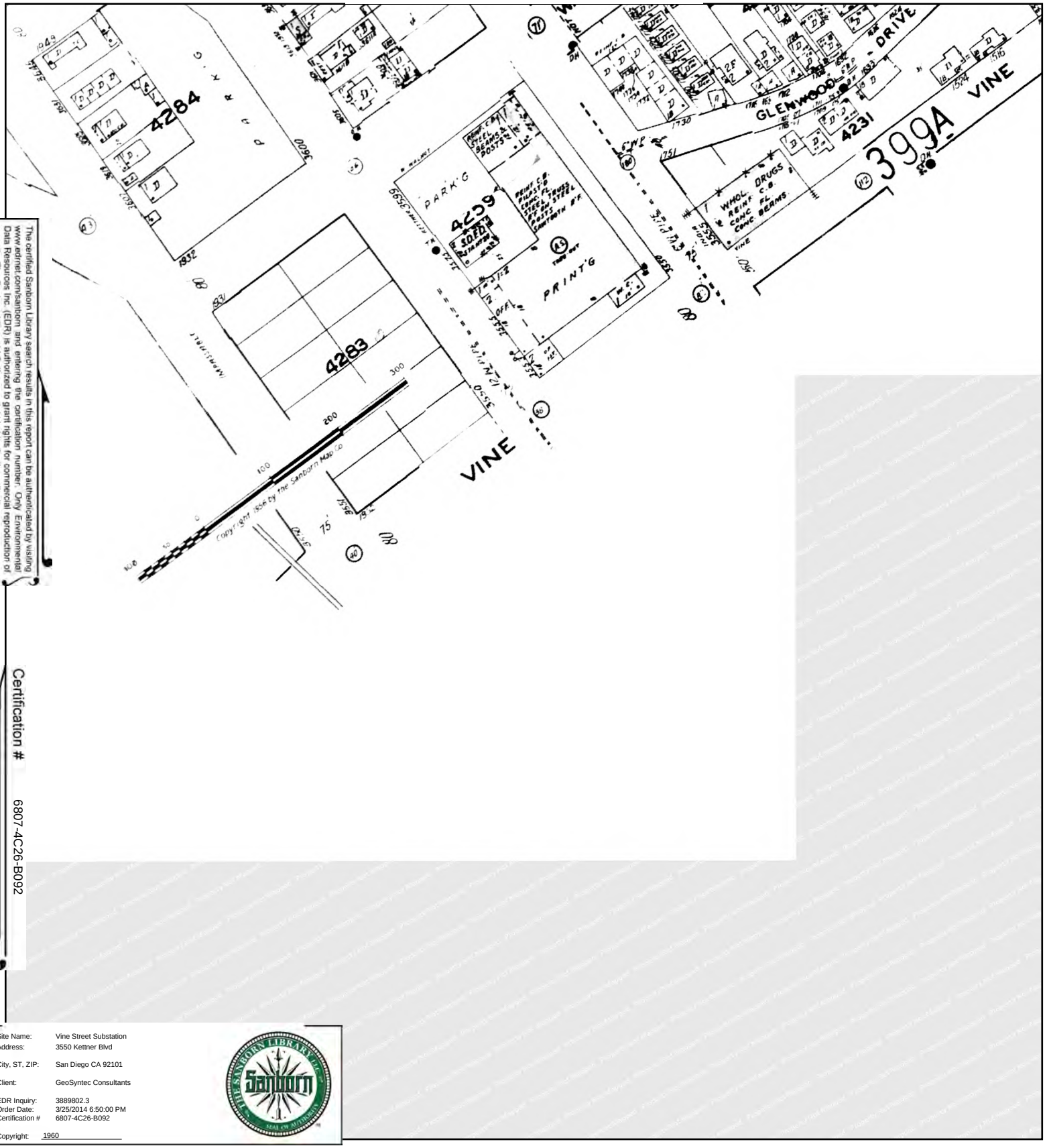
N

1960 Certified Sanborn Map



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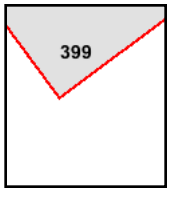

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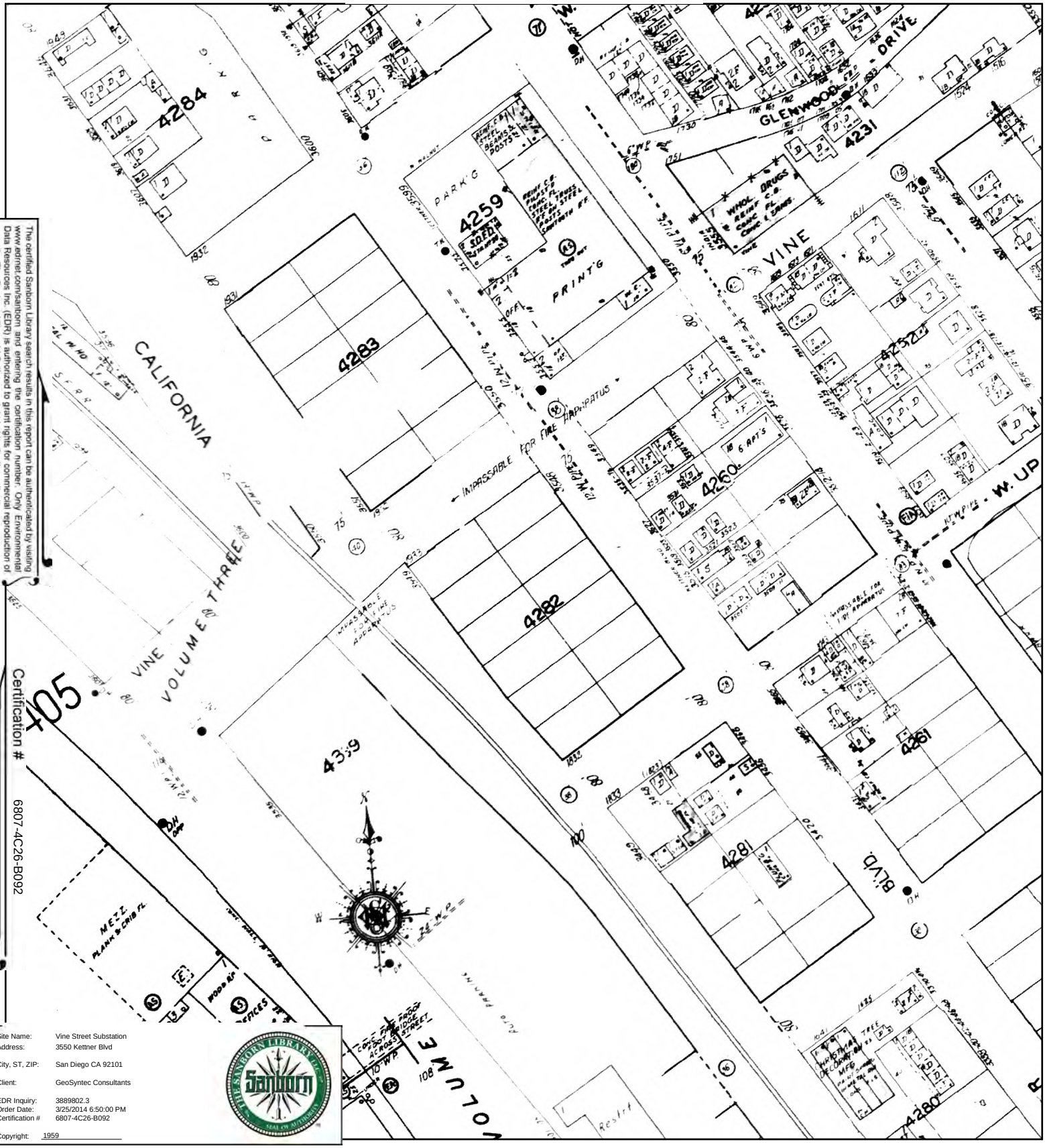
1959 Certified Sanborn Map



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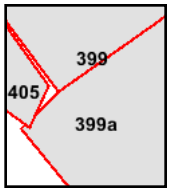

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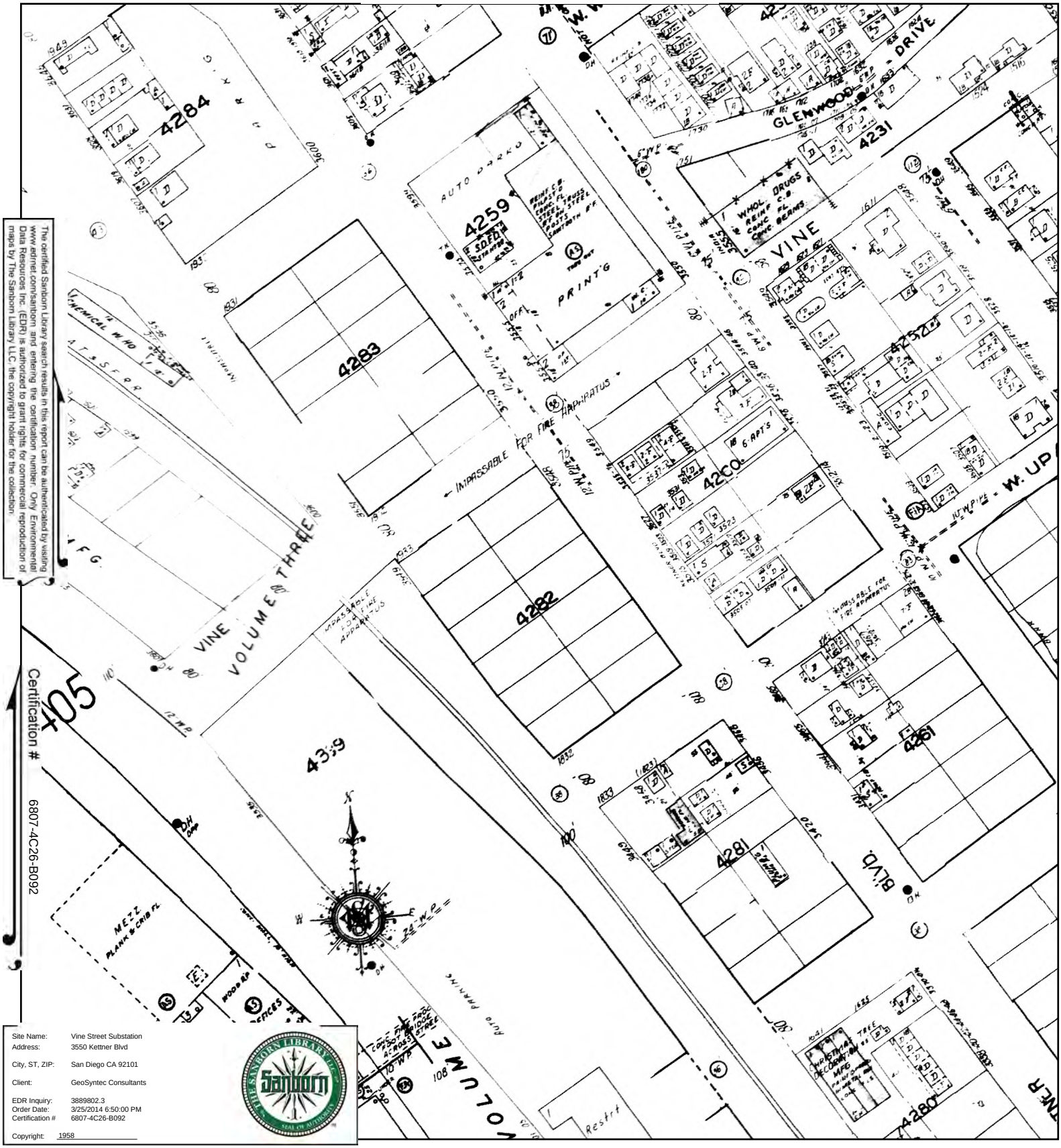
N

1958 Certified Sanborn Map



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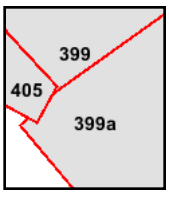

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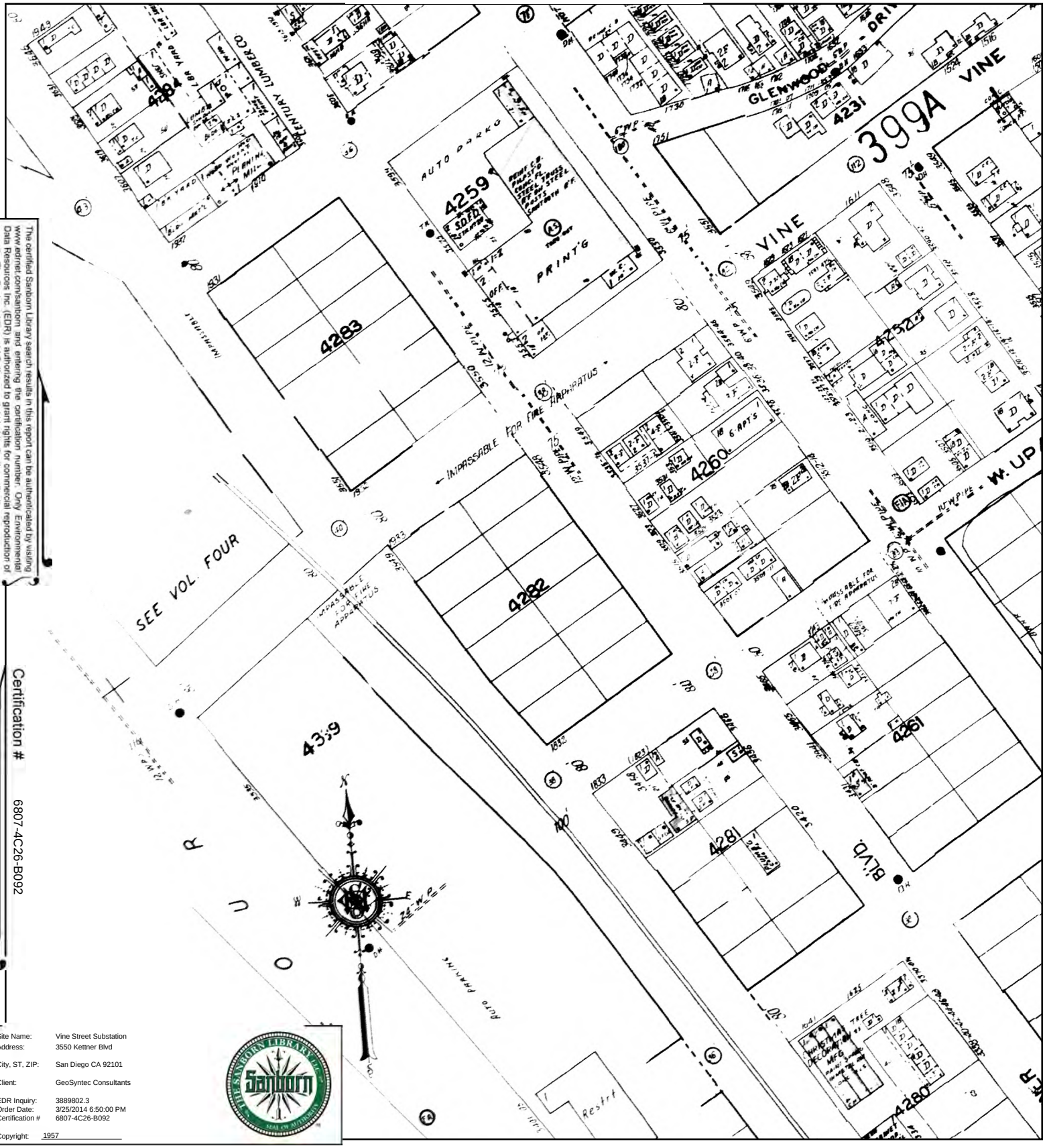

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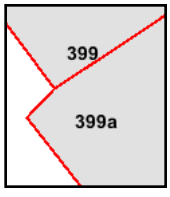

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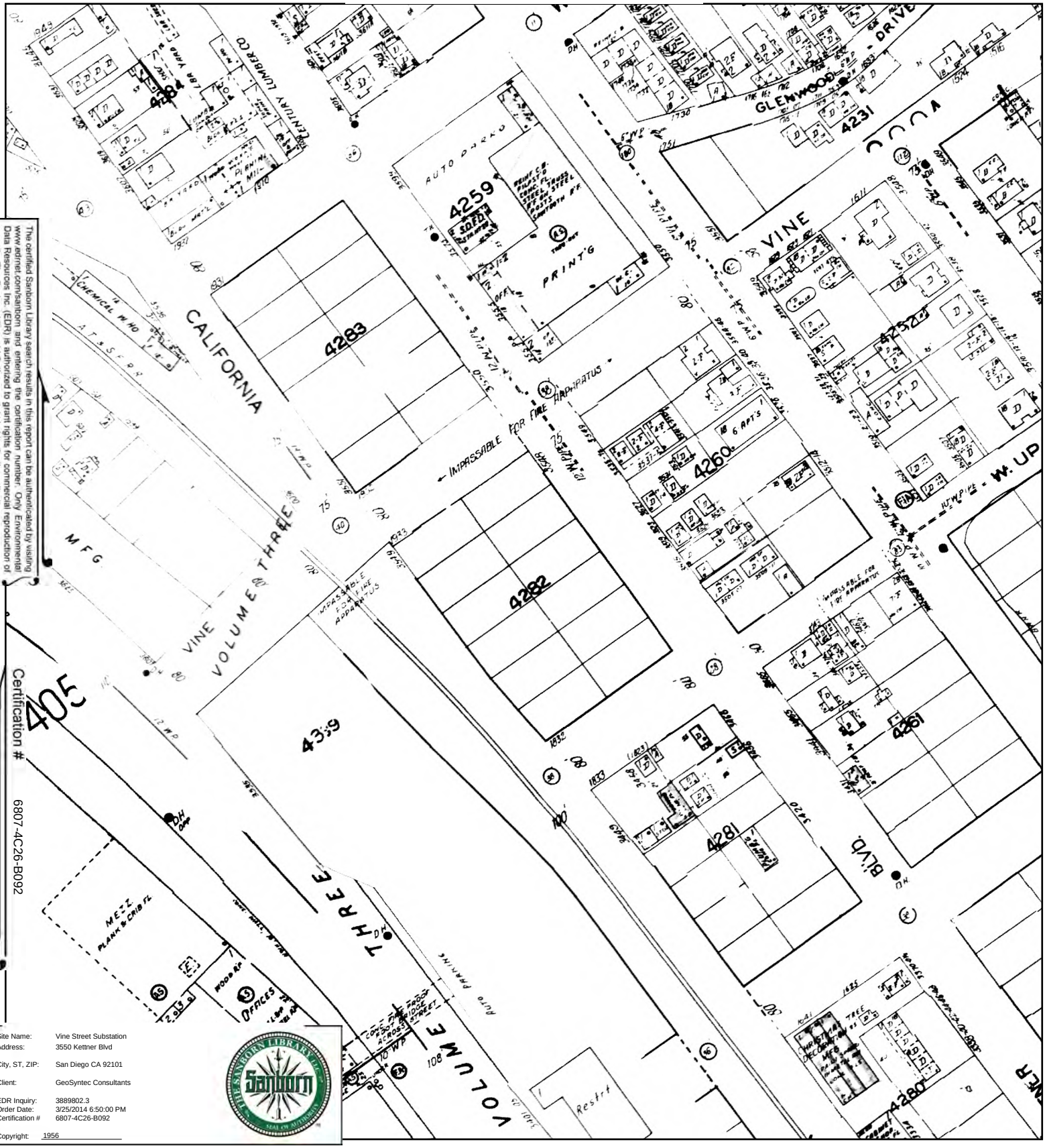

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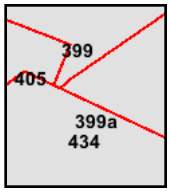

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0 Feet 150 300 600

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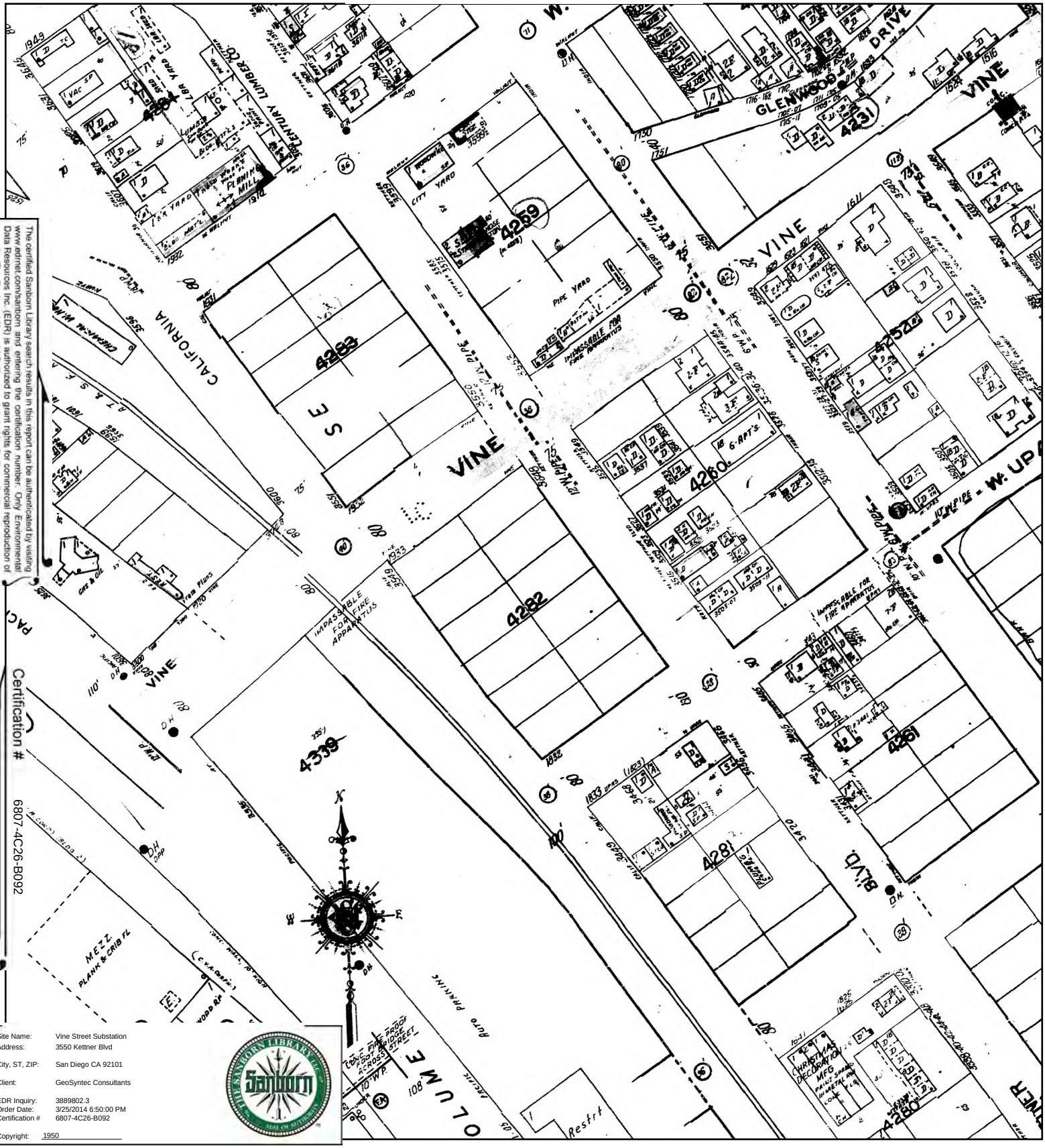

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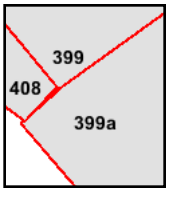

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0 Feet 150 300 600

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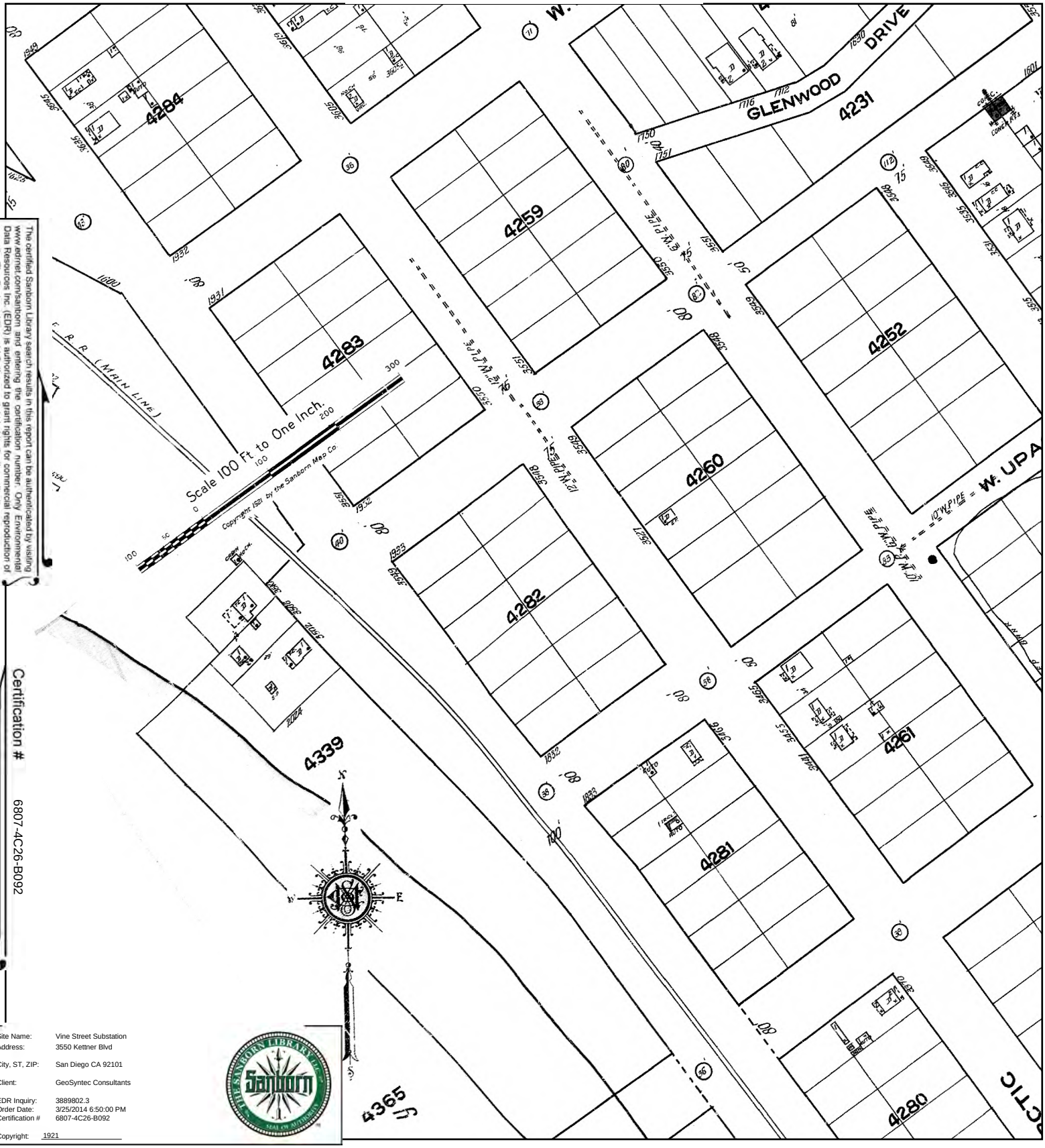
1921 Certified Sanborn Map



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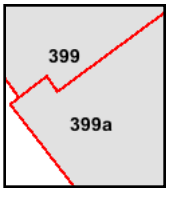

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N

APPENDIX G
EDR City Directory Abstract Report

Vine Street Substation
3550 Kettner Blvd
San Diego, CA 92101

Inquiry Number: 3889802.5
March 24, 2014

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1903 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

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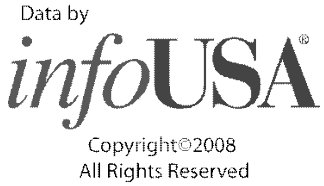

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	X	X	X	-
2000	Haines & Company	X	X	X	X
1995	PACIFIC BELL WHITE PAGES	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	X	X	X	-
1991	PACIFIC BELL WHITE PAGES	-	X	X	-
1989	Pacific Bell	X	X	X	-
1985	PACIFIC BELL WHITE PAGES	-	X	X	-
1984	R. L. Polk & Co.	X	X	X	X
1980	R. L. Polk & Co.	X	X	X	X
1976	Luskey Brothers & Co., Inc.	-	-	-	-
1975	R. L. Polk & Co.	-	X	X	X
1971	Community Directory Co.	-	-	-	-
1970	John M. Ducy	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1966	R. L. Polk & Co.	-	X	X	X
1965	Community Directory Co.	-	-	-	-
1962	Community Directory Co.	-	-	-	-
1961	R. L. Polk & Co.	-	X	X	X
1960	The Pacific Telephone Telegraph Co.	-	X	X	-
1956	R. L. Polk & Co.	-	-	-	-
1955	R. L. Polk & Co.	-	X	X	-
1952	R. L. Polk & Co. of California	-	X	X	X
1950	The Pacific Telephone & Telegraph Co.	-	-	-	-
1948	San Diego Directory Co.	-	X	X	X
1945	San Diego Directory Co.	X	X	X	-
1943	San Diego Directory Co.	X	X	X	X
1940	San Diego Directory Co.	-	-	-	-
1938	San Diego Directory Co.	X	X	X	X
1933	San Diego Directory Co.	X	X	X	X
1927	San Diego Directory Co.	X	X	X	X
1921	San Diego Directory Co. Inc.	-	X	X	-
1907	San Diego Directory Co.	-	-	-	-
1903	San Diego Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

3550 Kettner Blvd
San Diego, CA 92101

FINDINGS DETAIL

Target Property research detail.

KETTNER BLVD

3550 KETTNER BLVD

Year	*Uses*	*Source*	
2013	PARK & RIDE CO	Cole Information Services	
2008	PARK & RIDE	Cole Information Services	
2006	PARKAND RIDECO	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A1
1992	Park And Ride Co	PACIFIC BELL WHITE PAGES	
1989	Park And Ride Co	Pacific Bell	
1984	Park And Ride Co airport valet parking serv	R. L. Polk & Co.	Image pg. A9
1980	Park And Ride Co airport valet	R. L. Polk & Co.	Image pg. A18
	parking serv	R. L. Polk & Co.	Image pg. A18
1945	Solomons Service Station	San Diego Directory Co.	
1943	Solomon Jacob gas sta	San Diego Directory Co.	Image pg. A75
1938	Solomon Jacob gas sta	San Diego Directory Co.	Image pg. A84
1933	Solomon Jacob gas sta	San Diego Directory Co.	Image pg. A93
1927	Church Walter Super Serv ice	San Diego Directory Co.	Image pg. A101

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

CALIFORNIA

3502 CALIFORNIA

Year	Uses	Source
1921	Dell Richd J Irene auto painter Dell Urick Co h	San Diego Directory Co. Inc.

3506 CALIFORNIA

Year	Uses	Source
1921	Masckow Matilda T Mrs h	San Diego Directory Co. Inc.

CALIFORNIA ST

3449 CALIFORNIA ST

Year	Uses	Source	
1952	Talbot Frank	R. L. Polk & Co. of California	Image pg. A56
1948	Talbot Frank	San Diego Directory Co.	Image pg. A65
1943	ATalbot Frank	San Diego Directory Co.	Image pg. A76
1938	Talbot Frank battery mi	San Diego Directory Co.	Image pg. A85
1933	Talbot Frank battery mfr o	San Diego Directory Co.	Image pg. A94
	San Diego Lead Products & Mfg Co	San Diego Directory Co.	Image pg. A94

3553 CALIFORNIA ST

Year	Uses	Source	
2013	RUSH PRESS	Cole Information Services	
2008	RUSH PRESS	Cole Information Services	
2006	RUSH PRESS	Haines Company, Inc.	
1989	Photo & Sound Company	Pacific Bell	
1984	V W R Scientific Graphics Inc	R. L. Polk & Co.	Image pg. A10
1980	V W R Scientific Graphics Inc	R. L. Polk & Co.	Image pg. A19
1975	Treck Photographic Inc equip & sup	R. L. Polk & Co.	Image pg. A27
1970	TRECK PHOTOGRAPHIC INC EQUIP	John M. Ducy	
1966	EASTMAN KODAK STORES INC	R. L. Polk & Co.	Image pg. A38
	EQUIP & SUP	R. L. Polk & Co.	Image pg. A38

FINDINGS

3566 CALIFORNIA ST

Year	Uses	Source	
1933	Vatis Saml	San Diego Directory Co.	Image pg. A94

3595 CALIFORNIA ST

Year	Uses	Source	
2000	FULLTECHSYSTEMS	Haines & Company	Image pg. A2
	FULLTECH	Haines & Company	Image pg. A2

3596 CALIFORNIA ST

Year	Uses	Source	
2008	BARON BLAKESLEE	Cole Information Services	
2006	BARON BLAKESLEE	Haines Company, Inc.	
2000	BARON BLAKESLEE	Haines & Company	Image pg. A2
1992	Baron Blakeslee chem sls	PACIFIC BELL WHITE PAGES	
1989	Baron Blakeslee cheml sls	Pacific Bell	
1984	Charcoal Distributors	R. L. Polk & Co.	Image pg. A10
	Baron Blakeslee Co chem mfg	R. L. Polk & Co.	Image pg. A10
1980	Charcoal Distributors	R. L. Polk & Co.	Image pg. A19
	Baron Blakeslee Co chem mfg	R. L. Polk & Co.	Image pg. A19
1975	Charcoal Distributors	R. L. Polk & Co.	Image pg. A27
	Bateman T Co chem mfg	R. L. Polk & Co.	Image pg. A27
1970	CHARCOAL DISTRIBUTORS	John M. Ducy	
	BATEMAN T 0 CO CHEM MFG	John M. Ducy	
1966	CHARCOAL DISTRIBUTORS	R. L. Polk & Co.	Image pg. A38
	BATEMAN T 0 CO CHEM MFG	R. L. Polk & Co.	Image pg. A38
1961	Charcoal Distrs Inc	R. L. Polk & Co.	Image pg. A47
	Bateman T O Co chem	R. L. Polk & Co.	Image pg. A47
1952	Bateman T O	R. L. Polk & Co. of California	Image pg. A56

3607 CALIFORNIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A47
1952	May H W	R. L. Polk & Co. of California	Image pg. A56
1948	May H W	San Diego Directory Co.	Image pg. A65
1943	ALawatn Clarence	San Diego Directory Co.	Image pg. A76
1938	Oliver F M Mrs	San Diego Directory Co.	Image pg. A85
1933	Hartman C J	San Diego Directory Co.	Image pg. A94

FINDINGS

3619 CALIFORNIA ST

Year	Uses	Source	
1961	Rebeles Magdelena Mrs	R. L. Polk & Co.	Image pg. A47
1952	Rebeles M Mrs	R. L. Polk & Co. of California	Image pg. A56
1948	Coleman W S	San Diego Directory Co.	Image pg. A65
1943	Salcedo Lawrence	San Diego Directory Co.	Image pg. A76
1938	Salceda Miguel	San Diego Directory Co.	Image pg. A85
1933	Salcedo Miguel	San Diego Directory Co.	Image pg. A94

3625 CALIFORNIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A47
1952	Mallet C J	R. L. Polk & Co. of California	Image pg. A56
1948	Mallett C J	San Diego Directory Co.	Image pg. A65
1943	Mallet C L	San Diego Directory Co.	Image pg. A76
1938	Stanton John	San Diego Directory Co.	Image pg. A85
1933	Stanton John o	San Diego Directory Co.	Image pg. A94
1927	Stanton Jno	San Diego Directory Co.	Image pg. A102

3633 CALIFORNIA ST

Year	Uses	Source	
1970	FREDERICK BRUCE N	John M. Ducy	
	VACANT	John M. Ducy	
	DACIANELLO JOHN	John M. Ducy	
	VACANT	John M. Ducy	
	CAMPBELL JOE	John M. Ducy	
	LETT JOE	John M. Ducy	
	APARTMENTS	John M. Ducy	
	DUMONT WM	John M. Ducy	
	MEAGER AL	John M. Ducy	
	SPADACINO ANTHONY D	John M. Ducy	
1966	APARTMENTS	R. L. Polk & Co.	Image pg. A38
	VACANT APTS	R. L. Polk & Co.	Image pg. A38
	LETT JOE H	R. L. Polk & Co.	Image pg. A38
1961	A 1 Bachelor Apts	R. L. Polk & Co.	Image pg. A47
	Simms Leon	R. L. Polk & Co.	Image pg. A47
	Withers Jack	R. L. Polk & Co.	Image pg. A47
	Blum J W	R. L. Polk & Co.	Image pg. A47
	Lett John B	R. L. Polk & Co.	Image pg. A47
	Wade Alf D	R. L. Polk & Co.	Image pg. A47

FINDINGS

Year	Uses	Source	
1961	Lett Joe H	R. L. Polk & Co.	Image pg. A47
	Robles John	R. L. Polk & Co.	Image pg. A47
	Chafin Semuel A	R. L. Polk & Co.	Image pg. A47
	Mc Kee Mike	R. L. Polk & Co.	Image pg. A47
	Street continued	R. L. Polk & Co.	Image pg. A47

3637 CALIFORNIA ST

Year	Uses	Source	
1927	Stuhr Nels	San Diego Directory Co.	Image pg. A102

3645 CALIFORNIA ST

Year	Uses	Source
2013	GEORGES LAWN EQUIPMENT COMPANY	Cole Information Services
2008	GEORGES LAWN EQUIPMENT	Cole Information Services

CALIFORNIA/VINE

CALIFORNIA/VINE

Year	Uses	Source	
1961	CALIFORNIA/VINE	R. L. Polk & Co.	Image pg. A47
1952	CALIFORNIA/VINE	R. L. Polk & Co. of California	Image pg. A56
1948	CALIFORNIA/VINE	San Diego Directory Co.	Image pg. A65
1943	CALIFORNIA/VINE	San Diego Directory Co.	Image pg. A76
1938	CALIFORNIA/VINE	San Diego Directory Co.	Image pg. A85
1933	CALIFORNIA/VINE	San Diego Directory Co.	Image pg. A94

CALIFORNIA/VINE ST

CALIFORNIA/VINE ST

Year	Uses	Source	
1984	CALIFORNIA/VINE ST	R. L. Polk & Co.	Image pg. A10
1980	CALIFORNIA/VINE ST	R. L. Polk & Co.	Image pg. A19
1975	CALIFORNIA/VINE ST	R. L. Polk & Co.	Image pg. A27
1970	CALIFORNIA/VINE ST	John M. Ducy	
1966	CALIFORNIA/VINE ST	R. L. Polk & Co.	Image pg. A38

FINDINGS

CALIFORNIA/WALNUT

CALIFORNIA/WALNUT

Year	Uses	Source	
1933	CALIFORNIA/WALNUT	San Diego Directory Co.	Image pg. A94

CALIFORNIA/WALNUT AV

CALIFORNIA/WALNUT AV

Year	Uses	Source	
1984	CALIFORNIA/WALNUT AV	R. L. Polk & Co.	Image pg. A10
1980	CALIFORNIA/WALNUT AV	R. L. Polk & Co.	Image pg. A19
1975	CALIFORNIA/WALNUT AV	R. L. Polk & Co.	Image pg. A27
1970	CALIFORNIA/WALNUT AV	John M. Ducy	
1966	CALIFORNIA/WALNUT AV	R. L. Polk & Co.	Image pg. A38
1961	CALIFORNIA/WALNUT AV	R. L. Polk & Co.	Image pg. A47
1952	CALIFORNIA/WALNUT AV	R. L. Polk & Co. of California	Image pg. A56
1948	CALIFORNIA/WALNUT AV	San Diego Directory Co.	Image pg. A65
1943	CALIFORNIA/WALNUT AV	San Diego Directory Co.	Image pg. A76
1938	CALIFORNIA/WALNUT AV	San Diego Directory Co.	Image pg. A85
1927	CALIFORNIA/WALNUT AV	San Diego Directory Co.	Image pg. A102

CHALMERS/KETTNER BLVD

CHALMERS/KETTNER BLVD

Year	Uses	Source	
1927	CHALMERS/KETTNER BLVD	San Diego Directory Co.	Image pg. A103

COLUMBIA

3515 COLUMBIA

Year	Uses	Source
1921	Andrews Elmer J Florence B electr U S N h	San Diego Directory Co. Inc.

3517 COLUMBIA

Year	Uses	Source
1921	Manzer Lawrence D Thelma M tent fnshr Muehleisen T & A Co h	San Diego Directory Co. Inc.

FINDINGS

3531 COLUMBIA

Year	Uses	Source
1921	Boyd Saml R slsnin h	San Diego Directory Co. Inc.
	Boyd Myra C wid S J r	San Diego Directory Co. Inc.

3535 COLUMBIA

Year	Uses	Source
1921	Young Vera Mrs tchr High School r	San Diego Directory Co. Inc.
	Young Frank L Vera E carrier P O h	San Diego Directory Co. Inc.

3545 COLUMBIA

Year	Uses	Source
1921	Earle O Browne Gertrude C lieut U S N h	San Diego Directory Co. Inc.

COLUMBIA AVE

3531 COLUMBIA AVE

Year	Uses	Source
1921	Courtleigh Claude R emp C S Hardy r	San Diego Directory Co. Inc.

COLUMBIA PL

3504 COLUMBIA PL

Year	Uses	Source	
1943	Steadnman J	San Diego Directory Co.	Image pg. A77
1938	ASteadman 5	San Diego Directory Co.	Image pg. A86
1927	Steadman O J	San Diego Directory Co.	Image pg. A104

3515 COLUMBIA PL

Year	Uses	Source	
1943	Boniface Frank	San Diego Directory Co.	Image pg. A77
1938	Seigleman Sami	San Diego Directory Co.	Image pg. A86
1927	Vacant	San Diego Directory Co.	Image pg. A104

3517 COLUMBIA PL

Year	Uses	Source	
1943	Mc Cusker G C	San Diego Directory Co.	Image pg. A77
1938	Mc Cusker G C	San Diego Directory Co.	Image pg. A86
1927	Hawkins Harold	San Diego Directory Co.	Image pg. A104

FINDINGS

3521 COLUMBIA PL

Year	Uses	Source	
1943	Stevens D S	San Diego Directory Co.	Image pg. A77

3525 COLUMBIA PL

Year	Uses	Source	
1943	SAOStarkey L E	San Diego Directory Co.	Image pg. A77

3528 COLUMBIA PL

Year	Uses	Source	
1943	Smith R M	San Diego Directory Co.	Image pg. A77
1938	ASmith R M	San Diego Directory Co.	Image pg. A86
1927	Downey T C	San Diego Directory Co.	Image pg. A104

3531 COLUMBIA PL

Year	Uses	Source	
1943	AKendrick J L	San Diego Directory Co.	Image pg. A77
1938	AKendrick J L	San Diego Directory Co.	Image pg. A86
1927	Jameson Eulalia Mrs	San Diego Directory Co.	Image pg. A104

3535 COLUMBIA PL

Year	Uses	Source	
1943	Mac Lennan Donald	San Diego Directory Co.	Image pg. A77
1938	Mac Lennan Donald	San Diego Directory Co.	Image pg. A86
1927	Hill Robt	San Diego Directory Co.	Image pg. A104

3538 COLUMBIA PL

Year	Uses	Source	
1943	Kinney Marvin	San Diego Directory Co.	Image pg. A77
1938	Bowling Herbt	San Diego Directory Co.	Image pg. A86
1927	Stacey Earl	San Diego Directory Co.	Image pg. A104

3545 COLUMBIA PL

Year	Uses	Source	
1943	Wilson Louise F	San Diego Directory Co.	Image pg. A77
1938	Cs AWilson Louise F	San Diego Directory Co.	Image pg. A86
1927	Kinney I N	San Diego Directory Co.	Image pg. A104

FINDINGS

COLUMBIA ST

3504 COLUMBIA ST

Year	Uses	Source	
2006	HARVEY William	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A3
1992	Stoup Susan	PACIFIC BELL WHITE PAGES	
	Reynolds Jack C	PACIFIC BELL WHITE PAGES	
1989	Reynolds Jack C	Pacific Bell	
	Read Russell S	Pacific Bell	
	Lacy M	Pacific Bell	
1984	Richards Kenneth G	R. L. Polk & Co.	Image pg. A11
1980	Leggitt Donald R pntr contr	R. L. Polk & Co.	Image pg. A20
1975	Leggitt Don R	R. L. Polk & Co.	Image pg. A28
1970	REGAN HELEN MRS	John M. Ducy	
1966	HORTON M B	R. L. Polk & Co.	Image pg. A39
1961	Wallendorff Harold J	R. L. Polk & Co.	Image pg. A48
1960	Wallendorff Harold J	The Pacific Telephone Telegraph Co.	
1955	Steadman O J	R. L. Polk & Co.	
	Lattin R M Dr	R. L. Polk & Co.	
1952	Lattin R M	R. L. Polk & Co. of California	Image pg. A57
	Stedman O	R. L. Polk & Co. of California	Image pg. A57
1948	Steadman O J	San Diego Directory Co.	Image pg. A66
	Lattin J L	San Diego Directory Co.	Image pg. A66
1945	Steadman O J r	San Diego Directory Co.	
1933	Steadman J o	San Diego Directory Co.	Image pg. A95

3505 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A3
1989	Waugh Robt	Pacific Bell	
1984	Ballou Albert J	R. L. Polk & Co.	Image pg. A11
1980	Kalvitz Cindy M	R. L. Polk & Co.	Image pg. A20
1975	Llewellyn Ronald B	R. L. Polk & Co.	Image pg. A28
1970	PINASCO MARIE C MRS	John M. Ducy	
1966	PINASCO MARIE C MRS	R. L. Polk & Co.	Image pg. A39
1961	Pinasco Marie C Mrs	R. L. Polk & Co.	Image pg. A48
1960	Pinasco Marie C	The Pacific Telephone Telegraph Co.	
1955	Kohlepp L C	R. L. Polk & Co.	

FINDINGS

3506 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1989	Staats James	Pacific Bell	
1984	Murick G	R. L. Polk & Co.	Image pg. A11
1980	Murick G	R. L. Polk & Co.	Image pg. A20

3509 COLUMBIA ST

Year	Uses	Source	
1992	Sewall John	PACIFIC BELL WHITE PAGES	
1989	Sewall John	Pacific Bell	
1984	Prell Scott	R. L. Polk & Co.	Image pg. A11
1980	Vacant	R. L. Polk & Co.	Image pg. A20
1975	Linton Thos C	R. L. Polk & Co.	Image pg. A28
1970	HORTON ANNE MRS	John M. Ducy	
1966	HALCON SALVADOR	R. L. Polk & Co.	Image pg. A39
1961	Austin Richd D	R. L. Polk & Co.	Image pg. A48
1952	Kilgore E L	R. L. Polk & Co. of California	Image pg. A57

3510 COLUMBIA ST

Year	Uses	Source	
1984	1/2 Shelley Ronald E	R. L. Polk & Co.	Image pg. A11
	Delacuesta Carmen	R. L. Polk & Co.	Image pg. A11
1980	N Fredericks Adreanna L	R. L. Polk & Co.	Image pg. A20
	Edwards Gladys M Mrs	R. L. Polk & Co.	Image pg. A20
1975	Tadman Michl	R. L. Polk & Co.	Image pg. A28
	Edwards Gladys M Mrs	R. L. Polk & Co.	Image pg. A28
1970	EDWARDS GLADYS M MRS	John M. Ducy	
	RENTER HARRY J	John M. Ducy	
1966	ROJAS ISRAEL	R. L. Polk & Co.	Image pg. A39
	EDWARDS GLADYS M MRS	R. L. Polk & Co.	Image pg. A39
1961	1/2 Strickland James G	R. L. Polk & Co.	Image pg. A48
	Jensen Robt	R. L. Polk & Co.	Image pg. A48
1955	Edwards Gladys M	R. L. Polk & Co.	
1952	1/2 Emory G N	R. L. Polk & Co. of California	Image pg. A57
	Doerr W A	R. L. Polk & Co. of California	Image pg. A57

3512 COLUMBIA ST

Year	Uses	Source
2006	ROJASAG	Haines Company, Inc.

FINDINGS

Year	Uses	Source	
2000	HOAG Douglas C Mrs	Haines & Company	Image pg. A3
1992	Hoag Douglas C Mrs	PACIFIC BELL WHITE PAGES	
1989	Hoag Douglas C Mrs	Pacific Bell	
1984	Hoag Faith A Mrs	R. L. Polk & Co.	Image pg. A11
	1/2 No Return	R. L. Polk & Co.	Image pg. A11
1980	Hoag Faith A Mrs	R. L. Polk & Co.	Image pg. A20
	Kirtwright Oscar A	R. L. Polk & Co.	Image pg. A20
1975	Hoag Faith A Mrs	R. L. Polk & Co.	Image pg. A28
	Dittrich John	R. L. Polk & Co.	Image pg. A28
1970	HOAG FAITH A MRS	John M. Ducy	
	DITTRICH RALPH	John M. Ducy	
1966	WECKERLY TERRY V	R. L. Polk & Co.	Image pg. A39
	HOAG FAITH A MRS	R. L. Polk & Co.	Image pg. A39
1961	1/2 Vacant	R. L. Polk & Co.	Image pg. A48
	Hoag Faith A Mrs	R. L. Polk & Co.	Image pg. A48
1955	Li Mandri John M	R. L. Polk & Co.	
	Bowen Wm E	R. L. Polk & Co.	
1952	Bowen W E	R. L. Polk & Co. of California	Image pg. A57

3513 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1992	I Greenberg Sue	PACIFIC BELL WHITE PAGES	
	Greenberg T.....	PACIFIC BELL WHITE PAGES	
1989	Peterson Martha	Pacific Bell	
1984	Brown Phyllis	R. L. Polk & Co.	Image pg. A11
1980	N Gagliano John A	R. L. Polk & Co.	Image pg. A20
1975	Poschman Harry D	R. L. Polk & Co.	Image pg. A28
1970	FOGARTY MARGT MRS	John M. Ducy	
1966	FOGARTY MARGT MRS	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1960	Elstman Wallace B	The Pacific Telephone Telegraph Co.	
	Thatcher P A	The Pacific Telephone Telegraph Co.	
1955	Dean Walter E	R. L. Polk & Co.	
1952	Dean W E	R. L. Polk & Co. of California	Image pg. A57

3515 COLUMBIA ST

Year	Uses	Source	
2000	PINAFabririo	Haines & Company	Image pg. A3

FINDINGS

Year	Uses	Source	
2000	PINA Raquel	Haines & Company	Image pg. A3
1989	Kinsman Michael	Pacific Bell	
1984	California Silk Screen	R. L. Polk & Co.	Image pg. A11
	Warner Denis G	R. L. Polk & Co.	Image pg. A11
1980	Peck D	R. L. Polk & Co.	Image pg. A20
1975	Olson Kerry	R. L. Polk & Co.	Image pg. A28
1970	OLSON DOUGLAS J	John M. Ducy	
1966	MC CAULEY JOSEPH	R. L. Polk & Co.	Image pg. A39
1961	Rogers Clarence M	R. L. Polk & Co.	Image pg. A48
1952	Gentry R G	R. L. Polk & Co. of California	Image pg. A57
1948	Boniface Frank	San Diego Directory Co.	Image pg. A66
1933	Waimon I J	San Diego Directory Co.	Image pg. A95

3516 COLUMBIA ST

Year	Uses	Source	
2000	ROJAS Pauline	Haines & Company	Image pg. A3
1992	Ro as Pauline	PACIFIC BELL WHITE PAGES	
1989	Rojas Pauline	Pacific Bell	
1984	Rojas Cirilio G	R. L. Polk & Co.	Image pg. A11
1980	Rojas Cirilio G	R. L. Polk & Co.	Image pg. A20
1975	Rojas Cirilio G	R. L. Polk & Co.	Image pg. A28
1970	ROJAS CIRILIO G a	John M. Ducy	
1966	ROJAS CIRILIO G	R. L. Polk & Co.	Image pg. A39
1961	Rojas Cirilio G	R. L. Polk & Co.	Image pg. A48
1960	Rojas Pauline	The Pacific Telephone Telegraph Co.	
1955	Rojas Pauline	R. L. Polk & Co.	

3517 COLUMBIA ST

Year	Uses	Source	
2000	BROWN Mark	Haines & Company	Image pg. A3
1984	No Return	R. L. Polk & Co.	Image pg. A11
1980	Courtney Richd B	R. L. Polk & Co.	Image pg. A20
1975	Martinez Robt A	R. L. Polk & Co.	Image pg. A28
1970	VACANT	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	No Return	R. L. Polk & Co.	Image pg. A48
1960	Pimental Richard	The Pacific Telephone Telegraph Co.	
1952	Zwemer Thodore W	R. L. Polk & Co. of California	Image pg. A57
1948	Schwegel G W	San Diego Directory Co.	Image pg. A66

FINDINGS

Year	Uses	Source	
1933	Vacant	San Diego Directory Co.	Image pg. A95

3518 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1984	Ramirez Blanca	R. L. Polk & Co.	Image pg. A11
1980	Ramirez Blanca	R. L. Polk & Co.	Image pg. A20
1975	Kemper Clay	R. L. Polk & Co.	Image pg. A28
1970	MACIEL JOSE J	John M. Ducy	
1966	WIEDE VIRGINIA F	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1960	Mc Donald Larry W	The Pacific Telephone Telegraph Co.	

3519 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1989	Snitslaar Michael & Patricia	Pacific Bell	
1984	No Return	R. L. Polk & Co.	Image pg. A11
1980	Tate	R. L. Polk & Co.	Image pg. A20
1975	Holte Susan C	R. L. Polk & Co.	Image pg. A28
1970	KEPTNER CALVIN E	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1955	Trucks Rodney L	R. L. Polk & Co.	
1952	Muller C H	R. L. Polk & Co. of California	Image pg. A57

3520 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1984	Brazil Robt	R. L. Polk & Co.	Image pg. A11
1980	Brazil Robt	R. L. Polk & Co.	Image pg. A20
1975	Brazil Robt	R. L. Polk & Co.	Image pg. A28
1970	VACANT	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1955	Stanek Robt B	R. L. Polk & Co.	

3521 COLUMBIA ST

Year	Uses	Source	
1984	Wellner	R. L. Polk & Co.	Image pg. A11

FINDINGS

Year	Uses	Source	
1980	Vacant	R. L. Polk & Co.	Image pg. A20
1975	Vacant	R. L. Polk & Co.	Image pg. A28
1970	HEILMAN JAMES A	John M. Ducy	
1966	BAKER ROBT W	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1955	Bignell Helen C	R. L. Polk & Co.	
1952	La Rue P S	R. L. Polk & Co. of California	Image pg. A57
1948	Woodman G G	San Diego Directory Co.	Image pg. A66
	Dye W R	San Diego Directory Co.	Image pg. A66

3523 COLUMBIA ST

Year	Uses	Source	
1984	Watson Karen J	R. L. Polk & Co.	Image pg. A11
1980	Watson Karen J	R. L. Polk & Co.	Image pg. A20
1975	Fleming S E	R. L. Polk & Co.	Image pg. A28
1970	NOWICKI DONALD E	John M. Ducy	
1966	MC WILLIAMS WM H	R. L. Polk & Co.	Image pg. A39
	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Acosta Roman O	R. L. Polk & Co.	Image pg. A48
1960	Lamb Winona	The Pacific Telephone Telegraph Co.	
1952	Spangler C M	R. L. Polk & Co. of California	Image pg. A57
1948	Woodis D N	San Diego Directory Co.	Image pg. A66

3525 COLUMBIA ST

Year	Uses	Source	
1992	Desmond Richard J	PACIFIC BELL WHITE PAGES	
1984	Gilmore Scott	R. L. Polk & Co.	Image pg. A11
1980	Gilmore Scott	R. L. Polk & Co.	Image pg. A20
1975	Alflerbach D D	R. L. Polk & Co.	Image pg. A28
1970	HILL DOUGLAS L	John M. Ducy	
1966	PALMER FLORENCE B MRS	R. L. Polk & Co.	Image pg. A39
1961	Pitts J B	R. L. Polk & Co.	Image pg. A48
1960	Sandoval L M Mrs	The Pacific Telephone Telegraph Co.	
1952	Montaivo Raymond	R. L. Polk & Co. of California	Image pg. A57
1948	Starkey L E	San Diego Directory Co.	Image pg. A66
1945	Starkey L E r	San Diego Directory Co.	

FINDINGS

3528 COLUMBIA ST

Year	Uses	Source	
2006	SORIAFlav	Haines Company, Inc.	
2000	SORi AJesse	Haines & Company	Image pg. A3
	SORIAFlavia	Haines & Company	Image pg. A3
1992	Soria Jesse& Flavia	PACIFIC BELL WHITE PAGES	
1989	Soria Jesse & Flavia	Pacific Bell	
1984	Baker Viola M Mrs	R. L. Polk & Co.	Image pg. A11
1980	Baker Robt W	R. L. Polk & Co.	Image pg. A20
1975	Baker Robt W	R. L. Polk & Co.	Image pg. A28
1970	BAKER ROBT W S	John M. Ducy	
1966	PETHYBRIDGE MAT W	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1952	Smith R M	R. L. Polk & Co. of California	Image pg. A57
1948	Smith R M	San Diego Directory Co.	Image pg. A66
1945	Smith Roy M r	San Diego Directory Co.	
1933	Smith R C	San Diego Directory Co.	Image pg. A95

3529 COLUMBIA ST

Year	Uses	Source	
2008	AIR HANDLING SYSTEMS	Cole Information Services	
2006	No Current Listing	Haines Company, Inc.	
2000	PENSELPeer H	Haines & Company	Image pg. A3
1989	Woods Richard L	Pacific Bell	
	Laird Nell E	Pacific Bell	

3531 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	FLEMING Elizabeth	Haines & Company	Image pg. A3
1989	Vance Blake E	Pacific Bell	
1984	Krutchik L	R. L. Polk & Co.	Image pg. A11
1980	Vacant	R. L. Polk & Co.	Image pg. A20
1975	Vacant	R. L. Polk & Co.	Image pg. A28
1970	THERKELSEN HANIS L	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Tate Gleason J	R. L. Polk & Co.	Image pg. A48
1960	Jester Matilda	The Pacific Telephone Telegraph Co.	
1955	Jester Matilda	R. L. Polk & Co.	
1952	Jester Matilda Mrs	R. L. Polk & Co. of California	Image pg. A57

FINDINGS

Year	Uses	Source	
1948	Worner K W	San Diego Directory Co.	Image pg. A66
1945	Kendrick J Lawton r	San Diego Directory Co.	
1933	Brown J M	San Diego Directory Co.	Image pg. A95

3533 COLUMBIA ST

Year	Uses	Source	
2006	SHINE C	Haines Company, Inc.	
	BENKENDORFR	Haines Company, Inc.	
2000	SHINE Caroline	Haines & Company	Image pg. A3
	BENKENDORFRay	Haines & Company	Image pg. A3
1992	Shine Caroline	PACIFIC BELL WHITE PAGES	
	Benker Richard J	PACIFIC BELL WHITE PAGES	
	Benkendorf Ray	PACIFIC BELL WHITE PAGES	
1989	Benkendorf Ray	Pacific Bell	
	Shine Caroline	Pacific Bell	

3535 COLUMBIA ST

Year	Uses	Source	
2006	HOWELL Joseph	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A3
1984	Under Constn	R. L. Polk & Co.	Image pg. A11
1980	Grenier Dennis	R. L. Polk & Co.	Image pg. A20
1975	Murphy D V	R. L. Polk & Co.	Image pg. A28
1970	MURPHY DOREEN V MRS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Vacant	R. L. Polk & Co.	Image pg. A48
1960	Murphy T E	The Pacific Telephone Telegraph Co.	
1955	Murphy T E	R. L. Polk & Co.	
1952	Murphy Thos	R. L. Polk & Co. of California	Image pg. A57
1948	Mac Lennan Donald	San Diego Directory Co.	Image pg. A66
1945	Mac Lennan Agnes C r	San Diego Directory Co.	
	Mac Lennan Donald r	San Diego Directory Co.	
1933	Eversoll D B	San Diego Directory Co.	Image pg. A95

3538 COLUMBIA ST

Year	Uses	Source	
2006	ACIROMarilyn	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A3
1984	Crisci Dorotea Mrs	R. L. Polk & Co.	Image pg. A11

FINDINGS

Year	Uses	Source	
1980	Crisci Dorotea Mrs	R. L. Polk & Co.	Image pg. A20
1975	Crisci Guiseppe	R. L. Polk & Co.	Image pg. A28
1970	CRISCI JOSEPH	John M. Ducy	
1966	CRISCI JOSEPH	R. L. Polk & Co.	Image pg. A39
1961	Crisci Jos	R. L. Polk & Co.	Image pg. A48
1960	Crisci Jos	The Pacific Telephone Telegraph Co.	
1955	Crisci Jos	R. L. Polk & Co.	
1952	Crisci Jos	R. L. Polk & Co. of California	Image pg. A57
1948	Crisci Jos	San Diego Directory Co.	Image pg. A66
1945	Crisci Rose r	San Diego Directory Co.	
1933	Stacy Earl o	San Diego Directory Co.	Image pg. A95

3540 COLUMBIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A3
1984	Elie Robt	R. L. Polk & Co.	Image pg. A11
1980	Renaldi Richd	R. L. Polk & Co.	Image pg. A20
1975	Gee Deland	R. L. Polk & Co.	Image pg. A28
1970	PROCTOR ELMER	John M. Ducy	
1966	HARBER GILL	R. L. Polk & Co.	Image pg. A39
1961	Hicks Leon B	R. L. Polk & Co.	Image pg. A48

3542 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
1989	Baron Steven	Pacific Bell	
1984	Mediate Rocco	R. L. Polk & Co.	Image pg. A11
1980	Weinmeicr	R. L. Polk & Co.	Image pg. A20

3544 COLUMBIA ST

Year	Uses	Source	
1984	Haas M	R. L. Polk & Co.	Image pg. A11
1980	OMalley Dan	R. L. Polk & Co.	Image pg. A20
1975	Vaught Robt J	R. L. Polk & Co.	Image pg. A28
	Vacant	R. L. Polk & Co.	Image pg. A28
1970	APARTMENTS	John M. Ducy	
	KIRKPATRICK NORMAN C	John M. Ducy	
	GARDENER ROBT C	John M. Ducy	
	RAMSEY T K	John M. Ducy	

FINDINGS

Year	Uses	Source	
1970	GIBSON TERRY W	John M. Ducy	
1966	KIRKPATRICK NORMAN C	R. L. Polk & Co.	Image pg. A39
	BURNHAM HOWARD M	R. L. Polk & Co.	Image pg. A39
	ALBRIGHT JOHN C	R. L. Polk & Co.	Image pg. A39
	VACANT APTS	R. L. Polk & Co.	Image pg. A39
	APARTMENTS	R. L. Polk & Co.	Image pg. A39
1961	Apartments	R. L. Polk & Co.	Image pg. A48
	Kirkpatrick Norman	R. L. Polk & Co.	Image pg. A48
	Boyce Margt	R. L. Polk & Co.	Image pg. A48
	Ivey Phil	R. L. Polk & Co.	Image pg. A48
	Vacant	R. L. Polk & Co.	Image pg. A48
	Howard Dan	R. L. Polk & Co.	Image pg. A48
1960	Oldham Geo N	The Pacific Telephone Telegraph Co.	
	Oldham Ronnie Mrs	The Pacific Telephone Telegraph Co.	
	Schadt G H	The Pacific Telephone Telegraph Co.	

3545 COLUMBIA ST

Year	Uses	Source	
1955	Taylor M D	R. L. Polk & Co.	
1952	Taylor G F	R. L. Polk & Co. of California	Image pg. A57
1948	Wilson Louise F	San Diego Directory Co.	Image pg. A66
1945	Wilson L F r	San Diego Directory Co.	
1933	Melzner A B	San Diego Directory Co.	Image pg. A95

3546 COLUMBIA ST

Year	Uses	Source	
1984	No Return	R. L. Polk & Co.	Image pg. A11
1980	N Lautt Connie	R. L. Polk & Co.	Image pg. A20

3600 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
1992	Miller D D	PACIFIC BELL WHITE PAGES	
1984	Kohl D B	R. L. Polk & Co.	Image pg. A11
1980	N Kohl D B	R. L. Polk & Co.	Image pg. A20
1975	Humphreys Blythe D	R. L. Polk & Co.	Image pg. A28
1970	HUMPHREYS BLYTHE	John M. Ducy	

FINDINGS

3602 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
1984	Durham Duane	R. L. Polk & Co.	Image pg. A11
1980	Hansen A M	R. L. Polk & Co.	Image pg. A20
1975	Hansen A M	R. L. Polk & Co.	Image pg. A28
1970	HANSEN A M	John M. Ducy	
1966	HANSEN A M	R. L. Polk & Co.	Image pg. A39
1961	Mindte Robt T	R. L. Polk & Co.	Image pg. A48

3604 COLUMBIA ST

Year	Uses	Source	
2006	DECKER J Jason	Haines Company, Inc.	
1989	Odhner Carl & January	Pacific Bell	
1984	Clark Richd	R. L. Polk & Co.	Image pg. A11
1980	N La Rivere Gilbert	R. L. Polk & Co.	Image pg. A20
1975	Dickerson Douglas	R. L. Polk & Co.	Image pg. A28
1970	SUTTON CLARK	John M. Ducy	
1966	FRABOTTA JOHN A	R. L. Polk & Co.	Image pg. A39
1961	Toothacre Rod M	R. L. Polk & Co.	Image pg. A48

3606 COLUMBIA ST

Year	Uses	Source	
2006	o DYCKMANKnislne E	Haines Company, Inc.	
1992	Moa David	PACIFIC BELL WHITE PAGES	
	Moa Tolufate	PACIFIC BELL WHITE PAGES	
	Moad R	PACIFIC BELL WHITE PAGES	
1989	Moa David	Pacific Bell	
1984	Sibley Raymond A	R. L. Polk & Co.	Image pg. A11
1980	Moore Robt J	R. L. Polk & Co.	Image pg. A20
1975	Snith Sydney	R. L. Polk & Co.	Image pg. A28
1970	JONES CADILLAC MRS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39

3608 COLUMBIA ST

Year	Uses	Source
1992	Malfara K	PACIFIC BELL WHITE PAGES
	Malfara Richard S	PACIFIC BELL WHITE PAGES
	Malfara Dick	PACIFIC BELL WHITE PAGES
1989	Malfara Dick	Pacific Bell

FINDINGS

Year	Uses	Source	
1989	Malfara Richard S	Pacific Bell	
1984	Campbell Donna	R. L. Polk & Co.	Image pg. A11
1980	Campbell Donna	R. L. Polk & Co.	Image pg. A20
1975	Johnson Wm	R. L. Polk & Co.	Image pg. A28
1970	SHELTON HENRY C	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A39
1961	Metzer Dovonne Mrs	R. L. Polk & Co.	Image pg. A48

3610 COLUMBIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	ISSELHARDTDion M	Haines & Company	Image pg. A3
	ISSELHARDTDion M	Haines & Company	Image pg. A3
1984	Vega Richd J	R. L. Polk & Co.	Image pg. A11
1980	Vega Richd J	R. L. Polk & Co.	Image pg. A20
1975	Sweeney Dennis	R. L. Polk & Co.	Image pg. A28
1970	VACANT	John M. Ducy	
1966	RIDZON JAMES R	R. L. Polk & Co.	Image pg. A39

COLUMBIA/UPAS

COLUMBIA/UPAS

Year	Uses	Source	
1961	COLUMBIA/UPAS	R. L. Polk & Co.	Image pg. A48
1952	COLUMBIA/UPAS	R. L. Polk & Co. of California	Image pg. A57
1948	COLUMBIA/UPAS	San Diego Directory Co.	Image pg. A66
1943	COLUMBIA/UPAS	San Diego Directory Co.	Image pg. A77
1938	COLUMBIA/UPAS	San Diego Directory Co.	Image pg. A86
1933	COLUMBIA/UPAS	San Diego Directory Co.	Image pg. A95

COLUMBIA/UPAS ST

COLUMBIA/UPAS ST

Year	Uses	Source	
1984	COLUMBIA/UPAS ST	R. L. Polk & Co.	Image pg. A11
1980	COLUMBIA/UPAS ST	R. L. Polk & Co.	Image pg. A20
1975	COLUMBIA/UPAS ST	R. L. Polk & Co.	Image pg. A28
1970	COLUMBIA/UPAS ST	John M. Ducy	
1966	COLUMBIA/UPAS ST	R. L. Polk & Co.	Image pg. A39

FINDINGS

COLUMBIA/VINE

COLUMBIA/VINE

Year	Uses	Source	
1952	COLUMBIA/VINE	R. L. Polk & Co. of California	Image pg. A57
1948	COLUMBIA/VINE	San Diego Directory Co.	Image pg. A66
1943	COLUMBIA/VINE	San Diego Directory Co.	Image pg. A77
1938	COLUMBIA/VINE	San Diego Directory Co.	Image pg. A86
1933	COLUMBIA/VINE	San Diego Directory Co.	Image pg. A95

COLUMBIA/WALNUT AV

COLUMBIA/WALNUT AV

Year	Uses	Source	
1984	COLUMBIA/WALNUT AV	R. L. Polk & Co.	Image pg. A11
1980	COLUMBIA/WALNUT AV	R. L. Polk & Co.	Image pg. A20
1927	COLUMBIA/WALNUT AV	San Diego Directory Co.	Image pg. A104

GLENWOOD DR

1702 GLENWOOD DR

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	DARBY Heidi	Haines & Company	Image pg. A4
1992	Toraitis T	PACIFIC BELL WHITE PAGES	
1984	Toraitis Tom G	R. L. Polk & Co.	Image pg. A12
1980	Toraitis Tom G	R. L. Polk & Co.	Image pg. A21
1975	Vacant	R. L. Polk & Co.	Image pg. A29
1970	ROBERTS BILLY	John M. Ducy	
1955	King Dorothy F	R. L. Polk & Co.	
1952	Johnson J H	R. L. Polk & Co. of California	Image pg. A58
1948	Johnson J H	San Diego Directory Co.	Image pg. A67
1943	Alsup J W	San Diego Directory Co.	Image pg. A78
1938	Severance Cassell	San Diego Directory Co.	Image pg. A87
1933	Vacant	San Diego Directory Co.	Image pg. A96

1704 GLENWOOD DR

Year	Uses	Source	
2006	MARTIN Alejandro	Haines Company, Inc.	
2000	GALLAND Brock T	Haines & Company	Image pg. A4
1992	Galland Brock	PACIFIC BELL WHITE PAGES	

FINDINGS

Year	Uses	Source	
1984	Schwengl Paul	R. L. Polk & Co.	Image pg. A12
1980	No Return	R. L. Polk & Co.	Image pg. A21
1975	Kemp John	R. L. Polk & Co.	Image pg. A29
1970	VACANT	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Pierce Elanor Mrs	R. L. Polk & Co.	Image pg. A49
1960	Willburn Betty A	The Pacific Telephone Telegraph Co.	
1952	Noakes E I	R. L. Polk & Co. of California	Image pg. A58
1948	Holland F C	San Diego Directory Co.	Image pg. A67
1943	Christian Mildred	San Diego Directory Co.	Image pg. A78
1938	Bruce F D	San Diego Directory Co.	Image pg. A87
1933	Schanze H A	San Diego Directory Co.	Image pg. A96

1705 GLENWOOD DR

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A4
1992	Havens J L	PACIFIC BELL WHITE PAGES	
1989	Havens J L	Pacific Bell	
1984	Havens James L	R. L. Polk & Co.	Image pg. A12
1980	Havens James L	R. L. Polk & Co.	Image pg. A21
1975	Havens James L	R. L. Polk & Co.	Image pg. A29
1970	HAVENS JAMES L	John M. Ducy	
1966	HAVENS JAMES C	R. L. Polk & Co.	Image pg. A40
1961	Mahiwa Fredk M	R. L. Polk & Co.	Image pg. A49
1960	Priest Al	The Pacific Telephone Telegraph Co.	
1952	Belchez R R	R. L. Polk & Co. of California	Image pg. A58
1948	Scott W R	San Diego Directory Co.	Image pg. A67
1945	Scott Walter R r	San Diego Directory Co.	
1943	Scott W R	San Diego Directory Co.	Image pg. A78

1706 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Heriford Richd D	R. L. Polk & Co.	Image pg. A49
1952	Vacant	R. L. Polk & Co. of California	Image pg. A58

FINDINGS

1708 GLENWOOD DR

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A4
1984	Waynescott Darlene	R. L. Polk & Co.	Image pg. A12
1980	Vacant	R. L. Polk & Co.	Image pg. A21
1975	Overy Roy C	R. L. Polk & Co.	Image pg. A29
1970	ONEIL MARY L MRS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Sklut Milton	R. L. Polk & Co.	Image pg. A49
1955	De Lay Wm M	R. L. Polk & Co.	
1952	De Lay W M	R. L. Polk & Co. of California	Image pg. A58
1948	Brooks Quanetta V	San Diego Directory Co.	Image pg. A67
1943	Smith R D	San Diego Directory Co.	Image pg. A78
1938	ABenner C A	San Diego Directory Co.	Image pg. A87

1709 GLENWOOD DR

Year	Uses	Source	
2006	WILLIS Nancy	Haines Company, Inc.	
2000	A A A FLOOD RESCUE	Haines & Company	Image pg. A4
	RECORDS	Haines & Company	Image pg. A4
1989	Smallwood Alan & Sandra	Pacific Bell	
1984	Elmore Geo S	R. L. Polk & Co.	Image pg. A12
1980	Elmore Geo S	R. L. Polk & Co.	Image pg. A21
1975	Elmore Geo S	R. L. Polk & Co.	Image pg. A29
1970	ELMORE GEO S	John M. Ducy	
1966	ELMORE GEO S	R. L. Polk & Co.	Image pg. A40
1961	Elmore Geo S	R. L. Polk & Co.	Image pg. A49
1960	Elmore G S	The Pacific Telephone Telegraph Co.	
1952	Jacob Mae M	R. L. Polk & Co. of California	Image pg. A58
1948	Pinson K C	San Diego Directory Co.	Image pg. A67
1945	Cole Glen S r	San Diego Directory Co.	
1943	ABenedict E K	San Diego Directory Co.	Image pg. A78

1710 GLENWOOD DR

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A4
1992	Ryan John	PACIFIC BELL WHITE PAGES	
1989	Schwingl Paul	Pacific Bell	

FINDINGS

Year	Uses	Source	
1984	Guardado Manuel	R. L. Polk & Co.	Image pg. A12
1980	N Repine Sylvia	R. L. Polk & Co.	Image pg. A21
1975	Basko Steve	R. L. Polk & Co.	Image pg. A29

1711 GLENWOOD DR

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A4
1992	Smith Kay D	PACIFIC BELL WHITE PAGES	
1989	Pozo M C	Pacific Bell	
1984	Cromwell America	R. L. Polk & Co.	Image pg. A12
1980	Horner Henry H	R. L. Polk & Co.	Image pg. A21
1975	Horner Henry H	R. L. Polk & Co.	Image pg. A29
1970	HORNER HENRY H	John M. Ducy	
1966	HORNER HENRY H	R. L. Polk & Co.	Image pg. A40
1961	Lotta Vito E	R. L. Polk & Co.	Image pg. A49
1960	Bickel Leslie	The Pacific Telephone Telegraph Co.	
1952	Riffel H H	R. L. Polk & Co. of California	Image pg. A58
1948	Reinemund B R	San Diego Directory Co.	Image pg. A67
1945	Donegan Minton S Mrs r	San Diego Directory Co.	
1943	Donnegan M S Mrs	San Diego Directory Co.	Image pg. A78

1712 GLENWOOD DR

Year	Uses	Source	
2006	e REPINE Burt	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A4
1984	Parks Terry M	R. L. Polk & Co.	Image pg. A12
1980	N Parks Terry M	R. L. Polk & Co.	Image pg. A21
1975	No Return	R. L. Polk & Co.	Image pg. A29
1970	SAN DIEGO ACCORDION STUDIO	John M. Ducy	
	GUY EDW	John M. Ducy	
	MOORE GREGORY A	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Welch Vincent C	R. L. Polk & Co.	Image pg. A49
1955	Miller Oscar W	R. L. Polk & Co.	
1952	Barnes S W	R. L. Polk & Co. of California	Image pg. A58
	1/2 Parks C G	R. L. Polk & Co. of California	Image pg. A58
1948	1/2 Parks C G	San Diego Directory Co.	Image pg. A67
	Domnie W D	San Diego Directory Co.	Image pg. A67

FINDINGS

Year	Uses	Source	
1945	Wagner C F r	San Diego Directory Co.	
	Manning Jas V Mrs r	San Diego Directory Co.	
1943	Wagner Conrad	San Diego Directory Co.	Image pg. A78
1938	ASherman L J Mrs	San Diego Directory Co.	Image pg. A87
	Wagner C F	San Diego Directory Co.	Image pg. A87
1933	Sherman A B	San Diego Directory Co.	Image pg. A96
1927	Vacant	San Diego Directory Co.	Image pg. A105
1921	Stevens Bertha wid Saml r	San Diego Directory Co. Inc.	
	Stevens Chas A supv Pac	San Diego Directory Co. Inc.	
	Stevens Jas H Marian R lieut U S N h	San Diego Directory Co. Inc.	

1715 GLENWOOD DR

Year	Uses	Source	
1984	Gavey Alf	R. L. Polk & Co.	Image pg. A12
1980	Garrisi Joseph L	R. L. Polk & Co.	Image pg. A21
1975	Vacant	R. L. Polk & Co.	Image pg. A29
1970	METZ LAURA MRS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Stammers Edwin R	R. L. Polk & Co.	Image pg. A49
1960	Frazer John V	The Pacific Telephone Telegraph Co.	
1955	Ryan Jas W	R. L. Polk & Co.	
1952	Signorelli F J	R. L. Polk & Co. of California	Image pg. A58
1948	Holloway E L Mrs	San Diego Directory Co.	Image pg. A67
1943	Noack L G Mrs	San Diego Directory Co.	Image pg. A78

1716 GLENWOOD DR

Year	Uses	Source	
2006	DELALATShadar	Haines Company, Inc.	
2000	ALBRECHTRoland E	Haines & Company	Image pg. A4
1992	Albrecht Roland E	PACIFIC BELL WHITE PAGES	
	Albrecht Rudy E	PACIFIC BELL WHITE PAGES	
1989	Albrecht Roland E	Pacific Bell	
1984	Erwin Earl J	R. L. Polk & Co.	Image pg. A12
	1/2 Peterson Kathy	R. L. Polk & Co.	Image pg. A12
1980	Erwin Earl J	R. L. Polk & Co.	Image pg. A21
	/2 N Boddenhammer Thos C	R. L. Polk & Co.	Image pg. A21
1975	Erwin Earl J	R. L. Polk & Co.	Image pg. A29
	Vacant	R. L. Polk & Co.	Image pg. A29
1970	ERWIN EARL J	John M. Ducy	

FINDINGS

Year	Uses	Source	
1970	MC GOWAN MARGT	John M. Ducy	
1966	ERWIN EARL J	R. L. Polk & Co.	Image pg. A40
	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Erwin Earl J	R. L. Polk & Co.	Image pg. A49
	1/2 Howe Jordan J	R. L. Polk & Co.	Image pg. A49
1960	Privee Edessa T	The Pacific Telephone Telegraph Co.	
	Privee Leon A	The Pacific Telephone Telegraph Co.	
1955	Davis Gladys M	R. L. Polk & Co.	
	Von Gottberg Roy	R. L. Polk & Co.	
1952	Tittle Ella Mrs	R. L. Polk & Co. of California	Image pg. A58
	Ziegler R P	R. L. Polk & Co. of California	Image pg. A58
	1/2 Boers K B	R. L. Polk & Co. of California	Image pg. A58
1948	Crawford Jac	San Diego Directory Co.	Image pg. A67
	1/2 Cutcheon W B	San Diego Directory Co.	Image pg. A67
1945	Reed R R r	San Diego Directory Co.	
1943	Sellers E L	San Diego Directory Co.	Image pg. A78
	1/2 Glass K S	San Diego Directory Co.	Image pg. A78
1938	Guerin John	San Diego Directory Co.	Image pg. A87
	Mooney M C	San Diego Directory Co.	Image pg. A87
	1/2 ACousins F L	San Diego Directory Co.	Image pg. A87
1933	Walsh E M	San Diego Directory Co.	Image pg. A96
	Vacant	San Diego Directory Co.	Image pg. A96
1927	Vacant	San Diego Directory Co.	Image pg. A105
1921	Brown Dani Amelia lieut commander U S N h	San Diego Directory Co. Inc.	

1720 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Vacant	R. L. Polk & Co.	Image pg. A49
1960	Jones Clark	The Pacific Telephone Telegraph Co.	
1955	Salter John A	R. L. Polk & Co.	
1952	Knowles Delbert	R. L. Polk & Co. of California	Image pg. A58
	1/2 Constant Jack	R. L. Polk & Co. of California	Image pg. A58
1948	Hoffman Albt	San Diego Directory Co.	Image pg. A67
	1/2 Casner W D	San Diego Directory Co.	Image pg. A67
1945	Dominoe Wm r	San Diego Directory Co.	
1943	Roberts WV M	San Diego Directory Co.	Image pg. A78

FINDINGS

Year	Uses	Source	
1943	1/2 Alii ii iii w W I	San Diego Directory Co.	Image pg. A78
1938	Holmes J D	San Diego Directory Co.	Image pg. A87
	1/2 2 Kay H L	San Diego Directory Co.	Image pg. A87
1933	Harrison W E	San Diego Directory Co.	Image pg. A96
	1/2 A Chavers Anthony	San Diego Directory Co.	Image pg. A96
1927	Vacant	San Diego Directory Co.	Image pg. A105
	1/2 Vacant	San Diego Directory Co.	Image pg. A105

1722 GLENWOOD DR

Year	Uses	Source	
1966	WHARTON CHARLES B	R. L. Polk & Co.	Image pg. A40
	BARLOW DONALD E	R. L. Polk & Co.	Image pg. A40
1961	1/2 Vacant	R. L. Polk & Co.	Image pg. A49
	Vacant	R. L. Polk & Co.	Image pg. A49
1955	Rust Earl	R. L. Polk & Co.	
1952	1/2 Roper G I	R. L. Polk & Co. of California	Image pg. A58
	Fennell J C	R. L. Polk & Co. of California	Image pg. A58
1948	Lakin M B Mrs	San Diego Directory Co.	Image pg. A67
	1/2 Barnes S W	San Diego Directory Co.	Image pg. A67
1943	1/2 Gould Bllrtj	San Diego Directory Co.	Image pg. A78
	Kiilgord C L	San Diego Directory Co.	Image pg. A78
1938	1/2 Smith L J	San Diego Directory Co.	Image pg. A87
	ATheis D A	San Diego Directory Co.	Image pg. A87
1933	1/2 Warden D H	San Diego Directory Co.	Image pg. A96
	V	San Diego Directory Co.	Image pg. A96
1927	1/2 Bull F G	San Diego Directory Co.	Image pg. A105
	Vacant	San Diego Directory Co.	Image pg. A105

1724 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
	ANDREWS EZELL	R. L. Polk & Co.	Image pg. A40
1961	Mitchell Earl D	R. L. Polk & Co.	Image pg. A49
	1/2 Speer Donald	R. L. Polk & Co.	Image pg. A49
1955	Ashley Robt F	R. L. Polk & Co.	
	Jarrett Jacqueline D	R. L. Polk & Co.	
1952	Patterson W S	R. L. Polk & Co. of California	Image pg. A58
	1/2 Hamilton E J	R. L. Polk & Co. of California	Image pg. A58
1948	1/2 Simons J M	San Diego Directory Co.	Image pg. A67

FINDINGS

Year	Uses	Source	
1948	Sainsbury L W	San Diego Directory Co.	Image pg. A67
1943	Sainsbur Y Ib WV	San Diego Directory Co.	Image pg. A78
1938	AGoodson H M	San Diego Directory Co.	Image pg. A87
	1/2 Mc Donoughl S P	San Diego Directory Co.	Image pg. A87
1933	Abbott C L	San Diego Directory Co.	Image pg. A96
	1/2 Scott Thos	San Diego Directory Co.	Image pg. A96
1927	Vacant	San Diego Directory Co.	Image pg. A105
	1/2 Vacant	San Diego Directory Co.	Image pg. A105

1730 GLENWOOD DR

Year	Uses	Source	
1966	GIAMMARINARO JASPER	R. L. Polk & Co.	Image pg. A40
1961	Giammarinaro Jasper	R. L. Polk & Co.	Image pg. A49
1960	Giammarinaro Jasper	The Pacific Telephone Telegraph Co.	
1955	Terramagra Jas J Mrs	R. L. Polk & Co.	

1732 GLENWOOD DR

Year	Uses	Source	
1966	BRIGANTE JAMES	R. L. Polk & Co.	Image pg. A40
1961	Brigante James	R. L. Polk & Co.	Image pg. A49
1960	Churchill Roger S	The Pacific Telephone Telegraph Co.	
1955	Kessel Edwin D	R. L. Polk & Co.	

1734 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Hubbard John E	R. L. Polk & Co.	Image pg. A49
1960	Hubbard John E	The Pacific Telephone Telegraph Co.	
1955	West T W	R. L. Polk & Co.	

1736 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40
1961	Dimarila Salvadore	R. L. Polk & Co.	Image pg. A49
1960	Winterink Ben A	The Pacific Telephone Telegraph Co.	
1955	Luzi Rosina	R. L. Polk & Co.	

1738 GLENWOOD DR

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A40

FINDINGS

Year	Uses	Source	
1961	Gardner Edna Mrs	R. L. Polk & Co.	Image pg. A49

1740 GLENWOOD DR

Year	Uses	Source	
1966	TERRAMAGRA JAMES J S	R. L. Polk & Co.	Image pg. A40
1961	Terramagra Jas J	R. L. Polk & Co.	Image pg. A49
1960	Terramagra Vincent J	The Pacific Telephone Telegraph Co.	
1955	Terramagra Vincent J	R. L. Polk & Co.	

GLENWOOD/INDIA

GLENWOOD/INDIA

Year	Uses	Source	
1927	GLENWOOD/INDIA	San Diego Directory Co.	Image pg. A105

GLENWOOD/INDIA ST

GLENWOOD/INDIA ST

Year	Uses	Source	
1984	GLENWOOD/INDIA ST	R. L. Polk & Co.	Image pg. A12
1980	GLENWOOD/INDIA ST	R. L. Polk & Co.	Image pg. A21

INDIA

3468 INDIA

Year	Uses	Source
1960	El Francisco Apts	The Pacific Telephone Telegraph Co.
1955	Ward Irene Mrs	R. L. Polk & Co.
	Solberg Ralph M Ph T	R. L. Polk & Co.

3503 INDIA

Year	Uses	Source
1960	Welch Walter	The Pacific Telephone Telegraph Co.
1955	Welch Walter	R. L. Polk & Co.
1945	Welch Walter r	San Diego Directory Co.

3505 INDIA

Year	Uses	Source
1955	Lense Lawrence D	R. L. Polk & Co.
1945	Jamieson Golden E r	San Diego Directory Co.

FINDINGS

3507 INDIA

Year	Uses	Source
1960	Pound Paul	The Pacific Telephone Telegraph Co.
1945	Hart Andrew E r	San Diego Directory Co.

3509 INDIA

Year	Uses	Source
1955	Stevens W E Mrs	R. L. Polk & Co.

3511 INDIA

Year	Uses	Source
1992	Southern California Attorney Service	PACIFIC BELL WHITE PAGES
	Southern California Auto Auction Transport	PACIFIC BELL WHITE PAGES
	U S Photo Copy Service	PACIFIC BELL WHITE PAGES
	US Public Fax Double Tree Hotel West Entrance	PACIFIC BELL WHITE PAGES
1960	Mc Bee Company The See Royal Mc Bee Corporation	The Pacific Telephone Telegraph Co.
	Pres To Line Corp of America	The Pacific Telephone Telegraph Co.
	ROYAL MC BEE CORPORATION Data Processing Div	The Pacific Telephone Telegraph Co.
	Royal Typewriter Div	The Pacific Telephone Telegraph Co.
	Royal Typewriter Company See Royal Mc Bee Corporation	The Pacific Telephone Telegraph Co.
	Royal Typewriter Division Mc Bee Company The See Royal Mc Bee Corporation	The Pacific Telephone Telegraph Co.

3512 INDIA

Year	Uses	Source
1960	Oberto Dominick	The Pacific Telephone Telegraph Co.
1955	Andrews T N	R. L. Polk & Co.
1945	Dougherty P r	San Diego Directory Co.

3514 INDIA

Year	Uses	Source
1960	Salazar Joe	The Pacific Telephone Telegraph Co.
1955	Fancher Roy Mrs	R. L. Polk & Co.

3519 INDIA

Year	Uses	Source
1960	Lamoreaux Beatrice D	The Pacific Telephone Telegraph Co.
1955	Lamoreaux Beatrice D	R. L. Polk & Co.

Year	Uses	Source
1945	Lamoreaux Paul W r	San Diego Directory Co.

3521 INDIA

Year	Uses	Source
1960	Hayes Carol	The Pacific Telephone Telegraph Co.

3523 INDIA

Year	Uses	Source
1955	Muchnic Maxine	R. L. Polk & Co.

3525 INDIA

Year	Uses	Source
1960	Worth Kon	The Pacific Telephone Telegraph Co.
	Turiansky Basil	The Pacific Telephone Telegraph Co.

3526 INDIA

Year	Uses	Source
1960	Billick M E	The Pacific Telephone Telegraph Co.
1955	Billick M E	R. L. Polk & Co.
	Oberto Dominick	R. L. Polk & Co.
	Irving B C	R. L. Polk & Co.

3527 INDIA

Year	Uses	Source
1960	Goldansky A R	The Pacific Telephone Telegraph Co.
1955	Wright Marvin	R. L. Polk & Co.

3529 INDIA

Year	Uses	Source
1960	Clifford Wm E	The Pacific Telephone Telegraph Co.
1955	Clifford Wm E	R. L. Polk & Co.
1945	Lisk H G r	San Diego Directory Co.

3536 INDIA

Year	Uses	Source
1955	Hutton K L	R. L. Polk & Co.
1945	Lasater J Austin r	San Diego Directory Co.

3537 INDIA

Year	Uses	Source
1960	Lindsey Phoebe M Mrs	The Pacific Telephone Telegraph Co.

FINDINGS

3538 INDIA

Year	Uses	Source
1960	Walton C H	The Pacific Telephone Telegraph Co.
1955	Walton C H	R. L. Polk & Co.
1945	Bender C R Lt Comdr r	San Diego Directory Co.

3540 INDIA

Year	Uses	Source
1960	Holt Robt W	The Pacific Telephone Telegraph Co.
1955	Holt Robt W	R. L. Polk & Co.
1945	Campbell J A r	San Diego Directory Co.

3543 INDIA

Year	Uses	Source
1960	Roberts Kenneth Jos	The Pacific Telephone Telegraph Co.

3544 INDIA

Year	Uses	Source
1960	Cole Danl P civ engnr	The Pacific Telephone Telegraph Co.
	Jacot Paul G civ engnr	The Pacific Telephone Telegraph Co.
	Jacot Paul G	The Pacific Telephone Telegraph Co.
1955	Brayfield Geo E	R. L. Polk & Co.
1945	Rogers Russell R r	San Diego Directory Co.

3546 INDIA

Year	Uses	Source
1955	Douglas Douglas D	R. L. Polk & Co.
1945	Siddall Marion S r	San Diego Directory Co.

3547 INDIA

Year	Uses	Source
1955	Wyche Chas D	R. L. Polk & Co.
	Bogoger Florence	R. L. Polk & Co.

3549 INDIA

Year	Uses	Source
1960	Ware Earl W	The Pacific Telephone Telegraph Co.
	Ware Beverly Bayne	The Pacific Telephone Telegraph Co.

3555 INDIA

Year	Uses	Source
1992	Paper Plus	PACIFIC BELL WHITE PAGES

Year	Uses	Source
1992	Franks Bakery	PACIFIC BELL WHITE PAGES
1991	From Escondida Telephones Call	PACIFIC BELL WHITE PAGES
	Amfac Health Care	PACIFIC BELL WHITE PAGES
1960	Pharma Med Co Inc	The Pacific Telephone Telegraph Co.

3585 INDIA

Year	Uses	Source
1992	Mission Hills	PACIFIC BELL WHITE PAGES

3615 INDIA

Year	Uses	Source
1992	Wind Song	PACIFIC BELL WHITE PAGES
	Swings N Things	PACIFIC BELL WHITE PAGES
1960	NIC L SILVER BATTERY CO	The Pacific Telephone Telegraph Co.

3616 INDIA

Year	Uses	Source
1960	Green A F	The Pacific Telephone Telegraph Co.
1955	Green A F	R. L. Polk & Co.
1921	Tarber Jules E Lizzie car clnr h	San Diego Directory Co. Inc.
	Mc Mullen & Rabinovitz S P Mc Mullen Max Rabinovitz bakers 618	San Diego Directory Co. Inc.
	Mc Mullen Thos Moise r	San Diego Directory Co. Inc.

3617 INDIA

Year	Uses	Source
1992	GOODRICH S URPLUS	PACIFIC BELL WHITE PAGES
	Goodridge KE.	PACIFIC BELL WHITE PAGES
	Goodridge CR.....	PACIFIC BELL WHITE PAGES
	Goodrick William F & Mary J	PACIFIC BELL WHITE PAGES
	Goodrick Property Management P Box 23965	PACIFIC BELL WHITE PAGES
	Goodrich Ted & Suzanne	PACIFIC BELL WHITE PAGES
1960	AUTOMATIC TRANSMISSION SERV	The Pacific Telephone Telegraph Co.

3620 INDIA

Year	Uses	Source
1955	Dunn Travis E	R. L. Polk & Co.
1945	Blaisdell Loy R r	San Diego Directory Co.

FINDINGS

3621 INDIA

Year	Uses	Source
1992	A I Tree Service	PACIFIC BELL WHITE PAGES

3623 INDIA

Year	Uses	Source
1992	India Ink	PACIFIC BELL WHITE PAGES
1960	AUTOMATIC TRANSMISSION MACH & SUPPLY pts	The Pacific Telephone Telegraph Co.

3630 INDIA

Year	Uses	Source
1960	Pieper C L	The Pacific Telephone Telegraph Co.
1955	Pieper C L	R. L. Polk & Co.

3633 INDIA

Year	Uses	Source
1960	Sabrina Continental Corp contrs	The Pacific Telephone Telegraph Co.
	Jonte Jas L	The Pacific Telephone Telegraph Co.
	Griffith Grace P	The Pacific Telephone Telegraph Co.
1955	Stout Olive	R. L. Polk & Co.
	Kurth Gail M	R. L. Polk & Co.
	Jensen Chas A	R. L. Polk & Co.
	Genaro Margaret M	R. L. Polk & Co.

INDIA ST

3443 INDIA ST

Year	Uses	Source	
2013	VILLAGE HAT SHOP	Cole Information Services	
2008	ADVANTAGE RENT A CAR	Cole Information Services	
	COAST LEASING CORP	Cole Information Services	
2006	ADVANTAGE RENT	Haines Company, Inc.	
	A CAR UNITD PLUMBING	Haines Company, Inc.	
	SYSTEMS INC	Haines Company, Inc.	
2000	PRODUCTIONS	Haines & Company	Image pg. A5
	STERLING	Haines & Company	Image pg. A5
	SCANTEC	Haines & Company	Image pg. A5
	ASSOCIATESTLNT	Haines & Company	Image pg. A5
	BRADYAND	Haines & Company	Image pg. A5
1989	Weisser Sporting Goods	Pacific Bell	

FINDINGS

Year	Uses	Source	
1989	San Diego Indoor Range	Pacific Bell	
	NutraJuice For You	Pacific Bell	
	Fitness West II	Pacific Bell	
	Courtsports Of San Diego	Pacific Bell	
	Courtsports	Pacific Bell	
1984	Courtsports raquet ball courts	R. L. Polk & Co.	Image pg. A13
1980	massage parlor	R. L. Polk & Co.	Image pg. A22
	Courtsports raquet ball courts	R. L. Polk & Co.	Image pg. A22
	Lohdefinck F J Massage Therapy	R. L. Polk & Co.	Image pg. A22

3460 INDIA ST

Year	Uses	Source	
1948	d Peck F B	San Diego Directory Co.	Image pg. A69
	b Mc Farlane Rosie Mrs	San Diego Directory Co.	Image pg. A68
	a Castellanos Louis	San Diego Directory Co.	Image pg. A68
	Vacant	San Diego Directory Co.	Image pg. A68
1943	a Buys N F	San Diego Directory Co.	Image pg. A79
	b Fletcher W D	San Diego Directory Co.	Image pg. A79
	c Cramer Nita Mrs	San Diego Directory Co.	Image pg. A79
	d Mc Donald Mack	San Diego Directory Co.	Image pg. A79
1938	c Boyajin Paul	San Diego Directory Co.	Image pg. A88
	b Hagen Wilbur	San Diego Directory Co.	Image pg. A88
	a Bradley A M	San Diego Directory Co.	Image pg. A88
	d Holden G F	San Diego Directory Co.	Image pg. A88

3462 INDIA ST

Year	Uses	Source	
1948	1/2 Barnes J W	San Diego Directory Co.	Image pg. A69
	Schade V H	San Diego Directory Co.	Image pg. A69
1943	1/2 Simpson T J Mrs	San Diego Directory Co.	Image pg. A79
	Wildaw H	San Diego Directory Co.	Image pg. A79
	Schade Virgil	San Diego Directory Co.	Image pg. A79
1938	1/2 Riley J I I	San Diego Directory Co.	Image pg. A88
	Loven R E	San Diego Directory Co.	Image pg. A88
1933	1/2 Garnett Geo	San Diego Directory Co.	Image pg. A97
	Dingeman F J phys	San Diego Directory Co.	Image pg. A97

FINDINGS

3464 INDIA ST

Year	Uses	Source	
1948	Green L W	San Diego Directory Co.	Image pg. A69
1943	Vacant	San Diego Directory Co.	Image pg. A79
1938	Boyer Ernest	San Diego Directory Co.	Image pg. A88
1933	Clarke W E	San Diego Directory Co.	Image pg. A97

3466 INDIA ST

Year	Uses	Source	
1948	Brown L W jr	San Diego Directory Co.	Image pg. A69
	Kukor Chas	San Diego Directory Co.	Image pg. A69
	El Francisco Apartments	San Diego Directory Co.	Image pg. A69
	Pharis L H	San Diego Directory Co.	Image pg. A69
1943	El Francisco Apartments	San Diego Directory Co.	Image pg. A79
	ADingeman F J jr	San Diego Directory Co.	Image pg. A79
1938	ADingeman F J jr phys	San Diego Directory Co.	Image pg. A88
1933	El Francisco Apartments	San Diego Directory Co.	Image pg. A97
	Dingeman F J o	San Diego Directory Co.	Image pg. A97

3468 INDIA ST

Year	Uses	Source	
1961	El Francisco Apartments	R. L. Polk & Co.	Image pg. A50
	A Berg Wm	R. L. Polk & Co.	Image pg. A50
	B Leitner Elmer	R. L. Polk & Co.	Image pg. A50
	C Garcia Earasmo	R. L. Polk & Co.	Image pg. A50
	D Haney Alice Mrs	R. L. Polk & Co.	Image pg. A50
	E Spencer Paul	R. L. Polk & Co.	Image pg. A50
	F Siller Guillermo H	R. L. Polk & Co.	Image pg. A50
	H Gutierrez Louis	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Boon Eug	R. L. Polk & Co.	Image pg. A50
	Whitt Geo	R. L. Polk & Co.	Image pg. A50
	Horn Geo	R. L. Polk & Co.	Image pg. A50
	G Piez Robt	R. L. Polk & Co.	Image pg. A50
1952	Thomas Don	R. L. Polk & Co. of California	Image pg. A59
	Stafford Roy	R. L. Polk & Co. of California	Image pg. A59
	Schluter D H	R. L. Polk & Co. of California	Image pg. A59
	Paratt Jack	R. L. Polk & Co. of California	Image pg. A59
	Narvet Jos jr	R. L. Polk & Co. of California	Image pg. A59
	Monroe E D	R. L. Polk & Co. of California	Image pg. A59

FINDINGS

Year	Uses	Source	
1952	Minard G L jr	R. L. Polk & Co. of California	Image pg. A59
	Jones C D	R. L. Polk & Co. of California	Image pg. A59
	Johnson Emmett	R. L. Polk & Co. of California	Image pg. A59
	Dunn T E	R. L. Polk & Co. of California	Image pg. A59
	Bullin G P	R. L. Polk & Co. of California	Image pg. A59
	El Francisco Apts	R. L. Polk & Co. of California	Image pg. A59
1948	Johnson A W	San Diego Directory Co.	Image pg. A69
1943	Torres A S	San Diego Directory Co.	Image pg. A79
1938	Allen R J	San Diego Directory Co.	Image pg. A88
1933	Lemon H F	San Diego Directory Co.	Image pg. A97
	Reissman J E	San Diego Directory Co.	Image pg. A97

3472 INDIA ST

Year	Uses	Source	
1948	1/2 Pemberton L W	San Diego Directory Co.	Image pg. A69
	Grindstaff A A	San Diego Directory Co.	Image pg. A69
1943	Vacant	San Diego Directory Co.	Image pg. A79
1938	Griswold W J	San Diego Directory Co.	Image pg. A88
	1/2 Hislop E F	San Diego Directory Co.	Image pg. A88
1933	Reissman J E restr	San Diego Directory Co.	Image pg. A97

3503 INDIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A5
1984	Alonso E	R. L. Polk & Co.	Image pg. A13
1980	Welch I Mae	R. L. Polk & Co.	Image pg. A22
1975	No Return	R. L. Polk & Co.	Image pg. A30
1970	WELCH WALTER E	John M. Ducy	
1966	WELCH WALTER E	R. L. Polk & Co.	Image pg. A41
1961	Welch Walter E	R. L. Polk & Co.	Image pg. A50
1952	Welch W E	R. L. Polk & Co. of California	Image pg. A59
1948	Welch W E	San Diego Directory Co.	Image pg. A69
1943	Welsh Walter	San Diego Directory Co.	Image pg. A79

3505 INDIA ST

Year	Uses	Source	
2008	JOHN HAMERSMA	Cole Information Services	
2006	No Current Listing	Haines Company, Inc.	

FINDINGS

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A5
1989	Link Jon & Mary	Pacific Bell	
1984	Vacant	R. L. Polk & Co.	Image pg. A13
1980	Vacant	R. L. Polk & Co.	Image pg. A22
1975	Ordonez Elira	R. L. Polk & Co.	Image pg. A30
1970	JACKSON HARRY G REAL EST	John M. Ducy	
1966	JACKSON HARRY G REAL EST	R. L. Polk & Co.	Image pg. A41
1961	Bell Lynn E	R. L. Polk & Co.	Image pg. A50
1952	Currier T H	R. L. Polk & Co. of California	Image pg. A59
1948	Currier J H	San Diego Directory Co.	Image pg. A69
1943	AJamieson D M	San Diego Directory Co.	Image pg. A79

3507 INDIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	PRODUCTIONS	Haines & Company	Image pg. A5
	No Current Listing	Haines & Company	Image pg. A5
1984	Stevens Sonia	R. L. Polk & Co.	Image pg. A13
1980	Stevens Sonia	R. L. Polk & Co.	Image pg. A22
1975	Boiselle Helen C Mrs	R. L. Polk & Co.	Image pg. A30
1970	KAISER HEDY MRS	John M. Ducy	
1966	POUND PAUL F	R. L. Polk & Co.	Image pg. A41
1961	Pound Paul F	R. L. Polk & Co.	Image pg. A50
1952	Prall H L	R. L. Polk & Co. of California	Image pg. A59
1948	Houghtaling L R	San Diego Directory Co.	Image pg. A69
1943	Hart A E	San Diego Directory Co.	Image pg. A79

3509 INDIA ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	KRi EGEL Matthew H	Haines & Company	Image pg. A5
1989	Boyles H	Pacific Bell	
1984	Esquer Duarte Antonio	R. L. Polk & Co.	Image pg. A13
1980	Esquer Duarte Antonio	R. L. Polk & Co.	Image pg. A22
1975	Astor Dave	R. L. Polk & Co.	Image pg. A30
1970	STEVENS WALTER E	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
1961	Stevens Mary Mrs	R. L. Polk & Co.	Image pg. A50
1952	Stevens W E	R. L. Polk & Co. of California	Image pg. A59

Year	Uses	Source	
1948	James M M Mrs	San Diego Directory Co.	Image pg. A69
1943	Radecke G R	San Diego Directory Co.	Image pg. A79

3511 INDIA ST

Year	Uses	Source	
2013	AMERICAN LEGAL SUPPORT SERVICES INC	Cole Information Services	
2008	AMERICAN LEGAL SUPPORT SERVICES INC	Cole Information Services	
	AGM INDUSTRIES	Cole Information Services	
2006	SUPPORT SERVINC	Haines Company, Inc.	
	AMER LEGAL	Haines Company, Inc.	
2000	SO CALIF ATTY SRV	Haines & Company	Image pg. A5
	SUPPORT	Haines & Company	Image pg. A5
	A M E R I C A N LEGAL	Haines & Company	Image pg. A5
1989	Southern California Attorney Service	Pacific Bell	
	Messenger Express	Pacific Bell	
1984	Vacant	R. L. Polk & Co.	Image pg. A13
1980	Vacant	R. L. Polk & Co.	Image pg. A22
1975	Paragon Design Co graphic arts	R. L. Polk & Co.	Image pg. A30
1970	TIFFANY INTERIORS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
1961	Royal Typewriter Co	R. L. Polk & Co.	Image pg. A50

3512 INDIA ST

Year	Uses	Source	
1961	Mason Christina G Mrs	R. L. Polk & Co.	Image pg. A50
1952	Andrews T N	R. L. Polk & Co. of California	Image pg. A59
1948	Andrews T N	San Diego Directory Co.	Image pg. A69
1943	ADougherty P D	San Diego Directory Co.	Image pg. A79
1938	Dougherty Patk	San Diego Directory Co.	Image pg. A88
1933	Dougherty P D	San Diego Directory Co.	Image pg. A97

3514 INDIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50
1952	Fancher Roy	R. L. Polk & Co. of California	Image pg. A59
1948	Leonard E G	San Diego Directory Co.	Image pg. A69
1943	Barnes S W	San Diego Directory Co.	Image pg. A79
1933	Barham E G	San Diego Directory Co.	Image pg. A97

FINDINGS

3519 INDIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A5
1984	1/2 Vacant	R. L. Polk & Co.	Image pg. A13
	Marks Robt	R. L. Polk & Co.	Image pg. A13
1980	N ABissell Olivia	R. L. Polk & Co.	Image pg. A22
	N Marks Robt	R. L. Polk & Co.	Image pg. A22
1975	Ferris Basil W	R. L. Polk & Co.	Image pg. A30
	Astor I M Mrs	R. L. Polk & Co.	Image pg. A30
1970	LANGSTON BETTY A	John M. Ducy	
	BPADY HAZEL R MRS	John M. Ducy	
1966	BRADY HAZEL R MRS	R. L. Polk & Co.	Image pg. A41
	VACANT	R. L. Polk & Co.	Image pg. A41
1961	Brady Hazel R Mrs	R. L. Polk & Co.	Image pg. A50
	1/2 Bozaian Berj	R. L. Polk & Co.	Image pg. A50
1952	Lamoreaux P W	R. L. Polk & Co. of California	Image pg. A59
1948	Lamoreaux P W	San Diego Directory Co.	Image pg. A69
1943	ALamoreaux P W	San Diego Directory Co.	Image pg. A79
1938	ALamoreaux P W	San Diego Directory Co.	Image pg. A88
1933	Lamoreaux P W o	San Diego Directory Co.	Image pg. A97
1927	Dickermnafl Beatrice B	San Diego Directory Co.	Image pg. A106

3521 INDIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A5
1984	Stromwall Grace	R. L. Polk & Co.	Image pg. A13
1980	N Stromwall Grace	R. L. Polk & Co.	Image pg. A22
1975	Jirmenez Georina	R. L. Polk & Co.	Image pg. A30
1970	VACANT	John M. Ducy	
1966	CATLEDGE HARVEY M	R. L. Polk & Co.	Image pg. A41
1961	Catledge Harvey M	R. L. Polk & Co.	Image pg. A50

3523 INDIA ST

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A5
1984	Mc Swain & Associates real est sls	R. L. Polk & Co.	Image pg. A13
1980	Me Swain & Associates real est sis	R. L. Polk & Co.	Image pg. A22
1975	Stevens Sonia	R. L. Polk & Co.	Image pg. A30
1970	COLLIER CHAS	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A41

FINDINGS

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50

3525 INDIA ST

Year	Uses	Source	
1966	WILLIAMS MARY S	R. L. Polk & Co.	Image pg. A41
1961	Nunn Ralph	R. L. Polk & Co.	Image pg. A50
1952	Wilcox Florence Mrs	R. L. Polk & Co. of California	Image pg. A59
1948	Wilcox F A Mrs	San Diego Directory Co.	Image pg. A69
1943	Darby R T	San Diego Directory Co.	Image pg. A79

3526 INDIA ST

Year	Uses	Source	
1961	Apartments	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Billick Mary E	R. L. Polk & Co.	Image pg. A50
	Hayden Lawrence J	R. L. Polk & Co.	Image pg. A50
	Palmer Florence Mrs	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Street continued	R. L. Polk & Co.	Image pg. A50
1952	Billick Mary E	R. L. Polk & Co. of California	Image pg. A59
	Brown W E	R. L. Polk & Co. of California	Image pg. A59
	Iddings W E jr	R. L. Polk & Co. of California	Image pg. A59
	Oberto Dominick	R. L. Polk & Co. of California	Image pg. A59
	Scott J M	R. L. Polk & Co. of California	Image pg. A59
	Snodgrass R L	R. L. Polk & Co. of California	Image pg. A59

3527 INDIA ST

Year	Uses	Source	
1966	FISHER ROBT T	R. L. Polk & Co.	Image pg. A41
1961	Brandenburg Dudley	R. L. Polk & Co.	Image pg. A50
1952	Wright Marvin	R. L. Polk & Co. of California	Image pg. A59
1948	Reehl W W	San Diego Directory Co.	Image pg. A69
1943	Reehl W W	San Diego Directory Co.	Image pg. A79

3529 INDIA ST

Year	Uses	Source	
1966	CLIFFORD WM E	R. L. Polk & Co.	Image pg. A41
1961	Clifford Wm E	R. L. Polk & Co.	Image pg. A50
1952	Jamieson D N	R. L. Polk & Co. of California	Image pg. A59

FINDINGS

Year	Uses	Source	
1948	Jamieson D N	San Diego Directory Co.	Image pg. A69
1943	AWilcox R J	San Diego Directory Co.	Image pg. A79
1938	AWilcox R J	San Diego Directory Co.	Image pg. A88

3533 INDIA ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
1961	No Return	R. L. Polk & Co.	Image pg. A50

3535 INDIA ST

Year	Uses	Source	
2013	ROUTE 66	Cole Information Services	
2000	CHEVRON STATIONS	Haines & Company	Image pg. A5
	INDIACHEVRON	Haines & Company	Image pg. A5
1989	Keyser Larry Chevron	Pacific Bell	
1984	Keyser Chevron Service	R. L. Polk & Co.	Image pg. A13
1980	Guymon Mel Chevron Service	R. L. Polk & Co.	Image pg. A22
1975	Guymon Mel Chevron Service	R. L. Polk & Co.	Image pg. A30
1970	CHEVRON SERVICE STATION	John M. Ducy	
1966	REAGEN ANTHONY F	R. L. Polk & Co.	Image pg. A41
1961	Guyanen John J	R. L. Polk & Co.	Image pg. A50

3536 INDIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50
1952	Elkins J R	R. L. Polk & Co. of California	Image pg. A59
1948	Thaler Martin	San Diego Directory Co.	Image pg. A69
1943	ALasater J A	San Diego Directory Co.	Image pg. A79
1938	Englehart J R	San Diego Directory Co.	Image pg. A88

3537 INDIA ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
	BARTON FRANK JR	R. L. Polk & Co.	Image pg. A41
	MAYNARD LAURA A	R. L. Polk & Co.	Image pg. A41
	GASTELUM EVA MRS	R. L. Polk & Co.	Image pg. A41
1961	b Smith Ron	R. L. Polk & Co.	Image pg. A50
	a Vacant	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	d Livingston Geo	R. L. Polk & Co.	Image pg. A50

FINDINGS

Year	Uses	Source	
1961	c Christianson B	R. L. Polk & Co.	Image pg. A50
1952	Perone R N	R. L. Polk & Co. of California	Image pg. A59
	Osmundson G J	R. L. Polk & Co. of California	Image pg. A59
1948	Hess L A	San Diego Directory Co.	Image pg. A69
1943	ALacey D S	San Diego Directory Co.	Image pg. A79
1938	ALacey D S trusses	San Diego Directory Co.	Image pg. A88
1933	Lacey D S trusses o	San Diego Directory Co.	Image pg. A97
1927	Lacey D S drugs	San Diego Directory Co.	Image pg. A106

3538 INDIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50
1952	Myers Jack	R. L. Polk & Co. of California	Image pg. A59
1948	De Shon Gilbert	San Diego Directory Co.	Image pg. A69
1943	ABender C R	San Diego Directory Co.	Image pg. A79
1938	Shumate June Mrs	San Diego Directory Co.	Image pg. A88
	Maxwell E A	San Diego Directory Co.	Image pg. A88

3540 INDIA ST

Year	Uses	Source	
1961	Brown Joel E	R. L. Polk & Co.	Image pg. A50
1952	Holt R W	R. L. Polk & Co. of California	Image pg. A59
1948	Holt R W	San Diego Directory Co.	Image pg. A69
1943	Burkard G W	San Diego Directory Co.	Image pg. A79
1938	ACampbell J 4	San Diego Directory Co.	Image pg. A88

3541 INDIA ST

Year	Uses	Source	
1966	WONDERGEM GILLIS	R. L. Polk & Co.	Image pg. A41
1961	Serafin Richd W	R. L. Polk & Co.	Image pg. A50
1952	Jones Jean L	R. L. Polk & Co. of California	Image pg. A59
1948	Sinnott M R	San Diego Directory Co.	Image pg. A69
1943	Devers B C	San Diego Directory Co.	Image pg. A79
1938	Madero Antoinette Mrs	San Diego Directory Co.	Image pg. A88

3543 INDIA ST

Year	Uses	Source	
1966	CUNNINGHAM JOHN E	R. L. Polk & Co.	Image pg. A41
1961	Groves John	R. L. Polk & Co.	Image pg. A50

FINDINGS

3544 INDIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50
1952	Brayfield G E	R. L. Polk & Co. of California	Image pg. A59
1948	Rodgers R R	San Diego Directory Co.	Image pg. A69
1943	ARogers R R	San Diego Directory Co.	Image pg. A79

3545 INDIA ST

Year	Uses	Source	
1966	MYSIOR ILANA	R. L. Polk & Co.	Image pg. A41
1961	Cook Kenneth L	R. L. Polk & Co.	Image pg. A50
1952	Derbes E J	R. L. Polk & Co. of California	Image pg. A59
1948	Funk J J	San Diego Directory Co.	Image pg. A69
1943	Funk J J	San Diego Directory Co.	Image pg. A79

3546 INDIA ST

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A50
1952	Walton C H	R. L. Polk & Co. of California	Image pg. A59
1943	Siddall M S Mrs	San Diego Directory Co.	Image pg. A79

3547 INDIA ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
	VACANT	R. L. Polk & Co.	Image pg. A41
1961	Vacant	R. L. Polk & Co.	Image pg. A50
	1/4 Vacant	R. L. Polk & Co.	Image pg. A50
	1/2 Byrd John R	R. L. Polk & Co.	Image pg. A50
1952	Fuller F R	R. L. Polk & Co. of California	Image pg. A59
	1/2 Leach K C	R. L. Polk & Co. of California	Image pg. A59
1948	1/2 Underwood W D	San Diego Directory Co.	Image pg. A69
	Vacant	San Diego Directory Co.	Image pg. A69
1943	ABorey A A	San Diego Directory Co.	Image pg. A79
	1/2 Gable J G	San Diego Directory Co.	Image pg. A79

3549 INDIA ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
1961	Stephenson Thos	R. L. Polk & Co.	Image pg. A50
1952	Edwards Willis	R. L. Polk & Co. of California	Image pg. A59
1948	Mc Donald Hugh jr	San Diego Directory Co.	Image pg. A69

FINDINGS

Year	Uses	Source	
1943	AClaassen W J	San Diego Directory Co.	Image pg. A79
1938	AMc Intosh Christine MIrs	San Diego Directory Co.	Image pg. A88

3555 INDIA ST

Year	Uses	Source	
2013	FRANKS BAKERY & GIBALDIS ITALIAN B	Cole Information Services	
	MEALS ON WHEELS	Cole Information Services	
2008	FRANKS BAKERY & GIBALDIS ITALIAN BRE	Cole Information Services	
2006	GIBALDIS BREAD MEALS ON WHEELS	Haines Company, Inc.	
	FRANKS BAKERY&	Haines Company, Inc.	
2000	PAPER PLUS	Haines & Company	Image pg. A5
	FRANKS BAKERY	Haines & Company	Image pg. A5
1989	Amfac Drug Supply	Pacific Bell	
1985	AMFAC DRUG SUPPLY	PACIFIC BELL WHITE PAGES	
1984	Amfac Drug Supply	R. L. Polk & Co.	Image pg. A13
1980	Amfac Drug Supply whol	R. L. Polk & Co.	Image pg. A22
1975	Amfac Drug Supply whol	R. L. Polk & Co.	Image pg. A30
1970	PHARMACEUTICAL SUP	John M. Ducy	
	PHARMA MED CO INC	John M. Ducy	
1966	PHARMACEUTICAL SUP	R. L. Polk & Co.	Image pg. A41
	PHARMA MED CO INC	R. L. Polk & Co.	Image pg. A41
1961	Pharma Med Co Inc	R. L. Polk & Co.	Image pg. A50

3573 INDIA ST

Year	Uses	Source	
1948	Smith J H	San Diego Directory Co.	Image pg. A69

3585 INDIA ST

Year	Uses	Source	
2013	CONVOY MOTORS LLC	Cole Information Services	
2008	RENTY	Cole Information Services	
2000	No Current Listing	Haines & Company	Image pg. A5
1984	Tonys Union Seventy Six	R. L. Polk & Co.	Image pg. A13
1980	Vacant	R. L. Polk & Co.	Image pg. A22
	N N N	R. L. Polk & Co.	Image pg. A22
1975	Bobs Union Service	R. L. Polk & Co.	Image pg. A30
	rentals	R. L. Polk & Co.	Image pg. A30
	A A 1 Easy Rent A Cer auto	R. L. Polk & Co.	Image pg. A30

FINDINGS

Year	Uses	Source	
1970	RENZULLI UNION SERVICE	John M. Ducy	

3601 INDIA ST

Year	Uses	Source	
1970	SPECIALTIES CO	John M. Ducy	
	BETTER BUILT TRANSMISSION	John M. Ducy	
1966	BETTER BUILT TRANSMISSION SPECIALTIES CO	R. L. Polk & Co.	Image pg. A41

3612 INDIA ST

Year	Uses	Source	
1948	1/2 Powell R C	San Diego Directory Co.	Image pg. A69

3615 INDIA ST

Year	Uses	Source	
2013	TIM MANTOANI PHOTOGRAPHY	Cole Information Services	
2008	MARSHALL WILLIAMS PHOTOGRAPHY	Cole Information Services	
2006	MARSHALL	Haines Company, Inc.	
	WILLIAMS	Haines Company, Inc.	
	PHOTOGRAPHY	Haines Company, Inc.	
	M MANTOANI	Haines Company, Inc.	
	PHOTOGRAPHY	Haines Company, Inc.	
2000	MARSHALLWILLIAMS	Haines & Company	Image pg. A5
	PHOTOGRAPHY	Haines & Company	Image pg. A5
	QUANTUM DIGITAL	Haines & Company	Image pg. A5
	DIGITALIMAGING	Haines & Company	Image pg. A5
	TIMMANTOANi	Haines & Company	Image pg. A5
	PHOTOGRAPHY	Haines & Company	Image pg. A5
1989	SHOUPE & CELESTE	Pacific Bell	
1984	James Automotive Service	R. L. Polk & Co.	Image pg. A13
1980	James Automotive Service	R. L. Polk & Co.	Image pg. A22
1975	T & E Tool & Equipment sla & repr	R. L. Polk & Co.	Image pg. A30

3616 INDIA ST

Year	Uses	Source	
1961	Green Albert F	R. L. Polk & Co.	Image pg. A50
1952	Green A F	R. L. Polk & Co. of California	Image pg. A59
1943	Tarver J E	San Diego Directory Co.	Image pg. A79
1938	Tarver Jules	San Diego Directory Co.	Image pg. A88
1933	Tarver J E o	San Diego Directory Co.	Image pg. A97

FINDINGS

Year	Uses	Source	
1927	Tarver Jules	San Diego Directory Co.	Image pg. A106

3617 INDIA ST

Year	Uses	Source	
2013	G P MOTORCYCLES	Cole Information Services	
	GIANT PHOTO SERVICE	Cole Information Services	
2008	GIANT PHOTO SERVICE	Cole Information Services	
	RENT A VETTE EXOTIC CAR RENTALS	Cole Information Services	
	PAGANO & TYLER ENTERPRISES	Cole Information Services	
	VETTES INC	Cole Information Services	
2006	GIANT PHOTO	Haines Company, Inc.	
	SERVICE RENT A VETTE	Haines Company, Inc.	
2000	BIGPICTURETHE	Haines & Company	Image pg. A5
1989	Exoticar	Pacific Bell	
1984	A T S Automatic Transmission Service	R. L. Polk & Co.	Image pg. A13
1980	Service	R. L. Polk & Co.	Image pg. A22
	A T S Automatic Transmission	R. L. Polk & Co.	Image pg. A22
1975	Automatic Transmission Service	R. L. Polk & Co.	Image pg. A30
	Independent Garage Owners Of San	R. L. Polk & Co.	Image pg. A30
	Diego County business orgn	R. L. Polk & Co.	Image pg. A30
1970	AUTOMATIC TRANSMISSION SERVICE	John M. Ducy	
1966	AUTOMATIC TRANSMISSION SERVICE	R. L. Polk & Co.	Image pg. A41
1961	Automatic Transmission Serv auto repr	R. L. Polk & Co.	Image pg. A50

3619 INDIA ST

Year	Uses	Source	
1948	Bryson R W	San Diego Directory Co.	Image pg. A69

3620 INDIA ST

Year	Uses	Source	
1952	Mc Clelland R H	R. L. Polk & Co. of California	Image pg. A59
	Brindle Clarence	R. L. Polk & Co. of California	Image pg. A59
1948	Woodhouse R L	San Diego Directory Co.	Image pg. A69
1943	Tanner Harry	San Diego Directory Co.	Image pg. A79
	Kelley K L Mrs	San Diego Directory Co.	Image pg. A79
	Blaisdell L R	San Diego Directory Co.	Image pg. A79
1938	APage S M Mrs curios	San Diego Directory Co.	Image pg. A88
1933	Page S M & Son curios	San Diego Directory Co.	Image pg. A97
	Page S M Mrs	San Diego Directory Co.	Image pg. A97

Year	Uses	Source	
1927	Mitchel S M Mrs gro	San Diego Directory Co.	Image pg. A106

3621 INDIA ST

Year	Uses	Source	
2006	ENGINEERING	Haines Company, Inc.	
	RAOZGENERAL	Haines Company, Inc.	
2000	ENGINEERING	Haines & Company	Image pg. A5
	RAOZGENERAL	Haines & Company	Image pg. A5
1989	Warnke Wm F	Pacific Bell	
	Electronic Technical Services Of San Diego	Pacific Bell	
1952	Cunningham J O Mrs	R. L. Polk & Co. of California	Image pg. A59

3623 INDIA ST

Year	Uses	Source	
2006	ROUTE	Haines Company, Inc.	
2000	HOOKS&LATTICE	Haines & Company	Image pg. A5
1989	India Ink	Pacific Bell	
1984	Martin George M Photography	R. L. Polk & Co.	Image pg. A13
	S & M Printing & Graphics coml prntr	R. L. Polk & Co.	Image pg. A13
1980	Martin George M Photography	R. L. Polk & Co.	Image pg. A22
	prntr	R. L. Polk & Co.	Image pg. A22
	S & M Printing & Graphics coml	R. L. Polk & Co.	Image pg. A22
1975	Vacant	R. L. Polk & Co.	Image pg. A30
1970	AUTOMATIC TRANSMISSION MACHINE	John M. Ducy	
	& SUPPLY	John M. Ducy	
1966	AUTOMATIC TRANSMISSION MACHINE 6 SUPPLY	R. L. Polk & Co.	Image pg. A41
1961	Automatic Transmission Mach & Sup	R. L. Polk & Co.	Image pg. A50

3625 INDIA ST

Year	Uses	Source	
1948	Miramontes L A	San Diego Directory Co.	Image pg. A69
	Oakley T G	San Diego Directory Co.	Image pg. A69
	Turnbull W O	San Diego Directory Co.	Image pg. A69

3630 INDIA ST

Year	Uses	Source	
1961	Apartments	R. L. Polk & Co.	Image pg. A50
	A Gubben Wm A	R. L. Polk & Co.	Image pg. A50
	B Vacant	R. L. Polk & Co.	Image pg. A50

FINDINGS

Year	Uses	Source	
1961	C Vacant	R. L. Polk & Co.	Image pg. A50
	D Vacant	R. L. Polk & Co.	Image pg. A50
1952	Walton Ernest	R. L. Polk & Co. of California	Image pg. A59

3633 INDIA ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A41
	VACANT	R. L. Polk & Co.	Image pg. A41
	GRIFFITH GRACE P MRS	R. L. Polk & Co.	Image pg. A41
	VACANT	R. L. Polk & Co.	Image pg. A41
	RHODES MITCHELL L	R. L. Polk & Co.	Image pg. A41
	PERRY ALF M	R. L. Polk & Co.	Image pg. A41
	APARTMENTS	R. L. Polk & Co.	Image pg. A41
1961	Apartments	R. L. Polk & Co.	Image pg. A50
	Perry Allen	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Griffith Grace Mrs	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Vacant	R. L. Polk & Co.	Image pg. A50
	Daves Chester A	R. L. Polk & Co.	Image pg. A50
	Street continued	R. L. Polk & Co.	Image pg. A50
1952	Atlas Transfer & Stge Co	R. L. Polk & Co. of California	Image pg. A59
	Stipp R R	R. L. Polk & Co. of California	Image pg. A59
1948	Atlas Trans & Stg Co	San Diego Directory Co.	Image pg. A69

INDIA/GLENWOOD DR

INDIA/GLENWOOD DR

Year	Uses	Source	
1984	INDIA/GLENWOOD DR	R. L. Polk & Co.	Image pg. A13
1980	INDIA/GLENWOOD DR	R. L. Polk & Co.	Image pg. A22
1952	INDIA/GLENWOOD DR	R. L. Polk & Co. of California	Image pg. A59
1948	INDIA/GLENWOOD DR	San Diego Directory Co.	Image pg. A69
1943	INDIA/GLENWOOD DR	San Diego Directory Co.	Image pg. A79
1938	INDIA/GLENWOOD DR	San Diego Directory Co.	Image pg. A88
1933	INDIA/GLENWOOD DR	San Diego Directory Co.	Image pg. A97

FINDINGS

INDIA/UPAS

INDIA/UPAS

Year	Uses	Source	
1961	INDIA/UPAS	R. L. Polk & Co.	Image pg. A50
1952	INDIA/UPAS	R. L. Polk & Co. of California	Image pg. A59
1948	INDIA/UPAS	San Diego Directory Co.	Image pg. A69
1943	INDIA/UPAS	San Diego Directory Co.	Image pg. A79
1938	INDIA/UPAS	San Diego Directory Co.	Image pg. A88
1933	INDIA/UPAS	San Diego Directory Co.	Image pg. A97

INDIA/UPAS ST

INDIA/UPAS ST

Year	Uses	Source	
1984	INDIA/UPAS ST	R. L. Polk & Co.	Image pg. A13
1980	INDIA/UPAS ST	R. L. Polk & Co.	Image pg. A22
1975	INDIA/UPAS ST	R. L. Polk & Co.	Image pg. A30
1970	INDIA/UPAS ST	John M. Ducy	
1966	INDIA/UPAS ST	R. L. Polk & Co.	Image pg. A41

INDIA/VINE

INDIA/VINE

Year	Uses	Source	
1961	INDIA/VINE	R. L. Polk & Co.	Image pg. A50
1952	INDIA/VINE	R. L. Polk & Co. of California	Image pg. A59
1948	INDIA/VINE	San Diego Directory Co.	Image pg. A69
1943	INDIA/VINE	San Diego Directory Co.	Image pg. A79
1938	INDIA/VINE	San Diego Directory Co.	Image pg. A88
1933	INDIA/VINE	San Diego Directory Co.	Image pg. A97

INDIA/VINE ST

INDIA/VINE ST

Year	Uses	Source	
1984	INDIA/VINE ST	R. L. Polk & Co.	Image pg. A13
1980	INDIA/VINE ST	R. L. Polk & Co.	Image pg. A22
1975	INDIA/VINE ST	R. L. Polk & Co.	Image pg. A30
1970	INDIA/VINE ST	John M. Ducy	
1966	INDIA/VINE ST	R. L. Polk & Co.	Image pg. A41

FINDINGS

KETTNER BLVD

3420 KETTNER BLVD

Year	Uses	Source	
2013	ADVANTAGE RENT A CAR	Cole Information Services	
2008	HERTZ CAR SALES	Cole Information Services	
	HERTZ	Cole Information Services	
2006	HERTZ CAR SALES	Haines Company, Inc.	
	HERTZ LOCAL	Haines Company, Inc.	
	EDITION	Haines Company, Inc.	
2000	HERTZCAR SALES	Haines & Company	Image pg. A1
	HERTZLOCAL EDITION	Haines & Company	Image pg. A1
1991	Car Sales	PACIFIC BELL WHITE PAGES	
	Hertz Robert C	PACIFIC BELL WHITE PAGES	
1984	Coggeshall A W Plumbing Fixtures & Supplies	R. L. Polk & Co.	Image pg. A9
1980	Coggeshall A W Plumbing Fixtures	R. L. Polk & Co.	Image pg. A18
	& Supplies	R. L. Polk & Co.	Image pg. A18
1975	Coggeshall Albert W p 1mb & bldg sup	R. L. Polk & Co.	Image pg. A31
1970	COGGESHALL ALBERT W PLMB SUP	John M. Ducy	
1966	COGGESHALL ALBERT W PLMB SUP	R. L. Polk & Co.	Image pg. A42
1961	Coggeshall Albert W plmb sups	R. L. Polk & Co.	Image pg. A51
1960	Coggeshall A W bldg suppls	The Pacific Telephone Telegraph Co.	
1955	Coggeshall A W bldg suppls	R. L. Polk & Co.	
	Coggeshall A W Lumber & Supplies	R. L. Polk & Co.	
1952	Coggeshall A W plmb	R. L. Polk & Co. of California	Image pg. A60
1948	Coggeshall A W plmbr	San Diego Directory Co.	Image pg. A70

3433 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1960	SWOPE TERMITE CONTROL	The Pacific Telephone Telegraph Co.	
1955	Swope C M Termite & Fungi Co	R. L. Polk & Co.	
1952	Swope Termite & Fungi Co pest control	R. L. Polk & Co. of California	Image pg. A60
1948	Swope Termite & Fungi Co	San Diego Directory Co.	Image pg. A70

3441 KETTNER BLVD

Year	Uses	Source	
1961	Nelson Eug M	R. L. Polk & Co.	Image pg. A51
1960	Nelson E M	The Pacific Telephone Telegraph Co.	

FINDINGS

Year	Uses	Source	
1952	Nelson E M	R. L. Polk & Co. of California	Image pg. A60
1948	Ward W G	San Diego Directory Co.	Image pg. A70
1938	Davies W B Jr	San Diego Directory Co.	Image pg. A84
1933	Brown J D o	San Diego Directory Co.	Image pg. A93
1927	Brown J D	San Diego Directory Co.	Image pg. A101

3444 KETTNER BLVD

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A1
1975	Vacant	R. L. Polk & Co.	Image pg. A31
1966	TERRIE GLEN J	R. L. Polk & Co.	Image pg. A42
1961	Bustos Bill M	R. L. Polk & Co.	Image pg. A51
1955	Iavelli Michael L	R. L. Polk & Co.	
1952	Havelli M L	R. L. Polk & Co. of California	Image pg. A60
1948	Edmonds Le Roy	San Diego Directory Co.	Image pg. A70
1943	Blan L W	San Diego Directory Co.	Image pg. A75
1933	Sanchez Manuel	San Diego Directory Co.	Image pg. A93

3452 KETTNER BLVD

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A42
1961	Edmonds Robt R	R. L. Polk & Co.	Image pg. A51
1952	Jacobsen Ernest	R. L. Polk & Co. of California	Image pg. A60
1948	Smith Virginia	San Diego Directory Co.	Image pg. A70
1945	Gilkey Harry Mrs r	San Diego Directory Co.	
1943	Gilkey H H	San Diego Directory Co.	Image pg. A75
1938	Mitchell John	San Diego Directory Co.	Image pg. A84
1933	Benn Michi	San Diego Directory Co.	Image pg. A93

3453 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1960	Brandenburg Dudley	The Pacific Telephone Telegraph Co.	

3455 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
	1/2 Vacant	R. L. Polk & Co.	Image pg. A51
1960	Drew Hubert T	The Pacific Telephone Telegraph Co.	
	Martinez Paul T	The Pacific Telephone Telegraph Co.	

FINDINGS

Year	Uses	Source	
1955	Jaenicke Eva	R. L. Polk & Co.	
	Parker Alfred S	R. L. Polk & Co.	
1952	Fletcher Elmer	R. L. Polk & Co. of California	Image pg. A60
	1/2 Phelps R D	R. L. Polk & Co. of California	Image pg. A60
1948	Terada John	San Diego Directory Co.	Image pg. A70
	1/2 Palmer F W	San Diego Directory Co.	Image pg. A70
1943	Clark H W	San Diego Directory Co.	Image pg. A75
	Irwin F W	San Diego Directory Co.	Image pg. A75
1938	ABrown J D	San Diego Directory Co.	Image pg. A84
1933	Wilson Jas	San Diego Directory Co.	Image pg. A93
1927	Vacant	San Diego Directory Co.	Image pg. A101

3456 KETTNER BLVD

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A42
1961	No Return	R. L. Polk & Co.	Image pg. A51
1952	Mc Daniel W H	R. L. Polk & Co. of California	Image pg. A60
1948	Coleman W S radio repr	San Diego Directory Co.	Image pg. A70

3465 KETTNER BLVD

Year	Uses	Source	
1961	Weese Jas M	R. L. Polk & Co.	Image pg. A51
1960	Tavares Louis J	The Pacific Telephone Telegraph Co.	
1955	Tavares Louis J	R. L. Polk & Co.	
1952	Vacant	R. L. Polk & Co. of California	Image pg. A60
1948	Stark Gloria L	San Diego Directory Co.	Image pg. A70
1945	Cripe Katherine B r	San Diego Directory Co.	
1943	Crlpe K B Mrs	San Diego Directory Co.	Image pg. A75
1938	Lewis John	San Diego Directory Co.	Image pg. A84
	Medina Jos	San Diego Directory Co.	Image pg. A84
1933	Lewis John o	San Diego Directory Co.	Image pg. A93
1927	Lewis Jino	San Diego Directory Co.	Image pg. A101

3466 KETTNER BLVD

Year	Uses	Source	
1955	Purdy Kenneth F	R. L. Polk & Co.	
1952	Vacant	R. L. Polk & Co. of California	Image pg. A60
1948	Brown Carrie Mrs	San Diego Directory Co.	Image pg. A70
1943	Hukill R L	San Diego Directory Co.	Image pg. A75

FINDINGS

Year	Uses	Source	
1938	Joacjuin Jos	San Diego Directory Co.	Image pg. A84
1933	Rodriguez Antonio	San Diego Directory Co.	Image pg. A93

3467 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1955	Dobbs Aleta	R. L. Polk & Co.	
1952	Pedrin Albert jr	R. L. Polk & Co. of California	Image pg. A60
1948	Rawlinson F H	San Diego Directory Co.	Image pg. A70
1943	Hall Everett	San Diego Directory Co.	Image pg. A75

3468 KETTNER BLVD

Year	Uses	Source	
1952	Mc Crohan Dan	R. L. Polk & Co. of California	Image pg. A60

3469 KETTNER BLVD

Year	Uses	Source	
1961	Johnson Harry	R. L. Polk & Co.	Image pg. A51
1955	Colbert Bobby R	R. L. Polk & Co.	
1952	Jackson S R	R. L. Polk & Co. of California	Image pg. A60
1948	Wendschuh Elsie	San Diego Directory Co.	Image pg. A70
1945	Thayer G A r	San Diego Directory Co.	
1943	Thayer Rex	San Diego Directory Co.	Image pg. A75

3471 KETTNER BLVD

Year	Uses	Source	
1961	Winp Edgar A	R. L. Polk & Co.	Image pg. A51
1952	Watkins V L	R. L. Polk & Co. of California	Image pg. A60
1948	Keough W E	San Diego Directory Co.	Image pg. A70
1943	Stone Richd	San Diego Directory Co.	Image pg. A75

3473 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1955	Gardner Eldon B	R. L. Polk & Co.	
1952	Hill H R	R. L. Polk & Co. of California	Image pg. A60
1948	Lane W D	San Diego Directory Co.	Image pg. A70
1943	Boyd F H	San Diego Directory Co.	Image pg. A75

FINDINGS

3500 KETTNER BLVD

Year	Uses	Source	
2008	PARK & RIDE CO	Cole Information Services	
1938	Century Lumber & Mill Co	San Diego Directory Co.	Image pg. A84

3501 KETTNER BLVD

Year	Uses	Source	
1961	Padilla Luis H	R. L. Polk & Co.	Image pg. A51
1960	Barnard Thos W	The Pacific Telephone Telegraph Co.	
1955	Malone Anthony E	R. L. Polk & Co.	

3503 KETTNER BLVD

Year	Uses	Source	
1961	Ellsworth Raoul W	R. L. Polk & Co.	Image pg. A51
1955	Tate Mozelle	R. L. Polk & Co.	

3505 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1960	Bergstrom Robt R	The Pacific Telephone Telegraph Co.	
1955	Grasmick J C	R. L. Polk & Co.	
1952	Neidig W H	R. L. Polk & Co. of California	Image pg. A60
1948	Neidig H W	San Diego Directory Co.	Image pg. A70
1943	Chamberlin E J	San Diego Directory Co.	Image pg. A75

3507 KETTNER BLVD

Year	Uses	Source	
1961	Horner Henry	R. L. Polk & Co.	Image pg. A51
1952	Clark Luella	R. L. Polk & Co. of California	Image pg. A60
1948	Clark L M Mrs	San Diego Directory Co.	Image pg. A70
1943	Monise F S	San Diego Directory Co.	Image pg. A75

3509 KETTNER BLVD

Year	Uses	Source	
1961	No Return	R. L. Polk & Co.	Image pg. A51
1955	Scott Jas M	R. L. Polk & Co.	
1952	Hardy W A	R. L. Polk & Co. of California	Image pg. A60
1948	Johnson J R	San Diego Directory Co.	Image pg. A70
1943	i Beavers J T	San Diego Directory Co.	Image pg. A75

FINDINGS

3511 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Boucher Chas	R. L. Polk & Co. of California	Image pg. A60
1948	Singer Jos	San Diego Directory Co.	Image pg. A70
1943	Knutson N	San Diego Directory Co.	Image pg. A75

3513 KETTNER BLVD

Year	Uses	Source	
1961	Gwirola Pedro L	R. L. Polk & Co.	Image pg. A51
1952	Dennis G M	R. L. Polk & Co. of California	Image pg. A60
1948	Oleson R D	San Diego Directory Co.	Image pg. A70
1943	Olson Donald	San Diego Directory Co.	Image pg. A75

3515 KETTNER BLVD

Year	Uses	Source	
1961	Jeffs Garage auto repr	R. L. Polk & Co.	Image pg. A51
	Bobs Portable Steam Clng	R. L. Polk & Co.	Image pg. A51
1960	Jeffs Auto Polishing	The Pacific Telephone Telegraph Co.	
1952	Eichinger John	R. L. Polk & Co. of California	Image pg. A60
1948	Eichenger J W	San Diego Directory Co.	Image pg. A70
1943	Eichenger J W	San Diego Directory Co.	Image pg. A75

3517 KETTNER BLVD

Year	Uses	Source	
1961	Scites Lou H	R. L. Polk & Co.	Image pg. A51
1960	Garrett John W	The Pacific Telephone Telegraph Co.	
1952	Tate Clyde	R. L. Polk & Co. of California	Image pg. A60
1948	Mc Murry R T	San Diego Directory Co.	Image pg. A70
1945	Maxey Adele r	San Diego Directory Co.	
	Mc Grew David R Jr USMC r	San Diego Directory Co.	
1943	Mc Grew D R	San Diego Directory Co.	Image pg. A75

3518 KETTNER BLVD

Year	Uses	Source	
1948	Maczko E F	San Diego Directory Co.	Image pg. A70

3519 KETTNER BLVD

Year	Uses	Source	
1961	No Return	R. L. Polk & Co.	Image pg. A51
1955	Richards Robt H	R. L. Polk & Co.	

FINDINGS

Year	Uses	Source	
1952	Richards R H	R. L. Polk & Co. of California	Image pg. A60
1945	Maczko Edw F r	San Diego Directory Co.	
1943	Maczko E F	San Diego Directory Co.	Image pg. A75

3521 KETTNER BLVD

Year	Uses	Source	
1961	Stevens N H	R. L. Polk & Co.	Image pg. A51
1955	Wester Wm E	R. L. Polk & Co.	
1952	Fowler Dorothy Mrs	R. L. Polk & Co. of California	Image pg. A60
1948	Swanson Dorothy Mrs	San Diego Directory Co.	Image pg. A70
1943	Hansen M A	San Diego Directory Co.	Image pg. A75
1938	Austin C B	San Diego Directory Co.	Image pg. A84

3523 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Graham I H	R. L. Polk & Co. of California	Image pg. A60
1948	Marsh Robt	San Diego Directory Co.	Image pg. A70
1943	Papke A H	San Diego Directory Co.	Image pg. A75
	Fleming R F	San Diego Directory Co.	Image pg. A75

3526 KETTNER BLVD

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A1
1970	POWERS RON SHELL SERVICE GAS	John M. Ducy	

3527 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Moore V I	R. L. Polk & Co. of California	Image pg. A60
1948	Cates W R	San Diego Directory Co.	Image pg. A70
1943	Watson F C	San Diego Directory Co.	Image pg. A75
1938	Jones P W F	San Diego Directory Co.	Image pg. A84
1933	Eckley J T	San Diego Directory Co.	Image pg. A93
	Loscl W S	San Diego Directory Co.	Image pg. A93

3529 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Sowersby Jas	R. L. Polk & Co. of California	Image pg. A60

FINDINGS

3531 KETTNER BLVD

Year	Uses	Source	
1961	Martin Billy J	R. L. Polk & Co.	Image pg. A51
1960	Parker Roy L	The Pacific Telephone Telegraph Co.	
1952	Wetherbee R C	R. L. Polk & Co. of California	Image pg. A60
1948	Huntington R L	San Diego Directory Co.	Image pg. A70
1945	Balch Edmund I Jr r	San Diego Directory Co.	
1943	Roberts C M	San Diego Directory Co.	Image pg. A75
1938	Vacant	San Diego Directory Co.	Image pg. A84

3533 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1955	Pierce Margo	R. L. Polk & Co.	
1952	Halvorson D K	R. L. Polk & Co. of California	Image pg. A60
1948	Wood G W jr	San Diego Directory Co.	Image pg. A70
1943	Clapper Maurice	San Diego Directory Co.	Image pg. A75
1938	Marek Jos	San Diego Directory Co.	Image pg. A84

3535 KETTNER BLVD

Year	Uses	Source	
1961	41 1/2 Capello Apartments	R. L. Polk & Co.	Image pg. A51
	Johnson Wana Mrs	R. L. Polk & Co.	Image pg. A51
	1/2 Forbes Bryon E	R. L. Polk & Co.	Image pg. A51
1955	Schelly B W	R. L. Polk & Co.	
1952	Schelly Burt	R. L. Polk & Co. of California	Image pg. A60
1948	Walton C H	San Diego Directory Co.	Image pg. A70
1943	Walton C H	San Diego Directory Co.	Image pg. A75

3537 KETTNER BLVD

Year	Uses	Source	
1961	Robinson Wm O	R. L. Polk & Co.	Image pg. A51
	1/2 Mc Coy Richd E	R. L. Polk & Co.	Image pg. A51
1960	Hedge Warren N	The Pacific Telephone Telegraph Co.	
1955	Bowman Thos F Mrs	R. L. Polk & Co.	
1952	Babbs Loren	R. L. Polk & Co. of California	Image pg. A60
1948	Blank Helen Mrs	San Diego Directory Co.	Image pg. A70
1945	Mc Clarren W T r	San Diego Directory Co.	
1943	Mc Clarren W T	San Diego Directory Co.	Image pg. A75

FINDINGS

3539 KETTNER BLVD

Year	Uses	Source	
1961	1/2 Carini Francesco	R. L. Polk & Co.	Image pg. A51
	Dunnam Terry	R. L. Polk & Co.	Image pg. A51
1955	Lyasko Mike	R. L. Polk & Co.	
1952	Ainsworth J P	R. L. Polk & Co. of California	Image pg. A60
1948	Matthews H D	San Diego Directory Co.	Image pg. A70
1943	Boswell J N W	San Diego Directory Co.	Image pg. A75

3541 KETTNER BLVD

Year	Uses	Source	
1961	1/2 York Troy V	R. L. Polk & Co.	Image pg. A51
	Meeker Claydy E	R. L. Polk & Co.	Image pg. A51
1955	Fleming Earl	R. L. Polk & Co.	
1952	Jones Chas	R. L. Polk & Co. of California	Image pg. A60
1948	Davis H G	San Diego Directory Co.	Image pg. A70
1943	Williams W L	San Diego Directory Co.	Image pg. A75

3553 KETTNER BLVD

Year	Uses	Source	
1961	Butler Paper Co	R. L. Polk & Co.	Image pg. A51
	Tolle Co The adv agcy	R. L. Polk & Co.	Image pg. A51
	Plastering & Lathing Institute of SD County	R. L. Polk & Co.	Image pg. A51
1960	Tolle Norman W The Tolle Co advg	The Pacific Telephone Telegraph Co.	
	Butler Paper Co Sierra Paper Co	The Pacific Telephone Telegraph Co.	
	Driese Don N The Tolie Co advg	The Pacific Telephone Telegraph Co.	
	PLASTERING & LATHING INSTITUTE OF S D COUNTY	The Pacific Telephone Telegraph Co.	
	Shultz Hal Sierra Paper Co	The Pacific Telephone Telegraph Co.	
	SIERRA PAPER CO	The Pacific Telephone Telegraph Co.	
	TOLLE CO THE advg	The Pacific Telephone Telegraph Co.	
	Tolle Muriel The Tolle Co advg	The Pacific Telephone Telegraph Co.	
1955	Shultz Hal Sierra Paper Co	R. L. Polk & Co.	
	Driese Don N The Tolle Co advg	R. L. Polk & Co.	
	Sierra Paper Co	R. L. Polk & Co.	
	Tolle Co The advg	R. L. Polk & Co.	
	Tolle Muriel The Tolle Co advg	R. L. Polk & Co.	
	Tolle Norman W The Tolle Co advg	R. L. Polk & Co.	
1952	Baden C F	R. L. Polk & Co. of California	Image pg. A60
1948	Mendoza Douglas	San Diego Directory Co.	Image pg. A70

Year	Uses	Source	
1943	Thompson H L	San Diego Directory Co.	Image pg. A75
1938	Thomas E F	San Diego Directory Co.	Image pg. A84
1933	Thomas E F	San Diego Directory Co.	Image pg. A93

3554 KETTNER BLVD

Year	Uses	Source	
1992	Applications	PACIFIC BELL WHITE PAGES	
1985	GENEL RAL ELECTRIC COMPANY MAJOR APPLIANCE & TV SERVICE & PORTS LARGE APPLI	PACIFIC BELL WHITE PAGES	
	GENEL RAL ELECTRIC COMPANY MAJOR APPLIANCE & TV SERVICE & PORTS LARGE APPLI	PACIFIC BELL WHITE PAGES	
	HOTPOINT FACTORY SERVICE MAJOR APPLIANCE SERVICE AND PARTS LARGE APPLIANCES	PACIFIC BELL WHITE PAGES	
	HOTPOINT FACTORY SERVICE MAJOR APPLIANCE SERVICE AND PARTS LARGE APPLIANCES	PACIFIC BELL WHITE PAGES	
	HOTPOINT FACTORY SERVICE MAJOR APPLIANCE SERVICE AND PARTS LARGE APPLIANCES	PACIFIC BELL WHITE PAGES	
	PLAZA BONITA	PACIFIC BELL WHITE PAGES	
1984	General Electric Co sls & serv	R. L. Polk & Co.	Image pg. A9
	Hotpoint sls & serv	R. L. Polk & Co.	Image pg. A9
1980	General Electric Co sis & serv	R. L. Polk & Co.	Image pg. A18
	Hotpoint sis & serv	R. L. Polk & Co.	Image pg. A18
1975	General Electric Co sls & serv	R. L. Polk & Co.	Image pg. A31
1970	NELSON THOMAS & CO OFC	John M. Ducy	
	FURNISHINGS	John M. Ducy	
1966	NELSON THOMAS E CO OFC	R. L. Polk & Co.	Image pg. A42
	FURNISHINGS	R. L. Polk & Co.	Image pg. A42

3555 KETTNER BLVD

Year	Uses	Source	
1961	Arts & Crafts Press prntg	R. L. Polk & Co.	Image pg. A51
1960	Arts & Crafts Press	The Pacific Telephone Telegraph Co.	
1955	Arts & Crafts Press	R. L. Polk & Co.	

3564 KETTNER BLVD

Year	Uses	Source
2013	GALAXY RENT A CAR	Cole Information Services
2008	ABC RENT A CAR INC	Cole Information Services

FINDINGS

Year	Uses	Source	
2006	GALAXYRENTA	Haines Company, Inc.	
2000	A BC RENT A CAR	Haines & Company	Image pg. A1
1989	MERRILL SAN DIEGO	Pacific Bell	
1984	Lapidary Journal Inc book & magazine publs	R. L. Polk & Co.	Image pg. A9
1980	magazine pubis	R. L. Polk & Co.	Image pg. A18
	Lapidary Journal Inc book	R. L. Polk & Co.	Image pg. A18
1975	Lapidary Journal Inc book & magazine publs	R. L. Polk & Co.	Image pg. A31
1970	MAGAZINE PUBLS	John M. Ducy	
	LAPIDARY JOURNAL INC BOOK	John M. Ducy	
1966	MAGAZINE PUBLS	R. L. Polk & Co.	Image pg. A42
	LAPIDARY JOURNAL INC BOOK	R. L. Polk & Co.	Image pg. A42

3574 KETTNER BLVD

Year	Uses	Source	
2013	DESIGN FOR HEALTH ENVIRONMENTAL EDUC	Cole Information Services	
2008	DESIGN FOR HEALTH ENVIRONMENTAL SERV	Cole Information Services	
2006	HEALTH ENVRN SV	Haines Company, Inc.	
	DESIGN FOR 619 291 17 T	Haines Company, Inc.	
2000	DESIGN FOR HEALTH	Haines & Company	Image pg. A1
1992	Ad Mail Direct Marketing	PACIFIC BELL WHITE PAGES	
1989	Paragon Design Co Inc	Pacific Bell	
1984	Paragon Design Co eng graphic arts servs	R. L. Polk & Co.	Image pg. A9
1980	Paragon Design Co eng graphic arts	R. L. Polk & Co.	Image pg. A18
	serva	R. L. Polk & Co.	Image pg. A18
1975	Masterlist Inc controlled data	R. L. Polk & Co.	Image pg. A31
1970	MASTERLIST INC CONTROLLED DATA	John M. Ducy	
1966	VACANT	R. L. Polk & Co.	Image pg. A42

3575 KETTNER BLVD

Year	Uses	Source	
1961	Fire Dept Sta	R. L. Polk & Co.	Image pg. A51
1952	Fire Dept Sta No	R. L. Polk & Co. of California	Image pg. A60
1948	Fire Dept Sta No	San Diego Directory Co.	Image pg. A70
1943	City Fire Dept Sta No	San Diego Directory Co.	Image pg. A75
1938	City Fire Dept Sta No	San Diego Directory Co.	Image pg. A84
1933	Fire Station No	San Diego Directory Co.	Image pg. A93

FINDINGS

3576 KETTNER BLVD

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A1
1975	Vacant	R. L. Polk & Co.	Image pg. A31

3580 KETTNER BLVD

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A1
1975	Commerce Publishing Co	R. L. Polk & Co.	Image pg. A31

3590 KETTNER BLVD

Year	Uses	Source	
2008	CASAS LAW GROUP PC	Cole Information Services	
	BAHIA DEVELOPMENT LLC	Cole Information Services	
	ELLIOTT CORNERSTONE	Cole Information Services	
	INBOUND CLICKS LLC	Cole Information Services	
2006	BULDING GROUP	Haines Company, Inc.	
	CORNERSTONE	Haines Company, Inc.	
2000	No Current Listing	Haines & Company	Image pg. A1
1992	Wildlife Education	PACIFIC BELL WHITE PAGES	
	Nex Tech Systems Corp	PACIFIC BELL WHITE PAGES	
	Fullard RW	PACIFIC BELL WHITE PAGES	
	Fulladi Behzad	PACIFIC BELL WHITE PAGES	
	Full Tech	PACIFIC BELL WHITE PAGES	
	Baa Subscriptions	PACIFIC BELL WHITE PAGES	
1989	Arts & Crafts Press	Pacific Bell	
1984	Arts & Crafts Press coml printers	R. L. Polk & Co.	Image pg. A9
1980	Arts & Crafts Press coml printers	R. L. Polk & Co.	Image pg. A18
1975	San Diego Asan Of Advertising Agencies	R. L. Polk & Co.	Image pg. A32
	Concept Graphics	R. L. Polk & Co.	Image pg. A31
	Tolle Co The adv agcy	R. L. Polk & Co.	Image pg. A31
1970	ADVERTISING AGENCIES	John M. Ducy	
	SAN DIEGO ASSOCIATION OF	John M. Ducy	
	TOLLE CO THE ADV AGCY	John M. Ducy	
1966	TOLLE CO THE ADV AGCY	R. L. Polk & Co.	Image pg. A42
	BUTLER PAPER CO WHOL	R. L. Polk & Co.	Image pg. A42

3600 KETTNER BLVD

Year	Uses	Source
1955	Century Lumber & Mill Co	R. L. Polk & Co.

FINDINGS

Year	Uses	Source	
1952	Century Lmbr & Mill Co	R. L. Polk & Co. of California	Image pg. A60
1948	Century Lbr & Mill Co	San Diego Directory Co.	Image pg. A70
1945	Moran Const Co	San Diego Directory Co.	
	Century Lumber & Mill Co	San Diego Directory Co.	
1943	Century Lbr & Mill Co	San Diego Directory Co.	Image pg. A75
1933	Century Lumber & Mill Co	San Diego Directory Co.	Image pg. A93
1927	Century Lumber & Mill Co	San Diego Directory Co.	Image pg. A101

3603 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Holladay W J	R. L. Polk & Co. of California	Image pg. A60
1948	Emery G F	San Diego Directory Co.	Image pg. A70
1943	Watts E W	San Diego Directory Co.	Image pg. A75

3605 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1952	Marker L U	R. L. Polk & Co. of California	Image pg. A60
1943	Benoit R S	San Diego Directory Co.	Image pg. A75
1938	Rury MMMrs	San Diego Directory Co.	Image pg. A84
1933	Carr R H	San Diego Directory Co.	Image pg. A93
1927	Taylor HIJ	San Diego Directory Co.	Image pg. A101

3607 KETTNER BLVD

Year	Uses	Source	
1961	No Return	R. L. Polk & Co.	Image pg. A51
1952	Cruger A B	R. L. Polk & Co. of California	Image pg. A60
1948	Lyter H C	San Diego Directory Co.	Image pg. A70
1945	Lyter Clifton r	San Diego Directory Co.	
1943	Elliott D E	San Diego Directory Co.	Image pg. A75
1938	Cavendar J L	San Diego Directory Co.	Image pg. A84
1933	OKennedy D P	San Diego Directory Co.	Image pg. A93

3609 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1955	Spence K W	R. L. Polk & Co.	
1952	Spence K W	R. L. Polk & Co. of California	Image pg. A60
1948	Causey C H	San Diego Directory Co.	Image pg. A70

FINDINGS

Year	Uses	Source	
1943	Richey I P	San Diego Directory Co.	Image pg. A75
1938	Weir P B	San Diego Directory Co.	Image pg. A84
1933	White Fred	San Diego Directory Co.	Image pg. A93

3611 KETTNER BLVD

Year	Uses	Source	
1961	Mary & Freds Cafe restr	R. L. Polk & Co.	Image pg. A51
	a Vacant	R. L. Polk & Co.	Image pg. A51
	b Vacant	R. L. Polk & Co.	Image pg. A51
1960	Mary & Freds Cafe	The Pacific Telephone Telegraph Co.	
	Sepulveda Robt A	The Pacific Telephone Telegraph Co.	
1955	Bringas Robt R	R. L. Polk & Co.	
	D & W Cafe	R. L. Polk & Co.	
	Weeks Virgil	R. L. Polk & Co.	
1952	M & M Cafe	R. L. Polk & Co. of California	Image pg. A60
	a Mc Clelland La Verne Mrs	R. L. Polk & Co. of California	Image pg. A60
	b Palmer Walter D	R. L. Polk & Co. of California	Image pg. A60
1948	Filletti Eug restr	San Diego Directory Co.	Image pg. A70
	a Butler Basil	San Diego Directory Co.	Image pg. A70
	b Hogg H B	San Diego Directory Co.	Image pg. A70
	c Hogg H H	San Diego Directory Co.	Image pg. A70
1945	Cadet Cafe	San Diego Directory Co.	
1943	Davis R C restr	San Diego Directory Co.	Image pg. A75
	a Gallagher R E	San Diego Directory Co.	Image pg. A75
	b Fellette Eug	San Diego Directory Co.	Image pg. A75
1938	Fillette Bug restr	San Diego Directory Co.	Image pg. A84
1933	Middleton Milton	San Diego Directory Co.	Image pg. A93
1927	Asaro Jos	San Diego Directory Co.	Image pg. A101

3619 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1960	Qualls Roy C Loma Heating & Piping Co	The Pacific Telephone Telegraph Co.	
	Loma Heating & Piping Co	The Pacific Telephone Telegraph Co.	
1955	Mellan C & Qualls R	R. L. Polk & Co.	
1952	Sherman H A real est	R. L. Polk & Co. of California	Image pg. A60
	Mellan & Qualls plmbrs	R. L. Polk & Co. of California	Image pg. A60
	Eby R R real est	R. L. Polk & Co. of California	Image pg. A60
	Costello C E broker	R. L. Polk & Co. of California	Image pg. A60

FINDINGS

Year	Uses	Source	
1948	Mellan & Qualls plmbrs	San Diego Directory Co.	Image pg. A70
1945	Terry G F Mrs r	San Diego Directory Co.	
1943	Sparkman C L	San Diego Directory Co.	Image pg. A75
	Terry G P	San Diego Directory Co.	Image pg. A75
1938	Laidley R B	San Diego Directory Co.	Image pg. A84
1933	Puterbaugh Frank	San Diego Directory Co.	Image pg. A93
1927	Lopez Jios	San Diego Directory Co.	Image pg. A101

3627 KETTNER BLVD

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.

3631 KETTNER BLVD

Year	Uses	Source	
1961	Vacant	R. L. Polk & Co.	Image pg. A51
1960	Olf Abraham	The Pacific Telephone Telegraph Co.	
	Olf Florine	The Pacific Telephone Telegraph Co.	
1955	Olf Abraham	R. L. Polk & Co.	
1952	Olf Abr	R. L. Polk & Co. of California	Image pg. A60
1948	Olf Abr	San Diego Directory Co.	Image pg. A70
1943	Collins R H	San Diego Directory Co.	Image pg. A75
1938	Entwisle J J	San Diego Directory Co.	Image pg. A84
1933	Peugh L L	San Diego Directory Co.	Image pg. A93
1927	Boggona Jos C m	San Diego Directory Co.	Image pg. A101

3632 KETTNER BLVD

Year	Uses	Source
2006	MONAHAN Shannon	Haines Company, Inc.

3633 KETTNER BLVD

Year	Uses	Source
1989	Executive Offices	Pacific Bell

3634 KETTNER BLVD

Year	Uses	Source	
2006	ESPIRITLI Ron	Haines Company, Inc.	
	LOWRY Richard	Haines Company, Inc.	
	THOMSONJames	Haines Company, Inc.	
2000	GAINEY Phil M	Haines & Company	Image pg. A1
1992	Gainey Phil M	PACIFIC BELL WHITE PAGES	

FINDINGS

Year	Uses	Source	
1992	Bordua Daniel James	PACIFIC BELL WHITE PAGES	
	Greer W R	PACIFIC BELL WHITE PAGES	
1989	Gainey Phil M	Pacific Bell	
	Tanner M	Pacific Bell	
1984	Apartments	R. L. Polk & Co.	Image pg. A9
	Gainey Phil M	R. L. Polk & Co.	Image pg. A9
	Landrum Chas L	R. L. Polk & Co.	Image pg. A9
	No Return	R. L. Polk & Co.	Image pg. A9
	Cotton Roy A	R. L. Polk & Co.	Image pg. A9
	Vacant	R. L. Polk & Co.	Image pg. A9
	Rogers Keith	R. L. Polk & Co.	Image pg. A9
	Vacant	R. L. Polk & Co.	Image pg. A9
	Vacant	R. L. Polk & Co.	Image pg. A9
	Sepe Pete	R. L. Polk & Co.	Image pg. A9
	Mickelson Ron	R. L. Polk & Co.	Image pg. A9
1980	Apartments	R. L. Polk & Co.	Image pg. A18
	Gainey Phil M	R. L. Polk & Co.	Image pg. A18
	Vacant	R. L. Polk & Co.	Image pg. A18
	N Montoya Joseph M	R. L. Polk & Co.	Image pg. A18
	No Return	R. L. Polk & Co.	Image pg. A18
	Vacant	R. L. Polk & Co.	Image pg. A18
	No Return	R. L. Polk & Co.	Image pg. A18
	Vacant	R. L. Polk & Co.	Image pg. A18
	Vacant	R. L. Polk & Co.	Image pg. A18
	N Sepe Pete	R. L. Polk & Co.	Image pg. A18
	Thomann Cliff R	R. L. Polk & Co.	Image pg. A18

3637 KETTNER BLVD

Year	Uses	Source	
1961	Mc Morrow Carrie Mrs	R. L. Polk & Co.	Image pg. A51
1960	Mc Morrow Carrie Mrs	The Pacific Telephone Telegraph Co.	
1955	Mc Morrow Carrie Mrs	R. L. Polk & Co.	
1952	Mc Morrow Carrie Mrs	R. L. Polk & Co. of California	Image pg. A60
1948	Mc Morrow Carrie Mrs	San Diego Directory Co.	Image pg. A70
1945	Mc Morrow Carrie Mrs r	San Diego Directory Co.	
1943	Mc Morrow Carrie Mrs	San Diego Directory Co.	Image pg. A75
1938	Slavin J T	San Diego Directory Co.	Image pg. A84
1933	Nielsen Alice Mrs o	San Diego Directory Co.	Image pg. A93

FINDINGS

3648 KETTNER BLVD

Year	*Uses*	*Source*	
2000	No Current Listing	Haines & Company	Image pg. A1
1992	Wickersham Jay	PACIFIC BELL WHITE PAGES	
1989	Fiocre N	Pacific Bell	
	Wickersham Jay	Pacific Bell	
1984	Stewart John Studio graphic design	R. L. Polk & Co.	Image pg. A9
1980	Stewart John Studio graphic design	R. L. Polk & Co.	Image pg. A18

3649 KETTNER BLVD

Year	*Uses*	*Source*
2006	BECKERGary	Haines Company, Inc.

KETTNER I

3634 KETTNER I

Year	*Uses*	*Source*
1992	Tanner M	PACIFIC BELL WHITE PAGES

KETTNER/CHALMERS

KETTNER/CHALMERS

Year	*Uses*	*Source*	
1961	KETTNER/CHALMERS	R. L. Polk & Co.	Image pg. A51
1952	KETTNER/CHALMERS	R. L. Polk & Co. of California	Image pg. A60
1948	KETTNER/CHALMERS	San Diego Directory Co.	Image pg. A70
1943	KETTNER/CHALMERS	San Diego Directory Co.	Image pg. A75
1938	KETTNER/CHALMERS	San Diego Directory Co.	Image pg. A84
1933	KETTNER/CHALMERS	San Diego Directory Co.	Image pg. A93
1927	KETTNER/CHALMERS	San Diego Directory Co.	Image pg. A101

KETTNER/CHALMERS ST

KETTNER/CHALMERS ST

Year	*Uses*	*Source*	
1984	KETTNER/CHALMERS ST	R. L. Polk & Co.	Image pg. A9
1980	KETTNER/CHALMERS ST	R. L. Polk & Co.	Image pg. A18

FINDINGS

KETTNER/VINE

KETTNER/VINE

Year	Uses	Source	
1961	KETTNER/VINE	R. L. Polk & Co.	Image pg. A51
1952	KETTNER/VINE	R. L. Polk & Co. of California	Image pg. A60
1948	KETTNER/VINE	San Diego Directory Co.	Image pg. A70
1943	KETTNER/VINE	San Diego Directory Co.	Image pg. A75
1938	KETTNER/VINE	San Diego Directory Co.	Image pg. A84
1933	KETTNER/VINE	San Diego Directory Co.	Image pg. A93

KETTNER/VINE ST

KETTNER/VINE ST

Year	Uses	Source	
1975	KETTNER/VINE ST	R. L. Polk & Co.	Image pg. A33

KETTNER/WALNUT AV

KETTNER/WALNUT AV

Year	Uses	Source	
1961	KETTNER/WALNUT AV	R. L. Polk & Co.	Image pg. A51
1952	KETTNER/WALNUT AV	R. L. Polk & Co. of California	Image pg. A60
1948	KETTNER/WALNUT AV	San Diego Directory Co.	Image pg. A70
1943	KETTNER/WALNUT AV	San Diego Directory Co.	Image pg. A75
1938	KETTNER/WALNUT AV	San Diego Directory Co.	Image pg. A84
1933	KETTNER/WALNUT AV	San Diego Directory Co.	Image pg. A93
1927	KETTNER/WALNUT AV	San Diego Directory Co.	Image pg. A101

PACIFIC

3401 PACIFIC

Year	Uses	Source
1960	Aircraft Cafe	The Pacific Telephone Telegraph Co.
	Convair Recreation Assn Club House	The Pacific Telephone Telegraph Co.
1955	Convair Recreation Assn Club House	R. L. Polk & Co.
	Aircraft Cafe	R. L. Polk & Co.

3555 PACIFIC

Year	Uses	Source
1992	TURKS IN C	PACIFIC BELL WHITE PAGES

Year	Uses	Source
1992	Turksoy Hakan	PACIFIC BELL WHITE PAGES
	Turna Alejandro	PACIFIC BELL WHITE PAGES
	Turla G	PACIFIC BELL WHITE PAGES
	Tura Lilibeth	PACIFIC BELL WHITE PAGES
	Turla Peter	PACIFIC BELL WHITE PAGES
	Turley CA	PACIFIC BELL WHITE PAGES
	Turley Billy A	PACIFIC BELL WHITE PAGES
	Turley C A	PACIFIC BELL WHITE PAGES

3565 PACIFIC

Year	Uses	Source
1992	A&B Saab Service	PACIFIC BELL WHITE PAGES

3569 PACIFIC

Year	Uses	Source
1992	Quantum Leap The	PACIFIC BELL WHITE PAGES
	Stepstone	PACIFIC BELL WHITE PAGES
	Watson J B	PACIFIC BELL WHITE PAGES
	Watson J C	PACIFIC BELL WHITE PAGES

3571 PACIFIC

Year	Uses	Source
1995	Inland	PACIFIC BELL WHITE PAGES
	Coastal	PACIFIC BELL WHITE PAGES
	Two Men Will Move You	PACIFIC BELL WHITE PAGES
	From Escondido Telephones Call	PACIFIC BELL WHITE PAGES
	From Encinitas Telephones Call	PACIFIC BELL WHITE PAGES
	Fron Encinitas Telephones Call	PACIFIC BELL WHITE PAGES
1992	Two Guys Truck Parts	PACIFIC BELL WHITE PAGES
	From Escondido Telephones Call	PACIFIC BELL WHITE PAGES
1991	Two Percent Plus Apartment Brokers	PACIFIC BELL WHITE PAGES
	inland	PACIFIC BELL WHITE PAGES
	Coastal	PACIFIC BELL WHITE PAGES
	From Escondiolo Telephones Call	PACIFIC BELL WHITE PAGES
	Fron Encinitas Teleplonies Call	PACIFIC BELL WHITE PAGES

FINDINGS

3605 PACIFIC

Year	Uses	Source
1995	Vinyard Doors Inc	PACIFIC BELL WHITE PAGES
1992	From El Calon Telephones Call	PACIFIC BELL WHITE PAGES
	Vineyard Keith	PACIFIC BELL WHITE PAGES
	Vineyard Doors Inc	PACIFIC BELL WHITE PAGES
	Pamelar Angelina	PACIFIC BELL WHITE PAGES
	Pameco Aire	PACIFIC BELL WHITE PAGES
	VIN YARD DOORS IN C	PACIFIC BELL WHITE PAGES
1960	Swalm Enterprises	The Pacific Telephone Telegraph Co.
	Jet Chemical Co	The Pacific Telephone Telegraph Co.
1955	Swalm & Welch	R. L. Polk & Co.
	Swalm Enterprises	R. L. Polk & Co.

3655 PACIFIC

Year	Uses	Source
1992	Safety And Training Services	PACIFIC BELL WHITE PAGES
	Safety Systems & Training Co P O Box 19428	PACIFIC BELL WHITE PAGES
	Safety Supply America	PACIFIC BELL WHITE PAGES
1991	Southwest Safety & Supply Co Inc	PACIFIC BELL WHITE PAGES

3694 PACIFIC

Year	Uses	Source
1992	Kiewit Pacific Co	PACIFIC BELL WHITE PAGES

3698 PACIFIC

Year	Uses	Source
1992	Granite Construction Airport Job Site	PACIFIC BELL WHITE PAGES
	Granite Construction Co.	PACIFIC BELL WHITE PAGES

PACIFIC AVE

3612 PACIFIC AVE

Year	Uses	Source
1921	Santry Geo M watchmn C S Burkhart h	San Diego Directory Co. Inc.

3665 PACIFIC AVE

Year	Uses	Source
1921	Bihier John A Susan E h	San Diego Directory Co. Inc.

FINDINGS

3671 PACIFIC AVE

Year	Uses	Source	
1921	Talbert John R Gladys M driver h	San Diego Directory Co. Inc.	

3673 PACIFIC AVE

Year	Uses	Source	
1921	Guillespie Reuben Ruth floor finshr h	San Diego Directory Co. Inc.	

PACIFIC BLVD

3401 PACIFIC BLVD

Year	Uses	Source	
1938	Ol AMc Ana lly C 3 re tr	San Diego Directory Co.	Image pg. A89

3535 PACIFIC BLVD

Year	Uses	Source	
1938	S:15:14 W i e Ht A J Kgo s Lt	San Diego Directory Co.	Image pg. A89

3641 PACIFIC BLVD

Year	Uses	Source	
1938	Patillo Armericoi	San Diego Directory Co.	Image pg. A89

3682 PACIFIC BLVD

Year	Uses	Source	
1938	t U i hfl Ad Oill Co	San Diego Directory Co.	Image pg. A89

PACIFIC HWY

3395 PACIFIC HWY

Year	Uses	Source	
1961	Convair Recreation Assn Club House	R. L. Polk & Co.	Image pg. A52
1952	Convair Recreation Assn Club House	R. L. Polk & Co. of California	Image pg. A61

3401 PACIFIC HWY

Year	Uses	Source	
1952	Aircraft Cafe	R. L. Polk & Co. of California	Image pg. A61
1945	Aircraft Cafe	San Diego Directory Co.	
1943	Leighton Industries Inc commissary dept	San Diego Directory Co.	Image pg. A80

3405 PACIFIC HWY

Year	Uses	Source	
2013	SAN DIEGO PARK SHUTTLE & FLY	Cole Information Services	

FINDINGS

Year	Uses	Source	
2008	PARK & RIDE CO	Cole Information Services	
2006	PARKAND RIDE CO	Haines Company, Inc.	
2000	ACE PARKINGS QUIK	Haines & Company	Image pg. A6

3521 PACIFIC HWY

Year	Uses	Source	
1952	Dot & Bens Diner restr	R. L. Polk & Co. of California	Image pg. A61
1948	Boggs Bros Diner	San Diego Directory Co.	Image pg. A71

3555 PACIFIC HWY

Year	Uses	Source	
2013	FOUR SEASONS SUNROOMS BY SUN BOSS	Cole Information Services	
2008	GEENLIGHT AUTO RPR	Cole Information Services	
	SUN BOSS CORP	Cole Information Services	
2000	TURKSINC	Haines & Company	Image pg. A6
1989	TURKS INC	Pacific Bell	
1984	Turks Independent Mercedes new auto sls & serv	R. L. Polk & Co.	Image pg. A14
1980	auto sis & serv	R. L. Polk & Co.	Image pg. A23
	Turks Independent Mercedes new	R. L. Polk & Co.	Image pg. A23
1975	Pacific Car Rental	R. L. Polk & Co.	Image pg. A34

3565 PACIFIC HWY

Year	Uses	Source	
2013	SWEDISH AUTO A B	Cole Information Services	
2008	SWEDISH AUTO A B	Cole Information Services	
2006	SWEDISH AUTO A B 619 295 6 M	Haines Company, Inc.	
2000	SWEDISH AUTO A	Haines & Company	Image pg. A6
1984	Phillips Chatty A	R. L. Polk & Co.	Image pg. A14
1980	Phillips Chatty A	R. L. Polk & Co.	Image pg. A23
1975	Phillips Chatty A	R. L. Polk & Co.	Image pg. A34

3567 PACIFIC HWY

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A6
1984	Golden	R. L. Polk & Co.	Image pg. A14
1980	Vacant	R. L. Polk & Co.	Image pg. A23

FINDINGS

3569 PACIFIC HWY

Year	Uses	Source	
2000	BLADES AUTOMOTIVE	Haines & Company	Image pg. A6
1984	Shrader Bob	R. L. Polk & Co.	Image pg. A14
1980	Eads Ross	R. L. Polk & Co.	Image pg. A23
1975	Pacific Coast Automotive repr	R. L. Polk & Co.	Image pg. A34

3571 PACIFIC HWY

Year	Uses	Source	
2013	TWO GUYS RELOCATION SYSTEMS	Cole Information Services	
	TWO MEN WILL MOVE YOU	Cole Information Services	
2008	TWO GUYS RELOCATION SYSTEMS	Cole Information Services	
	TWO MEN WILL MOVE YOU	Cole Information Services	
2006	MOVE YOU TWO MEN WILL	Haines Company, Inc.	
	MOVE TWO MEN WILL	Haines Company, Inc.	
	SYSTEMS TWO MEN WILL	Haines Company, Inc.	
	RELOCATION	Haines Company, Inc.	
	SYSTEMS TWO GUYS	Haines Company, Inc.	
	RELOCATION	Haines Company, Inc.	
	SYS TWO GUYS	Haines Company, Inc.	
	TWO GUYS RELCTN	Haines Company, Inc.	
	MOVE YOU TWO MEN WILL MV	Haines Company, Inc.	
2000	MOVE YOU	Haines & Company	Image pg. A6
	A AA TWO MEN WILL	Haines & Company	Image pg. A6
	TWO MEN WILLMV YOU	Haines & Company	Image pg. A6
	TWO MEN WILL 0 V YOU	Haines & Company	Image pg. A6
	TWO MEN WILL MOVE	Haines & Company	Image pg. A6
	TWO GUYS RELCTN	Haines & Company	Image pg. A6
1989	TWO MEN WILL MOVE YOU	Pacific Bell	

3575 PACIFIC HWY

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A6

3585 PACIFIC HWY

Year	Uses	Source
2008	AFFORDABLE PRINTING SERVICE	Cole Information Services

3600 PACIFIC HWY

Year	Uses	Source
1970	SHOP	John M. Ducy

FINDINGS

Year	Uses	Source	
1970	VINYARD OVERHEAD DOORS INC	John M. Ducy	
1966	SHOP	R. L. Polk & Co.	Image pg. A43
	VINYARD OVERHEAD DOORS INC	R. L. Polk & Co.	Image pg. A43
1948	Vinyard Fred Overhead Garage Doors	San Diego Directory Co.	Image pg. A71

3601 PACIFIC HWY

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A6

3605 PACIFIC HWY

Year	Uses	Source	
2013	VINYARD DOORS INC	Cole Information Services	
2008	VINYARD DOORS INC	Cole Information Services	
2000	VINYARD DOORS INC	Haines & Company	Image pg. A6
	VINEYARDDOORSINC	Haines & Company	Image pg. A6
1989	VINYARD DOORS INC	Pacific Bell	
	Vineyard Dogrs Inc	Pacific Bell	
1984	Vinyard Garage Doors Inc	R. L. Polk & Co.	Image pg. A14
1966	SWALM ENTERPRISES CONCESSIONS & RIDERS	R. L. Polk & Co.	Image pg. A43
	JET CHEMICAL CO	R. L. Polk & Co.	Image pg. A43
1961	Jet Chem Co Mfg	R. L. Polk & Co.	Image pg. A52

3625 PACIFIC HWY

Year	Uses	Source	
1948	Hageman G A gas sta	San Diego Directory Co.	Image pg. A71
1945	Pacific & Vine Sts Ston	San Diego Directory Co.	
1943	Parker & Thornberg gas sta	San Diego Directory Co.	Image pg. A80

3655 PACIFIC HWY

Year	Uses	Source	
2006	BAKERY	Haines Company, Inc.	
	GALASSOS	Haines Company, Inc.	
	CLEAN TEAM CO	Haines Company, Inc.	
	GALASSOS	Haines Company, Inc.	
	BAKERY	Haines Company, Inc.	
2000	CLEAN TEAM CO	Haines & Company	Image pg. A6
	PAMECOCORP	Haines & Company	Image pg. A6
1989	SOUTHWEST SAFETY & SUPPLY CO INC	Pacific Bell	
	PamecoAire	Pacific Bell	

FINDINGS

Year	Uses	Source	
1985	SOUTHWEST SAFETY & SUPPLY CO INC	PACIFIC BELL WHITE PAGES	
1984	b Pameco Aire Refrigeration & Air Conditioning	R. L. Polk & Co.	Image pg. A14
	Southwest Safety	R. L. Polk & Co.	Image pg. A14

3665 PACIFIC HWY

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A6

3690 PACIFIC HWY

Year	Uses	Source	
2008	FEDERAL AVIATION ADM	Cole Information Services	
2000	PRECISIONWEATHER	Haines & Company	Image pg. A6

3694 PACIFIC HWY

Year	Uses	Source	
2006	OGDEN AVIATION	Haines Company, Inc.	
2000	SERVICES	Haines & Company	Image pg. A6
	OGDEN AVIATION	Haines & Company	Image pg. A6

3698 PACIFIC HWY

Year	Uses	Source	
2013	UCWEBHOST INC	Cole Information Services	
	ALLIED AVIATION FUELING CO	Cole Information Services	
2008	ALLIED AVIATION SERVICE CO	Cole Information Services	

UPAS/COLUMBIA

UPAS/COLUMBIA

Year	Uses	Source	
1961	UPAS/COLUMBIA	R. L. Polk & Co.	Image pg. A53
1952	UPAS/COLUMBIA	R. L. Polk & Co. of California	Image pg. A62
1948	UPAS/COLUMBIA	San Diego Directory Co.	Image pg. A72
1943	UPAS/COLUMBIA	San Diego Directory Co.	Image pg. A81
1938	UPAS/COLUMBIA	San Diego Directory Co.	Image pg. A90
1927	UPAS/COLUMBIA	San Diego Directory Co.	Image pg. A107

FINDINGS

UPAS/COLUMBIA ST

UPAS/COLUMBIA ST

Year	Uses	Source	
1984	UPAS/COLUMBIA ST	R. L. Polk & Co.	Image pg. A15
1980	UPAS/COLUMBIA ST	R. L. Polk & Co.	Image pg. A24
1975	UPAS/COLUMBIA ST	R. L. Polk & Co.	Image pg. A35
1970	UPAS/COLUMBIA ST	John M. Ducy	
1966	UPAS/COLUMBIA ST	R. L. Polk & Co.	Image pg. A44

UPAS/INDIA

UPAS/INDIA

Year	Uses	Source	
1961	UPAS/INDIA	R. L. Polk & Co.	Image pg. A53
1952	UPAS/INDIA	R. L. Polk & Co. of California	Image pg. A62
1948	UPAS/INDIA	San Diego Directory Co.	Image pg. A72
1943	UPAS/INDIA	San Diego Directory Co.	Image pg. A81
1938	UPAS/INDIA	San Diego Directory Co.	Image pg. A90
1933	UPAS/INDIA	San Diego Directory Co.	Image pg. A98
1927	UPAS/INDIA	San Diego Directory Co.	Image pg. A107

UPAS/INDIA ST

UPAS/INDIA ST

Year	Uses	Source	
1984	UPAS/INDIA ST	R. L. Polk & Co.	Image pg. A15
1980	UPAS/INDIA ST	R. L. Polk & Co.	Image pg. A24
1975	UPAS/INDIA ST	R. L. Polk & Co.	Image pg. A35
1970	UPAS/INDIA ST	John M. Ducy	
1966	UPAS/INDIA ST	R. L. Polk & Co.	Image pg. A44

VINE

1516 VINE

Year	Uses	Source
1992	Saunders Javier	PACIFIC BELL WHITE PAGES

1524 VINE

Year	Uses	Source
1992	Coutts Sammie L	PACIFIC BELL WHITE PAGES

Year	Uses	Source
1955	Mellen Letty M	R. L. Polk & Co.

1611 VINE

Year	Uses	Source
1955	Kester John Y	R. L. Polk & Co.
1945	Glasson Wm J r	San Diego Directory Co.

1621 VINE

Year	Uses	Source
1955	Shelton Burnell	R. L. Polk & Co.
1945	Gable Jos G r	San Diego Directory Co.

1623 VINE

Year	Uses	Source
1955	Derbes Edgar	R. L. Polk & Co.
1945	Baranov Harold r	San Diego Directory Co.

1629 VINE

Year	Uses	Source
1960	Ellis Chrystle	The Pacific Telephone Telegraph Co.
1955	Way Emerson E	R. L. Polk & Co.

VINE ST

1512 VINE ST

Year	Uses	Source	
1984	Vacant	R. L. Polk & Co.	Image pg. A16
1980	Vacant	R. L. Polk & Co.	Image pg. A25

1516 VINE ST

Year	Uses	Source	
2006	SAUNDERSJavier	Haines Company, Inc.	
2000	SAUNDERSJavler	Haines & Company	Image pg. A7
1989	Saunders Javier	Pacific Bell	
1984	Schafer Robt	R. L. Polk & Co.	Image pg. A16
1980	Saville Loeta M Mrs	R. L. Polk & Co.	Image pg. A25
1975	Saville Loeta M Mrs	R. L. Polk & Co.	Image pg. A36
1970	SAVILLE LEOTA M MRS	John M. Ducy	
1966	SA VILLE LEOTA M MRS S	R. L. Polk & Co.	Image pg. A45
1961	Sa Ville Loeta M Mrs	R. L. Polk & Co.	Image pg. A54
1952	Saville Loeta Mrs	R. L. Polk & Co. of California	Image pg. A63

FINDINGS

Year	Uses	Source	
1948	Saville L M Mrs	San Diego Directory Co.	Image pg. A73
1943	Gates P E	San Diego Directory Co.	Image pg. A82
1938	AGates P E to	San Diego Directory Co.	Image pg. A91
1933	Gates A E	San Diego Directory Co.	Image pg. A99

1524 VINE ST

Year	Uses	Source	
2006	o MOORE Edward K	Haines Company, Inc.	
2000	MOORE Edward K	Haines & Company	Image pg. A7
1989	Coutts Sammie L	Pacific Bell	
	Conners Carish	Pacific Bell	
1984	Carman Richd T	R. L. Polk & Co.	Image pg. A16
1980	Carman Richd T	R. L. Polk & Co.	Image pg. A25
1975	Ludwa Ul James S	R. L. Polk & Co.	Image pg. A36
1970	VACANT	John M. Ducy	
1966	TEXEIRA LARRY	R. L. Polk & Co.	Image pg. A45
1961	Texeira Larry	R. L. Polk & Co.	Image pg. A54
1952	Barrows Anna Mrs	R. L. Polk & Co. of California	Image pg. A63
1948	Barrows Anna Mrs	San Diego Directory Co.	Image pg. A73
1943	Likes E K Mrs	San Diego Directory Co.	Image pg. A82
1938	Likes E K Mrs	San Diego Directory Co.	Image pg. A91
1933	Likes Nell Mrs Co	San Diego Directory Co.	Image pg. A99

1526 VINE ST

Year	Uses	Source	
2006	No Current Listing	Haines Company, Inc.	
2000	HANSONGaylord	Haines & Company	Image pg. A7
1984	Rockwood Keith	R. L. Polk & Co.	Image pg. A16
1980	N Robinson Robbie S	R. L. Polk & Co.	Image pg. A25

1611 VINE ST

Year	Uses	Source	
1952	Thomas D S	R. L. Polk & Co. of California	Image pg. A63
1948	Hyde M J	San Diego Directory Co.	Image pg. A73
	Prescott G R Mrs	San Diego Directory Co.	Image pg. A73
1943	Glasson	San Diego Directory Co.	Image pg. A82
1938	AGlasson W J	San Diego Directory Co.	Image pg. A91

FINDINGS

1621 VINE ST

Year	Uses	Source	
1966	HUGHES FRANCIS L	R. L. Polk & Co.	Image pg. A45
1961	No Return	R. L. Polk & Co.	Image pg. A54
1952	Schimmel E M	R. L. Polk & Co. of California	Image pg. A63
1948	Gable J G	San Diego Directory Co.	Image pg. A73
1943	AForry J E	San Diego Directory Co.	Image pg. A82

1623 VINE ST

Year	Uses	Source	
1966	JERMARK LARRY W	R. L. Polk & Co.	Image pg. A45
1961	Martin Carl G	R. L. Polk & Co.	Image pg. A54
1952	Wheeler R W	R. L. Polk & Co. of California	Image pg. A63
1948	Baranov Harold	San Diego Directory Co.	Image pg. A73
1943	ABaranov Harold	San Diego Directory Co.	Image pg. A82

1627 VINE ST

Year	Uses	Source	
1966	JORDAN JERRY W	R. L. Polk & Co.	Image pg. A45

1629 VINE ST

Year	Uses	Source	
1966	VACANT	R. L. Polk & Co.	Image pg. A45
1961	Morton James K	R. L. Polk & Co.	Image pg. A54
1952	Way E E	R. L. Polk & Co. of California	Image pg. A63
1948	Tenney C V	San Diego Directory Co.	Image pg. A73
1943	Hardgree Albt	San Diego Directory Co.	Image pg. A82
1938	Green E BK	San Diego Directory Co.	Image pg. A91

VINE/CALIFORNIA

VINE/CALIFORNIA

Year	Uses	Source	
1927	VINE/CALIFORNIA	San Diego Directory Co.	Image pg. A108

VINE/COLUMBIA

VINE/COLUMBIA

Year	Uses	Source	
1961	VINE/COLUMBIA	R. L. Polk & Co.	Image pg. A54
1952	VINE/COLUMBIA	R. L. Polk & Co. of California	Image pg. A63

Year	Uses	Source	
1948	VINE/COLUMBIA	San Diego Directory Co.	Image pg. A73
1943	VINE/COLUMBIA	San Diego Directory Co.	Image pg. A82
1938	VINE/COLUMBIA	San Diego Directory Co.	Image pg. A91
1927	VINE/COLUMBIA	San Diego Directory Co.	Image pg. A108

VINE/COLUMBIA ST

VINE/COLUMBIA ST

Year	Uses	Source	
1984	VINE/COLUMBIA ST	R. L. Polk & Co.	Image pg. A16
1980	VINE/COLUMBIA ST	R. L. Polk & Co.	Image pg. A25
1975	VINE/COLUMBIA ST	R. L. Polk & Co.	Image pg. A36
1970	VINE/COLUMBIA ST	John M. Ducy	
1966	VINE/COLUMBIA ST	R. L. Polk & Co.	Image pg. A45

VINE/INDIA

VINE/INDIA

Year	Uses	Source	
1961	VINE/INDIA	R. L. Polk & Co.	Image pg. A54
1952	VINE/INDIA	R. L. Polk & Co. of California	Image pg. A63
1948	VINE/INDIA	San Diego Directory Co.	Image pg. A73
1943	VINE/INDIA	San Diego Directory Co.	Image pg. A82
1938	VINE/INDIA	San Diego Directory Co.	Image pg. A91
1927	VINE/INDIA	San Diego Directory Co.	Image pg. A108

VINE/INDIA ST

VINE/INDIA ST

Year	Uses	Source	
1984	VINE/INDIA ST	R. L. Polk & Co.	Image pg. A16
1980	VINE/INDIA ST	R. L. Polk & Co.	Image pg. A25
1975	VINE/INDIA ST	R. L. Polk & Co.	Image pg. A36
1970	VINE/INDIA ST	John M. Ducy	
1966	VINE/INDIA ST	R. L. Polk & Co.	Image pg. A45

FINDINGS

VINE/KETTNER BLVD

VINE/KETTNER BLVD

Year	*Uses*	*Source*	
1927	VINE/KETTNER BLVD	San Diego Directory Co.	Image pg. A108

W WALNUT AVE

1703 W WALNUT AVE

Year	*Uses*	*Source*
2006	No Current Listing	Haines Company, Inc.
1989	Young C	Pacific Bell
1960	Daffin Richard L	The Pacific Telephone Telegraph Co.
1955	Myers Maurine	R. L. Polk & Co.

1709 W WALNUT AVE

Year	*Uses*	*Source*
2006	No Current Listing	Haines Company, Inc.
1960	Davis Harry M	The Pacific Telephone Telegraph Co.
1955	Davis Harry M	R. L. Polk & Co.
1945	Davis Harry M r	San Diego Directory Co.

1711 W WALNUT AVE

Year	*Uses*	*Source*
2006	LEYVAPhilippe	Haines Company, Inc.
1960	Sharp Chas	The Pacific Telephone Telegraph Co.
1955	Thomas John Howard	R. L. Polk & Co.
1945	Elley J E r	San Diego Directory Co.

1717 W WALNUT AVE

Year	*Uses*	*Source*
2006	a PERALTAAurelio	Haines Company, Inc.
1989	Mayorga Julia	Pacific Bell
1960	Meyer W W	The Pacific Telephone Telegraph Co.
1955	Meyer W W	R. L. Polk & Co.

1719 W WALNUT AVE

Year	*Uses*	*Source*
2006	No Current Listing	Haines Company, Inc.

FINDINGS

1949 W WALNUT AVE

Year	*Uses*	*Source*
2013	SINAK CORPORATION	Cole Information Services
2008	SINAK CORP	Cole Information Services
	RUSH PRESS INC	Cole Information Services
2006	CORPORATION	Haines Company, Inc.
	SINAK	Haines Company, Inc.
1992	Arts Insurance & Tax Services	PACIFIC BELL WHITE PAGES
	ARTS IN CORPORATE D	PACIFIC BELL WHITE PAGES
	Arts & Crafts Press	PACIFIC BELL WHITE PAGES
	Art Publishers Atelier	PACIFIC BELL WHITE PAGES

WALNUT AVE W

1703 WALNUT AVE W

Year	*Uses*	*Source*	
2000	No Current Listing	Haines & Company	Image pg. A8
1984	Buckingham Thos	R. L. Polk & Co.	Image pg. A17
	1/2 Young C	R. L. Polk & Co.	Image pg. A17
1980	N Buckingham Thos	R. L. Polk & Co.	Image pg. A26
	r N Harvey Janet L	R. L. Polk & Co.	Image pg. A26
1975	Hayes Melvin B	R. L. Polk & Co.	Image pg. A37
	Conti Ron	R. L. Polk & Co.	Image pg. A37
1970	VACANT	John M. Ducy	
	K NYGAARD KAI	John M. Ducy	
1966	KASSLER ROBT R	R. L. Polk & Co.	Image pg. A46
	MYERS MAURINE MRS	R. L. Polk & Co.	Image pg. A46
1961	Myers Maurine Mrs	R. L. Polk & Co.	Image pg. A55
	1/2 Regan Chas	R. L. Polk & Co.	Image pg. A55
1952	Myers Glenn	R. L. Polk & Co. of California	Image pg. A64
	1/2 Stone Wayne	R. L. Polk & Co. of California	Image pg. A64
1948	Myers Glenn	San Diego Directory Co.	Image pg. A74
1943	Myers Glenn	San Diego Directory Co.	Image pg. A83

1709 WALNUT AVE W

Year	*Uses*	*Source*	
1984	Davis Harry M	R. L. Polk & Co.	Image pg. A17
1980	Davis Harry M	R. L. Polk & Co.	Image pg. A26
1975	Davis Harry M	R. L. Polk & Co.	Image pg. A37
1970	DAVIS HARRY N S	John M. Ducy	

FINDINGS

Year	Uses	Source	
1966	DAVIS HARRY M	R. L. Polk & Co.	Image pg. A46
1961	Davis Harry M	R. L. Polk & Co.	Image pg. A55
1952	Davis H M	R. L. Polk & Co. of California	Image pg. A64
1948	Davis H M	San Diego Directory Co.	Image pg. A74
1943	ADavis H M	San Diego Directory Co.	Image pg. A83

1711 WALNUT AVE W

Year	Uses	Source	
1984	Pruett Richd K	R. L. Polk & Co.	Image pg. A17
1980	N Bernee C	R. L. Polk & Co.	Image pg. A26
1975	Nod Gary	R. L. Polk & Co.	Image pg. A37
1970	HARRIS CHARLES	John M. Ducy	
1966	MC CRACKEN WM J	R. L. Polk & Co.	Image pg. A46
1961	Braithwaite Lloyd N	R. L. Polk & Co.	Image pg. A55
1952	Brotherton G A	R. L. Polk & Co. of California	Image pg. A64
1948	De Marce V V	San Diego Directory Co.	Image pg. A74

1717 WALNUT AVE W

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A8
1984	Gregory Jon C	R. L. Polk & Co.	Image pg. A17
1980	Gregory Jon C	R. L. Polk & Co.	Image pg. A26
1975	Gregory Jon C	R. L. Polk & Co.	Image pg. A37
1970	VACANT	John M. Ducy	
1966	MILLIGAN JAMES A	R. L. Polk & Co.	Image pg. A46
1961	Milligan James A	R. L. Polk & Co.	Image pg. A55
1952	Meyer W W	R. L. Polk & Co. of California	Image pg. A64
1948	Trevennen John jr	San Diego Directory Co.	Image pg. A74
1943	Bentson Lester	San Diego Directory Co.	Image pg. A83
1938	Davls H M	San Diego Directory Co.	Image pg. A92
1933	Davis H M	San Diego Directory Co.	Image pg. A100
1927	Davis H M	San Diego Directory Co.	Image pg. A109

1719 WALNUT AVE W

Year	Uses	Source	
2000	No Current Listing	Haines & Company	Image pg. A8
1984	Hannah J Thos	R. L. Polk & Co.	Image pg. A17
1980	Leytham Robt J	R. L. Polk & Co.	Image pg. A26
1975	Davis Florence	R. L. Polk & Co.	Image pg. A37

Year	Uses	Source	
1970	BATSON KENNETH B	John M. Ducy	
1966	DAVIS CLINTON D REV	R. L. Polk & Co.	Image pg. A46

1949 WALNUT AVE W

Year	Uses	Source	
2000	CONTLGRAPHICS	Haines & Company	Image pg. A8
	ARTS&CRAFTS PRESS	Haines & Company	Image pg. A8
1984	Vacant	R. L. Polk & Co.	Image pg. A17
1980	Vacant	R. L. Polk & Co.	Image pg. A26
1975	Arts & Crafts Press coml prntrs	R. L. Polk & Co.	Image pg. A37
1970	ARTS CRAFTS PRESS COML PRNTRS	John M. Ducy	
1966	ARTS & CRAFTS PRESS CDML	R. L. Polk & Co.	Image pg. A46
	PRNTRS	R. L. Polk & Co.	Image pg. A46

WALNUT/CALIFORNIA

WALNUT/CALIFORNIA

Year	Uses	Source	
1927	WALNUT/CALIFORNIA	San Diego Directory Co.	Image pg. A109

WALNUT/COLUMBIA

WALNUT/COLUMBIA

Year	Uses	Source	
1927	WALNUT/COLUMBIA	San Diego Directory Co.	Image pg. A109

WALNUT/COLUMBIA ST

WALNUT/COLUMBIA ST

Year	Uses	Source	
1984	WALNUT/COLUMBIA ST	R. L. Polk & Co.	Image pg. A17
1980	WALNUT/COLUMBIA ST	R. L. Polk & Co.	Image pg. A26
1975	WALNUT/COLUMBIA ST	R. L. Polk & Co.	Image pg. A37

WALNUT/KETTNER BLVD

WALNUT/KETTNER BLVD

Year	Uses	Source	
1984	WALNUT/KETTNER BLVD	R. L. Polk & Co.	Image pg. A17
1980	WALNUT/KETTNER BLVD	R. L. Polk & Co.	Image pg. A26
1927	WALNUT/KETTNER BLVD	San Diego Directory Co.	Image pg. A109

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
3550 Kettner Blvd	1995, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1940, 1921, 1907, 1903

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
CALIFORNIA/VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
CALIFORNIA/VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
CALIFORNIA/WALNUT	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1927, 1921, 1907, 1903
CALIFORNIA/WALNUT AV	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1921, 1907, 1903
CHALMERS/KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
COLUMBIA/UPAS	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
COLUMBIA/UPAS ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
COLUMBIA/VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
COLUMBIA/WALNUT AV	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
GLENWOOD/INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
GLENWOOD/INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
INDIA/GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
INDIA/UPAS	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
INDIA/UPAS ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
INDIA/VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
INDIA/VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
KETTNER/CHALMERS	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
KETTNER/CHALMERS ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
KETTNER/VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
KETTNER/VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
KETTNER/WALNUT AV	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
UPAS/COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1921, 1907, 1903
UPAS/COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
UPAS/INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
UPAS/INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
VINE/CALIFORNIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
VINE/COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1921, 1907, 1903
VINE/COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
VINE/INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
VINE/INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
VINE/KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
WALNUT/CALIFORNIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
WALNUT/COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
WALNUT/COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
WALNUT/KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
1512 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1516 VINE	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1516 VINE ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
1524 VINE	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1524 VINE ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
1526 VINE ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1611 VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1611 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
1621 VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1621 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1623 VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1623 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
1627 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1629 VINE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1629 VINE ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
1702 GLENWOOD DR	2013, 2008, 1995, 1991, 1989, 1985, 1976, 1971, 1966, 1965, 1962, 1961, 1960, 1956, 1950, 1945, 1940, 1927, 1921, 1907, 1903
1703 W WALNUT AVE	2013, 2008, 2000, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1703 WALNUT AVE W	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1704 GLENWOOD DR	2013, 2008, 1995, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
1705 GLENWOOD DR	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1706 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1708 GLENWOOD DR	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
1709 GLENWOOD DR	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1709 W WALNUT AVE	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1709 WALNUT AVE W	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1710 GLENWOOD DR	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1711 GLENWOOD DR	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1711 W WALNUT AVE	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1711 WALNUT AVE W	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1712 GLENWOOD DR	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1940, 1907, 1903
1715 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1716 GLENWOOD DR	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1940, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
1717 W WALNUT AVE	2013, 2008, 2000, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1717 WALNUT AVE W	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
1719 W WALNUT AVE	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1719 WALNUT AVE W	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1720 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1950, 1940, 1921, 1907, 1903
1722 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1921, 1907, 1903
1724 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1921, 1907, 1903
1730 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1732 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1734 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1736 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1738 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1740 GLENWOOD DR	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1949 W WALNUT AVE	2013, 2008, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1949 W WALNUT AVE	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
1949 WALNUT AVE W	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3395 PACIFIC HWY	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3401 PACIFIC	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

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Address Researched	Address Not Identified in Research Source
3401 PACIFIC BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1933, 1927, 1921, 1907, 1903
3401 PACIFIC HWY	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1948, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3405 PACIFIC HWY	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3405 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3420 KETTNER BLVD	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3420 KETTNER BLVD	2013, 2008, 1995, 1992, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3433 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3441 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1955, 1950, 1945, 1943, 1940, 1921, 1907, 1903
3443 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3443 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3444 KETTNER BLVD	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1971, 1970, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1927, 1921, 1907, 1903
3449 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3452 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1940, 1927, 1921, 1907, 1903
3453 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3455 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1945, 1940, 1921, 1907, 1903
3456 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3460 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3462 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1940, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3464 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3465 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1940, 1921, 1907, 1903
3466 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3466 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3467 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3468 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3468 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3468 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3469 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3471 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3472 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3473 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3500 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1933, 1927, 1921, 1907, 1903
3500 KETTNER BLVD	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3501 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3502 CALIFORNIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3503 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3503 INDIA ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903

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Address Researched	Address Not Identified in Research Source
3503 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3504 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3504 COLUMBIA ST	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3505 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3505 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3505 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3505 INDIA ST	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3505 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3506 CALIFORNIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3506 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3507 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3507 INDIA ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3507 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3509 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3509 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3509 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3509 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3510 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3511 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

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Address Researched	Address Not Identified in Research Source
3511 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3511 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3511 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3512 COLUMBIA ST	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3512 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3512 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3513 COLUMBIA ST	2013, 2008, 2006, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3513 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3514 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3514 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1927, 1921, 1907, 1903
3515 COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3515 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3515 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3515 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3516 COLUMBIA ST	2013, 2008, 2006, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3517 COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3517 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3517 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3517 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1955, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3518 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3518 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3519 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3519 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3519 INDIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
3519 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1948, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3520 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3521 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3521 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3521 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3521 INDIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3521 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3521 PACIFIC HWY	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3523 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3523 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3523 INDIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3523 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3525 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3525 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1950, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3525 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3525 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3526 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3526 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3526 KETTNER BLVD	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3527 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3527 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3527 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3528 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3528 COLUMBIA ST	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3529 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3529 COLUMBIA ST	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3529 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3529 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3529 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3531 COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3531 COLUMBIA AVE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3531 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3531 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3531 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1955, 1950, 1940, 1933, 1927, 1921, 1907, 1903
3533 COLUMBIA ST	2013, 2008, 1995, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3533 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3533 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3535 COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3535 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3535 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3535 INDIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3535 INDIA ST	2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3535 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3535 PACIFIC BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1933, 1927, 1921, 1907, 1903
3536 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3536 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3537 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3537 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
3537 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3538 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3538 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3538 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3538 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3539 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3540 COLUMBIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3540 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3540 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3541 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3541 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3542 COLUMBIA ST	2013, 2008, 2000, 1995, 1992, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3543 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3543 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3544 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3544 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3544 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3545 COLUMBIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3545 COLUMBIA PL	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1940, 1933, 1921, 1907, 1903
3545 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1950, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3545 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3546 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3546 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3546 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3547 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3547 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3549 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3549 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1933, 1927, 1921, 1907, 1903
3553 CALIFORNIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3553 CALIFORNIA ST	2013, 2008, 2000, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3553 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3554 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 INDIA	2013, 2008, 2006, 2000, 1995, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 INDIA ST	2013, 2008, 1995, 1992, 1991, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3555 PACIFIC	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3555 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3564 KETTNER BLVD	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3564 KETTNER BLVD	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3565 PACIFIC	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3565 PACIFIC HWY	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3565 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3566 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1927, 1921, 1907, 1903
3567 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3569 PACIFIC	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3569 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3571 PACIFIC	2013, 2008, 2006, 2000, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3571 PACIFIC HWY	2013, 2008, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3571 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3573 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3574 KETTNER BLVD	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3574 KETTNER BLVD	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3575 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3575 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3576 KETTNER BLVD	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3580 KETTNER BLVD	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3585 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3585 INDIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3585 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3585 PACIFIC HWY	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3590 KETTNER BLVD	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3590 KETTNER BLVD	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3595 CALIFORNIA ST	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3596 CALIFORNIA ST	2013, 2008, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3596 CALIFORNIA ST	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3600 COLUMBIA ST	2013, 2008, 2000, 1995, 1991, 1989, 1985, 1976, 1971, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3600 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1950, 1940, 1938, 1921, 1907, 1903
3600 PACIFIC HWY	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3601 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3601 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3602 COLUMBIA ST	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3603 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3604 COLUMBIA ST	2013, 2008, 2000, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3605 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1940, 1921, 1907, 1903
3605 PACIFIC	2013, 2008, 2006, 2000, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3605 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3605 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3606 COLUMBIA ST	2013, 2008, 2000, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3607 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3607 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1940, 1927, 1921, 1907, 1903
3608 COLUMBIA ST	2013, 2008, 2006, 2000, 1995, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3609 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3610 COLUMBIA ST	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3611 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1940, 1921, 1907, 1903
3612 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3612 PACIFIC AVE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3615 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3615 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3615 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3616 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3616 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1940, 1921, 1907, 1903
3617 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3617 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3617 INDIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3619 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1927, 1921, 1907, 1903
3619 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3619 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1940, 1921, 1907, 1903
3620 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1952, 1950, 1948, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3620 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
3621 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3621 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3623 INDIA	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3623 INDIA ST	2013, 2008, 1995, 1992, 1991, 1985, 1976, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3625 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1940, 1921, 1907, 1903
3625 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3625 PACIFIC HWY	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3627 KETTNER BLVD	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3630 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3630 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1960, 1956, 1955, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3631 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1945, 1940, 1921, 1907, 1903
3632 KETTNER BLVD	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3633 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1965, 1962, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3633 INDIA	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3633 INDIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1965, 1962, 1960, 1956, 1955, 1950, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3633 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3634 KETTNER BLVD	2013, 2008, 1995, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3634 KETTNER I	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3637 CALIFORNIA ST	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1921, 1907, 1903
3637 KETTNER BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1956, 1950, 1940, 1927, 1921, 1907, 1903
3641 PACIFIC BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1933, 1927, 1921, 1907, 1903
3645 CALIFORNIA ST	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3648 KETTNER BLVD	2013, 2008, 2006, 1995, 1991, 1985, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3649 KETTNER BLVD	2013, 2008, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3655 PACIFIC	2013, 2008, 2006, 2000, 1995, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

FINDINGS

Address Researched	Address Not Identified in Research Source
3655 PACIFIC HWY	2013, 2008, 1995, 1992, 1991, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3665 PACIFIC AVE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3665 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3671 PACIFIC AVE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3673 PACIFIC AVE	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1907, 1903
3682 PACIFIC BLVD	2013, 2008, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1933, 1927, 1921, 1907, 1903
3690 PACIFIC HWY	2013, 2008, 2006, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3690 PACIFIC HWY	2013, 2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3694 PACIFIC	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3694 PACIFIC HWY	2013, 2008, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3698 PACIFIC	2013, 2008, 2006, 2000, 1995, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903
3698 PACIFIC HWY	2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

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KETTNER BLVD 2000

2030 ★MIELKE DESIGN 619-236-8400 8
2034 ★MIELKE JOEL 619-236-8486 5
2036 ★STEVENSON MOTORS 619-698-7933
2044 ★WATERFRONT THE 619-232-9656
2045 ★SHANKS R B 619-239-0176
★SHANKS&WRIGHT INC 619-239-0176
★VANTAGE COMPUTER SYSTEMS 619-531-8998 8
2055 ALCAZAR Jose Luis 619-239-4735 5
2055½ MARIN Luciano 619-686-7397 8
2056 DYCKMAN Kristine E 619-544-8339 8
2057 LOPEZ Daniel B 619-233-7420
2062 XXXX OO
X HAWTHORN W
2100 ★ABBEY AUTO SLS&LSNG 619-233-3938 5
★PAC RENT A CAR 619-233-3365 4
2101 ★MARATHON BATTERY 619-231-9771 6
★POWERSTRIDE BATTERY CO INC 619-231-9771 8
★US BATTERY 619-231-9771 2
2102 XXXX OO
2119 ★BEARDSLEY'S AUTO BODY&PAINT 619-231-6986
2132 XXXX OO
2136 ★K G CEILINGS 619-231-9641
2146 XXXX OO
2151 XXXX OO
2174 ★PAC ENGINEERING SERVICES INC 619-232-8418
2175 XXXX OO
2178 XXXX OO
X IVY W
2205 XXXX OO
2210 ★TAYLOR DYKEMA MFG 619-232-0306
•TAYLOR Ronald E OO +9
2215 ★DANIELS KENNETH 619-234-7245 4
★NIGH PEGGY 619-234-7245
★NIGH SAILS 619-234-7245
★ON CANVAS YACHT SERVICE 619-234-7245 4
2227 XXXX OO
2228 ★HELIX INTERNATIONAL 619-239-9393
★HELIX WHOLESALE CO 619-239-9393
★SD LUMBER ASSOCTN 619-232-5163 4
2229 XXXX OO
2241 ★COLLURA J ACCNTNCY 619-544-0285 1
★HARPER 619-233-7900
★HARPER CONSTR CO 619-233-7900
★HOMETOWN BUFFET 619-615-5390 +9
★I W G CORP 619-531-0092 6
★LASHER BARBARA J 619-544-0285 3
2253 VIRGO Joe Boston 619-236-0483 8
2266 XXXX OO
X JUNIPER W
2308 ★AARON CHANG PHOTOGRAPHY USA 619-231-3375 7
★CHANG AARON PHOTO 619-231-0256 4
★EXOTIC FLORIST 619-231-9911 5
★HILLCREST EXOTIC 619-231-9911 5
★JEREMIAH SULLIVAN 619-236-8119 2
★PHILBY DONAL PHOTO 619-230-1750 4
★SULLIVAN&ASSOCIAT-ES 619-236-8119 2
★ZWINK PHOTOGRAPHY 619-238-5333 5
2310 ★C C B G ARCHITECTS 619-234-2212 +9
★DOYLE WOODWORKING 619-233-7809 4
★INNOVATY WOODWORKS 619-231-8249
★NEON SOURCE THE 619-239-6366 7
★SPRACKLEN D FRNTR 619-239-8868 2
2311 ★GORDON MENZIE STDO 619-234-4432 1
★MENZIE GORDON STDO 619-234-4432
2313 XXXX OO
2321 ★GRAPHICS INK 619-234-0747
2327 ★IN HOUSE 619-234-9999 3
2345 ★CHROME 619-233-3456 4
★MIRES DESIGN 619-234-6631 3
2347 XXXX OO
2365 ★ENGINE&GNRTR SYSTEM 619-235-0614 5
★ONAN INDUSTRIAL ENGINES 619-235-0614 7
2368 XXXX OO
X KALMIA W
2400 ...... BUILDING
★AMORE BALLROOM DANCE CENTER 619-239-1190 +9
★BARNES ROXANNE CREATIVE SERVS 619-544-1124 5
★BLACK GENE 619-696-9619 2
★BRUSHWORKS STUDIO&GALLERY 619-232-7329 8
★CALHOUN DESIGN INC 619-234-2334
★CLARE FRANCES 619-696-9619 2
★CONAUGHTON GARY PHOTOGRAPHY 619-231-0075 8
★CRISS CHERYL STUDIO 619-236-8425 8
★CUMMINGS IAN PHOTO 619-231-1270
★CUSTOM CABINET DESIGNS CALHOUN 619-234-1231 8
★DESIGN TEAM 619-696-6393 4
★DIAMOND DANCE CLUB 619-239-0250 +9
★FRIEDMAN J STUDIO 619-232-3114 3
★GARDYNE CAROL STUDIOS 619-233-8066 +9
★GUYER NELSON 858-587-0169 +9
★IAN CUMMINGS PHOTO 619-231-1270
★INTERIOR DSGN IMPS 619-696-6373 4
★JACK YON STUDIOS 619-702-9355 6
★KRAMER DESIGN 619-544-1052 7
★MCCLELLAND S PHOTO 619-234-3410 5
★OGREN DORDEE H 619-696-9619 2
★PATRICIA'S TILE DESIGN 619-234-5077 +9
★PEREGRINE BRUSHES&TOOLS 619-231-4019 5
★PHOTO FILE 619-595-7989 5
★PHOTOPHILE 619-595-7989 5
★PRATT GALLERY 619-236-0211 6
★RUDD DAVID A 619-696-7839
★SAGER SCOTT STUDIO 619-231-2529 +9
★SD ART INSTITUTE 619-236-1160 8
★SD BARTER 619-531-7474 +9
★SD WATERCOLOR SOC 619-338-0502 2
★SNYDER SUSAN STUDIO 619-232-7329 8
★STUDIO ARTS COMPLEX 619-239-0113 2
★STUDIO BUSTAMANTE 619-234-8803 3
★WATSON FRAN 619-696-7801 1
★ZAPF DAVID GALLERY 619-232-5004
2400 ......
2401 ★HONEST HONDA SPECIALIST 619-696-3611 8
★SUN DISTRIBUTING 619-702-8075 8
2419 GONZALEZ Jesus B 619-239-5814
2427 XXXX OO
2429 XXXX OO
2431 XXXX OO
2435½ ZARAGOZA Baltazar 619-338-6059 8
2443 XXXX OO
2452 XXXX OO
2455 XXXX OO

X LAUREL W
2501 ★CASBAH 619-232-4355 5
2515 XXXX OO
2517 XXXX OO
2519 XXXX OO
2535 ...... BUILDING
★AFM OFFICE MOVING SPECIALIST 619-234-6683 +9
★ANTHONYS FAMILY MVG 619-233-9393 4
★ANTHONYS FMLY MVNG 760-942-9750 6
★B D R 619-232-9999 8
★BANKO DOCUMENT RETRIEVAL 619-232-9999 +9
★CA REAL SECURITIES 619-233-4771
★CALIF ENVIRONMENTAL CO INC 619-696-6018 8
★CANDELARIA ENVIRONMENTAL CO 619-696-6207 +9
★CARROLL AND CO 619-696-0901
★CROW KIRK GRAPHIC DESIGN 619-696-3450 +9
★CUTRI COSIMO 619-233-1344 +9
★DISCOVERING SAN DIEGO 619-232-8538 8
★HARBOR VW PRO PLAZA 619-696-0905
★HIRMEZ BROTHERS 619-544-1700 5
★INCOMMUNICADO PRESS 619-234-9400 6
★INTERACTIVE HOSPITALITY SERV 619-232-0668 8
★INTIER CORP 619-234-3960 8
★INTL BUSINESS ASSISTANCE GROUP 619-232-8995 8
★KEGEL TOBIN&TRUCE A PRO CORP 619-696-0906
★KERNAN D&ASSOCIATES 619-235-0372 +9
★LAPPIN THOMAS A ATTY AT LAW 619-544-9202 8
★LEPIERE LAWRENCE R ATTY 619-233-4556 0
★LICHTERMAN HAROLD 619-702-9302 6
★LINEAR COMMUNICATIONS 619-522-2100 +9
★MARINE MESSAGE CENTER 619-696-9933 6
★MASTER MARINE INC 619-702-3926 +9
★MEDINA JOE 619-233-1344
★MEXICO DISCOUNT TRAVEL 619-231-6163 7
★MEXICO TRAVEL 619-231-6163 7
★NATL JEWISH DEMOCRATIC COUNSEL 619-235-0003 +9
★NEW BEGININGS CREDIT CONSLTNTS 619-231-6992 +9
★NUVONIX 619-702-2979 +9
★PAC BCH FINANCE CO 619-702-9302 6
★PAC BCH MORTGAGE CO 619-702-9302 6
★PALMER GROUP THE 619-702-7290 +9
★POTTER MARK ATTY AT LAW 619-232-4962 +9
★PRESCRIPTION FOODS INC 619-239-6200 +9
★PRIMEX FUNDING GROUP 619-234-6766 +9
★ROCKPRESS PBLSHNG 619-234-9400 3
★SARDINHA&CILEU MANAGEMENT 619-236-1191 8
★SARDINHA&CILEU MANAGEMENT CO 619-233-1344 8
★STARKLAND SYSTEMS 619-696-6597 4
★STEPHGRAFX 619-702-5680 +9
★SUPREME PRPRTY MNG 619-696-0901 0
★TUNA VESSEL MANGMNT 619-236-1191
2535 ......
2548 ★A M P C O SYSTEM PARKING 619-696-7275 5
★ALADDIN PRKNG CMPLX 619-696-7275 5
★EXECUTIVE AUTO DETAILING 619-232-2939 +9
★SYSTEM PARKING 619-696-7275
2555 ★STUDENT CAR RENTAL CO 619-232-2400 +9
2557 XXXX OO
2559 ★KC MOTORS 619-234-8300 3
2595 ★EXPRESS RENT A CAR 619-232-5400 6
X MAPLE W
2603 XXXX OO
2605 XXXX OO
2607 XXXX OO
2680 ★JESSES PLATING INC 619-295-9706
X NUTMEG W
2727 ★PAYLESS CAR RENTAL 619-297-7071 +9
★RED&BLUE AUTO RENTAL 619-297-7071 8
★RED&BLUE RESERVATIONS 619-298-6001 +9
2730 XXXX OO
2750 ★NEYENESCH PRINTERS 619-297-2281
X OLIVE W
2804 ★KETTNER RADIATOR SH 619-295-5171
2812 ★CROW BAR THE 619-692-1080 +9
2832 XXXX OO
X PALM W
2916 XXXX OO
2918 XXXX OO
2942 ★ALAMO RENT A CAR 619-297-0311 6
2958 XXXX OO
2960 XXXX OO
2962 XXXX OO
X QUINCE W
X REDWOOD W
3150 ★PARK AND RIDE CO 619-295-2832 8
X SASSAFRAS
3334 XXXX OO
3336 XXXX OO
3338 XXXX OO
3344 ★CA EXPRESS SERVICE 619-543-9743 +9
3346 XXXX OO
3348 SEMIK Michael 619-297-6557 +9
3354 XXXX OO
3420 ★HERTZ CAR SALES 619-299-9880 7
★HERTZ LOCAL EDITION 619-543-0105 +9
3444 XXXX OO
3526 XXXX OO
X VINE
3550 XXXX OO
3564 ★A B C RENT A CAR 619-296-2266 7
3574 ★DESIGN FOR HEALTH INC 619-291-1777 8
3576 XXXX OO
3580 XXXX OO
3590 XXXX OO
X WALNUT AV

3634 GAINEY Phil M 619-295-8548
3648 XXXX OO
X CHALMERS
X CALIFORNIA
X HANCOCK

ZIP CODE 92110 SAN DIEGO

WEALTH CODE 4 0
3720 XXXX OO
X SAN DIEGO AV
X WASHINGTON W
3779 XXXX OO
3785 XXXX OO
X MCKEE
3803 •COVINGTON Yolanda OO +9
3809 ONEILL Norah 619-297-0785 +9
3821 DANIELL Thomas R Jr 619-683-7871 +9
REINARD Aimee 619-220-7476 +9
3825 MORSE Stephen W 619-297-4582 +9
MORSE Stephen W 619-297-3234 +9
3829 •BALMER Mark N 619-295-9004 8
BALMER Mark N 619-295-9747 8
3830 ELDRIDGE Charlene 619-295-5202 +9
★TRADEWIND ROOFING 619-291-3178 +9
3831 •THURSTON T M OO +9
3832 DOYLE Don 619-297-9754 8
DOYLE Rachel 619-297-9754 8
3833 •TRAYLOR J L 619-291-0953
3839 XXXX OO
3841 CAMPBELL L 619-692-9729 +9
3843 XXXX OO
3845 KLOP Kettner 619-296-8302 +9
3846 XXXX OO
3847 •VIORATO G OO 8
X PRINGLE
3857 XXXX OO
3859 XXXX OO
3865 XXXX OO
★ 322 BUS 222 RES 102 NEW

KEW TER 92104 SAN DIEGO

WEALTH CODE 4 0
2609 •CHADWELL C M OO 7
2615 •GILLINGHAM Michael 619-282-5588
2618 •SHERBERT Faye B OO 7
2623 XXXX OO
2624 •LIKIARDOPOULOS D OO 7
X NUTMEG
★ 0 BUS 5 RES 0 NEW

KEY LN 92021 EL CAJON

WEALTH CODE 6.0
1704 •BAGLEY C E 619-440-4584 7
1708 •BUNN L M OO 7
1711 XXXX OO
1717 •WILLIAMS Robt J 619-442-8563
X SUN DIAL TER
1723 •REED Bret OO 7
1729 XXXX OO
1734 •BEAT James 619-440-1561 2
1746 •ROSSBERRY Carolyn 619-442-2112 7
ROSSE Louis P 619-442-2112 +9
1753 •MARTIN Kenneth I 619-441-8199
1765 XXXX OO
1766 MARTIN M L 619-442-6467 +9
1781 •POTTER Brian 619-440-0154 +9
•POTTER Sherrie 619-440-0154 +9
1787 •COX Shaun OO 7
X PEPPER DR
★ 0 BUS 15 RES 4 NEW

KHISH LN 91901 ALPINE

WEALTH CODE 8.0
X CLEGHORN WAY
1008 •STOVALL Lori OO 7
1009 •ARMSTRONG Nani OO +9
1014 •TEAGLE Philip R 619-659-5791 +9
•TEAGLE Philip R 619-659-5792 +9
1015 XXXX OO
1022 •WELLS Dana OO +9
1031 •BAUMANN Walter N 619-445-5768
1064 XXXX OO
★ 0 BUS 8 RES 4 NEW

KHURAM 92040 LAKESIDE

WEALTH CODE 7 0
13406 •STUDER Deborah G OO 7
X LAKEVIEW RD
13412 •CIOE Mario OO +9
13415 GUTHAUS Bev 619-390-7742 5
•GUTHAUS Mark 619-390-7742 5
13423 HOMEYER Leroy 619-390-4801 4
13431 •VOORHEES Bradley C OO 7
13439 •KIRBY R M 619-443-0563 3
13450 •WILLIAMS Leeann D OO 7
13451 •GUNTER Gene E OO 7
13457 •MOSER Dan OO 7
13462 KENNERLY Richard L 619-561-8162 3
13480 •BOELTER W 619-561-9302
13481 •RIKER T OO +9
13492 •WOOLF Brad C OO +9
13495 •ASKANN Thomas OO 7
★ 0 BUS 15 RES 3 NEW

KIDD WAY 92020 EL CAJON

WEALTH CODE 1.3
573 •HENDERSON Glenn 619-588-5305
576 XXXX OO
587 •BIBB Leland E OO 7
588 •RICH Michael P OO 7
595 STEVENSON Al 619-579-2327

•STEVENSON Wilma 619-579-2327
596 •BRILL Stanley OO 7
609 MILLAR Paul H Jr 619-447-4401
637 XXXX OO
654 XXXX OO
661 XXXX OO
685 •TRIPP Chester B 619-444-2059
X WIGGINS WAY
★ 0 BUS 12 RES 0 NEW

KILBOURN DR 92037 LA JOLLA

WEALTH CODE 9 0
X SUGARMAN DR
8602 •SCHMIDT John J 858-453-8854
8611 •PEDOWITZ Loraine L OO 7
8620 BROWN Chas P 858-453-4965
BROWN Maureen 858-453-4965
•BROWN Pete 858-453-4965
8621 KALLA Jos M Jr 858-453-0250
•KALLA Jos M Jr 858-623-0534 8
8631 •KOHN Lois M OO 7
8651 XXXX OO
8661 ORLOFF Marshall J MD 858-453-2709
ORLOFF Marshall J MD Chld 858-453-2857 +9
★ 0 BUS 11 RES 1 NEW

KILDARE WAY 92020 EL CAJON

WEALTH CODE 8 0
X SLADON RD
2604 •WOLFE Chas D Cdr 619-462-7375
2611 •MEDINA Antonio J OO +9
2635 SCIARRINO Pete 619-698-1397
SCIARRINO Pete 619-698-7516 +9
X PILLSBURY LN
2659 •HUYNH Luc 619-589-8851 4
2668 •DELELLIS Anthony J OO 7
2671 •PEAVYHOUSE Pamela R OO 7
2692 •MENTZER Arnold D OO 7
2693 •COLE T F 619-698-9439
★ 0 BUS 9 RES 2 NEW

KILEY RD (92) 91910 CHULA VISTA

WEALTH CODE 6 0
501 ★L H N FINANCIAL 619-582-9038 5
•NANEZ M OO +9
503 •DEPERIO Eduardo Q OO 7
507 •PACHECO W B OO 7
509 •REYES Jack P OO 7
511 •BALENSI Jean Michel 619-426-7700 +9
•BALENSI Lorena 619-426-7700 +9
515 WAGNER Brett 619-425-9518 8
•WAGNER Maralena 619-425-9518 8
517 •TEAHAN Charles OO 8
519 •SAUCEDO S B OO 7
521 NGUYEN Diem 619-691-8944 +9
522 •ORIBELLO B B OO 7
524 GANNYO Yoshimasa 619-426-7743 +9
525 XXXX OO
528 •PARK Chisoo 619-427-8969 +9
529 •AUGUSTINE Mark 619-476-3438 3
530 •ESCALERA Alex R OO 7
533 JOHNSON Michael 619-422-3861 +9
534 XXXX OO
535 SCHUMACHER Linda 619-422-0666
SCHUMACHER Troy 619-422-0666
538 •MAPES Bertha A OO 7
539 •GALENDEZ Ador T OO 7
540 •MATTRO Mathew P OO +9
542 VANDYGRIFF Marcy 619-422-5724 6
VANDYGRIFF Tom 619-422-5724 6
543 •LOCKEY Kenneth D 619-691-7723 3
544 •FELIU Jaime 619-420-2620 6
545 •TRICK Robert E OO 7
546 •ANASTASI F R 619-420-1515 3
547 •BARRERAS Severo OO 7
548 •RODRIGUEZ Laura R OO 7
549 •HERMIDA Knzzia OO 7
551 •VAZQUEZ Ignacio R OO 7
552 •MUNIZ Irma C OO 7
553 •LEAHY Debra A OO +9
554 XXXX OO
555 •FUX Charles I OO +9
556 •HERANA Fe L OO 7
557 •MALIXI Ricardo M 619-585-0890 3
558 ★SUZUKI BUSINESS ENTERPRISE 619-425-7680 6
559 •MERCADO Aurelio OO 7
560 •COWLING Jas D 619-427-2461 8
561 •MCLAREN K T OO 7
562 CAO Thuy 619-476-0550 +9
•TRUONG Danh H OO 7
563 •GUTIERREZ Gregory J OO 7
565 •FLORES R 619-691-7627 3
566 •PRUDEN Craig W 619-425-8120 +9
567 •POPE Dawn 619-498-4888 +9
•POPE John 619-498-4888 +9
★ 2 BUS 50 RES 14 NEW

KIM PL 91911 CHULA VISTA

WEALTH CODE 4.4
1402 •HAWLEY Martin R Jr 619-427-3801
1404 •GERRITS Dennis J OO 6
1408 XXXX OO
1412 •RODRIGUEZ Carlos P OO +9
1414 XXXX OO
1416 XXXX OO
1417 •CHRISTENSEN Carl 619-422-6810 8
1425 •LOPEZ Reyes E OO 8
1426 •LARSEN Duane A 619-425-3074
1427 •GALLERO Felix F OO 7
1433 XXXX OO
1435 CASTELLANOS Carlos 619-585-0719 7
•CASTELLANOS Natalia 619-585-0719 7
1441 CARDENAS Robert L 619-425-9722 8
1443 XXXX OO
1449 SIMMONS Lynette 619-426-2551 +9
1451 •FULLER Ronald E 619-420-1364
1457 •MAYNARD Jeffrey D 619-426-4108
1467 •HERNANDEZ E 619-422-6882 8
1469 XXXX OO
1473 •FARR D H 619-420-2454
1474 •LINGENFELTER David OO +9

1475 XXXX OO
1482 •ESCALANTE Juan A OO +9
1483 XXXX OO
1489 XXXX OO
1491 •JONES Mark A OO 8
1496 ACOSTA Edmundo C 619-426-9020 +9
1497 •OSBORN Jack D OO 7
1498 •ROMERO Jose R 619-585-3580
X ORANGE AV
★ 0 BUS 30 RES 5 NEW

KIMBALL TER 91910 CHULA VISTA

WEALTH CODE 1 0
X SEA VALE
X 3RD AV
304 CRUZAN R R 619-425-8896
312 HILLSBERY Ronald 619-420-7473
315 •YOUNG Harold P 619-420-1539
318 •ROHRER Richard W OO 7
321 •NORTON Marian OO 7
322 XXXX OO
327 •SATO Kenji 619-420-4879
328 XXXX OO
332 •LOPEZ Robt 619-420-9065
335 •SIPAN Frank J 619-420-2698
336 XXXX OO
341 ALTBAUM Joseph T 619-425-1100 +9
ALTBAUM Joseph T 619-425-4560 +9
344 •COLOCHO Oscar OO +9
345 •MCCOLLAM Michael J OO 7
347 •SHELTON William E OO 8
★ 0 BUS 16 RES 3 NEW

KIMBALL WAY (98) 91950 NATIONAL CITY

439 GALLARDO Armando 619-474-8507 +9
★ 0 BUS 1 RES 1 NEW

KIMBER LN 92040 LAKESIDE

WEALTH CODE 3.0
9011 •MOORE Lawrence H 619-561-3632
MOORE Lawrence H 619-561-1736 8
9023 ★WEIS ELECTRIC CO 619-561-9932
X MARJAY DR
★ 1 BUS 2 RES 0 NEW

KIMBERLY DR 91942 LA MESA

WEALTH CODE 5.0
X ALIDA
6105 XXXX OO
6115 XXXX OO
6125 •JANSON L W OO 7
6135 CODY David L 619-462-8785
6145 •FREITAS Arnold 619-463-5837
X ELPASO
6165 XXXX OO
6175 •STEIN Robt V 619-461-2032
6185 •SEGURA Art M OO 8
X MICHELLE DR
6195 •SORENSEN Phillip J 619-460-4571
6205 •ELDER Denise L OO +9
X LAKE BADIN AV
★ 0 BUS 10 RES 1 NEW

KIMBERLY WAY 91906 CAMPO

WEALTH CODE 2 0
1421 XXXX OO
1430 XXXX OO
1434 WELLHOUSE A 619-478-2148
WELLHOUSE W 619-478-2148
1524 XXXX OO
1590 KAMPER Fred 619-478-5976
KAMPER Fred 619-478-9213 8
KAMPER Kay 619-478-5976
★ 0 BUS 8 RES 0 NEW

KIMBERLY WOODS DR 92020 EL CAJON

WEALTH CODE 7 0
1520 XXXX OO
1521 XXXX OO
1537 CLAPP Nancy J 619-442-1945 8
1543 XXXX OO
1544 SHERBURNE Doug 619-440-8997
•SHERBURNE Jean 619-440-8997
X SUN MEADOW DR
1556 JACKSON George L 619-401-1649 8
1561 BRAWLEY Cindy 619-442-6550 8
•BRAWLEY Jim 619-442-6550 8
1568 XXXX OO
1573 •LOUIS George S OO +9
PETERSON Patricia K 619-588-5524 +9
1574 XXXX OO
1575 GEISLER Jerome A 619-590-1294 +9
1586 •SALIHI Jalal T 619-588-0353
X EMERALD HEIGHTS RD
1601 PAYNE B B 619-440-2403
•PAYNE W E 619-440-2403
1633 PARRA Debbie 619-442-8995
•PARRA Jorge Luis 619-442-8995
1636 WYNNE C 619-442-2789 4
•WYNNE J 619-442-2789 4
1641 XXXX OO
1648 •ZAMUDIO Daniel E 619-444-9957 1
1657 •SHIRK Jeffrey A OO 7
1665 •RYAN Carol 619-593-1640
1666 •CIRAOLO Frances G OO +9
1682 •MORRIS C J OO 7
1683 •HILL Michael OO 8
1691 •JACOBS Fred W Jr 619-442-3269
1699 XXXX OO
★ 0 BUS 30 RES 4 NEW

KIMDA CT 91935 JAMUL

WEALTH CODE 8.0
14425 SAUER John H 619-669-1247 8
14434 •MERRITT Robert OO +9
★ 0 BUS 2 RES 1 NEW

KIMI LN 91942 LA MESA

WEALTH CODE 5 0
X JIMZEL RD
6330 •NELSON Lisa OO +9
6340 XXXX OO
6350 XXXX OO
6355 •BERRY Arthur W 619-461-0379
6360 •CASE B A 619-465-5470
6365 XXXX OO
6370 •NESOUIC Danilo N OO 7
6380 •GINSBERG Martin 619-469-5447
6385 COX Gay 619-466-4269 +9
6390 •WALKER Henry J OO 7
6395 •CURTIN Donald P OO 7
6405 NEILL Helen 619-469-2635
•NEILL Noel 619-469-2635
★ 0 BUS 13 RES 2 NEW

KIMMY CT 92114 SAN DIEGO

WEALTH CODE 5.2
X LOLLY LN
6303 BRICENO Jose C 619-264-3141 +9
6306 RICE Gregg 619-266-8048
•RICE Roberta 619-266-8048
6309 •DAGDAGANYE B 619-263-8208
6313 •CHAMBERS Alice 619-266-4345 +9
6316 •CHANTHAPHAVONG Sana OO 7
6319 BARNICK Rolf J 619-263-8651
BOONE Lance 619-263-8651
6329 BOUNKHONG S 619-266-8183 0
6333 •GEIDNER Frank J OO +6
6336 •SYKES Wilson OO +5
6343 •NOONAN Sandra F OO +5
6346 •DIXON Harold OO +5
X HENSON
6366 WOOLRIDGE E 619-266-9345
•WOOLRIDGE M 619-266-9345
6367 JEFFERSON Paula 619-263-7902 +5
6373 •CLAY Joseph U OO 8
6376 •MULLINS I A OO 8
6383 •OHARA Gerald OO 7
6386 •FONTANOZA Ruben M OO +5
6393 NUNEZ Natalie 619-264-8265 +5
•TURMAN Jeri 619-263-5745
6396 •BUENO Amalia U OO 7
★ 0 BUS 23 RES 9 NEW

KIMSUE WAY 92154 SAN DIEGO

WEALTH CODE 4 2
3873 HUNT Ernest 619-428-2732 +9
3881 •SPOONER David 619-662-1926 3
3888 XXXX OO
3889 MARIANO Alberto 619-428-5121
•MARIANO Teresa 619-428-5121
3896 •EDWARDS David A 619-690-0794
3897 •ONG Alexander 619-690-3382
X PICCARD AV
3900 XXXX OO
3913 SCHWAEBLE Elila 619-690-2377
•SCHWAEBLE Harry CWO 619-690-2377
3916 •TERRODO Enrique H OO 7
3924 •MYRON Arthur A OO +9
3925 ★SOUTH BAY TERRACE GUEST HOME 619-662-2649 7
3932 •DAY James A 619-690-4565 2
3940 •FERGUSON Erica M OO 7
X KENALAN DR
3956 •HUERTA Javier 619-428-7672 +9
3964 •WALDO Donald H OO +9
3972 •RUANO E S OO 7
3990 XXXX OO
X DAWNELL DR
4006 XXXX OO
4016 •BELLIS John A OO 7
4026 PATACSIL Mila B 619-690-3259 6
X DANOBER DR
4046 •BRUECHERT Nelson 619-690-6984
X PETERLYNN DR
X TWINING AV
4174 XXXX OO
4188 XXXX OO
X ILEXEY AV
4206 XXXX OO
4230 LOBATO Maria 619-690-5642 8
X KOSTNER DR
★ 1 BUS 26 RES 4 NEW

KINCAID 92071 SANTEE

WEALTH CODE 6.0
X GREENCASTLE
9930 •MARKS Randy H OO +9
9931 •KAY Paul D OO +9
9936 •VOPAT Verla J OO +9
9937 •KIEVIT Joseph J 619-449-6599 7
9942 •IREY Michael P 619-448-6820
9943 XXXX OO
9948 •JONES Terry M OO +9
9953 •IRVIN Karen OO 7
9954 •FINNERTY Francis P OO 7
9960 MCCLUKIE Matthew 619-448-6361 +9
★ 0 BUS 10 RES 5 NEW

KING 91910 CHULA VISTA

WEALTH CODE 5.1
X CORTE MARIA AV
55 •SMITH Armand R 619-420-5896 4
56 XXXX OO
59 •JENSEN Robt W 619-422-3815

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TP	Adjoining	Source
-	✓	Haines & Company

CALIFORNIA ST 2000

929 ●CHAVEZ Louis OO +9
930 ●SARIA B C OO 7
935 XXXX OO
941 ●WORTHEN Thomas L 619-424-6916
949 ●MACAOILE Dennis E OO +9
955 ●SALAZAR Silvia E OO +9
960 XXXX OO
967 XXXX OO
970 JOCELYN Vinluan 619-429-9176 +9
X VIA TONGA
973 ●MENDOZA Armando OO +9
979 ●GENEROSO Lorena C OO 7
985 XXXX OO
991 ●TAPIA Armida OO 7
997 ●CRISOSTOMO Hilarion 619-423-7881
★ 0 BUS 20 RES 7 NEW

CALEXICO AV 91934 JACUMBA

WEALTH CODE 0 0

3001 XXXX OO
3005 XXXX OO
3100 XXXX OO
X HEBER
3101 ROSENBAUM Robert 619-766-4010
3104 XXXX OO
3105 XXXX OO
3107 ZABALA Esteban 619-766-4735
3110 XXXX OO
3111 XXXX OO
3112 XXXX OO
3204 ZINN Max 619-766-4484
3211 XXXX OO
3214 XXXX OO
X CAMPO
3218 XXXX OO
44476 ROSE John R 619-766-9019 4
44481 JACOBS J A 619-766-4695
44488 RANGEL David 619-766-3373 +9
44497 XXXX OO
44524 CASPERSON Michael 619-766-3352 +9
44525 LARSEN Larry 619-766-4984 +9
44531 ★RURAL BUS SYSTEM 619-478-5875 8
★SOUTHEAST RURAL BUS 619-478-5875 6
★WALLIG DARLENE 619-766-4599 7
44537 XXXX OO
44604 XXXX OO
44612 ZINN Charles L 619-766-4403
ZINN Evelyn 619-766-4403
44624 HILL P M 619-766-4649 3
44628 XXXX OO
44675 THEEL Larry 619-768-3278 +9
44686 ★ST MARY MAGDALENE CATHOLIC CH 619-766-4861 8
★ 4 BUS 27 RES 4 NEW

CALEXICO LODGE 91934 JACUMBA

WEALTH CODE 0 0

NO# NILSON Walter 619-766-4271
★ 0 BUS 1 RES 0 NEW

CALHOUN 92110 SAN DIEGO

X TWIGGS
2600 ★BAZAAR DEL MUNDO BOOKKEEPING 619-296-6301 +9
2625 ★TOLERS LEATHER DEPT 619-295-7511 3
2630 ★SD JOURNEY 619-297-2927 +9
2680 ★CASA DE BANDINI 619-297-8211
X WALLACE
2706 ★JOHNSON HOUSE THE 619-291-5170 +9
2720 ★ALVARADO PROVISIONS 619-298-7443 1
2734 ★EL FANDANGO RESTAURANT 619-298-2860
2754...... BUILDING
★ARIANA 619-296-4989
★ARTES DE MEXICO 619-296-3266
★BAZAAR DEL MUNDO 619-296-3161 8
★CASA DE PICO 619-296-3267
★CREATIONS&CONFECT-NS 619-296-4080
★DESIGN CENTER ACSRY 619-296-3161
★DESIGN CENTER INTRS 619-298-1141
★EARTH WIND&SEA 619-294-2028 7
★JUST ANIMALS 619-291-5970
★LA PANADERIA BAZR 619-291-7662
★LAUREL BURCH GLLRTA 619-294-3361 0
★LIBROS 619-299-1139
★LINOS ITALIAN REST 619-299-7124
★OLD TOWN RESTAURNATS 619-296-3161 6
★PLANT PLACE THE 619-294-2028
2754.................................
★ 22 BUS 0 RES 3 NEW

CALIENTE CT (90) 91901 ALPINE

WEALTH CODE 4.0

1401 ●HOLMES Cory A OO +9
1467 ●MCKEEVER Bob 619-445-9726 0
★ 0 BUS 2 RES 1 NEW

CALIENTE LOOP 91910 CHULA VISTA

WEALTH CODE 8 0

X BUENA VISTA WAY
1352 XXXX OO
1354 ●MULCAHY William OO +9
1356 ●LYTLE Diana 619-421-6144 +9
●LYTLE Robert 619-421-6144 +9
1357 XXXX OO
1358 THOMAS Burdella F N 619-421-0850 6
●THOMAS Donald L 619-421-0850 6
1359 ●SCHROEN Alan G OO 8
1360 ●CANTON Marvin A OO 7
1362 ●GODAT Eric A OO 8
1363 SLAWSON Donald D 619-421-8282

1364 ●LOWE Vonny E 619-216-7913 +9
1365 ●THOMACK Royal E OO +9
1366 ●HOFFMAN David M 619-216-0779 +9
1367 ●KLOSTERMAN Robert L OO 8
1376 ●REED Earl J OO 7
1377 ●HALBRITTER Ronald J OO +9
1378 CASTRO Marie 619-216-8773 +9
1379 ●BENAVIDEZ Gilbert 619-421-8821 2
1380 ★BONITA BREWING 619-421-6941
★BONITA MICROWVE RPR 619-421-6941
THIEL Carol 619-421-1809
●THIEL Edna 619-421-1809
1382 ●STACY John M OO 7
1383 ●BIRZER Edward A OO 7
1384 ●FIELD John P 619-421-9686
1385 BOSSIE Barbara 619-482-8936
●BOSSIE Eugene 619-482-8938
BOSSIE Eugene 619-656-2953 +9
1386 ●GEARHART Michael W 619-421-7084
1387 ●OTTEN E A 619-421-7650
1389 WOODEN Desiree 619-421-8271
●WOODEN Frank Rev 619-421-8271
★ 2 BUS 31 RES 9 NEW

CALIFA CT 92119 SAN DIEGO

WEALTH CODE 6.0

X ROYAL GORGE DR
8135 ●MAYNARD C 619-265-2371 5
8136 ●VALADEZ Ricardo M OO 7
8148 YEATER Elizabeth 619-287-6588 7
●YEATER Roger A 619-287-6588 7
8149 ●SAMOLES Ralph W 619-287-4238
8160 XXXX OO
8175 MURPHY Pamela A 619-287-7226 8
8190 ●BURNER L E 619-286-5354 0
★ 0 BUS 8 RES 0 NEW

CALIFORNIA 92101 SAN DIEGO

WEALTH CODE 5.0

1824 XXXX OO
1842 XXXX OO
X FIR W
1907 XXXX OO
X GRAPE W
X RANCHO SANTA FE RD
X 13TH
X OLIVE CREST DR
X 14TH
X IVY W
X JUNIPER W
X FRENCH CT
2554 ★MILES&KELLEY 619-238-1107 +9
2560 XXXX OO
2610 XXXX OO
X NUTMEG W
X OLIVE W
2801 XXXX OO
X PALM W
X VINE
3595 ★FULL TECH 619-297-0454 5
★FULLTECH SYSTEMS 619-297-7768 5
3596 ★BARON BLAKESLEE 619-295-0042 4
X WALNUT AV
3630 XXXX OO
X CHALMERS
3650 XXXX OO
X BEAN
X HANCOCK
X KETTNER BLVD

ZIP CODE 92110 SAN DIEGO

WEALTH CODE 4 0

3805 XXXX OO
3863 CUPPAGE Suzanne 619-574-6206 8
CUPPAGE Tim S 619-289-4762 +9
GODSEY Gary 619-294-8102
RILLING John D 619-295-2482 +9
3871 XXXX OO
3893...... APARTMENTS
BROWN Stephen 619-291-1732 +9
BRUNKHORST Bruce 619-542-1923 6
COLEMAN Margaret 619-294-7669 +9
COLEMAN Paul 619-294-7669 +9
COOK Kimberly S 619-298-1056 8
GILLIS Bill 3D 619-298-7717 +9
HURLEY Patrick 619-683-3817 6
MCCABE Jake 619-297-2337 +9
MCCABE Lori 619-297-2337 +9
MOORE Charles Guy 619-296-7850
NEUFELD Elza M 619-296-1837 8
ROBERTS Anthony D 619-298-3659
SCHNEIDER Jolynn 619-298-1056 8
3893.................................
X HENRY
3903...... APARTMENTS
AXELROD Dwight 619-298-8116 +9
BACKER Matt 619-295-2401
BEAUCHAMP Michael 619-299-7590 +9
GLEASON Robert 619-295-5457
JONES Jefferson DDS 619-298-6432
3903.................................
3911 SHERRILL Megan 619-291-8916 +9
3919 ●ERRETT John W 619-294-2324 5
3922 ●KRAFT Roberta I OO +9
3926 XXXX OO
3929 XXXX OO
3935 ●SMOYER Richard 619-299-8036
3938 ●PALMER Russ 619-298-5054 0
3951 MOTZER K R 619-297-3886 +9
3965 ●TIERNAN M J 619-298-8057 7
★ 4 BUS 41 RES 14 NEW

CALIFORNIA 91932 IMPERIAL BEACH

WEALTH CODE 6.0

X IMPERIAL BECH BLVD
1104 XXXX OO
1111 MICHAELS Miles A 619-424-8926 +9
1114 XXXX OO
1121 ●CORNS Robert S OO 7
1124 ●LUC Hai P OO 7
1131 O'Neil Kevin 619-423-0165 6
1134 ●WARREN Colleen OO 7
1141 ●RUSTON Chuck N 619-575-1051
1144 ●SMITH Margie J OO 7
1151 ●BURGESS Michael R OO 7
1154 ●DANIS John F Capt 619-424-3284
1161 XXXX OO
1164 ●VICENTE Santiago G 619-424-6232
1171 ●FISHER Seth 619-423-9059 8
1174 DOOLIN Sandra G 619-575-4095 8
1181 XXXX OO
1184 ●BLOCK Larry 619-423-3594 7
★LOCKS BLOCK'S 619-429-5625 7
1191 ●TAYLOR Linda C OO 7
1194 DZUBIN Joanna 619-429-3946 8
●DZUBIN Larry 619-429-3946 8
X FERN AV
1203 ●MULLER Masako OO 7
1210 ●FLORES Alba L OO +9
1211 ●ETHRIDGE S W 619-423-7520
1220 ●SALAHUDDIN Rasheed OO 8
1225 CHAVEZ Fernando 619-429-5683 +9
CHAVEZ Martha 619-429-5683 +9
MASON David 619-424-7477
●MASON Mary Jo 619-424-7477
1230 ●HEILMAN Richard W OO +9
1233 ●REYNOLDS Fawn OO 8
1240 TEAGLE E 619-429-5344
TEAGLE G 619-429-7879 8
●TEAGLE J 619-429-7879 8
1241 XXXX OO
1253 ●EATON J 619-429-6176
1267 XXXX OO
1268 XXXX OO
1271 TAYLOR L H 619-423-7786 +9
1285 MAILHOT Robert 619-575-6532 8
●MICK S OO 8
1286 ●RICHARD Markey 619-429-7035
1287 ●SPARPANA Robert A OO 8
X GROVE AV
1301 ●JUSSELIN Alfred B 619-429-1697
1304 PHILLIPS Ray A Jr 619-575-3432
PHILLIPS Rhoda C 619-575-3432
1311 XXXX OO
1312 ●TAYLOR Donald L OO 7
1321 ●OUISENBERRY Charles OO 8
1324 ●REGE A J 619-424-6552
1331 ●HARADON Brenda K OO 7
1334 ●AITCHISON G D OO 8
1341 WAGONER J 619-575-6227 6
●WAGONER Robert W 619-575-2033 7
1353 ●FETHKE R L 619-423-3120
1360 ●GANDERTON Wm V 619-423-2046
1361 ●BROWN Richard L 619-424-6030
1371 UFFLEY Mrs 619-575-3747 +9
1372 ●WOOD Merrill S 619-424-7742
1381 ●JACKSON Dave 619-575-5595 2
1386 ●BUFFKIN Dempsy 619-424-8722
1391 XXXX OO
1394 ●SILVA Jesse OO 7
X ONEONTA AV
X ASH W
1400 ●ANDRELCHIK Chester OO 7
1401 ●CACANINDIN Blas M 619-424-5440
1410 WOODHOUSE Ralph 619-423-2200
●WOODHOUSE Ruth 619-423-2200
1411 PARRETT Brian 619-423-6722 +9
1420 ●WEBB Rebecca I 619-423-3290 +9
1421 ●RAMSEY Bradley A OO 7
1430 ●MARTINEZ Sandra A OO +9
1431 XXXX OO
1440 ●TICE Deliam D 619-423-3686
1441 ●ODERMATT Michael D OO 7
1451 XXXX OO
1460 XXXX OO
1461 HALOWELL Harold 619-429-7319 +9
1470 XXXX OO
1471 ●KETTNER Richard 619-429-1638
1480 ●KARSTEN Fred 619-429-5322 7
1481 ●BELURY Carrie OO +9
1490 ●PRITCHARD Geo H 619-424-6490
1491 XXXX OO
X BEECH W
X IRIS AV
X CEDAR W
★ 1 BUS 62 RES 12 NEW

CALIFORNIA W 92110 SAN DIEGO

WEALTH CODE 4.1

X HENRY
1907 ●HUFFMAN Eugene R OO +9
1917 ●RICKON Robert J OO 7
1925 XXXX OO
1931 ●APODACA Dale M OO +9
1948 XXXX OO
1955 XXXX OO
1958 ●GIACALONE Joseph 619-296-6429
X WRIGHT
2005 SHEDENHELM Greg 619-299-5576
2010 ●HUFFMAN Rex A 619-296-2943 5
2025 ●PATTERSON H Leslie 619-298-5670
2026 XXXX OO
2031 XXXX OO
2037 ●MORTENSEN Carl F OO 7
2045 COLE Christopher 619-542-1865
2050 ●RIGHTMYER Charles 619-688-9774 +9
2051 XXXX OO
2060 ●CABLE George W OO 7
2061 ●BROCKETT Olha J OO 8
2063 XXXX OO
2074 ●MAGILNER A OO 7
2075 ●TAYLOR H 619-295-5707
2077 TAYLOR Stephen 619-295-7066
2083 ●AHLSTROM Craig OO 8
2085 ●AHLSTROM Craig S OO +9
2095 XXXX OO
2097 LEPPER Lucille 619-296-1106
X BANDINI
2105 ●STANLEY Stephen C OO 8
2111 ●EVANS L P 619-295-9347
2114 ★FIRST MISSION FINANCIAL LLC 619-683-2114 7
2120 XXXX OO
2127 ★WEX SYSTEC INC 619-298-5009 +9

●WEXLER Herbert T OO 7
2137 ●COLLIER Earl 619-295-9148
2143 ●JARVIS Richard H 619-295-3581
2146 XXXX OO
2149 ●JAKWAY Thomas OO +9
2151 JAKWAY Thomas 619-291-4956 3
2152 MCCALL Denise A 619-692-4009 +9
2161 HORTON Eric 619-295-1683 +9
OGUIZA Elena C 619-543-0779 8
2164 ●BUSALACCHI Annette OO 7
2169 ●ANDERSON Robt M Jr 619-295-7231
ANDERSON Robt M Jr 619-299-8278 7
2171 XXXX OO
2174 XXXX OO
2175 ●TURNER Mark D OO 7
2186 ●LIBERTY Joseph OO +9
2191 ●HIKEN Fran OO 8
★ 2 BUS 46 RES 9 NEW

CALLA 92154 SAN DIEGO

WEALTH CODE 1.0

1800 XXXX OO
1801 XXXX OO
1802 XXXX OO
1804 ●DENTON Franklin 619-429-3328
1805 XXXX OO
1806 ●WIGHTMAN Monroe Sr 619-429-7489
1807 STEINBERG Dorothy 619-423-3468
1808 XXXX OO
1809 ●TOWNSEND David OO 7
1810 XXXX OO
1811 XXXX OO
1814 ●BAAS C H OO 7
1816 XXXX OO
1820 CECENA Jose 619-575-6553 +9
X 17TH S
X CYPRESS
★ 0 BUS 14 RES 1 NEW

CALLA AV 91932 IMPERIAL BEACH

WEALTH CODE 1.4

X SEACOAST DR
104 XXXX OO
105 XXXX OO
106 XXXX OO
123 ●TSCHAKERT Adriana OO 7
124 CHARLEY McLaughlin L 619-424-8060 8
126 BLAKE Monia S 619-429-4011 7
131 CLARK Josh 619-423-6619 +9
132 XXXX OO
139 ●HOLDER Chris C OO 7
147 XXXX OO
148 TEAL C L 619-423-1336 +9
153 DODDS Kimball 619-575-5138
DODDS Lynn 619-575-5138
154 XXXX OO
164 XXXX OO
173 XXXX OO
176 ●NIXON H A 619-424-6590
180 XXXX OO
181 URTASUN Caren 619-424-5228
●URTASUN Frank J 619-424-5228
189 XXXX OO
190 HOLT Ben L 619-424-6854
191 XXXX OO
196 WARNER Edwin H 619-424-9631
●WARNER Mary C 619-424-9631
X SILVER STRAND BLVD
202 EVERITT M E 619-429-6954 1
203 ●MUZQUIZ P OO 7
204 XXXX OO
205 ●MILLS W Burke 619-424-6535
212 ●QUESNEL Maurice S OO 7
213 XXXX OO
220 ●CLARIDGE William D OO 7
221 ●GRISHAM Marc S OO 6
223 ●MANTHEY Robert E OO 7
225 XXXX OO
230 DITTMER George C 619-429-3230 3
235 KNOX Jim 619-423-6152
KNOX Joy 619-423-6152
245 XXXX OO
246 HILL Albert V 619-423-9446 7
X 3RD
302 XXXX OO
310 ●CALLAHAN K OO +9
X ALABAMA
318 ●SMISEK Donald P OO +9
324 TIMBER A V 619-423-3293
325 XXXX OO
332 HARDING R J 619-424-7171
333 ●BOROS Mary J OO 7
340 XXXX OO
341 ●STOUT Jas H 619-429-1521
348 BECKER Duke 619-429-4179 +9
349 XXXX OO
356 ●SNAITH Robt 619-429-9480
357 ●HARA Emilia 619-423-3513 8
384 XXXX OO
385 ●HINCAPIE Gloria OO +9
370 ●PARSONS M D 619-575-9060 0
373 ●DECANT Doris G 619-424-8525
DECANT Robt J 619-424-8525
380 RUMSEY John 619-423-6481
RUMSEY Karen 619-423-6481
389 XXXX OO
X 4TH
402 MARCOV Ryan 619-575-8684
409 XXXX OO
417 ●ANGEL Joanne OO 7
X CORVINA AV
418 ●WRIGHT Tammy OO 8
426 ●BERNAL Marie K OO +9
434 ●FOX Peter D OO 7
441 ●VALDERRAMA Yvonne OO +9
442 FALCATAN Noe 619-575-5365 +9
●MONROE Rolland L 619-423-1961
449 POWELL Andrea 619-828-8138 +9
457 ●MCFADDEN Thomas C OO 7
458 ●STEARNS Robert L OO 8
465 ●FERNANDEZ Joseph OO +9
466 ●LUKENS B S OO +9
X 5TH
500 ●GOMEZ Augustin 619-429-3276
501 ●SCANDIFFIO Robert 619-575-7958
507 XXXX OO
508 XXXX OO
515 BRIGHT Chad 619-429-1046 7
BRIGHT Chad 619-429-3147 +9
523 ●MOORE David E OO 8
524 ●ONTIVERS Elsa D OO +9
531 ●FRATANGELO Victor 619-423-7572
532 MCELROY Wendell E 619-424-7665

539 ●HOEFS Eunice M OO 7
540 ●RUCKER Joel J 619-424-5571
547 ●COUSINEAU Roland P OO +9
548 ●BARBER James F OO +9
555 ●OLSON Guy C OO +9
563 ●MENDEZ Richard A OO +9
571 XXXX OO
579 XXXX OO
X RAINBOW DR
X 7TH
716 XXXX OO
724 MCATAMNEY Christopher 619-423-6511 7
732 BUNAG Benjamin C 619-423-3849 +9
733 BLACKWELL Roshanda 619-423-9792 +9
MARTIN Larry 619-575-4233 +9
740 XXXX OO
748 GONZALES Melissa J 619-429-8419 8
X DELAWARE
759 XXXX OO
760 XXXX OO
761 HERNANDEZ Vanessa A 619-575-2690 +9
762 XXXX OO
764 XXXX OO
766 ARCE Jesus 619-575-8079 7
767 XXXX OO
773 KEPNER William H 619-423-7850 +9
VEGA Salvador 619-575-6326 8
VEGA Salvador 619-575-0648 +9
775 XXXX OO
776 XXXX OO
777 XXXX OO
784 COLEMAN Gerald T 619-423-4304 3
789 MONTOY Maria Jesus 619-575-1741 +9
ZENDNER Ronald 619-575-6685 8
790 XXXX OO
X 8TH
824 XXXX OO
828 COHEN Danny 619-429-8458 +9
GARCIA Monica 619-423-2178 4
842 XXXX OO
844 XXXX OO
856 COOKSY J A 619-423-9919 7
X 9TH
904 TUBAO G 619-429-9938 7
906 TIZAPANECO Javier 619-429-4866 8
X EMORY
910 XXXX OO
912 XXXX OO
914 XXXX OO
920 GOMEZ Josaluis 619-575-0256 +9
922 FAJARDO Alma E 619-423-4931 8
924 MATILA Jasmine 619-423-3200 7
MATILA Joseph 619-423-3200 7
926 XXXX OO
927 XXXX OO
928 XXXX OO
934 GARCIA Jared 619-429-6005 +9
940 BAKER Howard 619-575-4031
CRAFT Margaret 619-575-3999 8
JORDAN Michael 619-429-7847 +9
SANTIAGO Rachel 619-575-7365 +9
954 XXXX OO
957 JIMENEZ Carlos 619-423-6365 +9
SAHAGUN Teresa 619-575-4125 6
961 XXXX OO
962 ●SANDEEN Alica L OO 7
963 ★CHESTER TWO HANDY GUYS 619-424-6913 8
964 XXXX OO
967 XXXX OO
968 MEEKS Cary A 619-424-9849 8
PENA Francisco 619-575-3285 8
SINOHUE Maria Elena 619-423-8047 8
970 XXXX OO
976 XXXX OO
980 XXXX OO
994 BUCK Dolores 619-424-6154
X 10TH
1001 CASTRO Kristina M 619-423-9858 +9
1005 XXXX OO
1007 XXXX OO
1008 WILSON Anthony 619-429-9918
1009 XXXX OO
1010 XXXX OO
1011 ANDERSON H Martin 619-423-1306 8
1013 XXXX OO
1015 XXXX OO
1020...... APARTMENTS
COBERLEY Jeremy 619-423-7730 +9
ECLAND Destiny A 619-423-9405 +9
NICIFORE Guillermo M Jr 619-429-8512 +9
ROBERTS Erica M 619-423-2348 +9
SOBON Steven 619-423-8479 +9
1020.................................
1031 XXXX OO
1033 XXXX OO
1040 XXXX OO
1041 MARVEL Brian 619-575-1860 +9
MINTON O 619-423-4675 +9
1042 XXXX OO
1056 XXXX OO
1091...... APARTMENTS
APODACA Estella 619-423-5955 +9
LEWIS Eric 619-429-6897 +9
MARTINEZ Israel E 619-424-6428 +9
RYDER William 619-575-5441 6
SANCHEZ Magdalena 619-424-3985 +9
SANDOVAL F M Sandy 619-575-4512 +9
TREMBLAY Richard A Jr 619-423-3210 8
1091.................................
1094 XXXX OO
X 11TH
1119 XXXX OO
1123 XXXX OO
X FLORIDA
1151 BLOSSER Mark 619-423-3992 7
1153 XXXX OO
1155 XXXX OO
1170 MORALES Juan Manuel 619-423-9959 7
X 12TH
1205 XXXX OO
1231 TAMAYO Maria S 619-424-5363 8
1237 XXXX OO
1239 XXXX OO
X FLORENCE
1241 XXXX OO
1248 MAGGETT William 619-424-5777 +9
1252 XXXX OO
1260 ESPINOZAGARCIA Gelacio 619-429-4739 7
MATEO Esperanza 619-423-5750 6
MONTES Rosa E 619-429-6302 5
1274 XXXX OO
1275 XXXX OO
1279 XXXX OO
X 13TH
1281 HERRERA Imelda 619-424-6022 +9
1283 XXXX OO
1285 BONNES Eric 619-429-9273 +9
1286 LIZARRAGA Ana V 619-423-7782 +9
LOPEZ Jaqueline 619-575-6314 +9

MORENO Rosa 619-628-8414 +9
1287 WILENSON Brandon 619-575-8932 +9
1289 XXXX OO
★ 1 BUS 210 RES 51 NEW

CALLE ABAJO 92139 SAN DIEGO

WEALTH CODE 5 0

3001 ★TWIN HILLS LTTL LGE 619-475-4235 0
3129...... APARTMENTS
ANAYA J 619-475-7206 8
ANGUIANO Susana H 619-475-5835 +9
BARNES Betty 619-470-6808 7
BRUNSON Garth R 619-475-3290
BURKLOW Donald 619-267-1773 0
CALVERT Bob 619-267-2368
CALVERT Larry 619-267-2368
CARMACK Juanita 619-475-8595 0
CORDARO Andrew 619-479-5292
DAVIS Ralph E 619-479-6795 +9
EHM Nancy 619-267-8688
EHM Robert 619-267-8686
ELIAS M 619-475-0113
FUNCHEON Louis R 619-475-4736
GARNER Edy 619-267-0816
GARNER Edy 619-267-2316
GARNER James F 619-267-2316
GARNER James F 619-267-0816
GILLESPIE B A 619-479-2888
GILLESPIE M S 619-479-2868
GOFF Leona 619-475-7426
GOFF R W 619-475-7426
HAAS Claude 619-267-5672
HAAS Doris L 619-267-5672
HADAWAY J 619-479-1787 +9
HAUSERMAN William C 619-479-1801
HAYES Barney 619-475-8595
HAYES Juanita 619-475-8595
HOCHWENDER M Y 619-479-8395 +9
KOLLADA Geo 619-479-9949
MAYLE Howard L 619-479-9851 +9
MCGEE B A 619-479-4284
MURRAY Wm L 619-475-8039
★POUSSON PEGGY Y 619-426-0141 +9
ROOT John C 619-472-5134 5
SCOTT Chas W 619-479-2483
SMITH P B 619-267-5682
STARKEY L M 619-475-4611
3129.................................
X VALLEY RD
★ 2 BUS 37 RES 6 NEW

CALLE AGUADULCE 92139 SAN DIEGO

WEALTH CODE 5 0

PARADISE HILLS AREA

2411 RICE J J 619-479-3743
2412 ●BARRIOS Luis J 619-475-0144 2
X CUMBERLAND
2426 ●TERRY Releane R OO 7
2434 ●RUSSELL Patrick J 619-479-5195
2440 STEVENS Edward F 619-475-9636 7
2441 ●MENDEZ Delfino A OO +9
2446 ●CAPUCHINO Jose G OO 7
2451 ●BACA Alex P OO 7
2452 ●FULGENCIO Jess C OO 7
2457 ●THOMPSON Henry K OO 7
2458 ●SWARTZ Michael R OO +9
2463 ●SHORT Roger L OO 7
2466 NITZEL Donald 619-470-7123
●NITZEL Shanna 619-470-7123
2469 COLE Ursula 619-479-2801
●COLE Walter R Jr 619-479-2801
2472 XXXX OO
2478 XXXX OO
2490 ●ZAMUDIO S OO 8
2481 XXXX OO
X CALLE TOCON
2504 XXXX OO
2505 ●DOYLE Daura L OO 8
2514 XXXX OO
2524 SHERMAN Carlyle 619-479-3950
●SHERMAN Phyllis 619-479-3950
2529 ●DOLMAGE Vern L 619-479-1663
2534 ●PRECIADO Jorge L OO 7
2535 ●MEDINA Francisco 619-472-1359 6
2544 ●ESKRIDGE Arthur W OO 7
2545 ●KOCHER Randall M OO 7
2553 ●AKERS Douglas OO 7
2563 ●CHAIREZ Jose M OO 7
2573 SPAULDING Richard 619-470-8712 5
X ROANOKE
★ 0 BUS 33 RES 2 NEW

CALLE ALBARA 92019 EL CAJON

WEALTH CODE 7.0

11587 REISS Duane G 619-660-1155 8
11588 ●BIGGERSTAFF William 619-670-7280
11604 ●VANDERKARR Richard OO 7
11613 BRENDEL Donna 619-660-9899
●BRENDEL Greg 619-660-0415
11620 ●WISE Eunhee 619-660-1674 8
11629 ●MASDONNELL B K OO 7
11636 CHLEUTERMANN Carl 619-660-5136 +9
CHLEUTERMANN Carl 619-660-5135 +9
●SCHLEUTERMANN Linda OO +9
11641 ●GRIGGS L R 619-670-4218
11652 WOODS C W 619-670-6906
11667 ●COOMBS William M OO 7
11675 ●CORSI Richard 619-660-1371 3
11684 ●MUNCH John F OO +9
11710 XXXX OO
11717 ●CLARK Thomas R 619-670-8938 7
11718 ●CARSON Debra J OO 7
11726 MISZUK Mary 619-670-6820
11734 ●MAY Stuart A OO +9
11741 ●FIELDS David 619-670-1036 6
11742 ●KNOX Angela M OO 7
11750 ●HANKS Lowell B OO 7
11758 ●CHAMBERS Norris L OO 7
11759 VOCKRODT Donald L 619-670-6042
11766 ●ADAMS Steve D OO 7
11773 ●RICE Harold OO 8
11774 XXXX OO
11782 ●DOYLE Kevin A 619-670-0357
11789 ●WOODS Jeanine W OO 7
11822 ●TITUS Jason N OO 7
11823 ●DORIO Anthony OO 7
11840 ●ANCONA Dominic 619-670-0331
11876 LAYNE Ann 619-670-0139

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- | ✓ | Haines & Company

COLUMBIA ST 2000

COLORADO AV 91942 LA MESA

WEALTH CODE 6 0

6789 DICKERSON D 619-469-9591 +9
DICKERSON L 619-469-9691 +9
6795 GUENTNER Chris 619-463-2809
X PENNSYLVANIA LN
6811 ●RAKESTRAW Sheryl OO 7
6817 ●STROBEL G 619-465-8610
6821 ●SHEIVE Donald F 619-469-9431 8
6825 GOULART Roy L 619-463-4612
6829 ●VILLANI Joseph A OO +9
6833 ●DIAZ Francisco 619-465-0194
6837 MCKEON D 619-667-2254 +9
6852 HULBERT Stephen G 619-466-8876
6868 ●WAGNER M OO +9
6869 XXXX OO
6871 ●DOYLE Dennis B 619-464-0438
6881 TONKOVICH Ruth 619-698-7403
●TONKOVICH Tom 619-698-7403
6886 ●SIMPSON James S OO 7
6887 XXXX OO
X CONNECTICUT AV
6919 WALTON Gloria 619-469-4991
WALTON Gloria 619-469-4011 +9
WALTON William T 619-469-4011 +9
●WALTON Wm T 619-469-4991
6922 ●DROZE Nancy OO +9
6932 XXXX OO
6935 ●GREEN Wm H 619-460-6898
6936 ●HUSKEY Richard O 619-465-5696
6939 MCCUE Ann 619-464-4910
●MCCUE John 619-464-4910
6940 ●VAUGHAN Richard W 619-462-5118
6941 ●ALLEN Rachel C OO 7
6944 XXXX OO
6945 ●HARPER Wm B 619-469-7860
6948 ●GILLAM Donald A OO 7
6949 SUTTON Richard K Jr 619-697-1784 2
6950 ●SCANLAN Thomas E OO 8
6951 ●TIEDEMAN Mark J 619-469-1881
6958 ●MAHONEY Terry OO +9
6959 ●PYLE Larry O 619-462-0289
6960 REYNOLDS W G 619-466-5806
6963 ●EMERY Halma E OO 7
6964 ●BARRIOS John 619-460-6717 4
6971 XXXX OO
X OREGON AV
7006 XXXX OO
7010 XXXX OO
★ 0 BUS 44 RES 9 NEW

COLORAMA WAY 92040 LAKESIDE

WEALTH CODE 7.0

X LAKEVIEW RD E
X ETCHINGS WAY
9221 ●FAIN Donald E 619-443-6056
9224 XXXX OO
9227 ●MORGAN Fred OO 7
9230 ●BARNETT David Stuart 619-561-8606 +9
9238 ●FAIN Maria L OO +9
9246 ●SHIVELYBETTIS Sue E OO 7
9255 XXXX OO
9260 ●PINTO Ronda J OO 7
9267 ●TONG Harry J 619-561-7639
9271 ●HOYT David A OO 7
9272 XXXX OO
9282 HILL Jan 619-561-7382
●HILL Ron 619-561-7382
9290 ●JOHNSON Evelyn OO 7
9292 ●AYERS Donald 619-561-9374
9296 ●THOMPSON Paul K 619-561-0457
★ 0 BUS 18 RES 2 NEW

COLT LN 92040 LAKESIDE

WEALTH CODE 6 0

X LAKE SHORE DR
9802 ●VOCKRODT Sandra 619-443-5088
9818 ●WESTBROOK Kevin B OO 7
9826 LOVCI Bill 619-443-8907
LOVCI Robin 619-443-8907
LOVCI Robin A 619-443-5228 7
X BRETT HARTE DR
9834 ●ROBISON William G OO 7
9840 ●WALLACE Robert OO +9
9851 ●HEARNE Michael 619-561-7584
9852 ●CHENAULT Thomas R OO +9
9857 ●EMPEY Kenneth M OO 7
9858 ●DREHER Angela K OO 8
X APPALOOSA DR
★ 0 BUS 11 RES 2 NEW

COLTER LK CT 92019 EL CAJON

WEALTH CODE 7.0

X CACHE CREEK
1757 CATE Fred W 619-440-2516 8
DILLON Shani L 619-440-1619 +9
1764 XXXX OO
1765 ★COX DONALD T 619-440-7584 8
1780 ANDERSON Bob 619-588-8031
●ANDERSON Priscilla 619-588-8031
1788 ●BORGERDING T H 619-444-2097
1789 ●THORN Robert C OO 7
★ 1 BUS 7 RES 1 NEW

COLTRIDGE LN (91) 91902 BONITA

WEALTH CODE 8.0

1727 ●CASTELLANOS Ruben 619-656-8684 +9
●CASTELLANOS Sallie 619-656-8684 +9
X GALVESTON WAY
1734 ●WEST Richard M OO 7
1735 ●SANDAN Armando C 619-482-7716 3
1742 ●CROCE Miguel A OO 7
1751 ●WAKEFIELD David J 619-421-0135 1
X TRAILRIDGE DR
★ 0 BUS 6 RES 2 NEW

COLTS WAY 92115 SAN DIEGO

X SHARRON PL
X ORANGE AV
4191 ★CRAWFORD HIGH SC 619-583-2500 1
★SD SC SR HI CRAWFRD 619-583-2500 0
★ 2 BUS 0 RES 0 NEW

COLUMBIA 92101 SAN DIEGO

WEALTH CODE 6 5

630 XXXX OO
632 XXXX OO
650 .... APARTMENTS
CAMBER Bruce 619-232-4270 8
CAMBER Bruce 619-232-4272 8
DANOFF L 619-234-5440 2
★DRACUL LTD 619-235-6789 8
GASZA George 619-239-3412 3
GONZALEZ Luis 619-544-1109 6
GONZALEZ Tagala 619-544-1109 6
HONG Eva 619-233-7780 3
KRUIS Steven H 619-702-2030 +9
KRUIS Steven H 619-702-8834 +9
LORIMER David T 619-557-0457 2
★LUCARD PUBLISHING 619-235-6789 +8
NOBILETTE Kenneth 619-239-2436 3
PERKINS L 619-239-1768 3
★REUNION PRODUCTIONS 619-235-6789 8
SULLIVAN John 619-237-1039
TSAI Joanna 619-234-8979 +9
WALKER R M 619-237-9838 3
WALKER Rena M 619-236-9531 7
WHIPPLE Richard 619-236-1066 +9
WHIPPLE Sharon 619-238-1066 +9
WYLIE G A 619-696-0122 4
ZUKOR Allan D 619-696-7955 +9
ZUKOR Beverly 619-696-7955 +9
650 ....
655 .... APARTMENTS
AMON Miguel 619-233-7454 +9
AVERY Brenda 619-702-2884 +9
BALLARD Craig 619-237-1878 +9
BALLARD Diane 619-237-1878 +9
BALLARD Diane 619-237-1846 +9
BENISHEK Paul 619-234-8308 +9
BUTTERFIELD V G 619-698-8950 7
CALIMER Christian 619-238-5291 +9
CONLEE Roger L 619-235-4115 0
★CONLEE ROGER PUBLIC RELATIONS 619-557-0550 7
CUSHMAN Mitchell 619-230-1307 5
DEMARTINO Joseph 619-696-6240 5
FAULKNER Adrienne 619-696-6062 +9
FAULKNER Adrienne 619-696-6050 +9
GONZALES Carmen 619-338-9411 +9
HAYES John R 619-702-4154 +9
HOLTERMANN Jay 619-233-4363 +9
JOHN R King 619-233-4363 +9
MILLS Andrew 619-702-7273 8
MILLS Bette 619-702-7273 8
ROSENTHAL Yuval 619-236-8651 3
SIMPSON Glenna 619-239-1241 +9
TEMESHY Andrea 619-696-8162 8
TRIMBLE Thomas O 619-230-1361 8
ULLOA Majorie 619-544-6460 0
WILHOIT John 619-234-3656 0
655 ....
X G W
X F W
X E W
X BROADWAY W
X C W
1109 XXXX OO
1117 ★BAYSIDE LOAN CO 619-234-5800 8
★COMNCTN SPECIALISTS OF AMERICA 619-234-7400 8
1121 ★GENTLEMEN'S TUX CLUB THE 619-231-1318 3
1122 XXXX OO
1125 XXXX OO
1130 ★MICHAELE TAYLOR HAIRCUTS MEN 619-595-1605 7
★TAYLOR MICHAELE HAIRCUTS MEN 619-595-1605 7
1133 ★BISHOP&JOELSON AIA 619-702-7761 6
★BOLT PUBLISHING 619-702-7748 +9
★JOELSON VAIL 619-702-7141 +9
★K B A MARKETING 619-239-7390 +9
★KEVIN BERG&ASSOCIATES 619-239-7390 +9
★MORGAN 3D PRODUCTIONS 619-702-7782 6
★SIR SPEEDY PRINTING CENTERS 619-231-0919 6
★WALLACE ROBERTS&TODD 619-696-9303 0
1157 ★COLUMBIA BREWERY&GRILL 619-234-2739 0
★KARL STRAUSS BREWERY&RSTRNTS 619-234-2739
★OLD COL BREWERY 619-234-2739
★STRAUSS'KARL CLMBIA BRWRY&GRLL 619-234-2739 2
1165 XXXX OO
1166 ★COMPEX LEGAL SERVICES 619-235-8847 +9
★UNISCRIBE PROFESSIONAL SVS 619-235-8900 +9
1167 ★KARL STRAUSS BREWERY&RSTRNTS 619-234-7160 7
★SENTERS THOMAS H ATTY 619-232-4726 7
1168 XXXX OO
X B W
1229 XXXX OO
1230 ...... BUILDING
★A AID TO INJURD MTRCYCLST LWYR 619-232-7425 6
★ABOGADOACCIDENTE 619-232-7425 7
★AID INJRD MTRCYCLST 619-232-7425 3
★AMER LEGAL COPY 619-231-3282 8
★ASHWORTH JAMES C LAW OFFICES 619-595-3557 8
★BALFOUR ROBERT W 619-236-1711 5
★BARTH MARIANNE 619-236-1711
★BARTON RICHARD D 619-236-1711
★BASINGER SUSANE 619-236-1711
★BECHTEL NATIONAL INC 619-687-8700 +9
★BENJAMIN R SCOTT 619-236-1711 5
★BISYS FUND SERVICES 619-239-1424 6
★BOESEN RICHARD ATTY 619-233-5121 3
★BONESTEEL SCOTT M 619-236-1711

COLUMBIA 92101 CONT
★BOURNE ROBERT F ATTY 619-238-1124 7
★BRISEBOIS MARK T 619-236-1711
★BROWN DOUGLAS C ATTY AT LAW 619-595-3551 +9
★BROWNING WILLIAM K 619-236-1711 7
★CA LEGAL ASSISTANTS 619-544-0034 2
★CAROTHERS DAVE 619-236-1711
★CATO CHRISTOPHER B 619-236-1711 5
★CELEBRITY MARKETING 619-237-1166 +9
★CHODZKO JAMES E 619-236-1711
★COLEMAN HAROLD JR 619-236-1711
★COLOGNE STEVEN J 619-236-1711
★COPELAND JUDITH M ATTY 619-231-0456 7
★COPELAND&TIERMAN ATTY 619-231-0456 7
★COTTER DAVID ATTY 619-233-3297 +9
★DAVIDSON CHERYL D 619-236-1711 5
★DOUGHERTY LAWRENCE T ATTY 619-231-2599 8
★EGGLESTON J L ATTY 619-662-2453 3
★EGGLESTON J L ATTY 619-232-7425 3
★ELLIOTT RICHARD J 619-236-1711
★FLICK&JAROSZEK A LAW CORP 619-233-8691 8
★FOSTER-WHEELER ENVRNMNTL CORP 619-234-8696 +9
★FURNESS KATHLEEN 619-238-1711
★GAGLIONE ROBERT J 619-236-1711
★GERSCHLER ANTON C ATTY 619-237-1105 8
★GERSCHLER&THARP 619-233-9877 +9
★HAKES STEVEN C ATTY 619-595-3583 +9
★HOCKER ROBERT N 619-236-1711 7
★JAROSZEK BILLIE J ATTY 619-233-8591 8
★JOHNSON CHRISTOPHER 619-236-1711 5
★JOHNSON KATHRYN L ATTY 619-515-9660 +9
★KENNEDY KEVIN P ATTY 619-233-8591 8
★KUSNIR MICHAEL J ATTY 619-233-8591 8
★LAMBERT JODI E 619-236-1711 5
★LARABEE&LOADMAN APC 619-234-3054 8
★LOADMAN DAVID J ATTY 619-234-3054 8
★LOW WILLIAM M 619-236-1711
★LYTLE DOUGLAS W 619-236-1711 7
★MAAS EARL H 3D 619-236-1711
★MAHONY MELINDA J 619-236-1711 7
★MANNING NANCY B ATTY 619-233-8591 8
★MARTIN DENISE L TRUST&EST SERV 619-544-0395 +9
★MCCLUTCHEY ELIZABETH L 619-236-1711 5
★MCINNIS FITZGERALD 619-236-1711
★MEERCHAUM JOHN E 619-236-1711 7
★MILLER WILLIAM A 619-236-1711
★MONGAN A DAVID ATTY 619-233-8591 8
★MONTGOMERY WATSON 619-702-0350 8
★MORRISON CATHERINE 619-236-1711 7
★NEMETH E J ATTY 619-232-8280 8
★ORZEL WILLIAM A ATTY 619-233-8591 8
★PAC HORIZON FUNDS 619-239-1424 7
★PALMER ANTHONY J ATTY 619-232-5176 +9
★PETERS RALPH W 619-236-1711
★POLLACK GREGORY W 619-236-1711
★POPENEY L ROGER 619-236-1711 +9
★REES CHARLES W JR 619-236-1711 5
★REES CONNIE S 619-236-1711 5
★REYNOLDS JAMES J 619-236-1711
★RICHARDS BARBARA L 619-236-1711 5
★RYAN LUKE P 619-236-1711 5
★SELDEN LYNDE ATTY 619-515-1111 +9
★SHARKEY THOMAS E 619-236-1711
★SHOTWELL RAND K ATTY 619-231-2599 8
★SHUSTAK JALIL&HELLER ATTYS 619-696-9500 8
★STEINECKERT R GENE ATTY 619-231-2599 8
★STERN MARC O ATTY 619-233-3200 2
★THARP ROBIN ATTY 619-233-9876 +9
★THARP ROSS G JDGE 619-531-9630 +9
★THARP&ASSOCIATES 619-233-9877 +9
★THICKSTUN JOHN ATTY 619-233-3200
★THICKSTUN&STERN LAW 619-233-3200
★THOMAS TIMOTHY S 619-236-1711
★TIERMAN JEFFREY H ATTY 619-231-0456 7
★TRANSWESTERN PROPERTY CO 619-544-6010 8
★VAUGHN DONALD A 619-236-1711 1
★VAUGHN DONALD A ATTY 619-237-1717 8
★VAUGHN KATHRYN G ATTY 619-237-1717 8
★VAUGHN&VAUGHN ATTORNEYS LAW 619-237-1717 8
★WELLMAN ARTHUR A 619-236-1711 7
★WHITNEY&ASSOCIATE-S 619-239-8077 8
★WHITNEY&FRRENDELLI 619-239-8077 8
1230 ....
1260 XXXX OO
1270 XXXX OO
1271 XXXX OO
X A W
1320 ★AULT DAVIS&SCHONFELD ATTYS 619-544-8300 8
★AULT RICHARD B ATTY 619-544-8300 8
★AULT THOMAS H ATTY 619-544-8300 8
★COLEMAN CORINNE R 619-544-8300 +9
★DAVIS GARY E ATTY 619-544-8300 8
★FEUERSTEIN RICHARD LAW OFFICES 619-235-9400 8
★GORMAN JAMES LAW OFFICES OF 619-239-2230 8
★MUNRO DOUGLAS J ATTY 619-544-8300 8
★MURPHY MICHELLE ATTY 619-235-9400 8
★RUBY CECILIA P ATTY 619-544-8300 8
★SCHONFELD ALAN H ATTY 619-544-8300 8
★TUDOR PUBLISHING COMPANY 619-615-0500 +9
1351 XXXX OO
1380 XXXX OO
X ASH W
1407 XXXX OO
1446 ★AL MELONE CNVS PROD 619-696-0664

COLUMBIA 92101 CONT
★MELONE AL CNVS PROD 619-696-0664
X BEECH W
1525 XXXX OO
1529 XXXX OO
1531 XXXX OO
1555 ★CASTANEDA CARLOS E ATTY 619-238-4296 8
★KOVACEVIC B ATTY 619-232-4114
★WOODRING L A CFP 619-233-3352
1557 ★ALPERT DEDE SENATOR 39TH DIST 619-645-3090 7
★CA ST SENATE 39TH DISTRICT 619-645-3090 +9
1572 ★FIREHOUSE MUSEUM 619-232-3473
X CEDAR W
1629 ★CARPENTER RICHARD A ATTY 619-696-8607 6
★CHATARD C ATTY LAW 619-696-9494 5
★CRAWFORD DAVID 619-231-6923 5
★DOBSON&PINCY 619-236-1310 6
★GUMSER ROBERT ATTY 619-232-1555 3
★GUY RONALD N ATTY 619-231-3999 7
★HAWKINS DAVID A CPA 619-235-6531
★HAWKINS MARK E JD LLM 619-235-6531
★HAWKINS&SCOTT 619-235-6531
★OLESEN ELVI J 619-239-5105 3
★SCOTT F L JR CPA 619-235-6531
★SIMONE FRANCO ATTY 619-696-9494 5
★SIMONE&CHATARD ATTY 619-696-9494 5
★SINGER RICHARD I LAW OFFICES 619-239-5105 3
★THERAPEUTIC BODY MASSAGE 619-236-9373 6
1631 XXXX OO
1637 XXXX OO
1641 XXXX OO
1642 BAENA Barbara 619-234-3756 4
HALE Margaret 619-696-9032 +9
MEJIAG Humberto 619-595-0919 8
1645 XXXX OO
1647 XXXX OO
1654 ★LA PENSIONE HOTEL 619-232-3400 0
1659 ★BARNABITE FATHERS 619-234-4820
★OUR LADY ROSARY CH 619-234-4820
★OUR LADY ROSARY HLL 619-233-7039
1660 XXXX OO
1668 XXXX OO
1669 XXXX OO
X DATE W
1741 ●LOGRASSO L 619-232-8791
1746 RECINOS Miriam G 619-230-0684 4
1760 XXXX OO
1762 ★BRADEN JULIE E 619-234-2266 7
★SHUDDE ATHENA 619-234-2266 6
★SIDEMAN MICHL ATTY 619-234-2266
★VOGELMANN MONICA ATTY 619-234-2266 3
X ELM W
1805 XXXX OO
1819 ●MCILWEE Maria J OO 7
1824 TARANTINO A 619-232-5321
●TARANTINO J 619-232-5321
1830 XXXX OO
1833 XXXX OO
1835 ★BAYVIEW SUPER 8 MOTEL 619-544-0164 7
★SHIRAZI PROPERTIES 619-544-6410 4
★SUPER 8 MOTEL BAYVIEW 619-544-0164 4
1839 XXXX OO
1840 XXXX OO
1843 XXXX OO
X FIR W
1907 BAIRD Brian 619-234-8681 +9
★CORDILEONE JOE B LAW OFCS OF 619-696-0507 8
1918 XXXX OO
1920 XXXX OO
1922 XXXX OO
1929 ●BRUNETTO Pasquale 619-239-4656
1931 BRUNETTO Steve 619-234-0095
1933 CORONA G 619-234-1678
1941 XXXX OO
1945 XXXX OO
1953 XXXX OO
1965 SARDINA Anthony 619-595-0683 8
●SARDINA Giovanni 619-239-5517
1970 ★JACKSON&BLANC HEATING&AIR CND 619-236-1121
X GRAPE W
2001 XXXX OO
2011 XXXX OO
2015 XXXX OO
2017 ★MORELOS RESTAURANT 619-232-6788 +9
2019 XXXX OO
2021 XXXX OO
2033 CORONA Antonino 619-232-9293
2041 XXXX OO
2043 BENITEZMUNOZ Veronica 619-231-8741 +9
GARCIA Miguel Cortez 619-231-4325 +9
2051 XXXX OO
2053 XXXX OO
2054 XXXX OO
X HAWTHORN W
2104 ●SARDO A F OO 7
2118 XXXX OO
2135 ★STAHL PHOTOGRAPHICS 619-236-9500 +9
2136 ●BREGANTE A 619-233-3645
2137 XXXX OO
2146 XXXX OO
2156 XXXX OO
X IVY W
2230 BROWN Rob 619-238-3833 4
2250 XXXX OO
2260 XXXX OO
2262 XXXX OO
X JUNIPER W
X LAUREL W

ZIP CODE 92103 SAN DIEGO

WEALTH CODE 2.2

2519 WORRELLS Alison E 619-231-3903 +9
2545 BAHENA Martha 619-235-4560 +9
CARDENAS Hector 619-531-0015 +9
HERNANDEZ Maria 619-235-6977 8
VELASQUEZ Martin 619-237-1873 8
2565 ●HEBEL R E 619-239-6921
2567 XXXX OO
2569 BUSCEMI Jon 619-234-5315
X MAPLE W

COLUMBIA 92103 CONT
2601 XXXX OO
2603 ★HARRYS DRAIN SERV 619-291-6567
USSERY Harry 619-574-0913 0
2619 ●MALLOW Thos W 619-297-1445
2621 XXXX OO
2629 ●MARIA Dora OO 7
2643 XXXX OO
2653 XXXX OO
2655 XXXX OO
X NUTMEG W
2703 ●LOCOCO G OO +9
2705 XXXX OO
2710 ●THEAKER Marga OO 7
2715 DEHAINE Nicolas 619-295-0016 +9
2727 XXXX OO
2729 HAFNER Annika 619-692-9349 +9
2732 XXXX OO
2737 XXXX OO
2739 WELCH Monty 619-299-6984 +9
2741 CHAPMAN Thomas J 619-294-9519 3
2744 XXXX OO
2753 MALONEY Patrick 619-299-1909 7
PARME Laurence 619-296-6581
PARME Monika 619-296-6581
2754 XXXX OO
2756 XXXX OO
2758 KAUFMAN Norman 619-293-3569
KAUFMAN Norman 619-293-3321 +9
2773 XXXX OO
X OLIVE W
2803 XXXX OO
2805 XXXX OO
2807 DIAZ Francisco E 619-299-7656 +9
2811 ●SCHICKLER Herbert H OO +9
2816 ●FENWICK Laura L OO +9
2825 BONHAM H L 619-295-5380
2827 PEARCY Norman 619-298-2823
2830 XXXX OO
2831 XXXX OO
2833 MARCELLA Kevin 619-299-8737 +9
2835 JOHNSON Lesley 619-297-0265 8
2837 SIMPSON Dorian 619-296-2465 6
2840 ●BANDA M 619-295-1285
2849 ZELL Ed 619-299-4199 +9
ZELL Terry 619-299-4199 +9
2851 XXXX OO
2859 FEE Christopher M 619-297-5501 +9
SLAUGHTER Jennifer 619-298-6827 +9
2864 BISHOPJR Robert 619-543-1069 +9
2869 COLLA Lori 619-220-8715
COLLA Sal 619-220-8715
X PALM W
2901 XXXX OO
2903 XXXX OO
2905 XXXX OO
2911 MOONEY C 619-692-4035
2913 PEREIRA Frank 619-295-1124
2915 XXXX OO
2917 XXXX OO
2918 XXXX OO
2919 ALLEN A 619-299-6290 +9
2920 XXXX OO
2921 XXXX OO
2930 XXXX OO
2940 DEBRY Daniel 619-299-6153 +9
2949 XXXX OO
2952 XXXX OO
2955 ROUGH Sean B 619-296-1719 +9
SMITH Don 619-692-1836 6
2957 KELLY Pat 619-299-7736
2959 XXXX OO
2961 DALY B 619-497-1907 +9
LEISINGER Margaret 619-491-0516
PILETTE Yvan 619-692-0411 +9
2964 KREBILL Kurtis 619-295-6304 +9
2965 XXXX OO
2975 XXXX OO
X QUINCE W
3002 XXXX OO
3005 ●STODDARD Paul G OO 7
3007 XXXX OO
3009 XXXX OO
3011 XXXX OO
3018 JOHNSON Roland V 619-298-3467 3
PEREZ Jeanette 619-296-4324 +9
3019 XXXX OO
3021 XXXX OO
3023 STUART Virginia L 619-296-7404
3025 XXXX OO
3027 XXXX OO
3028 XXXX OO
3031 HANINGTON Joseph 619-299-0357 8
3032 ●STARR Pamela J OO 7
3033 XXXX OO
3034 XXXX OO
3035 CHAVEZ Joel A 619-688-9392 8
3037 MITCHELL Jon 619-574-7748
3038 ●BASHAM Bruce E OO +9
3040 BASSHAM Bruce E 619-295-5841
3045 MELLUSI M 619-295-7571 +9
3054 ●DALTON Dan J 619-296-3393 8
3058 XXXX OO
3062 ●SINGLETON Louis J 619-291-9753
3064 XXXX OO
3066 MONOUDIS Tom 619-692-4260 +9
3068 ●MCCONKEY Dean R 619-260-0655 7
X REDWOOD W
3210 XXXX OO
3217 ...... APARTMENTS
ARSENAULT Glenn 619-542-0504
BERWANGER D DDS 619-295-2609 5
DESPER P T 619-294-7376
SELLERS Thomas B 3D 619-295-4835 7
WOLF Heather J 619-294-3070 8
3217 ....
3225 XXXX OO
3229 ●CHEEK Maurice R 619-297-9786
★3D MAGIC 619-299-5622 7
3241 XXXX OO
3242 XXXX OO
3243 ●MOORE Janice M 619-295-5560 +9
●MOORE Terry L 619-295-5560 +9
3245 XXXX OO
3250 XXXX OO
3260 BECKWITH Johnny L 619-295-2802 8
X SASSAFRAS
3310 XXXX OO
3320 ●HAAG Jeffrey L OO +9
★J L H CONSTRUCTION 619-297-1780 6
3321 XXXX OO
3329 XXXX OO
3330 JOHNSON-Dare Penny 619-291-8393 +9
JOHNSON-Dare Penny 619-291-8672 +9
MILLER Catherine C 619-291-4322
3331 ●BAEZ John J OO +9
3333 XXXX OO
3343 ●TURNER T O OO +9
3344 XXXX OO
3345 XXXX OO
3347 ●TURNER Theodore O 619-298-2255
3355 ●DALESSIO Henry 619-296-0779
3356 XXXX OO
3357 XXXX OO
3366 XXXX OO
3368 ●BRUNO Vincenzo 619-295-8294

COLUMBIA 92103 CONT
3372 XXXX OO
X THORN W
3404 ●NORTON Heidi L OO +9
3410 HAMLIN David L 619-294-4093 2
3414 ●BRAYSHAW Jeffrey A OO 8
3424 ●STOKOS James OO 7
3427 CUTRI Cosimo 619-497-1062 7
3429 ●MACOMBER Lu M 619-298-0459 7
3430 ●CIOCYS Wm F 619-297-7303 1
3431 SKINNER Terry A 619-291-4366 +9
3440 ●MCDONALD M 619-260-1821 5
3445 ●ESSERT George F OO 7
3455 XXXX OO
3456 XXXX OO
3460 CLEMONS John 619-291-3015 +9
3465 ●MONAST J R OO +9
3467 ZEITZ Ronald E 619-574-6295 7
3470 ELAZEGUI Angel A 619-296-2923 5
X UPAS W
3504 XXXX OO
3505 XXXX OO
3506 XXXX OO
3512 HOAG Douglas C Mrs 619-295-5433
3513 XXXX OO
3515 PINA Fabrizio 619-294-7137 +9
PINA Raquel 619-294-7137 +9
3516 ●ROJAS Paulina 619-295-7036
3517 ●BROWN Mark OO +9
3518 XXXX OO
3519 XXXX OO
3520 XXXX OO
3528 SORIA Flavia 619-298-0509
●SORIA Jesse 619-298-0509
3529 ●PENSEL Peter H OO 7
3531 ●FLEMING Elizabeth 619-692-1704 4
3533 BENKENDORF Ray 619-298-3279
SHINE Caroline 619-298-3279
3535 XXXX OO
3538 XXXX OO
3540 XXXX OO
X VINE
X WALNUT AV
3610 ISSELHARDT Dion M 619-296-2893 8
ISSELHARDT Dion M 619-542-1318 +9
3612 JUAREZ Jose 619-291-8068 +9
3614 XXXX OO
3615 ●MCLENNAN Marilyn L OO 7
3616 ARCHIBALD John B 619-299-1255 7
3620 XXXX OO
3621 ●BROWN Larry H 619-295-9666
3622 KASSLER Richard R 619-298-8523 8
3627 ●KOBE G W OO 7
3629 XXXX OO
3633 XXXX OO
X CHALMERS
3652 XXXX OO
3663 ●ASHDOWN Helen B OO +9
3667 XXXX OO
3670 XXXX OO
3671 ●AMBLER Bob B 619-291-4164
3677 ●BEAUREGARD Daniel E 619-688-3977 8
3685 ●BEAUREGARD E 619-295-1076
3686 XXXX OO
3687 XXXX OO
3688 ●HOFFMAN J 619-294-3211 8
3691 XXXX OO
3693 XXXX OO
X WINDER
3707 MCGURK James 619-295-7479
3708 XXXX OO
3711 XXXX OO
3712 XXXX OO
3719 ●MEDLIN J 619-297-1934 7
3720 XXXX OO
3723 ●CRISCI Vincent 619-295-3872
3730 XXXX OO
3731 XXXX OO
3736 XXXX OO
X ANDREWS
★ 173 BUS 334 RES 96 NEW

COLUMBIA 91913 CHULA VISTA

WEALTH CODE 5.3

X FORDHAM AV
1606 ●CHAPMAN Geo E Dr 619-421-5063
1608 ●WERBECK Roger S 619-421-2843 1
1610 XXXX OO
1612 XXXX OO
1614 ●KOCH John O 619-421-0895
1616 XXXX OO
1618 ●DENCAVAGE Metro 619-421-8704
1619 BUSH Nettie 619-421-0761
BUSH Robt R 619-421-0761
1620 ●HIGGINS A E 619-421-0947
1621 SHEPARD Ernest G 619-421-8716
1622 XXXX OO
1624 ●WOOLLEY H 619-421-5997
1625 ●MCCLUSKY John M OO
1626 XXXX OO
1627 ●MORRIS Milagros A 619-216-3857
1631 JORGENSEN Ginger 619-656-8231
JORGENSEN Vern F 619-421-5293
1634 ●FRYXELL Allen A 619-482-7882
1636 MEDLEY Melson L 619-421-4757
X AUBURN AV
★ 0 BUS 20 RES 0 NEW

COLUMBINE 92105 SAN DIEGO

WEALTH CODE 0 3

2680 ●MARQUEZ Laura OO
2682 XXXX OO
2684 LUNA Armando 619-285-1035
X FAIRMOUNT AV
2716 ●GROVE Jon W OO
2719 ●PACHECOJR Anthony OO +
2722 ●BALES Elmer L OO
2723 ●HERRERA Ben P OO
2727 ●DOOLEY James J OO +
2729 ●DOOLEY Jas J 619-284-6744
2733 XXXX OO
2735 XXXX OO
2745 ●TORRES David OO
X OLIVE
2803 ●BRAY Robt C 619-281-7027
2807 CHERIE Berhane 619-640-5377 +
MEBRATU Wondwessen C 619-516-5524 +
2820 ●NANEZ Cruz 619-281-5794
2828 ●MONTES Abraham OO +
2829 MUNOZ Mayra 619-528-8794
2843 ●RAMOS Hector OO

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-	✓	Haines & Company

GLENWOOD DR 2000

GLENFLORA AV 92119 SAN DIEGO

WEALTH CODE 8 4

X BONNIE VIEW DR
6905 STANLEY Ann-Marie J 619-460-9328 +9
●STANLEY David G 619-469-9847
6908 ●HAMANN James H OO 7
6915 XXXX OO
6918 ●DUCKWILER Sueko I OO 7
6928 ●SAINTGERMAIN Donald OO 7
6938 ●IRWIN Donald S OO +9
6948 ●BEAN Gregory D OO 7
6958 XXXX OO
6968 YOSHIOKA Shinobu 619-461-2010
●YOSHIOKA Vernon T 619-461-2010
6975 ●RILEY Francis J 619-469-9839
6978 BROWN Robert 619-469-9101 +9
X TEE A WAY PL
7007 ●FOULK Kasey M OO +9
7021 ●BEST Eugene P 619-469-9837
7022 ●SHERMAN Don E OO 7
7033 ●IMHOFF Michael J OO +9
7054 ●BRADFORD Wm R 619-465-4981
7057 ●HAASE Stephen M 619-461-2924 2
7062 XXXX OO
7067 ●LUNEAU Tom OO 7
7070 ●PARKER Richard R 619-469-2288
7078 XXXX OO
X GREEN GABLES AV
7102 XXXX OO
7112 ●SALAZAR Ismael OO 7
7115 KRANENBERG Jean 619-465-4923 +9
7122 PETERSEN Dean 619-463-1310 +9
7132 XXXX OO
7145 XXXX OO
X SUNNY BRAE DR
X GOLFCREST DR
7208 DRIZ Anstoll 619-667-3864 +9
7219 ●DYER Philip M Cdr 619-589-7410 7
7232 XXXX OO
7235 XXXX OO
X CRAMPTON CT
7240 ●ALLISON Gene L 619-697-9864
7243 ●KOTNIK S M 619-469-3775
7248 ●BENSON Arvid L OO 7
7251 ●BAIRD Joanna A OO 7
X SANDERS CT
7259 ●FOX Jack H LTCOL 619-461-2088
7264 DRINKWALTER Ann 619-465-9411
●DRINKWALTER Roger W 619-465-9411
7267 XXXX OO
7272 XXXX OO
7275 ●LOFDAHL Edward J OO 7
7283 DRURY Stanley 619-303-1583 +9
DRURY Stanley 619-698-6606 +9
7291 THOMASON Edward 619-460-5413 +9
THOMASON Edward 619-303-1236 +9
X LITTLER DR
★ 0 BUS 47 RES 12 NEW

GLENHAVEN WAY 91911 CHULA VISTA

WEALTH CODE 1.0

X 1ST AV
110 AHKOI L 619-498-4813 +9
112 XXXX OO
115 ●LIGUTTI Ernest 619-422-4670
116 XXXX OO
118 BLEDSOE William R 619-425-5092
121 XXXX OO
122 TORRES Paula V 619-585-3378
VARELA Guillermina 619-426-6518
124 XXXX OO
127 ●LEWIS Anthony 619-426-5957 6
128 ●WOLLEY Enoch OO +9
133 XXXX OO
134 XXXX OO
136 LOTT Tommy L 619-422-2198 0
●LOTT Wesley B 619-420-8034
139 XXXX OO
140 ●LUPI Juan C OO 7
145 XXXX OO
146 XXXX OO
147 XXXX OO
151 ●KILLEEN V L OO 7
152 ●ODANGA Javier Z OO 7
157 ●ASPACIO Robt 619-420-2761
DAVIS Maria 619-498-8503 +9
163 XXXX OO
165 XXXX OO
169 XXXX OO
175 ●COTA Luis 619-427-2795
★ 0 BUS 28 RES 3 NEW

GLENHILL RD 92020 EL CAJON

WEALTH CODE 4.0

X FERNVIEW
1012 ●CRAIG Bruce L 619-440-0973
1023 XXXX OO
1024 ●HEYENGA Harry D 619-444-4366
1036 ●FITZ Richard A 619-442-0830
1047 JOHNSON Edw A 619-444-9219 +9
1048 XXXX OO
1050 ●NEWELL Walter E 619-579-0393 6
1059 ●PAINTER Lydia 619-579-3767
PAINTER Lydia 619-579-1189
1062 ●CECIL David F 619-447-8458
1065 ●FLANNERY A C 619-593-7686 3
1074 ●CAMPBELL A P 619-440-2713
1077 ●KAISER John V OO 7
1083 ●GATES Robert 619-593-8617 +9
1086 ●HAGEMAN Walter R OO 7
1099 XXXX OO
★ 0 BUS 16 RES 2 NEW

GLENIRA AV 91941 LA MESA

WEALTH CODE 4 4

X GLEN
8720 ESPERANCE Marette 619-462-7151
LINDENEAU Kenneth 619-462-7151
8726 ●CARR Robert A 619-464-5593 8
8728 XXXX OO
8730 ●ANA Larry L OO +9

GLENIRA AV 91941 CONT
8732 ●CHABOT Michele J OO 7
8734 ●KOOIS C 619-697-1826
8740 ●READ Frank A 619-463-3204
8745 XXXX OO
8746 ●SAUL Zola D 619-466-5758
8750 ●LAIDLER Roger D OO 7
8755 PARSONS Lyle 619-466-7200 8
8756 ●SMOTZER Sally A OO 7
8764 ●STANLEY M C OO 7
8765 ●ROBBINS Charles F OO 7
8766 ●GRUNDSTROM Vernon R OO +9
8785 XXXX DO
X GARFIELD
8805 XXXX OO
8848 XXXX OO
8865 ●MURRAY Patrick 619-469-5776
★ 0 BUS 20 RES 2 NEW

GLENLEA LN 92120 SAN DIEGO

NO LISTINGS

GLENMONT 92120 SAN DIEGO

WEALTH CODE 8.0

X MARNE AV
6301 ●CIARAVINO Paul 619-583-3150 3
6311 ●DAMERON Ben B OO 7
6321 ●CONNELL William T OO 7
6341 XXXX OO
X RAYMAR AV
6351 XXXX OO
6360 XXXX OO
6371 ●NEUENSWANDER Paul 619-286-7645
6381 ●CALVERT Maxine OO +9
6390 ●HILL Jas Speed 619-582-6517
6391 XXXX OO
X MADRA AV
★ 0 BUS 10 RES 1 NEW

GLENNCHESTER ROW (96) 92037 LA JOLLA

6105 ATRI Teresa 858-459-0958 +9
ATRI Teresa 858-456-2452 +9
6136 XXXX OO
X RIDGEGATE ROW
★ 0 BUS 3 RES 2 NEW

GLEN OAKS DR N 91901 ALPINE

WEALTH CODE 6.0

X PETRA WAY
518 XXXX OO
539 XXXX OO
544 XXXX OO
563 ●GRITZ Robt T 619-445-4980
X ANDERSON LN
605 MCCARTHY E A 619-445-8664 8
●MCCARTHY T D 619-445-8664 8
624 ●LANGE Tim P OO 7
636 RICHARDSON N 619-445-0017 7
RICHARDSON N 619-445-2171 +9
●RICHARDSON W 619-445-0017 7
RICHARDSON W 619-445-2171 +9
641 HANSON P Sister 619-445-4570 2
PEASLEE M Sister 619-445-4570 2
656 ●CHARTIER Richard L OO 7
X GLEN OAKS PL
X WILLOW LN
717 CRAWLEY Michael E 619-445-3799 8
778 XXXX OO
782 XXXX OO
865 XXXX OO
★ 0 BUS 18 RES 2 NEW

GLEN OAKS DR S 91901 ALPINE

WEALTH CODE 6 0

X PETRA WAY
505 XXXX OO
512 ●BREECE Ronald G OO 7
X ANDERSON LN
542 ●KROLL Joe B OD 7
543 ●CARRELL Shirley OO 7
544 ●WELLS Dwayne L OO +9
545 XXXX OO
563 ●GRITZ Robert T OO +9
565 ●MANN Thomas J OO +9
578 ●KENNEDY William G OO +9
619 XXXX OO
709 MCGILLICUDDY D J 3D 619-445-2598
MCGILLICUDDY D J 3D 619-445-7092 4
764 XXXX OO
765 XXXX OO
★ 0 BUS 14 RES 4 NEW

GLENROY 92120 SAN DIEGO

WEALTH CODE 4.8

6402 ●MIKESELL June E OO 7
6410 ●HERVEY Barbara L OO 7
6411 ●HARANG H 619-287-5950
●HARANG H 619-501-1318 +9
6420 XXXX OO
6430 ●DAMARUS Alfred H 619-582-7821
6431 ●PFOHL Robt Jos Jr 619-286-4038 4
6440 ●HOLT Jim 619-265-0373 8
6441 ●WARFIELD Troy 619-583-8769
6450 ●GAYON Clare 619-583-5040
GAYON Dean 619-583-5040
6451 ●HAUG Shain B OO +9
6460 XXXX OO
6461 ●WALLING Raymond Jr 619-582-2420
6470 ●CORUM J OO 8
6471 ●SCUDERO C W 619-583-3824
X ORCUTT AV
6505 XXXX OO
6510 CURRY Robt H 619-582-0383
6518 MURPHY Jos M Cdr 619-582-4814

GLENROY 92120 CONT
6525 ●LORD J Philip 619-287-4202
6526 ●DALUZ Medardo F OO 7
6534 ●ABREGO Donald L 619-582-6527 5
6541 ●CROSSLEY Eugene I 619-582-8526
6542 ●STONE Dorothy W OO 7
6549 XXXX OO
6550 ROZENBURG Lon 619-287-1044 7
6557 XXXX OO
6558 XXXX OO
6565 XXXX OO
6573 ●SCHUMACHER Mark W OO 7
6590 VANSICKLE P J 619-286-1676 7
X ZION AV
X GREENBRIER AV
6707 ★SD CTY PK SWIMNG PL 619-235-1143 2
6743 PRICE Gregory S 619-582-7167
6751 ●HAMMOND Edw J 619-583-0244
6759 ●WEBER A OO 7
6760 XXXX OO
6767 COOPER Donald 619-583-6310
6775 LOOMIS David M 619-583-6081
LOOMIS Deborah J 619-583-6081
6785 ●NELSEN William 619-583-8375 6
6795 XXXX OO
X IRWIN AV
6801 ●GARCIA Norma F OO +9
6807 MANRY Mendall A 619-583-1165
6811 VERRYP Simon 619-582-7738
6815 XXXX OO
6821 ●LIPKIN Jennifer 619-287-9181 8
6827 XXXX OO
6833 ●PORTER L W OO 7
6839 ●BEAN Douglas S OO +9
6845 ●IRWIN Michael A OO 7
6851 ●WEST Homer J OO 7
6859 ●JACKSON Roland B 619-583-0352
6860 ●SCHULZ Frank K 619-265-8145
6863 ●STROCK Donald W 619-583-5393
6869 URBANO Claudia 619-287-2018 7
●URBANO Javier 619-287-2018 7
6870 ●OLIVIER Felix OO 7
6875 XXXX OO
X LEWISON AV
6881 FINDAHL Carrol 619-583-6200
6885 XXXX OO
6889 ●KERN John R OO 7
6892 ●CALVO Millie OO +9
6893 HEADRICK Brian S 619-582-4032
6897 ●GRIM Goldie J OO 7
X PRINCESS VIEW DR
6898 ●OLIVE Wm T 619-582-9065
6902 ●HARDIN Betty M 619-265-1780
●HARDIN Wilbur G 619-501-1006 +9
6903 ●RODRIGUES Wm 619-582-9593
6908 GOUIN Thomas 619-229-1723 8
●GOUIN Wendy 619-229-1723 8
6909 ●STADLER Steven D OO +9
6915 ●WALFORD John D 619-583-0658
6922 XXXX DO
6923 MORLEY David O 619-583-1376
6928 BARDO Alison 619-265-8677 6
●BARDO Robert 619-265-8677 6
6936 ●BROOKS Marvin D 619-583-0681
6942 SWEIS Sweis A 619-265-8410
SWEIS T O 619-265-2108
6945 ●ALVARADO Joseph OO 8
X BRUNSWICK AV
6948 ●STEPHENS Larry F OO 8
6954 ●ROSHONG Donald V 619-582-9539
6955 CASTA Guillermo E 619-286-7892 6
MACIAS Joe R 619-286-0803
6960 ●HASENAUER Eileen J OO 7
6965 ●LAKIN Wm H 619-582-9188
6966 BILICKI Frances R 619-582-2010
●BILICKI Peter A 619-582-2010
6975 ●WORDEN Wallace J 619-582-8974
X HILLSBORO
7001 STEWART Robert W 619-583-9134 +9
STEWART Robt W 619-583-7148
7028 XXXX OO
7044 BENYR Walton 619-582-9270
X COTTAGE AV
7052 XXXX OO
7060 ●ROBINSON T L 619-265-4581 6
ROBINSON T L 619-265-1920 +9
7068 ●BAKER Michael L OO +9
7074 BINKERD Marla 619-287-8318 +9
BINKERD Ron 619-287-8318 +9
X DUNDEE AV
7082 ●LAWRENCE Earl V OO 7
7090 DONAVON Carmen 619-582-9135 +9
X ELGIN AV
7106 ●SCHILLING Gordon L 619-582-9303
7116 XXXX OO
7126 GOLUBEVA Svetlana 619-582-8957 +9
7136 ●SEYMOUR Dennis OO 7
7146 ●SOLSBAK Robt H 619-582-1528
X FORBES AV
7176 XXXX OO
X GALA AV
★ 1 BUS 106 RES 14 NEW

GLENSIDE PL 91977 SPRING VALLEY

NO LISTINGS

GLEN VERDE CT 91902 BONITA

WEALTH CODE 8.0

X GLEN VERDE DR
3704 ●PASCUALVALLADOL Ter OO 7
3715 ●WAIZUMI Kiyoshi OO 7
3716 ●MINTON Stephen R 619-475-4348
3730 ●WILLIAMS John T Cap 619-479-4928
3731 XXXX OO
3738 ●BOWERS C A OO +9
SPATE Lee W 619-479-8535
★ 0 BUS 7 RES 1 NEW

GLEN VERDE DR 91902 BONITA

WEALTH CODE 8.0

X BONITA GLEN TER
5039 MCCONNELL D L Cdr 619-479-3746
5045 HUTCHESON Mary 619-479-9205
HUTCHESON Nicholas 619-479-9205
5051 ●SINGER Lisa D OO 7
5059 ●RITCHEY John F 619-267-1679 4
5067 ●SERRATOS Jaime A OO +9
5068 XXXX OO
5075 WARING Jas D 619-479-3986

GLEN VERDE DR 91902 CONT
5076 ●VETH Patrick 619-479-2354
X GLEN VERDE CT
5101 ★ADOPTION OPTIONS 619-267-4090 7
●IRVINE Charles 619-267-3580 7
5104 XXXX OO
5109 ●CAMPBELL Waver W OO +9
5110 ●THOMPSON Mitchell 619-472-0119
5115 XXXX OO
5116 ●CAMPBELL A OO +9
5121 ●SCHINDLER B F Mrs 619-267-2234
5122 ●MCTEAGUE Marie T OO 7
5127 ●STOBBE Raymond R 619-479-9804
5133 KALETA Carl E 619-475-5386
●KALETA Jewel A 619-475-5386
5134 WATTS Geo C Lcdr 619-479-9905
5145 ●MEYERS Richard C 619-479-2592
5146 POHL Matthew J 619-267-2736
TAYLOR Mary 619-267-6372
5157 ●FINNEY Charles P OO 8
X BONITA VIEW DR
X DAWSONIA
X OLD DAIRY CT
X OLD DAIRY LN
X OLD DAIRY WAY
5208 XXXX OO
5220 ●OGARA Susan L OO 7
5221 DAVIS Linda K 619-475-3760 8
5233 XXXX OO
★ 1 BUS 29 RES 3 NEW

GLEN VIEW LN 92037 LA JOLLA

WEALTH CODE 7.0

711 HOLZ Andreas 858-551-8411 +9
716 ●CUSTARD Richard 858-459-9760 8
733 XXXX OO
★ 0 BUS 3 RES 1 NEW

GLEN VIEW PL 91902 BONITA

WEALTH CODE 8.0

5046 ●OTIS Roberta L OO 7
5053 XXXX OO
5054 XXXX OO
5063 ●MAGALLON Sergio A OO 7
5069 FENEIS Al J 619-479-0342
5077 XXXX OO
5078 ●MATTIS James B Lt 619-479-5416
X BONITA GLEN TER
5106 ●CASTRO Antonio OO +9
5118 ●PETTIT Milt H 619-479-7692
5121 ★CHALFA BUILDERS 619-470-3312 +9
5130 ●BOWMAN David A 619-470-9094 3
BOWMAN David A 619-470-8574 8
5133 ●JORDAN Ruth C OO 8
5142 ●HATTENDORF Elroy 619-479-9544
5154 ●LINCOLN Evelyn A 619-479-2518
5157 ●PATTERSON Bradford 619-479-5631
5166 ●CORDIVIN Ramon T 619-479-5166 3
X DAWSONIA
5211 ●SHIELDS David 619-476-1728
5212 ●MULDOON John J 619-479-6491
5223 HARTMAN Heath 619-267-5720 +9
5236 ●TANKERSLEY Harman L 619-475-5138
★ 1 BUS 20 RES 3 NEW

GLEN VISTA 92114 SAN DIEGO

WEALTH CODE 6.3

X PARKBROOK
206 ●MOLL Diane C 619-267-5481 3
207 ●DUENAS Casilda M OO +9
217 ●FOGLIO Julieta G 619-475-7431
226 ●ARREOLA Javier OO 7
227 HARDWICK Roger 619-475-7736 +9
X GLEN VISTA CT
236 ●GRAY Milton OO 7
237 JENSEN Cynthia L 619-475-3838
●JENSEN Martin L 619-475-3838
246 ●HOGGARD Garney C OO 7
257 ●SANTOS Nazario D OO 7
277 ●JACKSON Michael L OO 7
287 XXXX OO
297 ●BILLONES Ceferino 619-470-8162
303 ●SHERMAN Joe L OO +9
304 ●PUSEY Jas 619-475-0243 6
311 XXXX OO
312 HUNT Tracy 619-470-4515 +9
327 XXXX OO
★ 0 BUS 18 RES 4 NEW

GLEN VISTA 91977 SPRING VALLEY

WEALTH CODE 7 0

287 XXXX OO
303 XXXX OO
311 XXXX OO
X CACUS
339 ●TORCULAS O OO 7
342 XXXX OO
356 SAWH Chinta M 619-479-9819
357 XXXX OO
363 GALLARTE Clarice 619-267-6292 7
●GALLARTE Nicanor 619-479-5289 5
386 LUNA Daniel 619-267-2307 8
★ 0 BUS 10 RES 0 NEW

GLEN VSTA CT 92114 SAN DIEGO

WEALTH CODE 5.0

8307 XXXX OO
8315 XXXX OO
8316 ●CASTRENCE Marie L OO 7
8319 XXXX OO
8322 ●JIMENEZ Zinda S OO 7
8325 ●MIRANDA O A OO 7
8328 ●DELACRUZ Johnson P OO 7
8329 ●STEPHENS Michael L OO +9
8334 XXXX OO
8335 XXXX OO

GLEN VSTA CT 92114 CONT.
8338 XXXX OO
8345 ●HOLLEY James B OO 7
8349 BERSALONA Efren 619-475-9569 +9
8350 XXXX OO
8355 TUAZON Sonny 619-267-7935 +9
8358 ●PIO J A OO 7
8364 ●MONRREAL Victor M OO 7
8370 METCALF Robert A 619-267-7649 +9
X GLEN VISTA
★ 0 BUS 18 RES 4 NEW

GLENWAY DR 92020 EL CAJON

WEALTH CODE 4 0

X FERNVIEW
1064 XXXX OO
1067 ●BLACK Stephen J OO 7
1068 ●CARONNA Henry L OO 7
1071 XXXX OO
1072 ●ANDERSON Lea H OO 7
1075 ●FARRINGTON Daniela 619-444-0460 +9
●FARRINGTON Thomas 619-444-0460 +9
1078 XXXX OO
1079 ●GIPSON Glenn OO 7
1084 ●CROWELL Carl B 619-588-6670 3
1085 ●SAUNDERS Mark R OO 7
1095 ●YIP Shek C OO 7
1096 XXXX OO
★ 0 BUS 13 RES 2 NEW

GLENWICK LN 92037 LA JOLLA

WEALTH CODE 9 0

X GLENWICK PL
8695 ●CLARK Sidney B Dr 858-452-5056
8696 ●BRODY Stuart OO 7
8703 ●CHRISPEELS Maarten 858-457-1339
8704 ●STERN Marc D OO 7
8720 ●STONE Lance R OO 7
8721 ●GOREN Yuval 858-452-6022 7
8735 ●SCHOENE Thomas W 858-453-3779 7
8736 XXXX OO
8750 ●MCCAMMON J A 858-458-1013 6
8751 GUSFIELD Irma G 858-453-0280
●GUSFIELD Joseph R 858-453-0280
8765 DORNE David 858-455-1727
DORNE Gabrielle 858-455-1727
DORNE Hillary 858-455-8330
DORNE Kevin 858-455-8330
X BORDEAUX AV
★ 0 BUS 15 RES 0 NEW

GLENWICK PL 92037 LA JOLLA

WEALTH CODE 9.0

2711 ARRHENIUS Gustaf O 858-453-2255
●ARRHENIUS P 858-455-1474
2712 ●VITERBI Andrew OO 7
2721 ●TRADONSKY Steven 858-550-9486 +9
2722 ●HILLYARD Steven A 858-453-6259
2731 ●OKANA Jun L OO 7
2734 ●COPELAND Dempsey 858-452-9307
X GLENWICK LN
★ 0 BUS 7 RES 1 NEW

GLENWOOD DR 92103 SAN DIEGO

WEALTH CODE 3 0

1405 ●KEITH Sharon 619-296-2874
1425 BEDINGTON Glynn 619-297-5405 +9
BEDINGTON Paul 619-297-5405 +9
1455 ●SCAFIDI M E 619-298-3607 3
1475 COHEN Neil L 619-291-6973 7
ROMANO Mark 619-291-6973 7
X GUY
X UNION
1504 ●COSTANTINO Rita 619-296-3970 +9
1507 XXXX OO
1509 XXXX OO
1511 XXXX OO
1525 DRIVER Gary D 619-296-1670 +9
1530 XXXX OO
1531 ●JOHNSON Gerald L OO 7
1535 XXXX OO
1537 XXXX OO
X INDIA
1602 ●CURTIS John D OO 7
1605 JUERSIVICH Jennifer A 619-297-5757 8
1607 XXXX OO
1610 XXXX OO
1618 ●POLLOCK Niel 619-298-4068
1620 XXXX OO
1624 KAVANAGH Simon 619-574-1329 8
1628 XXXX OO
1630 XXXX OO
1633 PIATCHUK Jerald P 619-298-6961 +9
1634 XXXX OO
1636 XXXX OO
1702 DARBY Heidi 619-297-2985 +9
1704 ●GALLAND Brock T OO 7
1705 XXXX OO
1708 XXXX OO
1709 ★A A A FLOOD RESCUE 619-297-0499 8
RECORD S 619-291-0005 8
1710 XXXX OO
1711 XXXX OO
1712 XXXX OO
1716 ALBRECHT Roland E 619-295-3359
★ 1 BUS 36 RES 6 NEW

GLOAMING AV 92114 SAN DIEGO

WEALTH CODE 4 0

7435 WIKHOLM Leslie 619-263-2446
●WIKHOLM Mark 619-263-2446
7438 ●ARMSTRONG Joseph E OO 7
7448 ●MORGAN Joseph W OO +9
7449 ●MEDINA K L OO 7
7462 XXXX OO
7463 ●WILLIAMS Jodi M OO 7
7477 XXXX OO

GLOAMING AV 92114 CONT
7490 ●MALLONE Kelly K OO
X BRUTUS
7519 XXXX OO
7530 ●PERSON Rhonda L OO
7533 XXXX OO
7534 XXXX OO
X MEADOWBROOK DR N
★ 0 BUS 13 RES 1 NEW

GLORIA 92113 SAN DIEGO

WEALTH CODE 0 0

X FRANKLIN AV
305 CARTER John 619-262-1349
RICHARDS L N 619-263-4775
307 XXXX DO
310 CHAHAN Somlith 619-263-5264 +
314 ●RUIZ Roberto 619-262-2853
321 ●JOSEPH Quincy OO
322 XXXX OO
324 XXXX OO
325 XXXX OO
332 ●REYES Francisco J 619-527-2447
333 MERAZ Guillermina 619-527-8791
●MERAZ Ruben 619-527-8791
340 ●WILLIAMS Samuel OO +
342 WILLIAMS Sami 619-264-0778
343 XXXX OO
344 XXXX OO
346 RODRIGUEZ Jasmine 619-263-5246
RODRIGUEZ Miguel 619-263-5246
348 XXXX OO
352 XXXX OO
X OCEAN VIEW BLVD
403 XXXX OO
406 MOJARO Maria 619-264-4096 +
408 XXXX OO
410 XXXX OO
414 XXXX OO
419 SOVANN Bunchann 619-262-2876
420 VASQUEZ Rosa 619-266-8063 +
423 MANZANERO Irma 619-264-3166
424 ●GONZALES Jose L OO
425 XXXX OO
427 XXXX OO
429 XXXX OO
442 HERNANDEZ Danette 619-527-8713 +
PICENO Blanca 619-262-2568 +
444 XXXX OO
445 ●RODRIGUEZ Edwin P OO +
X BUNNELL
X MANOMET
X T
1231 HICKS Lavern 619-262-2839
●HICKS Wm 619-262-2259
X SOLOLA AV
★ 0 BUS 38 RES 7 NEW

GLORIA LK AV 92119 SAN DIEGO

WEALTH CODE 8 0

X TWIN LAKE DR
7723 STERN Avi 619-697-1694
●STERN Robin 619-697-1694
7733 ●THOMPSON J Douglas 619-667-5385 +
7743 PLAISTED Connie 619-461-7527
●PLAISTED Robert E 619-461-7527
7753 XXXX OO
7763 ●BERMOSK Richard C 619-455-5125
7773 ●MILLER Russell J OO
7783 ●FORTE Kevin L OO +
7811 COLON J 619-463-9120
7821 ●ESPOSITO Charles F OO
7831 XXXX OO
7841 ●SADNICK Glenn H 619-469-7761
7854 ●NAROUCCI Joseph J OO +
7861 ●KOONS Robert M OO
7864 ●ALBERICO Linda OO
7871 ●SCHNEIDER A 619-463-4799
7874 ●MAHE Garold F OO
7881 ●MAYBERRY Raymond J 619-465-0390
7884 MIZUNO Kazumi 619-465-7590
★TOYO TRAVEL 619-465-8621
★ 1 BUS 20 RES 3 NEW

GLORIETTA BLVD 92118 CORONADO

WEALTH CODE 6 9

X 3RD
342 ●SOMERVILLE Wm M Jr 619-435-8547
346 FISHER Chuck 619-437-8560
●FISHER Shannon 619-437-8560
354 XXXX OO
360 MARSDEN Martha 619-435-3318
●MARSDEN Phillip 619-435-3318
366 ZEKAN Charles J 619-435-5106
370 XXXX OO
374 FAIRBANK David P 619-437-1613
●FAIRBANK David P Atty 619-435-1215
382 XXXX OO
X 4TH
400 XXXX OO
402 ●HEGERLE Matthew J OO +
416 ●HISCOCK Wm C 619-435-0948
420 INGLE John C 619-435-2173 +
426 ●HIGGS A H 619-435-0866
430 SCHAEFER A E 619-435-8581
432 ●OBEIRNE E Radm Ret 619-435-1796
436 XXXX OO
X 5TH
500 XXXX OO
504 CHAMBERLAIN R W Mrs 619-435-0025
GREEN Frank W 619-435-0025
506 SEYMOUR Edward 619-437-0425
508 PARKER Jacque 619-435-6454
PARKER Richard W Capt Usn 619-435-6454
520 GROVE M L 619-435-3387
522 XXXX OO
X PENDLETON RD
526 MOYER John S 619-435-4626
532 ●SEAMAN Wilfrid C 619-435-4450
544 ●BLOOD W Joseph 619-437-6505
BLOOD W Joseph 619-437-6836 +
X 6TH
600 SPEER William A 619-435-5672
STEIRER M 619-435-5672

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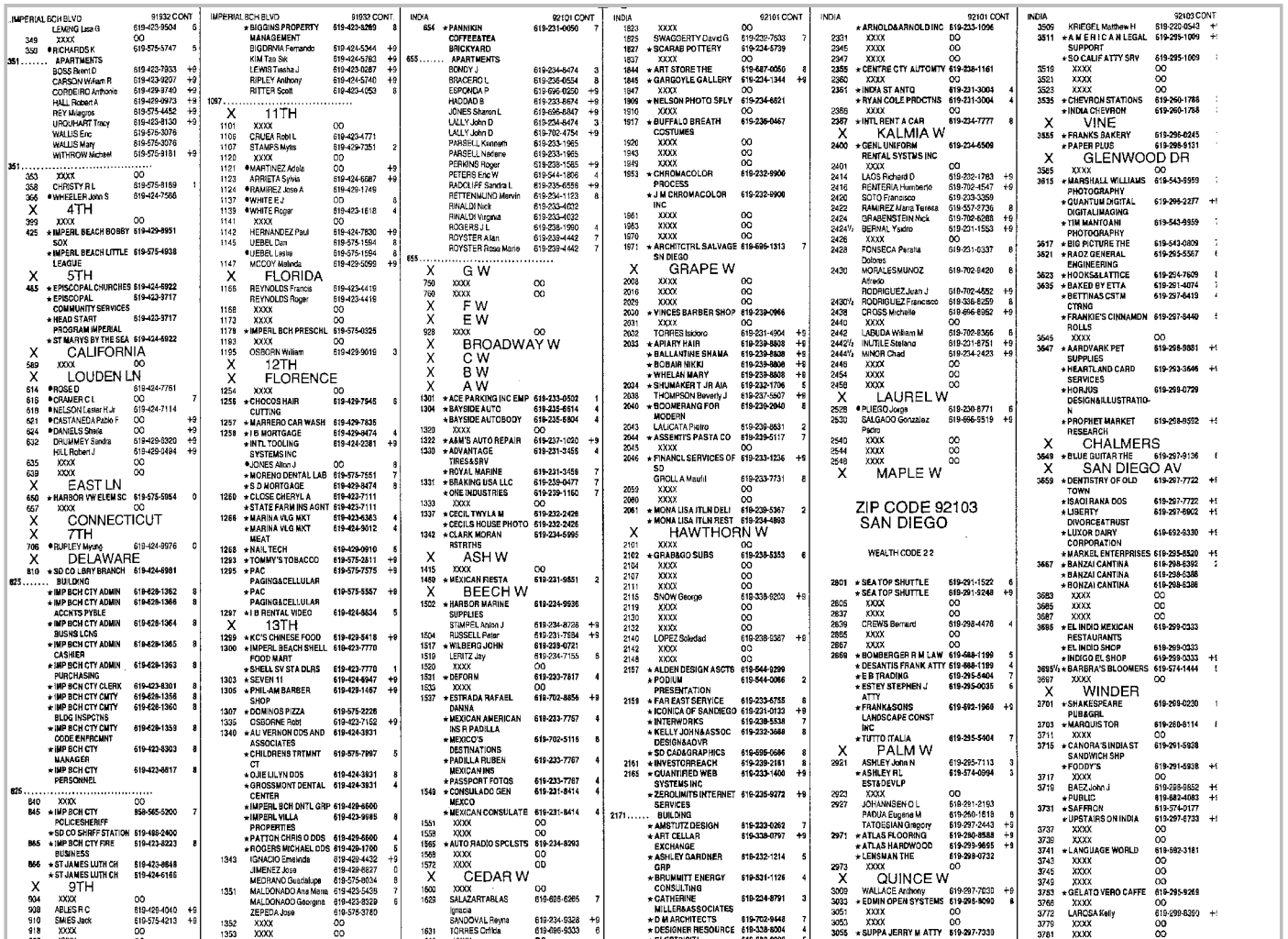

IMPERIAL BCH BLVD 91932 CONT
LEMING Lisa G 619-423-9504 6
XXXX OO
350 ★RICHARDS K 619-575-5747 5
351 APARTMENTS
BOSS Brent D 619-423-7933 +9
CARSON William R 619-423-9207 +9
CORDEIRO Anthony 619-429-9740 +9
HALL Robert A 619-429-0973 +9
REY Milagros 619-575-4452 +9
URQUHART Tracy 619-423-8130 +9
WALLIS Eric 619-575-3076
WALLIS Mary 619-575-3076
WITHROW Michael 619-575-9181 +9
351
353 XXXX OO
358 CHRISTY R L 619-575-8169 1
366 ★WHEELER John S 619-424-7566
X 4TH
399 XXXX OO
425 ★IMPERL BEACH BOBBY SOX 619-429-9951
★IMPERL BEACH LITTLE LEAGUE 619-575-4938
X 5TH
465 ★EPISCOPAL CHURCHES 619-424-6922
★EPISCOPAL COMMUNITY SERVICES 619-423-3717
★HEAD START PROGRAM IMPERIAL 619-423-3717
★ST MARYS BY THE SEA 619-424-6922
X CALIFORNIA
589 XXXX OO
X LOUDEN LN
614 ★ROSE D 619-424-7761
615 ★CRAVER C L OO 7
619 ★NELSON Lester H Jr 619-424-7114
621 ★CASTANEDA Pablo F OO +9
624 ★DANIELS Sheila OO +9
632 DRUMMEY Sandra 619-429-9320 +9
HILL Robert J 619-429-0494 +9
635 XXXX OO
639 XXXX OO
X EAST LN
650 ★HARBOR VW ELEM SC 619-575-5954 0
657 XXXX OO
X CONNECTICUT
X 7TH
706 ★RUPLEY Myung 619-424-9576 0
X DELAWARE
810 ★SD CO LBRY BRANCH BUILDING 619-424-6981
825
★IMP BCH CTY ADMIN 619-628-1362 8
★IMP BCH CTY ADMIN ACCNTS PYBLE 619-628-1366 8
★IMP BCH CTY ADMIN BUSNS LCNS 619-628-1364 8
★IMP BCH CTY ADMIN CASHIER 619-628-1365 8
★IMP BCH CTY ADMIN PURCHASING 619-628-1363 8
★IMP BCN CTY CLERK 619-423-8301 8
★IMP BCH CTY CMTY 619-628-1356 8
★IMP BCH CTY CMTY BLDG INSPCTNS 619-628-1360 8
★IMP BCH CTY CMTY CODE ENFRCMNT 619-628-1359 8
★IMP BCH CTY MANAGER 619-423-8303 8
★IMP BCH CTY PERSONNEL 619-423-8617 8
825
840 XXXX OO
845 ★IMP BCH CTY POLICE/SHERIFF 858-565-5200 7
★SD CO SHRFF STATION 619-498-2400
865 ★IMP BCH CTY FIRE BUSINESS 619-423-8223 8
866 ★ST JAMES LUTH CH 619-423-8648
★ST JAMES LUTH CH 619-424-6166
X 9TH
904 XXXX OO
908 ABLES R C 619-424-4040 +9
910 SMIES Jack 619-575-4213 +9
918 XXXX OO
929 XXXX OO
931 CERVENY Jirehiah 619-429-4102 +9
936 XXXX OO
937 JAUREGUI Denis 619-424-9663
JAUREGUI Nils 619-424-9663
X EMORY
953 XXXX OO
955 XXXX OO
957 XXXX OO
X 10TH
1019 EL PATIO APTS
COSPER Charlene 619-423-4886 +9
DELAPINA Edna 619-429-7650 +9
★EL PATIO 619-429-9901 7
JAIME John 619-424-8584 6
JOHNSON Alvia B 619-429-0226
LABROSSE M 619-423-4915 +5
MASTROSERIO Vito 619-423-4877 +9
MILLER Rae 619-575-3753
MILTON Felicia L 619-423-5032 +9
MONTANO Alma 619-575-8935 6
MONTEZ Johnny 619-423-4849 7
NAVA Angelica 619-575-0291 +9
SHERMAN Ralph L 619-429-7866 3
SMITH R J 619-575-0267 7
SMITH Walter 619-429-0981 7
★SUSSEX GARDENS 619-429-6901 1
TOVES Juan 619-424-6522 6
WEGMANN Robin S 619-575-8171 +9
1019
1024 XXXX OO
1031 HAWAIIAN GARDENS
FOWLER Richard 619-423-6276 +9
★HAWAIIAN GARDENS 619-428-5303
KIM Jong 619-426-6303 8
MENDOZA Miguel Angel 619-424-5891 6
ROBINSON Gloria J 619-575-9465 +9
SLAUGHTER Robert 619-429-9402 +9
1031
1037 XXXX OO
1039 XXXX OO
1041 XXXX OO
1065 LUCAS Shaiksha C 619-426-8553 +9
1067 JAVIER Rodolfo G 619-428-0229 +9
1068 XXXX OO
1071 LITTON Jeff 619-424-6201 +9
LITTON Trina 619-424-6201 +9
1075 XXXX OO
1077 XXXX OO
1081 XXXX OO
1085 ALVARADO Cris 619-424-5410 6
1087 XXXX OO
1089 HARRELL M 619-575-7941 +9
1091 CASTANEDA Esperanza 619-423-3447 9
1092 HOLDER Philip 619-423-3924 +9
JONES Dons E 619-429-5192 +9
1093 XXXX OO
1095 XXXX OO
1097 APARTMENTS

IMPERIAL BCH BLVD 91932 CONT
★BIGGINS PROPERTY MANAGEMENT 619-423-3269 8
BIGDRNA Fernando 619-424-5344 +9
KIM Tae Sik 619-424-5783 +9
LEWIS Tasha J 619-423-0287 +9
RIPLEY Anthony 619-424-5740 +9
RITTER Scott 619-423-4053 8
1097
X 11TH
1101 XXXX OO
1105 CRUEA Robt L 619-423-4771
1107 STAMPS Myrtis 619-429-7351 2
1120 XXXX OO
1121 ★MARTINEZ Adela OO +9
1123 ARRIETA Sylvia 619-424-6587 +9
1124 ★RAMIREZ Jose A 619-429-1749
1137 ★WHITE E J OO 8
1139 ★WHITE Roger 619-423-1618 4
1141 XXXX OO
1142 HERNANDEZ Paul 619-424-7830 +9
1145 UEBEL Dan 619-575-1594 8
★UEBEL Leslie 619-575-1594 8
1147 MCCOY Melinda 619-429-5099 +9
X FLORIDA
1165 REYNOLDS Francis 619-423-4419
REYNOLDS Roger 619-423-4419
1158 XXXX OO
1173 XXXX OO
1178 ★IMPERL BCH PRESCHL 619-575-0325
1193 XXXX OO
1195 OSBORN William 619-429-9019 3
X 12TH
X FLORENCE
1254 XXXX OO
1256 ★CHOCOS HAIR CUTTING 619-429-7545 6
1257 ★MARRERO CAR WASH 619-429-7835
1258 ★I B MORTGAGE 619-429-9474 4
★INTL TOOLING SYSTEMS INC 619-424-2381 +9
★JONES Alton J OO 8
★MORENO DENTAL LAB 619-575-7551 7
★S D MORTGAGE 619-429-8474 9
1260 ★CLOSE CHERYL A 619-423-7111
★STATE FARM INS AGNT 619-423-7111
1266 ★MARINA VLG MKT 619-423-6363 4
★MARINA VLG MKT MEAT 619-424-9012 4
1268 ★NAIL TECH 619-429-0910 5
1293 ★TOMMY'S TOBACCO 619-575-2811 +9
1295 ★PAC PAGING&CELLULAR 619-575-7575 +9
★PAC PAGING&CELLULAR 619-575-5557 +9
1297 ★I B RENTAL VIDEO 619-424-8634 5
X 13TH
1299 ★KC'S CHINESE FOOD 619-429-5418 +9
1300 ★IMPERL BEACH SHELL FOOD MART 619-423-7770
★SHELL SV STA DLRS 619-423-7770 1
1303 ★SEVEN 11 619-424-6947 +9
1305 ★PHIL-AM BARBER SHOP 619-429-1457 +9
1307 ★DOMINOS PIZZA 619-575-2228
1335 OSBORNE Robt 619-423-7152 +9
1340 ★ALI VERNON DDS AND ASSOCIATES 619-424-3931
★CHILDRENS TRTMNT CT 619-575-7997 5
★OJIE LILYN DDS 619-424-3931 8
★GROSSMONT DENTAL CENTER 619-424-3931 4
★IMPERL BCH DNTL GRP 619-428-6600
★IMPERL VILLA PROPERTIES 619-423-9985 8
★PATTON CHRIS O DDS 619-429-6600 4
★ROGERS MICHAEL DDS 619-429-1700 5
1343 IGNACIO Ernesto 619-428-4432 +9
JIMENEZ Jose 619-428-8827 0
MEDRANO Guadalupe 619-575-8634 8
1351 MALDONADO Ana Maria 619-423-5439 7
MALDONADO Georgina 619-423-8529 6
ZEPEDA Jose 619-575-3789
1352 XXXX OO
1353 XXXX OO
1354 XXXX OO
1355 RAMIREZ Tomas 619-423-3417 0
1361 XXXX OO
X GEORGIA
1411 MCGILLIVRAY Duane 619-429-7560 +9
MCGILLIVRAY Martha 619-429-7569 +9
1419 JUAN Hernandez 619-423-6290 +9
1421 ★COTA S OO +9
1439 HODGE Tommy 619-424-6268 7
1465 LORD Lory 619-424-5967 +9
1475 AVERY Michael 619-424-6252 +9
1477 XXXX OO
1483 XXXX OO
1485 RODRIGUEZ Esteban 619-575-7064 +9
X CORONADO AV
★ 59 BUS 226 RES 105 NEW

IMPINK PL 91935 JAMUL

WEALTH CODE 8.0

X OLIVE VISTA DR
3111 ★LAY Robert E 619-669-6430
3117 ★THOMAS Larry W 619-669-0154
3126 ★MACOMBER Deborah L OO 7
3129 ★NEWPORT KELLY R 619-669-4754
★NEWPORT RODRIG 619-669-4754
3130 ★FITZSIMMONS Clyde OO +9
3135 ★CAPITANO Eugene N 619-669-4923
★ 2 BUS 5 RES 1 NEW

INCHON CT (91) 92118 CORONADO

WEALTH CODE 3.0

1521 MOREN Tom 619-437-6850 +9
1531 HUBERT David 619-435-8277 8
HUBERT Paula 619-435-8277 8
1541 XXXX OO
★ 9 BUS 4 RES 1 NEW

INDIA 92101 SAN DIEGO

WEALTH CODE 5.7

696 XXXX OO
696 MURRAY Colleta 619-696-0098 8
★MURRAY Richard 619-696-0098 8
633 XXXX OO
645 XXXX OO

INDIA 92101 CONT
654 ★PANNIKIN COFFEE&TEA 619-231-0050 7
BRICKYARD
655 APARTMENTS
BONDY J 619-234-6474 3
BRACERO L 619-236-0554 8
ESPONDA P 619-696-6250 +9
HADDAD B 619-233-8674 +9
JONES Sharon L 619-696-6847 +9
LALLY John D 619-234-6474 3
LALLY John D 619-702-4754 +9
PARSELL Kenneth 619-233-1965
PARSELL Noreene 619-233-1965
PERKINS Roger 619-238-1585 +9
PETERS Eric W 619-544-1806 4
RADCLIFF Sandra L 619-235-6556 +9
RETTENMUND Mervin 619-234-1123 8
RINALDI Nick 619-233-4022
RINALDI Virginia 619-233-4022
ROGERS J L 619-238-1990 4
ROYSTER Allan 619-239-4442 7
ROYSTER Rose Marie 619-239-4442 7
655
X GW
759 XXXX OO
760 XXXX OO
X FW
X EW
928 XXXX OO
X BROADWAY W
X CW
X BW
X AW
1301 ★ACE PARKING INC EMP 619-233-0502 1
1304 ★BAYSIDE AUTO 619-235-6514 4
★BAYSIDE AUTOBODY 619-235-6804 4
1309 XXXX OO
1322 ★A&M'S AUTO REPAIR 619-237-1020 +9
1330 ★ADVANTAGE TIRES&SRV 619-231-3455 4
★ROYAL MARINE 619-231-3456 7
1331 ★BRAKING USA LLC 619-239-0477 7
★ONE INDUSTRIES 619-239-1160 7
1333 XXXX OO
1337 ★CECIL TWYLA M 619-232-2426
★CECILS HOUSE PHOTO 619-232-2426
1342 ★CLARK MORAN RSTRTHS 619-234-5995
X ASH W
1415 XXXX OO
1460 ★MEXICAN FIESTA 619-231-9851 2
X BEECH W
1502 ★HARBOR MARINE SUPPLIES 619-234-9936
STAMPEL Anton J 619-234-8726 +9
1504 RUSSELL Peter 619-231-7894 +9
1517 ★WILBERG JOHN 619-239-0721
1519 LERITZ Jay 619-234-7155 6
1520 XXXX OO
1521 ★DEFORM 619-233-7617 4
1533 XXXX OO
1537 ★ESTRADA RAFAEL DANNA 619-702-8856 +9
★MEXICAN AMERICAN INS R PADILLA 619-233-7767 4
★MEXICO'S DESTINATIONS 619-702-5115 8
★PADILLA RUBEN MEXICAN INS 619-233-7767 4
★PASSPORT FOTOS 619-233-7767 4
1549 ★CONSULADO GEN MEXCO 619-231-8414 4
★MEXICAN CONSULATE 619-231-8414 4
1555 XXXX OO
1558 XXXX OO
1561 ★AUTO RADIO SPCLSTS 619-234-8293
1568 XXXX OO
1572 XXXX OO
X CEDAR W
1600 XXXX OO
1623 SALAZARTABLAS 619-688-6265 7
Ignacio
SANDOVAL Reyna 619-234-9328 +9
1631 TORRES Cirilda 619-696-9333 6
1633 XXXX OO
1635 ★PERSIMMON GRAPHICS 619-233-4464 +9
1640 ★HONEY BEE MEATS LTD 619-233-0461
★SOLINTO BAKING CO 619-233-3506
★TRINACRIA 619-233-1932 5
1644 XXXX OO
1646 ★NETWORK COURIER SRV 619-233-7774
★NETWORK FACSIMILE SERVICE 619-233-7774
1647 XXXX OO
1654 ★LANDSIDE CO 619-232-7361
1655 ★ZAGARELLA ITALIAN RESTAURANT 619-236-8764 6
1660 ★COLOR GRAPHICS 619-233-4765
1665 ★PRINCESS PUB AND GRILLE 619-702-3621 7
1675 XXXX OO
X DATE W
1702 ★VICINO MARE 619-702-8181 8
1703 ★READER 619-235-3000 0
★READER CLASSIFIED ADS 619-235-8200 3
★SD READER THE CLASSIFIED 619-235-8200 8
1704 ★CAFE ITALIA 619-234-6767 7
★CAFFE ITALIA 619-234-6767 +9
1710 XXXX OO
1712 XXXX OO
1714 XXXX OO
1725 ★PECORARO N PAINTING 619-234-4905
1728 XXXX OO
1731 ★CAFE ZUCCHERO 619-531-1731 8
1735 ★FANTASTICA 619-234-1735 6
★TRATTORIA FANTASTICA 619-234-1735 6
1740 ★DENIZ'S FLOWER SHOP 619-696-7378 6
1741 XXXX OO
1742 ★HAIR CITY 619-238-1524
1742½ ★PETES QUALITY MEAT 619-234-1584
1743 ★ITALIAN VLG DELI 619-233-3237 5
★MIMMOS ITALIAN DELI 619-239-3710 4
1744 XXXX OO
1745 XXXX OO
1746 XXXX OO
1747 ★CAS&CARRY ITALIAN GROCERS 619-232-5094
★FILIPPIS PIZZA 619-232-5094
1748 XXXX OO
1750 XXXX OO
1752 TARANTINO R 619-233-0892
1753 XXXX OO
X FIR W
1802 XXXX OO
1804 XXXX OO
1806 ROSSI W 619-685-7885 +9
SCHEMPER Audra 619-231-8883 +9

INDIA 92101 CONT
1823 XXXX OO
1825 SWAGGERTY David G 619-232-7633 7
1827 ★SCARAB POTTERY 619-234-5739
1837 XXXX OO
1844 ★ART STORE THE 619-687-0050 8
1845 ★GARGOYLE GALLERY 619-234-1344 +9
1847 XXXX OO
1906 ★NELSON PHOTO SPLY 619-234-6821
1910 XXXX OO
1917 ★BUFFALO BREATH COSTUMES 619-236-0467
1920 XXXX OO
1943 XXXX OO
1949 XXXX OO
1953 ★CHROMACOLOR PROCESS 619-232-9900
★J M CHROMACOLOR INC 619-232-9900
1961 XXXX OO
1963 XXXX OO
1970 XXXX OO
1971 ★ARCHITCTRL SALVAGE SN DIEGO 619-696-1313 7
X GRAPE W
2008 XXXX OO
2016 XXXX OO
2029 XXXX OO
2030 ★VINCES BARBER SHOP 619-239-0966
2031 XXXX OO
2032 TORRES Isidoro 619-231-4904 +5
2033 ★APIARY HAIR 619-239-8808 +5
★BALLANTINE SHAMA 619-239-8808 +5
★BOBAIR NIKKI 619-239-8808 +5
★WHELAN MARY 619-239-8808 +5
2034 ★SHUMAKER T JR AIA THOMPSON Beverly J 619-232-1706 5
2038 619-237-5507 +9
2040 ★BOOMERANG FOR MODERN 619-239-2940 8
2043 LAUCATA Pedro 619-239-8631 2
2044 ★ASSEMITS PASTA CO 619-239-5117 7
2045 XXXX OO
2046 ★FINANCIAL SERVICES OF SD 619-233-1236 +5
GROLL A Maufil 619-233-7731 8
2059 XXXX OO
2060 XXXX OO
2061 ★MONA LISA ITLN DELI 619-239-5367 2
★MONA LISA ITLN REST 619-234-4893
X HAWTHORN W
2101 XXXX OO
2102 ★GRAB&GO SUBS 619-238-5353 6
2104 XXXX OO
2107 XXXX OO
2111 XXXX OO
2115 SNOW George 619-338-6203 +9
2119 XXXX OO
2130 XXXX OO
2132 XXXX OO
2140 LOPEZ Soledad 619-238-5967 +9
2142 XXXX OO
2148 XXXX OO
2157 ★ALDEN DESIGN ASCTS 619-544-9299
★PODIUM PRESENTATION 619-544-0066 2
2159 ★FAR EAST SERVICE 619-233-5755 8
★ICONICA OF SANDIEGO 619-231-0133 +9
★INTERWORKS 619-238-5538 7
★KELLY JOHN&ASSOC DESIGN&ADVR 619-232-3688 8
★SD CAD&GRAPHICS 619-595-0686 8
2161 ★INVESTORREACH 619-239-2181 8
2165 ★QUANTIFIED WEB SYSTEMS INC 619-233-1400 +9
★ZEROLIMITS INTERNET SERVICES 619-235-9272 +9
2171 BUILDING
★AMSTUTZ DESIGN 619-233-0262 7
★ART CELLAR EXCHANGE 619-338-0797 +9
★ASHLEY GARDNER GRP 619-232-1214 5
★BRUMMITT ENERGY CONSULTING 619-531-1126 4
★CATHERINE MILLER&ASSOCIATES 619-234-8791 3
★D M ARCHITECTS 619-702-9448 7
★DESIGNER RESOURCE 619-338-8004 4
★ELECTRICITI 619-338-9000 5
★HAYMA&CO 619-531-1123 4
★HOT SPOTS PRDCTN CO 619-232-1214 3
★INC IT 619-338-9000 4
★INDIA ST DSGN CNTR 619-338-8148 3
★L K M DESIGN 619-338-0316 4
★MILLER CATHERINE&ASSOCIATES 619-234-8791 4
★ORTIZ FILMWORKS 619-595-1530 7
★QUEEN K ADVERTISING 619-702-8220 8
★REED DAVID W LNDSCP 619-239-3300
★SHAPUTNIC SKIP ARCH 619-232-1680
★STEWART KAY LANDSCAPE ARCH 619-234-2669 8
★WAGENAAR DESIGN GRP 619-234-2171 5
★WAGENAAR JACK ARCH 619-239-3960 3
★WAGENAAR SANDRA ASID 619-234-2171 5
★WINDOW WAREHOUSE 619-338-0081 3
★5 DAY REMODEL 619-338-0081 8
2171
X IVY W
2202 XXXX OO
2208 XXXX OO
2213 ★FRAME MAKER THE 619-234-0846 4
★FRAME MAKER THE 619-234-1902 7
★TABER MANDROS EXHIBITION SPACE 619-234-0846 8
2229 XXXX OO
2230 ★ASARO A A 619-234-0780
2235 XXXX OO
2238 XXXX OO
2240 ★WEISSMAN EDWARD E ATTY 619-338-9084 7
2265 XXXX OO
2273 ★AUTO CLINIC 619-237-1217 5
X JUNIPER W
2305 ★BORRELLI M CABINTMKR 619-234-1251 4
★HELMER JACKSON DSGN 619-696-0068 4
★VICTOR KRISTEN DESIGN 619-696-1068 6
2306 XXXX OO
2307 ★DEAN ROBERT A-LANDSCAPE ARCH 619-235-6907 +9
2315 DEAN R J 619-232-2292 +9
2316 ★CRESCI Esther D 619-232-5570
2317 ★CHESTER CATHERINE APPRAISALS 619-260-0281 7
★CHESTER P FURN RPR 619-234-7383 4
2326 ★OLIVER'S HAIR DESIGN 619-238-0336 +9
2328 XXXX OO
2328 ★ARNOLD ROBERT BRUCE LAW OFC 619-233-1096

INDIA 92101 CONT
★ARNOLD&ARNOLD INC 619-233-1096
2331 XXXX OO
2345 XXXX OO
2347 XXXX OO
2355 ★CENTRE CTY AUTOMTV 619-238-1161
2360 XXXX OO
2361 ★INDIA ST ANTQ 619-231-3004 4
★RYAN COLE PRDCTNS 619-231-3004 4
2366 XXXX OO
2367 ★INTL RENT A CAR 619-234-7777 8
X KALMIA W
2400 ★GEN L UNIFORM RENTAL SYSTMS INC 619-234-6509
2401 XXXX OO
2414 LAOS Richard D 619-232-1783 +9
2416 RENTERIA Humberto 619-702-4547 +9
2420 SOTO Francisco 619-233-3359
2422 RAMIREZ Maria Teresa 619-557-8736 8
2424 GRABENSTEIN Nick 619-702-6088 +9
2424½ BERNAL Ysidro 619-231-1553 +9
2426 XXXX OO
2428 FONSECA Peralta Dolores 619-231-0337 8
2430 MORALES&MUNOZ Alfredo 619-702-9420 8
RODRIGUEZ Juan J 619-702-4552 +9
2430½ RODRIGUEZ Francisco 619-336-8259 8
2436 CROSS Michelle 619-696-6952 +9
2440 XXXX OO
2442 LABUDA William M 619-702-8366 6
2442½ INUTILE Stefano 619-231-8751 +9
2444½ MINOR Chad 619-234-2423 +9
2446 XXXX OO
2454 XXXX OO
2458 XXXX OO
X LAUREL W
2528 ★PUEGO Jorge 619-230-8771 6
2530 SALGADO Gonzalez Pedro 619-696-9519 +9
2540 XXXX OO
2544 XXXX OO
2548 XXXX OO
X MAPLE W

ZIP CODE 92103 SAN DIEGO

WEALTH CODE 2.2

2801 ★SEA TOP SHUTTLE 619-291-1522 6
★SEA TOP SHUTTLE 619-291-9248 +9
2805 XXXX OO
2837 XXXX OO
2839 CREWS Bernard 619-298-4476 4
2865 XXXX OO
2867 XXXX OO
2869 ★BOMBERGER R M LAW 619-688-1199 5
★DESANTIS FRANK ATTY 619-688-1199 4
★E B TRADING 619-295-5404 7
★ESTEY STEPHEN J ATTY 619-295-0035 6
★FRANK&SONS LANDSCAPE CONST INC 619-692-1968 +9
★TUTTO ITALIA 619-295-5404 7
X PALM W
2921 ASHLEY John N 619-295-7113 3
★ASHLEY RL ESTATEVLP 619-574-0094 3
★SAFFRON 619-574-0177
2920 XXXX OO
2927 JOHANNSEN O L PADUA Eugene M TATOESIAN Gregory 619-291-2193 619-260-1618 8 619-297-2443 +9
2971 ★ATLAS FLOORING 619-298-8588 +9
★ATLAS HARDWOOD 619-299-9695 +9
★LENSMAN THE 619-298-0732
2973 XXXX OO
X QUINCE W
3009 WALLACE Anthony 619-297-7030 +9
3030 ★EDMIN OPEN SYSTEMS 619-298-8090 8
3051 XXXX OO
3053 XXXX OO
3055 ★SUPPA JERRY M ATTY 619-297-7333
★TRUCCHI THERESA 619-297-7333 5
X REDWOOD W
3101 ★PUBLIC SHUTTLE 619-299-0122 8
★SUPREME AIRPORT PARKING 619-295-2354 7
★SUPREME SHUTTLE 619-295-1563 7
★SUPREME SHUTTLE 619-299-0122 8
3103 XXXX OO
3107 XXXX OO
3126 KINDER Jim 619-297-9852 +9
★RAINBOW RENT A CAR 619-297-9668 0
3141 ★AAMCO TRANSMISSIONS 619-260-0601 0
★TROVATO Rick S OO +9
3153 RB Felice 619-299-7938 +9
3167 ★COLLECTIVE VINTAGE TOY STORE 619-295-6668 +9
★PRIMAL SCREEN PRINTING 619-295-7253 6
★SD BAY CLUB 619-296-6769 3
★CLUB BOM BAY 619-296-6769 0
X SPRUCE W
3211 ★A&N AUTO CONNECTION 619-683-2304 +9
3226 ★PROFILE BUILDING SYSTEMS 619-299-9844 +9
3231 ★WESTSIDE MOTORS 619-299-2090 8
3241 XXXX OO
3255 ★POWER TIRE AUTO CENTER 619-293-7722 5
★POWER TIRE AUTO CENTER 619-293-3070 5
X SASSAFRAS
3325 ★GREENGRASS M CONSTR 619-291-3224
★PROFILE BUILDING SYSTEMS 619-299-9844 8
★THE INSTALLER 619-299-9844 6
3341 XXXX OO
3343 XXXX OO
3345 XXXX OO
3351 ★ANTHEROS FLOWER SHOP 619-295-0241 +9
★SUNIKO ACUPUNCTURE 619-692-3207 6
3353 ELLIOTT Rodney F 619-935-8088 +9
3365 ★AERO CLUB 619-297-7211
3367 ★DYNO BRAND 619-297-9695 2
3443 ★BRADY AND ASSOCIATES TLNT AGCY 619-908-3960 +9
★SCANTEC 619-260-6411 +9
★STERLING PROJUCTIONS 619-908-3960 +9
X UPAS W
3503 XXXX OO
3505 XXXX OO
3507 XXXX OO

INDIA 92103 CONT
3505 KRIEGEL Matthew H 619-220-0543 +9
3511 ★A M E R I C A N LEGAL SUPPORT 619-295-1009 +9
★SO CALIF ATTY SRV 619-295-1009 9
3519 XXXX OO
3521 XXXX OO
3523 XXXX OO
3535 ★CHEVRON STATIONS 619-260-1788 9
★INDIA CHEVRON 619-260-1788 9
X VINE
3555 ★FRANKS BAKERY 619-296-0245 9
★PAPER PLUS 619-295-5131 9
X GLENWOOD DR
3595 XXXX OO
3615 ★MARSHALL WILLIAMS PHOTOGRAPHY 619-543-9559 9
★QUANTUM DIGITAL DIGITALIMAGING 619-295-2277 +9
★TIM MANTOANI PHOTOGRAPHY 619-543-9559 9
3617 ★BIG PICTURE THE 619-543-0809 9
3621 ★RAOZ GENERAL ENGINEERING 619-295-5567 6
3623 ★HOOKS&LATTICE 619-294-7609 8
3635 ★BAKED BY ETTA 619-291-4074 9
★BETTINAS CSTM CTRNG 619-297-8419 4
★FRANKIE'S CINNAMON ROLLS 619-297-9449 5
3645 XXXX OO
3647 ★AARDVARK PET SUPPLIES 619-298-9881 +9
★HEARTLAND CARD SERVICES 619-293-3646 +9
★HORJUS DESIGN&ILLUSTRATION 619-299-0729
★PROPHET MARKET RESEARCH 619-298-8552 +9
X CHALMERS
3649 ★BLUE GUITAR THE 619-297-9136 6
X SAN DIEGO AV
3659 ★DENTISTRY OF OLD TOWN 619-297-7722 +9
★ISAGI RANA DDS 619-297-7722 +9
★LIBERTY DIVORCE&TRUST 619-297-5902 +9
★LUXOR DAIRY CORPORATION 619-692-5330 +9
★MARKEL ENTERPRISES 619-295-8520 +9
3667 ★BANZAI CANTINA 619-298-6392 2
★BANZAI CANTINA 619-298-6388
★BONZAI CANTINA 619-298-6388
3683 XXXX OO
3685 XXXX OO
3687 XXXX OO
3695 ★EL INDIO MEXICAN RESTAURANTS 619-299-0333
★EL INDIO SHOP 619-299-0333
★INDIGO EL SHOP 619-299-0333 +9
3695½ ★BARBRA'S BLOOMERS 619-574-1444 9
3697 XXXX OO
X WINDER
3701 ★SHAKESPEARE PUB&GRIL 619-269-0230 1
3703 ★MARQUIS TOR 619-260-8114 8
3711 XXXX OO
3715 ★CANORA'S INDIA ST SANDWICH SHP 619-291-5928
★FODDY'S 619-291-5928 +9
3717 XXXX OO
3719 BAEZ John J 619-299-9552 +9
★PUBLIC 619-683-4083 +9
3731 ★SAFFRON 619-574-0177
★UPSTAIRS ON INDIA 619-297-6733 +9
3737 XXXX OO
3739 XXXX OO
3741 ★LANGUAGE WORLD 619-692-3161
3743 XXXX OO
3745 XXXX OO
3749 XXXX OO
3753 ★GELATO VERO CAFFE 619-295-9268
3766 XXXX OO
3772 LARCSA Kelly 619-299-6390 +9
3779 XXXX OO
3781 XXXX OO
3792 OLDSON John 619-542-0665 +9
X KEATING
X MCKEE
★ 205 BUS 186 RES 76 NEW

INDIANA 92103 SAN DIEGO

WEALTH CODE 3.6

X MYRTLE AV
3503 ★CRISTIN Marcel 619-296-0841
3510 SANI Walter B 619-296-1368
3514 ★BEEPMANN Clarice T OO +9
3515 LILLA Garcia Jose 619-683-9215 1
3517 XXXX OO
3522 XXXX OO
3524 APARTMENTS
DIETRICK Joella L 619-299-2016 +9
DIETRICK Joella L 619-692-9509 +9
GASTELUM Paul 619-293-3588 +9
IVORY Y M 619-296-9502
PERRINI Elizabeth M 619-236-8321 +9
POURNELLE J R 619-296-9502 9
3524
3526 XXXX OO
3532 XXXX OO
3538 BERGERET H 619-295-5091
3544 APARTMENTS
BENSON B 619-298-7459
CULLEN Patrick R 619-295-5878
GOLD J 619-299-5744 +9
MARTIN Brandy Tyler 619-298-5821
MARTIN Michael 619-298-5821
MARTIN Terence R 619-297-7912
STEVENS Mark 619-295-7400
3544
3545 THOMPSON Matthew 619-298-0817
3545 XXXX OO
3547 XXXX OO
3548 XXXX OO
3559 DAY P L 619-299-5946
KELLEY Thomas 619-542-0647
SMITH Dustin 619-299-3275
X CYPRESS AV
3602 XXXX OO
3604 XXXX OO
3605 WEISS S 619-291-8484 +9
3606 XXXX OO
3607 XXXX OO
3609 ★GABRIEL Patrick A OO
3610 XXXX OO
3611 KUMA Tony J 619-298-4094
3612½ JONES Donn 619-297-4776 +9
3614 XXXX OO

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TP	Adjoining	Source
-	✓	Haines & Company

PACIFIC HWY 2000

OXFORD 91911 CONT
59 •STEELE Karen OO 7
91 •CHACON Lupe 619-420-2603
94 BURGESS Michael 619-427-5401 2
97 SOTO John E 619-585-8108 7
X 1ST AV
111 •CURRIER John Robt 619-420-2250
117 DIAZ Teresa B 619-420-3606
TOLEDO Martin 619-427-4579 +9
118 •AMARO Maria E OO 7
121 •MONGE Luis 619-420-4410
122 XXXX OO
123 XXXX OO
125 XXXX OO
128 •LOPEZ Herbert H OO +9
129 •RAMOS C OO 7
130 •BJORKLUND Diana L OO 7
132 XXXX OO
X ALPINE AV
135 •BALVANZ Fred E OO +9
139 XXXX OO
142 XXXX OO
143 GOINS Marian 619-420-1340 5
146 XXXX OO
X ELM AV
158 XXXX OO
159 XXXX OO
167 •CASTELLANOS Vicente OO 7
168 XXXX OO
172 PATRON Carlota 619-425-5467 8
179 XXXX OO
180 •CABRALES M OO 8
184 XXXX OO
187 SCHERTZER Clarence 619-422-5842 +9
195 ROMERO Catherine J 619-691-9869
•ROMERO Joaquin B 619-691-9869
196 RUIZ Manuel 619-425-4375
X 2ND AV
205 •MEZA John 619-422-1235
MEZA John 619-475-7084 +9
207 SANABIA Jose 619-420-1955 7
208 •SMITH Jimmy D OO +9
212 •CRABBE Diana M OO 8
216 MIDGLEY Horace 619-422-7991
217 •PROULX James T 619-422-1054
220 XXXX OO
221 •SAAR John C OO +9
222 •VIERGUTZ Ralph E OO 7
223 SANTONIL Renato 619-420-3034
226 RAMOS Juan M 619-420-4615 +9
RAMOS Juan Manuel 619-420-3152
229 •TRIPLETT Jas E 619-422-6757
X TWIN OAKS AV
231 ★C R GARCIA ROOFING 619-425-1860 5
•GARCIA Rosa M OO 7
232 XXXX OO
233 RIVERA Christianna 619-420-5311 +9
235 SCRIVEN Hugh 619-427-2227
239 XXXX OO
240 •MORRISON George 619-427-5857
243 MONTEGNA Joseph A 619-427-5653 +9
•TUIOFU Fetu OO 7
245 VEJAK Yvette 619-420-4166 +9
246 HERRERA Raul H 619-427-9502
•OMECTIN Valeria 619-476-1237 +9
247 •CASTILLO Raul OO +9
249 •CASTILLO Raul R 619-427-7631
251 BARAJAS Jose Luis 619-427-0761 8
CRUZ Mariana 619-425-4818 +9
252 •MATA L OO 7
261 XXXX OO
X DELMAR AV
267 •CARGAL Amos A 619-422-8970
271 XXXX OO
273 XXXX OO
275 SANCHEZ Esther 619-425-4766 5
277 VILLANUEVA V 619-426-5321 4
278 BROYLES L 619-425-4626 2
280 XXXX OO
X 3RD AV
301 XXXX OO
311 XXXX OO
325....... OXFORD PARK APTS
DAVALOS A 619-420-5109 6
FORBES G L 619-591-7722 1
LEE T R 619-422-5637 1
LUGO Xochitl 619-585-9765 7
★OXFORD PARK APTS 619-426-6845
STUERTZ Justin G 619-426-2631 +9
WIGHT Joan 619-420-9682 8
WIGHT Philip 619-420-9682 8
325.......
326 XXXX OO
330 ★BOWER CHARLES E MD 619-427-0652
★CARTER MARILYN A DR 619-422-5361
★CHULA VST VISION CR 619-422-5361
★EVANS ROBT L DR 619-420-3937
★EVANS ROBT L OR 619-422-5361
★GOMEZ NICHOLAS P MD 619-427-7181 6
★HEMESATH CARL J DDS 619-422-5385
★HILL DOUGLAS C MD 619-426-8222
★MOCKUS V R DDS 619-420-2604
★MOCKUS VYTAUTAS DDS 619-420-2604
★SONUS 619-426-0841 +9
★STOIKE ROGER O MD 619-425-9802 5
X PARIANOS DR
333 ★JOBS FOR YOUTH 619-422-6000 0
★4-H AM-PM PROGRAM LAUDERBCH CT 619-420-3779 +9
336 ★ALKOURAINY K A MD 619-425-2060 1
★CHULA VST PHYSICAL THERAPY 619-420-0869 5
★OON PERRY&CO 619-420-0869 5
★GRANATA ENTERPRISES 619-425-3765 4
★KORANY KOUSAY A MD 619-425-2080
★LINDER MARTIN MD 619-691-5988
★NOWAK EUGENE J DO 619-420-1840 +9
★OBAGI ZEIN E MD INC 619-420-1840 0
★RIOS WILLY MD FAAP 619-426-0100 2
★STOKOS JAMES MD 619-420-1840 1
★UNILAB 619-427-6722 6
★VASQUEZ ALVIN DDS 619-425-3940 7
340 XXXX OO
341 XXXX OO
343 HERNANDEZ Silvano 619-426-7453 +9
349 JONES Nikki D 619-425-6592
350....... APARTMENTS
COREANO Waleska E 619-420-6353 +9
MARTINEZ Charles R 619-422-3575 7
NOTARO Christopher 619-476-0942 +9
ROMAN Juana C 619-426-6849 4
ROMERO Dora 619-425-3655 8
350.......
353 XXXX OO
354 GOODWIN Elizabeth N 619-585-0086 6
JOHNSON James B 619-691-1256 +9
ORTIZ Martha Beatriz 619-427-9654 8
355 PISELLI Ralph D 619-427-7591
357 •LOZA Juan OO +9
359 MONTES Christopher 619-691-1917 7
SUMMERS Danny E 619-427-2150

OXFORD 91911 CONT
360 DRAKE Athena L 619-476-7976 7
361 STRIDE B L 619-420-4655
363 XXXX OO
364 •MATSUMOTO Harry 619-422-7041
366 XXXX OO
370 •WAGGONER M 619-422-6571
382 •DELGADO Ruben 619-426-0544
390 XXXX OO
391 ★CHULA VST FIRE FIGHTERS ASSOC 619-425-9103 6
395 XXXX OO
X 4TH AV
409 XXXX OO
415 XXXX OO
X OXFORD CT
426 RILEY M D 619-421-5952
432 •MUNOZ Pedro A OO +9
433 •ASTLE Robt L 619-422-7084
434 •CROCKETT David 619-425-8639
437 •RODRIGUES Antonio R 619-426-5929 5
438 R Sanchez Beatriz 619-426-1865 8
440 MARLIERE H R 619-421-0747
441 LOPEZ Carolina 619-422-3664 +9
LOPEZ Kelly 619-691-1420 8
•LOPEZ Troy 619-691-1420 6
442 JOHNSTONE M 619-426-8750 4
VIZINA Dale 619-426-8750 5
444 XXXX OO
445 XXXX OO
448 XXXX OO
453 TORRES Maria K 619-585-3594 +9
454 XXXX OO
459 •MORENO Rogelio OO 7
461 •BOWMAN L Wm 619-427-1856
462 •ZEPEDA Jorge E 619-420-9117
464 XXXX OO
465 XXXX OO
466 ROSA Lois 619-476-9385 +9
ROSA Nolan 619-476-9385 +9
467 CRAYON Adriana 619-420-2178 +9
•ENRIQUEZ Jaime A OO +9
468 •WALKE Edward S OO 8
470 •BOWEN John W 619-427-2982
471 •ENRIQUEZ Jorge 619-591-9333 8
474 COLLINS Bob 619-421-0618
475 •LOPEZ Lupe C OO +9
481 XXXX OO
484 XXXX OO
485 RANE Legrand L 619-422-2248
486 JOHNSON Robert L 619-421-2415
495 •MACIAS Consuelo 619-427-4005 +9
497 •MACIAS Heriberto 619-498-1185 8
X OLEANDER AV
504 XXXX OO
505 •SARABIA Dina 619-422-8671 +9
508 •OLACHEA G OO +9
516 XXXX OO
520 ARCEO Tommy 619-585-1719 +9
537 CAMACHO Concepcion 619-420-8399
RAMIREZ Carlota 619-426-9344 +9
538 XXXX OO
539 NUNEZ Reynalda 619-420-0579 8
541 CALDWELL Marie 619-427-7485 +9
GONZALEZ Alfredo 619-427-5088 7
WEINPERL C A 619-426-1140 2
543 XXXX OO
545 CASTILLON Elizabeth 619-691-7838 +9
VEGA Irene 619-426-7525 2
547 REYES Ramon A 619-585-3172 2
549 ARREDONDO Manuel 619-425-2037
BONILLAS Sandra 619-425-8303 +9
MARTINEZ Josa A 619-476-8396 2
550....... VILLA GRANADA APTS
AGUILERA Andreas 619-498-1992 +9
AHUMADA Bertha 619-427-3628
AHUMADA George 619-427-3628
BELLI Enrique 619-498-1214 +9
BELLI Lorena 619-498-1214 +9
CAMPBELL Mardi 619-420-5338 8
CHANG Sung Uk 619-498-1858 7
CHUNG Kwan 619-427-9516 7
CONTRERAS Veronica 619-426-6254 +9
CORONADO Ana 619-585-0329 +9
DEBBAUDT Pierre 619-427-6105 +9
DOW Aaron T 619-498-8559 +9
ESCAMILLA Luis 619-420-7554 +9
ESTRADA Dennise 619-425-7624 8
ESTRADA Jesse 619-426-4972 8
FERGUSON Michael P 619-427-6368 7
GAON Noel 619-498-0733 +9
GISE John 619-476-8191 8
GLENNON Paul F 619-427-0753 2
GONZALES John 619-426-2533 8
GONZALEZ Bernardo 619-426-5637 +9
GONZALEZ Dennis 619-585-4708 +9
GONZALEZ Pedro 619-420-5955 8
GUTIERREZ Jas A 619-420-6786
HAVIRO Lucretia 619-691-8605 4
HERNANDEZ Nora L 619-409-1423 +9
KAMBER Jesus 619-585-8666 +9
KAMBER L 619-585-8600 +9
KAMBER Victoria 619-585-8600 +9
KRALL Frederick 619-427-7434
LEPE Jose L 619-425-2265 8
MALDONADO Alejandra 619-420-5552 +9
MARTINEZ Linda C 619-498-1457 +9
MARUCHEAU Raymond C 619-420-2364
MCGUIRE Tim 619-498-1973 8
MILLAN Raul 619-427-3654 +9
MORENO A 619-427-5235 +9
OLEA Sonia A 619-585-7206 +9
OSORIO Esmeralda 619-420-4674 +9
PAGANO Thomas 619-427-0496 +9
PAVKA S E 619-426-2135 5
PERU T 619-420-6017 +9
PEYRO Miguel Angel 619-422-6977 6
REYES David 619-420-3451 8
RICARDO Lorenzo 619-691-0069 7
RILEY G Scotty 619-420-2167 8
ROBERTO Robles 619-427-0724 +9
ROJAS Jorge 619-425-5246 8
ROJAS Tania 619-425-5246 8
SARAKA John 619-420-8920 8
SCOTT Dawn 619-476-1451 5
SEDA Maria 619-427-1651 +9
SEPULVEDA N 619-427-8264 8
STRANGE Harvey 619-427-1531
STRONG Belia 619-426-8377 8
TAKAYAMA Mario 619-476-8175 3
TORRES Jasusita H 619-425-2839 +9
★VILLA GRANADA APTS 619-427-7252
550.......
551 XXXX OO
553....... APARTMENTS
ACERO F 619-422-4929 +9
BECERRA Edith 619-420-5624 6
DEGUIA Zenaida 619-476-0785
SANCHEZ Carlos 619-422-3619
TURBAY Lillian 619-425-8280 8
553.......
555 ★OXFORD TERRACE APTS 619-420-1182
557 GALLEGOS Carmen 619-425-2589 +9
REYES Laura 619-426-0257 +9
559 AMAYA Angelica 619-420-5613 +9

OXFORD 91911 CONT
561 COLLIS Maria 619-426-5996 +9
CORREA Cynthia 619-427-3877 8
GONZALEZ Laura E 619-691-8230 7
VAZQUEZROMERO G 619-585-8820 3
563 CARPIZOJR Ennio 619-425-2359 8
POLLARD Betty D 619-426-1324
564 XXXX OO
566 XXXX OO
567 XXXX OO
577 FREGOSO Adriana 619-476-1186 8
SOLORIO Carol E 619-422-3039 +9
585....... APARTMENTS
ACEVEDO Caesar 619-425-4962 8
CAMPOS Angelica I 619-426-8371 +9
CASILLAS Refugio 619-409-1523 +9
ENJAMBRE Carmen P 619-420-0534 +9
GALINDO Carlos 619-476-7380 8
GALINDO Hortencia 619-476-7380 8
GARCIA Maria 619-425-7235 +9
JIMENEZ Aurora A 619-585-8733 +9
585.......
598 XXXX OO
X BROADWAY
635 ★G T TOYS&CLOTHING 619-585-0218 5
★J G&SONS BROKERS 619-425-9960 7
★L C A EXPORT 619-426-7014 7
★MAX'S 99 DISTRIBUTION CENTER 619-422-7999 +9
★PAC WHOLESALE HARDWARE 619-426-4500 +9
★WOODSTOCK WIRE WORKS INC 619-425-7540 6
X INDUSTRIAL BLVD
★ 37 BUS 268 RES 81 NEW

OXFORD 91941 LA MESA

WEALTH CODE 4.0

X PURDUE AV
4300 •STEWART Bruce J OO 7
4310 XXXX OO
4317 •ANDERSON Michael D OO 7
4318 XXXX OO
4323 •STEVENS Erik 619-698-5331 4
4324 •MARTINEZ Michael R OO 7
4332 •BACARTI Barry OO +9
4339 •BAKER Joyce M OO 7
4340 •BRAY Robert A OO 7
4350 •BONATO Harry J 619-466-4370
4351 XXXX OO
X ANNAPOLIS AV
★ 0 BUS 11 RES 1 NEW

OXFORD CT 91911 CHULA VISTA

WEALTH CODE 3.0

1174 •THOMPSON John 619-427-9622 1
1179 SWINNEY Mark 619-420-6918
1180 •MCCARTHY Maria L 2D OO 8
1185 •ALVAREZ Hugo A OO 7
1186 XXXX OO
1191 XXXX OO
1192 XXXX OO
1197 •BARNETT M K 619-422-7666
1198 •WALL J H 619-420-9549
X OXFORD
★ 0 BUS 9 RES 0 NEW

OZARK 92102 SAN DIEGO

NO LISTINGS

OZARK S 92113 SAN DIEGO

NO LISTINGS

OZZIE WAY 92114 SAN DIEGO

WEALTH CODE 5.0

X SKYLINE DR
414 •KHOTSPONH Lisa 619-264-8275 8
415 LACSON Renato P 619-263-4612 7
425 •CORPUZ Ervilla M OO 8
435 •HORN Stanley T OO 8
445 •CORTEZ Geode C OO 8
455 •MACKEY Jerry L OO +9
465 •ELICO Rudolfo M OO +9
475 •PALISOC Romeo P OO 8
X HARPS CT
★ 0 BUS 8 RES 2 NEW

PACIFIC AV 91945 LEMON GROVE

WEALTH CODE 1.9

X MASSACHUSETTS AV
X VISTA AV
7269 XXXX OO
7285 •GRIER Elsie M OO 7
7291 JACOBS Jaime O 619-667-3404 +9
X CITRUS
7305 •DUGAN Carl 619-464-7769
7316 XXXX OO
X ALFORD
7350 •RIVERA Pedro G OO 7
7373 XXXX OO
X HARRIS
7390 ★DEL CERRO DSTRBTRS 619-464-3444 5
★SD INTERIOR FOLIAGE 619-463-5428
X WEST
7405 •CHRISTIAN Tangie 619-462-6759 +9
•CHRISTIAN Tom 619-462-6759 +9
7413 •REYNOLDS William 619-464-5496 7
7415 •BESSOM Ross 619-469-6138
7416 XXXX OO
7424 CHAVARIN Antonio 619-461-6599 8
OLSON Danalle 619-461-1025 8
ORTEGA Julian C 619-469-9620 8
7429 KELLER Candase 619-462-9022 +9
7445 ★REAL GUEST HOME 619-460-8280 7
7448 •HOGGATT Robby G OO 7
7449 XXXX OO

PACIFIC AV 91945 CONT
7451 XXXX OO
7453 XXXX OO
7455 PHILLIPS Brian 619-644-0504 +9
7456 XXXX OO
7457 MACIAS Rodrigo 619-589-1058 7
7459 XXXX OO
7465 DEARING James A 619-465-5643 +9
★ENERGY SAVERS 619-667-5143 +9
PALLA William 619-644-0245 +9
7474 •COLE Sean E OO +9
7476 XXXX OO
7485 XXXX OO
X NEW JERSEY AV
7505 •WILKES E M 619-469-4796
7512 XXXX OO
7524 HILL Marianne 619-469-0917 6
JOHNSON Geo S 619-466-9338
7525 THOMPSON Bob 619-461-4456
7531 BELTRAN Arturo 619-469-1740 7
GIORDANO Dominick 619-466-9078 8
7534 JACOBO Maria G 619-463-6025 7
KING Paul 619-589-0871 8
7535 XXXX OO
7536 XXXX OO
7545 XXXX OO
7555....... APARTMENTS
BOYER James A 619-461-5053 +9
BROWNING Ken L 619-644-1514 +9
CLEMENTE Markus 619-463-8587 7
EDUARDOGUILATE Dennis 619-462-9560 +9
FERRETTI Ernesto 619-698-7370 7
GONZALES E B 619-460-1567
HANCOCK Dave J 619-462-9841 +9
HAZHEER Khadija B 619-460-3475 +9
MALINSKI R E 619-469-8538
MILLER T 619-697-7075 8
ROBINSON R 619-463-8133 +9
RUIZ Jose L 619-462-2907 4
SALAS Soledad 619-644-5861 +9
TRAN Hai Van 619-461-6893 7
VU Thuong 619-461-0326 +9
7555.......
7558 •MOSHER Janelle OO +9
7563 AKERS Scott E 619-465-6320 +9
7564 XXXX OO
7568 XXXX OO
7575 STALNAKER Mildred C 619-466-2939
7576 XXXX OO
7583 CESENA Alfred 619-469-8908
7590 XXXX OO
X BUENA VISTA AV
7602 DELOSANGELES Maria 619-461-4357 +9
7604 XXXX OO
7606 XXXX OO
7608 XXXX OO
7612 ALVAREZ Rosa Amalia 619-464-7867 4
7613 XXXX OO
7614 XXXX OO
7615 HAMILL Steve 619-667-9531 +9
7616 XXXX OO
7617 XXXX OO
7618 XXXX OO
7645....... PACIFIC PLAZA APTS
BONDE Laura 619-644-2559 +9
DAVIS Jeffrey L 619-465-9809
JOHNSON Gabriele-Nasshan 619-644-0349 +9
JONES Sybil V 619-464-0850 7
LAMA Freddie 619-589-8323 7
MATSUMOTO Haruna E 619-667-4998 +9
MESTER Erin C 619-667-9467 +9
MICLAT Michael 619-698-9344 +9
MOWERY Berlin L 619-462-8509 7
REANY Aimee 619-697-0759 8
REOUX Theodora Terry 619-462-0974 6
ROBINSON C J 619-464-0850 7
RODRIGUEZ Brenda 619-462-1917 +9
7645.......
X OLIVE
7716 ★DIRTY HARRY'S CARWASH 619-464-9127 +9
7735 ★LEMON GRV TRAVEL 619-468-9999 0
7737 XXXX OO
7739 XXXX OO
7741 ★SAND DOLLAR ENTERPRISES 619-589-6633 6
★SD ORS SIGNS 619-589-6632 6
X MAIN
★ 8 BUS 90 RES 28 NEW

PACIFIC HWY 92101 SAN DIEGO

WEALTH CODE 4.0

501 ★A BEAUTY SALON 619-232-5508
★BARNETTS GRAND CAFE 619-544-1122
★EMBASSY STE SD BAY 619-239-2400
★EMBASSY SUITES SD BAY CATERING 619-544-1169 4
★FRESH&HEALTHY INTL COFFEE HSE 619-687-0093 6
★G STREET DELI&STORE 619-232-5513
★RAZKALLAH BARBER SH 619-232-7649
★SWEET SIXTN ICE CRM 619-232-5513
X G W
X A W
1220 ★US NAVY ENGR ADMIN SERVICES 619-532-1640 7
★US NAVY ENGR COMMAND RECEPTNST 619-532-2311 7
★US NAVY ENGR CONTRACTS 619-532-1286 7
★US NAVY ENGR CONTRACTS BID 619-532-2355 7
★US NAVY ENGR CONTRACTS PLAN 619-532-2082 7
★US NAVY ENGR DIRCTR 619-532-2317
★US NAVY ENGR PUBLIC AFFAIRS 619-532-2484 7
★US NAVY ENGR SAFETY 619-532-3732 7
1305 ★HARBOR TRAVELODGE 619-233-0398 6
★TRAVELODGE 619-233-0398
1375 XXXX OO
X ASH W
1405 XXXX OO
1495 ★DEMASSA PHILIP ATTY 619-238-0897 2
★EASLEY PRESTON ATTY 619-699-4884 7
★LAVELLE JOSEPH C-ATTY AT LAW 619-239-9930 +9
★LAW OFC OF THOMAS A LEARY 619-239-1913 +9
★SD CO EMPLOYEE RETIREMENT 619-515-0130 7
★SD CO RETIREMENT ASSOCIATION 619-515-0130 7
X BEECH W

PACIFIC HWY 92101 CONT
1505 XXXX OO
1529 XXXX OO
1531 XXXX OO
1595 ★LOS PANCHOS TACO SH 619-232-9233 +9
X CEDAR W
1600....... BUILDING
★ADMINISTRATION CNTR 858-694-3900
602 ★C L E R BCTZN'S LAW ENFRCMNT 619-685-2200 6
★CA HALL SERVICE 619-236-9925 6
★CITIZEN'S LAW ENFRCMNT RVW BRD 619-685-2200 6
★COUNTY ADMIN CENTER 858-694-3900
★DOMESTIC VIOLENCE INFOLINE 619-239-9000 8
★HORN BILL SUPERVISOR 619-531-5555 6
★JACOB DIANNE SUPERVISOR SD CO 619-531-5522 3
★L A F C O 619-531-5400
★LOCAL AGCY FORMATN 619-531-5400
★RICHARDS CAFETERIA 619-233-9605
★ROBERTS RON SUPERVISOR 619-531-5544 6
★SAN DIEGO CO PROP TX REAL EST 619-531-5706 +9
★SAN DIEGO CO SUPVRS CAC FCLTY 619-531-8020 +9
★SAN DIEGO CO SUPVRS EXEC OFC 619-531-5430 +9
★SAN DIEGO CO SUPVRS LEGISLATVE 619-531-5434 +9
★SD CO AIR PLTN 619-531-5961
★SD CO ASSR ADDRESS 619-531-5556 4
★SD CO ASSR APPEAL BOARDS 619-531-5777
★SD CO ASSR CHURCH 619-531-5763
★SD CO ASSR DISABLED 619-531-5773
★SD CO ASSR HOMEOWNR 619-531-5772
★SD CO ASSR INF 619-236-3771
★SD CO ASSR PAYMENT TAXES&COPY 619-236-3121 7
★SD CO ASSR RECORDING OF DEEDS 619-237-0502
★SD CO ASSR SERVICES NOT LISTED 858-694-3900 7
★SD CO ASSR VLTN BUS PRSNL PROP 858-505-6100 7
★SD CO ASSR VLTN MARINE&VALUATN 858-505-6200 7
★SD CO ASSR VLTN MOBILEHOMES 619-531-5478 7
★SD CO AUDITOR ACCTS 619-531-5311 4
★SD CO AUDITOR OTHR 619-531-5339
★SD CO BD SUPV CLERK 619-531-5600
★SD CO BD SUPV OFC 619-531-5700 4
★SD CO BD SUPV 1ST 619-531-5511
★SD CO BD SUPV 2ND 619-531-5522
★SD CO BD SUPV 3RD 619-531-5533
★SD CO BD SUPV 4TH 619-531-5544
★SD CO BD SUPV 5TH 619-531-5555
★SD CO BIRTH RECORDS 619-237-0502
★SD CO CABLE TV CMSN 619-595-4660 5
★SD CO CHF ADM OFC 619-531-5880
★SD CO CIVIL SV CMSN 619-531-5751
★SD CO CLERB 619-685-2200 3
★SD CO CLERK ASSMNT 619-531-5777
★SD CO CLERK BD SUPV 619-531-5600
★SD CO CLERK BD SUPV 619-531-5782 3
★SD CO CLERK BD SUPV 619-531-5777
★SD CO CLERK BD SUPV 619-531-5434 3
★SD CO COUNSEL 619-531-4860 1
★SD CO COUNSEL LIABILITY CLAIMS 619-531-4899 7
★SD CO CTZN'S LAW ENFORCMNT BRD 619-685-2200 3
★SD CO EMPLOYMENT 619-236-2191
★SD CO EMPLOYMENT TDD 619-531-5362 7
★SD CO EQUAL OPPORTUNTY MNG OFC 619-531-5819
★SD CO HMN RSRC EMP 619-236-2191
★SD CO HMN RSRC TDD HRNG IMPRD 619-531-5362 7
★SD CO LAFCO 619-531-5400
★SD CO MARRIAGE LCNSINFO 619-237-0502
★SD CO PERSONNEL 619-236-2191
★SD CO PERSONNEL TDD HRNG IMPRO 619-531-5362 7
★SD CO PROP TX BSNS PROP STTMNT 858-505-6100 7
★SD CO PROP TX CHNGE 619-531-5556 4
★SD CO PROP TX DPLCT 619-236-2424
★SD CO PROP TX EXMPT 619-531-5763
★SD CO PROP TX EXMPT 619-531-5772
★SD CO PROP TX EXMPT MOBILEHOME 619-531-5478 7
★SD CO PROP TX INFO 619-236-3771
★SD CO PROP TX PYMNT 619-236-2424
★SD CO PROP TX PYMNT PRIOR YEAR 619-531-5209 7
★SD CO PROP TX PYMNT RACEHORSES 619-531-5223
★SD CO PROP TX PYMNT TAX CLRNCE 619-557-4002 7
★SD CO PROP TX PYMNT UNSECURED 619-531-5820 7
★SD CO PROP TX REFND 619-531-5810
★SD CO PROP TX REFND PRIOR YRS 619-531-5842
★SD CO PROP TX REFND UNSECURED 619-531-5220 7
★SD CO PROP TX UNFRM 619-531-5223
★SD CO PROP TX VALUE 619-531-5777
★SD CO PROP TX VALUE 619-441-4480 3
★SD CO PROP TX VALUE 619-498-2200 4
★SD CO PROP TX VALUE BOAT 858-505-6200 7
★SD CO PUB AFFAIRS 619-531-4830 4
★SD CO RECRDR 619-237-0502
★SD CO TREAS ADMINISTRATIVE OFC 619-531-5225 7
★SD CO TREAS INVESTMENT OFFICE 619-531-5211 7
★SD CO TREAS ST BOND 619-531-5840
★SD CO TREAS TAX DPLCT BLL RQST 760-944-3701 6
★SD CO TREAS TAX DPLCT BLL RQST 760-480-6075 6
★SD CO TREAS TAX PYMNTS MBLHMES 619-236-2424
★SD CO TREAS TAX PYMNTS RL EST 619-531-5706 7
★SD CO TREAS TAX REFUNDS 619-531-5220 7
★SD CO TREAS TAX REFUNDS RL EST 619-531-5810
★SD CO TREAS TAX REFUNDS RL EST 619-531-5842
★SD CO TREAS TAX UNIFORM TOURST 619-531-5223

PACIFIC HWY 92101 CONT
★SLATER PAM SUPVR 619-531-5533
1600.......
1601 XXXX OO
1619 ★JACK IN THE BOX RESTAURANTS 619-232-7316
1655 ★VAGABOND INN BY THE AIRPORT 619-232-6391 6
1660 XXXX OO
X ELM W
1700 ★SAN DIEGO CO HLTH CMTY ADMIN 619-515-6585 +9
★SD CO HLTH AIDS COORD OFFICE 619-515-6699 7
★SD CO HLTH COMMUNITY PROMOTION 619-515-6505 7
★SD CO HLTH INFORMATION 619-515-6770 7
1747 ★RESIDENCE INN BY MARRIOTT 619-338-8200 +9
1919 ★DAYS INN 619-232-1077 3
1934 XXXX OO
1943 ★BAYVIEW THRIFTLODGE 619-232-7551
X GRAPE W
2008 ★ROLLINS SHELL SERV 619-239-4251
★SHELL SV STA DLRS 619-239-4251 1
2042 XXXX OO
2045 ★BODY BEAUTFL CR WSH 619-232-8903
★BODY BEAUTFL CR WSH 619-544-7070 3
★MOBIL OIL CORP 619-232-8903 0
2070 XXXX OO
X HAWTHORN W
2137 ★BRADLEY S R&ASSOCTS 619-232-4102
★CHINA CAMP FAT CITY 619-232-1367
★CHINA CAMP FAT CITY 619-232-0688 4
★DENNYS RESTAURANT 619-239-8938 5
★FAT CITY BAR&PATIO 619-232-0686
★FRANK FAT PROPERTY 619-232-3027 4
★ROAD RUNNER RENT-A-CAR 619-231-7511 +9
X IVY W
2200 ★SD TRANSPORTATION MANGMNT ASSN 619-696-5210 +9
★SOLAR TURBINES INC 619-544-6000
2233 ★SHINODA DESIGN CNTR 619-235-2070 4
2263 ★AUTO BODY 619-233-4601 +9
★GETAWAY RENT A CAR 619-233-3777
★NEW FRONTIER RENTACAR 619-702-7467 7
X JUNIPER W
2305 ★ADMIRAL CAR RENTAL 619-696-9900 3
2353 ★AIRPORT CITY TRAVELODGE 619-232-8931
★TRAVELODGE 619-232-8931
X LAUREL W
2431 ★PURE PLATINUM 619-233-7359 1
2499 ★DOLLAR RENT A CAR 619-234-3388
2521 ★BOB STIVERS SHELL 619-233-4120 8
★SHELL STATIONS OF BOB STIVERS 619-233-4120 6
2535 ★BUDGET AIRPORT PARKING 619-239-3781 8
2585 XXXX OO
2610 XXXX OO
X PALM W
2888 XXXX OO
2904 ★AIRWAYS RENT A CAR 619-260-6363 5
★ARLEN CAPITAL ADVISORS 619-686-2053 8
★CITY LEASING&RENTALS 619-260-6363 8
★CITY RENT A CAR 619-260-6363 8
★DYNAIR CFE SERV INC 619-220-0397 4
★DYNAIR SERVICES INC 619-296-0733 5
★EVERGREEN INTERNATL AIRLINES 619-295-3103 6
★EXECAIR MAINTENANCE INC 619-298-9733 +9
★JET WASH 619-293-7099 6
★JIMSAIR AVIATION SERVICES 619-298-7704 6
★WINDSOCK BAR&GRILL 619-297-0866 7
2906 XXXX OO
2909 XXXX OO
2935 XXXX OO
2975 ★RYDER TRUCK RENTALONEWAYINC 619-294-2598 3
2980 XXXX OO
3050 ★MICRO CRAFT 619-683-8900 6
3125 XXXX OO
3150 XXXX OO
3165 ★BUDGET CAR AND TRUCK RENTAL 619-542-8000 8
★PORT OF SAN DIEGO 619-686-6200 5
★PORT OF SAN DIEGO 619-293-7961 +9
X SASSAFRAS
3275 ★PARK AND RIDE EXPRESS 619-295-4639 7
3302 XXXX OO
3355 XXXX OO
3405 ★ACE PARKING'S QUIK PARK 619-299-7380 7
X VINE
3555 ★TURKS INC 619-299-7700
3565 ★SWEDISH AUTO A B 619-295-6868 4
3567 XXXX OO
3569 ★BLADES AUTOMOTIVE 619-298-2595 +9
3571 ★A A A TWO MEN WILL MOVE YOU 619-491-8169 +9
★TWO GUYS RELCTN SYS 619-296-7995
★TWO MEN WILL MOVE 619-296-7995
★TWO MEN WILL MV YOU 760-753-2636
★TWO MEN WILL MV YOU 760-741-1167 0
3575 XXXX OO
3601 XXXX OO
3605 ★VINEYARD DOORS INC 619-298-9951
★VINYARD DOORS INC 619-298-9951
3655 ★CLEAN TEAM CO 619-299-9000 +9
★PAMECO CORP 619-692-0451
3685 XXXX OO
3690 ★PRECISION WEATHER 619-291-4463 +9
3694 ★OGDEN AVIATION SERVICES 858-547-7909 7
X WASHINGTON W

ZIP CODE 92110 SAN DIEGO

WEALTH CODE 0.0

3705 ★BECKER MOTORS 619-298-5990
3748 XXXX OO
3877 ★POLAR GOLF SHOP 619-291-3186
3881 XXXX OO
3885 ★DONS PHOTO SV 619-295-6921

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VINE ST 2000

VILLA LA JOLLA DR 92037 CONT
X LAJOLLA VILLAGE DR
NO # SCHMIDT Roland 858-558-7282 8
★ 232 BUS 423 RES 247 NEW

VILLA MONTE (94) 92040 LAKESIDE

WEALTH CODE 5.0

13250 ●TREGEAGLE Gordon 619-561-2425 4
13276 ●WILLIAMS Mike D OO 7
13292 ●MILLER Lucille C OO 8
★ 0 BUS 3 RES 0 NEW

VILLAS CT 91902 BONITA

WEALTH CODE 9 0

X VILLAS DR
4600 ●GOLDMAN Bruce A 619-479-3883 4
4609 ●TAPIA Maria A OO 8
4611 REDDY Helen 619-470-1615
●REDDY Mike 619-470-1615
4614 XXXX OO
4617 XXXX OO
4621 ●BACK Jim P OO 8
★ 0 BUS 7 RES 0 NEW

VILLAS DR 91902 BONITA

WEALTH CODE 9 0

4500 CHOE Tony 619-479-9426 8
4502 ●WEBB Travis E OD 8
4505 AVERY Charles 619-479-5434 8
AVERY Julie 619-479-5434 8
4506 ●HECHT Alberto 619-470-8630
4507 ●SNYDER R OO 8
4509 XXXX OO
X OTAY LAKES RD
4510 SHOCKEY Billy M 619-475-7065 0
4511 ●LEYVA Refugio I OO +9
4512 XXXX OO
4513 XXXX OO
4518 ●ELHOMSY Baha E OO 7
4519 XXXX OO
4522 ARTENSTEIN Abe 619-472-0539 +9
●MUSTRI David OO 7
4524 ●GUERENA Jenny OO 8
4525 XXXX OO
4526 ●HAUSAM Recena OO 7
REED Angela 619-479-9984 +9
REED Brian 619-479-9984 +9
4532 ●SAFA Juan C OO +9
4533 ●GUSTAFSON H K OO 7
4534 ●SHANK Harry C OO 7
4535 ●ALVAREZ Irma J OO 7
4537 LUND Arthur 619-470-2548 +9
4540 ●CLARK John B OO 8
4542 ●REBER Peter M OO 7
4550 ●OPRISKA Mark P OO 7
4556 PYE R C 619-475-4109
4562 ●ELIAS Richard I OO 7
4571 XXXX OO
4572 XXXX OO
4573 XXXX OO
4574 ●KUKOSKI Nina M OO 7
4576 ●MACH Karl 619-472-8630 7
4577 ●HENRY Thos M 619-475-4994
4578 ●LEYVA Armando OO 7
4580 XXXX OO
4582 XXXX OO
4584 XXXX OO
4585 ★PORRAS-MAYNES ROBERTO REY 619-479-4685 8
4586 ●MAUL E T OO 8
4587 XXXX OO
4589 XXXX OO
4591 DOLLARD Louise 619-475-4163 +9
4593 XXXX OO
4600 JAIME George 619-470-6123 7
RIOLO Ken 619-470-6123 7
4602 ●LAWREN Gregory OO +9
4604 ●ODENTHAL Joseph W OO +9
X VILLAS CT
4606 ●AYALA Marco A OO 8
4608 ●HARE L 619-267-5795
4614 OROZCO Angelica M 619-470-7763 +9
4620 MAUPOME Alan 619-479-3174 7
4622 ●NEISLON Wanela OO 8
4625 XXXX OO
4627 ●SEARS Deborah A OO 8
4628 SRUGO Rabbi Daniel 619-472-5563 +9
4629 XXXX OO
4639 ●FONTES Ruben R OO 8
4664 ●MCFARLANE Ken OO +9
★ 1 BUS 60 RES 12 NEW

VILLAS PL 91902 BONITA

WEALTH CODE 9.0

4631 ●AKAGI Koji 619-475-0219 +9
4633 ●MACHADO Manuel P OO +9
4635 XXXX OO
4637 XXXX OO
4643 ●FERRIOT M J 619-470-6919 2
4645 ●READ Robert N OO +9
4647 XXXX OO
4649 ●FALKENHAN Jerry M OO 8
4651 ●DIAZ P A OO 8
4653 ●IBANEZ Maria A OO +9
4655 XXXX OO
4657 XXXX OO
4660 ●CARTER President Jr 619-475-1793 4
4662 XXXX OO
4668 GONZALES Lelaine E 619-472-2308 8
★ 0 BUS 15 RES 4 NEW

VILLA TEMPRA DR 91911 CHULA VISTA

WEALTH CODE 3 0

1301 ●AYALA Ruben G OO 7
1302 ●VEGA Martha E OO 7
1324 MEDINA Norma 619-427-4561 +9
●ROBLES Beatriz S OO +9
SAINZROBLES Beatriz 619-427-9818 5
1345 ●MUSE Karen OO 7

VILLA TEMPRA DR 91911 CONT
1346 ●WILSON Gilbert D 619-422-4768
1367 ●PORTER Adrian 619-426-3415 8
1382 ●LIMBO Erlinda 619-426-8017 +9
★ 0 BUS 9 RES 3 NEW

VILLA VIEW LN 92021 EL CAJON

WEALTH CODE 6.0

1390 BISHOP Michael 619-401-0779 7
BISHOP Teresa 619-401-0779 7
1392 XXXX OO
1394 GREEN Luz 619-401-7996 +9
GREEN Tony 619-401-7996 +9
MELLO John D 619-579-3152 8
1396 XXXX OO
1398 CAVE S 619-593-2178 +9
X VILLA GLEN LN
★ 0 BUS 8 RES 3 NEW

VILLA ZAPATA 91901 ALPINE

WEALTH CODE 3.0

2340 ●BARCY Donald OO +9
2348 ●FLICK Gene A 619-445-0537
2365 HUTCHINSON James 619-445-3992
★ 0 BUS 3 RES 1 NEW

VINCA WAY 92114 SAN DIEGO

WEALTH CODE 5.0

X 61ST S
1304 ●CALIGUIRAN A 619-263-6966 1
1312 ●RICHARDSON Joe A OO 7
1319 AHMED Sahed D 619-527-3704 +9
1325 ●MAZON Matt 619-266-2331 4
1333 ●TURLA Paul G 619-263-5105 +9
1334 ●DUMLAO B R OO 7
1339 XXXX OO
1347 ●MARTINEZ Leonico OO 7
1353 ●PROFETA Roberto L OO 7
1360 ●ATRERO Romeo A OO 7
1361 AFAN Aristoteles 619-263-2748
1370 ●CONTEMPRATO Analiza OO 7
1379 ●CARDINO Charles OO 8
X DIVISION
★ 0 BUS 13 RES 2 NEW

VINCENTE WAY 92037 LA JOLLA

WEALTH CODE 8.0

X ELECTRIC AV
404 XXXX OO
405 ●TWEED Tom 858-454-5446
411 ●COHN Alda 858-454-6160
412 ●CLAWSON Daniel E OO 7
419 HANSEN Terje 858-454-7027
420 ●ROTHSTEIN Susan G OO 8
427 FLOYD Chas E 858-454-2982
428 LANPHIER Thos G Sr 858-454-0049
436 XXXX OO
X DOWLING DR
531 ●STANLEY P A OD 7
533 CHAMBERLAIN Natasha 858-729-0656 +9
★ 0 BUS 11 RES 1 NEW

VINCETTA CT 91942 LA MESA

WEALTH CODE 4.0

X VINCETTA DR
5426 XXXX OO
5436...... RANCHO LA MESA APTS
BARANOV Kathryn 619-589-0138 6
BERKHOVER M 619-480-6520 6
CLOUGH Ryan 619-462-0254 +9
LIVELY Duane 619-461-3473 +9
MARSHALL Rachelle A 619-644-3482 +9
MCDONALD B J 619-464-7975
★RANCHO LA MESA APTS 619-462-8896
SPECHT Russ 619-461-2596 +9
5436......
5465 EDWARDS Catheran 619-466-3425 5
MAURER Bertha 619-461-0493
MAURER Emanuel 619-461-0493
RUGGIERI Jerry 619-466-2988
TORRES Elliot 619-461-9867 8
★ 1 BUS 13 RES 4 NEW

VINCETTA DR 91942 LA MESA

WEALTH CODE 4.0

X MARENGO AV
8171...... APARTMENTS
ALEJO Vince 619-644-9924 +9
BOE David A 619-697-8091 6
LOUCKS T 619-461-9912 +9
SANCHEZ Jose Luis 619-460-7147 +9
WILLARD Melville F 619-465-5280 6
8171......
8180 BENSON Jim D 619-462-1953 3
COOK G F 619-462-1953 3
COWDEN Brooks 619-460-5679 8
KOERTNER Amy 619-466-0374 +9
KOERTNER Scott 619-466-0374 +9
NEKZAD Saber 619-697-6524 +9
X VINCETTA CT
X HEIDI
8200 XXXX OO
8211...... APARTMENTS
CHAFFIN Derek J 619-667-3686 +9
DANZ Patrick 619-465-6092 +9
GIAQUINTO Carlo 619-644-2352 +9
GIRMAI Simon 619-465-7235 6
HILE Chuck 619-465-0152 7
HOLSTON Annali 619-644-1750 +9
HOLSTON Mike 619-644-1750 +9

VINCETTA DR 91942 CONT.
KREGER Patrick J 619-462-4831 +9
MIRANDA Maria 619-465-5528 +9
MOEHLENPAH Kerri 619-667-4303 +9
MOEHLENPAH Samuel 619-667-4303 +9
PAVLIN Nick J 619-667-4239 +9
SHARP Bryan 619-644-5589 +9
WARNER Daniel 619-668-0347 8
8211......
8220...... VILLA DEL SUR
BAKER Francoise D 619-466-9878
BASCIANO Joseph 619-462-0728
CANARIS Doug 619-697-1078 8
CARLSON Buster 619-469-4616
CARLSON Edith 619-469-4616
DIER Chris 619-466-9979 6
DINCE Adam 619-465-8575 +9
MADRIGAL Brian 619-462-8569 +9
NEWBERRY Andrew 619-469-5717 +9
OVERTON Greg 619-465-5273 8
PARRISH Marvin 619-461-8787 1
SANCHEZ Anthony 619-461-4540 +9
SANCHEZ Evelyn 619-461-4540 +9
SARGENT D 619-468-7016 8
TRUMAN C 619-589-1677 +9
VIRISSIMO Daniel 619-667-9403 8
8220......
★ 0 BUS 42 RES 23 NEW

VINE 92103 SAN DIEGO

WEALTH CODE 2 5

X UNION
1405 SMIRNES S C 619-299-5773 8
1412 ●MIRABELLI P A OO 7
1417 ●WILLIAMS Marta C OO +9
1420 ●TERADA Hart C OO +9
1421 ●STORK George V OO +9
1422 HART Chikako Terada 619-297-6124 8
HART Tom 619-297-6124 8
1430 MULLEN Danl J 619-294-8004
●MULLEN Patricia A 619-294-8004
1438 SCHRDTH Robert 619-291-4351 +9
1440 XXXX OO
1442 XXXX OO
1449 COLVERT Lundy 619-294-4748 6
TARASUCK Marc 619-299-1511
X STATE
1501 ●WILSON Troy E OO 7
1511 XXXX OO
1515 XXXX OO
1516 ●SAUNDERS Javier 619-297-7109
1524 ●MOORE Edward K OO +9
1526 HANSON Gaylord 619-688-2636 +9
X COLUMBIA
★ 0 BUS 20 RES 6 NEW

VINE 92040 LAKESIDE

WEALTH CODE 1 4

9743 XXXX OO
9747 ●SULLIVAN John B 619-561-3633
9751 XXXX OO
9757 ●REEVES Kurt D OO 7
9763 ●LOFTIS Robert E OO 7
9767 ●HALE N J 619-443-4663
9771 ●ASTON Debra OO +9
9777 SCHIEFELBEIN B 619-443-0537
VACURA C 619-443-0537 +9
X WOODSIDE AV
9816 ★WEST CST AUTO BODY 619-390-9633
9818 ★CA PLUMBING 619-561-6732 +9
9824 ★SLAYTON MECHANICAL 619-390-4900 +9
9830 ★HENRIKSON ROOFING CO INC 619-448-5880 +9
★HENRKSON ROOFING CO INC 619-561-5500 +9
9838 ★DAUM T 619-390-3011 8
9839 ★SD CO LBRY BRANCH 619-443-1811
9841 ★LAKESIDE COMMUNITY CENTER 619-443-9176 8
X PARKSIDE
9924 ★AZTEC ROOFING CO INC 619-390-4999 6
SAWAYA John 619-283-5088 7
X LAKE SHORE DR
10023 ★WINDMILL CONSTRUCTION CO INC 619-390-7070 +9
10027 ★TRADEWIND ENTERPRISES 619-561-0933 +9
10030 XXXX OO
10031 XXXX OO
10036 XXXX OO
10039 ★EL CAPITAN FAMILY HEALTH CNTR 619-390-6132 +9
★EL CAPITAN HLTH CTR 619-390-9875 5
★LITE 619-390-9690 5
10040 ★PERRY&SHAW INC 619-390-6500 +9
10047 ★MOBILE PARTS SRV 619-443-0707 2
10050 ALLEN Cynthia 619-561-0854 3
X LAUREL
10127..... APARTMENTS
FLORES Paulette M 619-443-7791 +9
HARTIN David 619-443-6771 +9
KROPP Edwin J 619-561-0875 1
LIES Joel 619-390-2224 8
ROMERO Jimmy B 619-938-0454 +9
SKETO Jennifer 619-561-7102 +9
SKETO Kurt 619-561-7102 +9
SULLIVAN Terrie E 619-561-7270 8
THOMPSON Dorothy 619-561-8614
THOMPSON Harry J 619-561-8614
10127......
10139 ★BOZHOGI DEZSO 619-561-0711 7
10375 ★LAKESIDE WATER DISTRICT 619-443-3805 +9
X MAPLEVIEW
10441 ★AMERON GRAVITY PIPE PRODUCTS 619-561-6363 6
★ 19 BUS 24 RES 16 NEW

VINE DR 91906 CAMPO

WEALTH CODE 3.0

29306 XXXX OO
29322 XXXX OO
X YUCCA DR
29373 LAWRENZ M A 619-478-6006
X GLADIOLA DR
29379 BACHMAN James H 619-478-2388 +9
29380 WHITE Greg 619-478-2664 7
WHITE Greg 619-478-5443 +9
29382 XXXX OO
★ 0 BUS 7 RES 2 NEW

VINEYARD WAY 91901 ALPINE

WEALTH CODE 3.0

2 OBRIEN Margel 619-445-6148
4 XXXX OO
6 NICHOLS Douglas R 619-659-1249 8
8 XXXX OO
10 SCHOLL I J 619-445-4345
12 ●MEOLOCK Irene P OO +9
14 XXXX OO
16 MILLS Renette 619-445-7896 +9
★ 0 BUS 8 RES 2 NEW

VINLEY PL 92120 SAN DIEGO

WEALTH CODE 7.0

X DELCERRO BLVD
5725 ●HUNSAKER Albert G 619-229-2055 8
5738 XXXX OO
5739 ●HURDA Marsha C OO 7
5750 ●ZEAVIN Dorothy L OO 7
5755 ●MURRAY Kevin J 619-265-1759
5762 XXXX OO
5767 XXXX OO
5774 XXXX OO
X LAMBDA DR
★ 0 BUS 8 RES 0 NEW

VIOLA 92110 SAN DIEGO

WEALTH CODE 6 0

1320 XXXX OO
1325 ●HAFNER Wm W 619-276-2537
1344 ●MICHALEK Stanley J 619-276-6346
X LILLIAN
★ 0 BUS 3 RES 0 NEW

VIOLET 92105 SAN DIEGO

WEALTH CODE 0.5

2502 XXXX OO
2504 XXXX OO
2507 GAYTAN Aurelia 619-563-5522 +9
GAYTAN Luis A 619-563-5522 +9
HERNANDEZGAYTAN Ernesto 619-563-1637 6
2510 STEVENSON Jas M 619-283-5209
2511 XXXX OO
2519 ●RADER Gary W OO 7
2525 XXXX OO
2530 ●FLORES Pablo OO 8
2535 XXXX OO
2537 BARBARINO Peppe 619-584-6766 6
X SYCAMORE DR
2544 ●DEGALLARDO Maria E 619-282-7731
2547 ●DIGRIGOLI Santo 619-284-2731
X PEPPER DR
2548 LIBERATORE M 619-281-2372
2550 GAMBITO Imelda 619-283-7847 6
GAMBITO Ronald 619-283-7847 6
2552 XXXX OO
2554 XXXX OO
2556 XXXX OO
2560 ●CHOATE Frances L OO 7
2564 XXXX OO
2568 ●JACOBS Marvin 619-281-8009
2571 XXXX OO
2572 XXXX OO
2578 XXXX OO
2580 ●SANCHEZ Teresa OO 7
2581 XXXX OO
2583 LARA Miguel A 619-640-0253 +9
2596 ★SD CTY PK FCLTY AZALEA 619-235-1162 2
X POPLAR
2608 GARCIA Guadalupe 619-640-4456 +9
2614 XXXX OO
2622 XXXX OO
2624 XXXX OO
2629½ SIMMONS A M 619-516-4815 +9
2631 ●QUAN Chau Wah 619-280-9291 3
2632 XXXX OO
2634 XXXX OO
2637 BLANCHARD Bradley R 619-284-9551 8
2639 XXXX OO
2640 ★SPEED QUEEN SERVICE CENTER SD 619-280-4458 +9
2643 ●DUNN Michael 619-280-4340 6
2646 XXXX OO
2648 XXXX OO
2650 MILLER Clifton L 619-280-3598 8
2651 XXXX OO
2652 XXXX OO
2656 XXXX OO
X MANZANITA DR
★ 2 BUS 46 RES 6 NEW

VIOLET 91941 LA MESA

WEALTH CODE 2.6

X WAITE DR
3849 JENKINS John J Jr 619-469-8883
JENKINS M 619-667-3928 +9
3853 ●CONDON John T OO 7
3857 ●RODGER Ruth J OO 7
3875 XXXX OO
X PEARSON
3900 ★LEMON GRV LATCHKEY 619-460-5953
★VISTA LA MESA ELEM 619-589-5645 1
3905 RAMSEY Waleska 619-589-9124 8
3906 ●OHALLORAN Randall OO +9
3910 ●PETERSON Warren L 619-469-1940
3921 XXXX OD
3923 XXXX OO
3925 XXXX OO
3936 HARVEY Marion 619-460-0261 8
STARKE Joan E 619-460-8038
3937 ●CASTAGNA M A OO +9
3945 XXXX OO
3948 ●HAGEN Lorissa A OO 7
3950 ●WALLBAUM Mark 619-698-1454
3955 ●LEERSKOV Muriel A 619-461-8581
3956 ★VIVIANE WOODARD BTY 619-466-8950
3963 ●FULLER L Ray 619-466-1364
3968 ●STEMEN Janet E OO 7

VIOLET 91941 CONT
3973 XXXX OO
3974 CAMPBELL A B 619-461-3366
3992 GU Jian 619-462-3498 8
X HOFFMAN AV
4002 XXXX OO
4014 HAYES Claudia B 619-463-8634 8
4015 ●SHULL Albert K OO 7
4020 ●MATTHYSSENRUDY Mary OO 7
4021 XXXX OO
4026 XXXX OO
4027 KENT G 619-462-7884 8
KENT V 619-462-7884 8
4032 ●KILLEN Deborah OO 8
4033 ●ZEREN Leon A OO 7
4038 BELTZNER Kevin C 619-466-5592 7
4039 MERRITT Gloria 619-462-4961
●MERRITT Jas 619-462-4961
4044 ●CAUDELL Sharon 619-460-9057 +9
GOMEZ Martha C 619-465-2659 +9
4045 ★LOWERY PAT 619-469-7537
4050 ●SCHRADER Susan 619-464-7394 7
4051 XXXX OO
4056 BEDWELL C 619-463-9488 5
4057 ●WESTOVER S 619-464-6793 2
4062 ●TRAVERS Maria T OO +9
4063 ●LIVINGSTON Kevin K OO 7
4068 XXXX OO
X STUART AV
4133 ●WESTOVER Norms E 619-469-6091
4138 ●DAVIS Michael K OO 7
4139 DAVIS Richard 619-461-3726 +9
MARTINEZ Jose G 619-462-2493 +9
4145 ●PONCE E 619-460-7947
4150 ●NAGY Louis 619-466-9663
4151 ●SALAZAR Yvan OO +9
4156 ●RONAN Sharyl L OO +9
4163 XXXX OO
4168 XXXX OO
4169 ●SOBKE Arthur 619-465-5286
4174 XXXX OO
X HYBETH DR
★ 4 BUS 57 RES 10 NEW

VIRGINIA AV 92115 SAN DIEGO

WEALTH CODE 2 0

4567 ●NOWELL Peter C OO 8
4575 ●SAVEL J S 619-582-2600
4576 ●MCENTEE Teresa M OO 7
4583 ●ZANE Stanley 619-286-2529
4584 ●GROCCIA Linda J OO 7
4591 XXXX OO
4592 ●RAPTIS Pamela OO 7
X ACORN
4611 ●MENDOZA Judith T OO 7
4612 ●SMITH Paul K OO 8
4617 ●BUTLER K F 619-582-8422
4623 ALLSHOUSE D 619-583-7153
4624 ●ECHON H R OO 8
4629 REINHARD Keith 619-286-6068 8
REINHARD Keith 619-286-4869 +9
4630 ●PEALE Wm R 619-583-3692
4635 ●SCHANER Alex 619-582-7005
4641 BUTLER Frank O 619-582-7541
X STANLEY AV
★ 0 BUS 17 RES 1 NEW

VIRGINIA AV 92173 SAN YSIDRO

WEALTH CODE 1.0

29 ★SALDANA BENJAMIN 619-428-2137
X SAN YSIDRO BLVD E
117 XXXX OO
119 RODRIDUEZ Franco Pantaleon 619-428-4358 8
121 LOPEZ Jose L 619-690-0818 8
123 MARTINEZ Sarahi 619-690-5437 +9
127 XXXX OO
129 AREAS Aurora 619-690-3108 +9
131 SALMERON David A 619-690-5107 +9
133 XXXX OO
137 ★CIRCUS ICE CREAM 619-662-2828 5
147 XXXX OO
157 ★EL PROGRESO 619-428-2886
165 ★M&M HARDWARE 619-428-2285
175 ★FAMILY BARGAIN CENTER 619-428-5386
184 XXXX OO
185 XXXX OO
195 ★LAVENDERIA DE ORO 619-690-0055 6
197 XXXX OO
X BORDER VILLAGE RD
199 ★LA MINA DE ORO 619-428-0358 4
★SANYSIDRO CLEANERS 619-428-3902
★ 8 BUS 12 RES 3 NEW

VIRGINIA CT 92020 EL CAJON

WEALTH CODE 8.0

X FALMOUTH DR
2142 ●ARAMBEL Shannon 619-698-6598 +9
2153 DALESSANDRO Jas F 619-469-7586
2174 ●SCHWAB Paul F OD 7
2177 XXXX OO
2216 ●WILLIAMS Gregory K OO +9
2223 XXXX OO
2232 PLASTERER Michael 619-698-2534 8
2235 XXXX OO
★ 0 BUS 8 RES 2 NEW

VIRGINIA DR 91950 NATIONAL CITY

WEALTH CODE 3.0

X L AV
2620 ●BOWMAN R E 619-477-3506 6
2625 ●ELIZALDE Samuel S OO +9
2630 XXXX OO
2639 ●GARZA Patrick A OO +9
2640 ●PARKER James E OO +9
2649 HELGESON Dana W 619-477-5329 +9
X 28TH E

VIRGINIA DR 91950 CONT
2706 ●CUMMING Joanne L OO +9
2707 ●SHERWOOD Alvin R OO +9
2728 ●LUDWICK J Diann 619-477-0727
2729 XXXX OO
2745 ●SPRITZER Agnes J 619-474-1694
★ 0 BUS 11 RES 6 NEW

VIRGINIAN LN 91941 LA MESA

WEALTH CODE 8 0

X WISTER DR
9217 ●NORMAN John W OO 7
9220 ●GARRISON Joan O OO 7
9227 ROSS Gloria 619-697-8219
ROSS Ramon R 619-697-8219
●ROSS Wanda 619-469-7478 0
9240 MERKUTA John 619-466-9000 +9
9250 ROSTOMILY Jackie 619-465-1598 +9
ROSTOMILY Jeff 619-465-1598 +9
9257 YARNELL R A 619-460-5733 +9
9261 ●WISSENBERG John H OO 7
9264 ●FERREIRA Shaw N OO +9
9265 ●SPINNEY J W OO +9
9285 ●LAKE C A 619-462-4333
★ 0 BUS 13 RES 6 NEW

VIRGINIA WAY 92037 LA JOLLA

WEALTH CODE 8 0

X GIRARD AV
X TORREY PINES RD
1027 ★GIETZ HEINZ MERCDES 858-454-7137
★HEINZ GIETZ AUTOHAS 858-454-7137
★MERCEDES BENZ SRVLAJOLLA 858-454-7137
X BLUEBIRD LN
X HERSCHEL AV
1105 XXXX OO
1121 ●SCARLATO Gerard 858-551-9532 4
1127 ●PRYOR Billy OO 8
1138 ●PANDES Vincent G 858-551-8348 8
1142 XXXX OO
X HIGH AV
1155 PENRY Willard W 858-454-4955
1156 ●LINDKVIST Ann S OO 7
1168 FELLOWS Hillary Bo 858-456-7679 7
FELLOWS Julian 858-456-0581
FELLOWS Wendy E 858-456-0581
LACH Paul Jr 858-729-0805 +9
1176 WEEKS Alan R 858-456-2104 7
1208 RUDDY Mark 858-459-8557 4
1211 ●EWALD William F OO +9
1214 ●KYTE Jack 858-454-9478
1215 XXXX OO
1221 ●GALLAGHER John J Jr 858-454-1488
GALLAGHER John J Jr Chld 858-459-5584
1231 SIPE Jack C 858-454-9381 8
1235 ●PAYNE M A OO 7
1236 ●BURKE John S OO 7
1245 XXXX OO
1246 XXXX OO
1260 XXXX OO
1271 ●DAVIS James M 858-459-6518
1275 XXXX OO
1285 STUART Paula 858-551-5849 +9
1287 XXXX OO
X IVANHOE AV E
1299 ●CHARKHAM Gary 858-456-5888 +9
1301 JUDGE Janet 858-459-5184
●JUDGE Roger 858-459-5184
1304 ROOS Cornelius 858-454-5574
1314 ●MEMMHM L L OO +9
1320 ●MUNDS Loretta B OD
1321 HERRING Clarke F 858-459-1475
1324 ●WHITNEY Winston G 858-459-9326
1328 XXXX OO
1335 CRUZ Catalina 858-459-5737
1338 ●RUYLE David J 858-459-3151
1345 MARSDEN W 858-459-7824
1350 XXXX OO
1351 ●BOOTH Richard F 858-454-4008
1381 HALASZ Diana 858-459-7417
HALASZ Nicholas A 858-459-7417
1384 KASSNER James A 858-459-4986
●WIEGLE Eddie OO +9
1374 ●SHAFFER William A OO
★WAYSYS INC 858-454-3220
X EXCHANGE PL
1401 XXXX OO
1411 ●WALDO Peter OO
1412 GILLEN Joyce 858-459-5224
HOSIE Bernard P 858-454-3484
1414 ●MACINTYRE N R Col 858-454-5105
1419 XXXX OO
1436 XXXX OO
1437 ●WARE D J 858-454-3959
1445 ●RUMSEY A 858-454-4739
1453 TAFT Elizabeth 858-454-8595
TAFT Joseph 858-454-8595
1454 XXXX OO
1461 XXXX OO
X PROSPECT PL
1520 XXXX OO
1524 ●MULDER Cherie E OO +
1528 BARBER Jim 858-459-1197 +
1532 ●STUBBS Robt C 858-459-8140
1533 GAGE Fred H 858-454-4971 +
GAGE Mary Lynn 858-454-4971 +
1535 ●KEARNS Donald B OO
1540 XXXX OO
1555 ●THOMAS Terence W OO
1556 ●UOSSOUGHI Kourosh OO
1583 ●HANCOCK James P OO
★ 4 BUS 71 RES 10 NEW

VIRGO E 92105 SAN DIEGO

WEALTH CODE 3 0

3203 ●CHHIENG Mannora OO
3204 ●BILLOCK Joseph OD
3212 ●DARTON C M OO
3215 ●NELSON J M 619-286-2685
3220 ●CHOUNG Peter K OO
3225 ●CORDERO Robert L OO
3230 ●NILSSON Bengt 619-582-1552
3235 ●RUSSELL Gloria Y 619-286-7937
RUSSELL James L 619-286-7937
3240 XXXX OO
3245 ●TRUONG C V OO

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WALNUT AVE W 2000

WALNUT AV W 92103 CONT
SATRE Erika J 619-294-2604 +9
SIMS Tiffania N 619-291-2169 +9
130 XXXX OO
134 ARRASMITH Rex C 619-297-6225
WAHLSTEN John A 619-296-5815
WAHLSTEN Marjorie K 619-296-5815
135 XXXX OO
177 XXXX OO
X FRONT
205 XXXX OO
207 ●KLAUBER Janet 619-220-0975 8
211 ●ROMBERG Henrik P OO 8
230 MEYERS Judith 619-294-6732 8
MEYERS William 619-294-6732 8
X 3RD AV
X ALBATROSS
315 XXXX OO
321 RILEY M 619-296-1566
X OTSEGO DR
605 XXXX OO
615 XXXX OO
631 ★INNERSCAPE 619-688-1912 5
★TURNPIKE CORP 619-298-5060 7
635 XXXX OO
X BEAR DR
X HAWK
1004 ●GRAVES Douglas 619-543-1342
1025 XXXX OO
1041 ●ENRIGHT Patrick J 619-296-1672
X IBIS
1141 XXXX OO
X JACKDAW
1300 BURT Richard A 619-299-6742
●BURT Vangie 619-295-9574
X KITE
1302 XXXX OO
X STATE
X LARK
1617 XXXX OO
1621 XXXX OO
1623 SLAVIK E V 619-296-0249
1625 XXXX OO
1626 ALLBRITTON Paul G 619-574-1181 8
1627 XXXX OO
1628 XXXX OO
1629 XXXX OO
1631 BROWN William L 619-260-3611 6
X COLUMBIA
1703 XXXX OO
1717 XXXX OO
1719 XXXX OO

ZIP CODE 92101 SAN DIEGO

1949 ★ARTS&CRAFTS PRESS 619-497-1350 3
★CONTL GRAPHICS ARTS 619-297-0261 5
X KETTNER BLVD
★ 4 BUS 43 RES 6 NEW

WALNUT DR N 91911 CHULA VISTA

SEE NORTH WALNUT DR

WALNUT RD 92040 LAKESIDE

WEALTH CODE 4 3

X GOLDEN RIDGE RD
X GREEN LN
11705 XXXX OO
11712 SCHMIDT Donald K 619-443-8668
★SCHMIDT DONALD K 619-390-8382 1
SCHMIDT Troy 619-443-8668
11720 ●GREGG Linda A OO +9
11739 ●PEWELL Valerie J OO 7
11746 ●FULLER Bruce E 619-561-2252
11747 ARELLANEZ Stella 619-390-9655 +9
11753 JORDAN Patricia 619-561-9257
●JORDAN William 619-561-9257
★P C MAXIMIZER 619-443-4230 1
11755 XXXX OO
11758 ●BEEBE Thomas L OO +9
11770 XXXX OO
11805 ●CHRISTENSEN Karl I OO +9
11806 ●RAY B D OO +9
11811 ●HILLIKER Harold I OO +9
11821 XXXX OO
11823 ●NILES Jennifer 619-443-5466 +9
●NILES Kenneth 619-443-5466 +9
11826 BUTLER Vance Leroy 619-561-1219
11845 BIRDWELL Doris 619-561-0893
●BIRDWELL John 619-561-0893
11846 ●SNODGRASS Carol A OO 8
X GARDENA RD
11855 BRUTON Ben 619-561-0819
●BRUTON Jody 619-561-0819
11871 ●PERRY Shirley Crossland 619-390-4419 7
11884 WALLS Luke 619-561-1206
11885 ●GILLIS Melissa OO +9
11910 ●STRATTON Dawn E OO 7
11913 FURR Skip 619-561-2417
11920 HARRIS Sidney L Jr 619-390-7934 +9
11935 ●RODRIGUEZ Thomas A 619-443-3832 1
11936 ●BLACK Frances U OO 7
11944 HILL Brenda 619-390-8129
HILL Robert 619-390-8129
WHITTEMORE M J 619-561-0687
11965 ●LANEY Cheryl L OO 7
11966 WHILE Carla 619-561-5558
●WHILE Charles 619-561-5558
11967 ECCKER J D 619-443-0994 8
11968 XXXX OO
X SAPOTA DR
★ 2 BUS 40 RES 10 NEW

WALNUT TREE LN 92021 EL CAJON

1248 TAYLOR Harry W 619-562-7401 +9
★ 0 BUS 1 RES 1 NEW

WALPEN DR 92154 SAN DIEGO

WEALTH CODE 5.0

1110 ●MANCE Florencio G 619-429-6638
1121 ●KAPULE Aileen OO 8
1130 ●OSHIRO Jay K OO 7
1131 XXXX OO
1140 ●GARCIA Nery A OO +9
1141 CAYABYAB Ricardo B 619-575-7846
1150 ●ADASKA David P OO 7
1151 ●PALMER Walter A 619-429-7732
1160 ●HINOJOSA Jose L OO 8
1161 ●CHRISTENSEN Sean M OO 7
1170 ●VASQUEZ Jose A OO 7
X HOFER DR
1208 XXXX OO
1215 WASHINGTON Archie L 619-423-5099 6
●WASHINGTON Sarona 619-423-5099 6
1223 XXXX OO
1224 DELACRUZ Santi 619-424-9245
1231 XXXX OO
1232 ●ANDERSON Leroy D OO 7
1239 LARIOSA Beda 619-424-7404
LARIOSA Olga 619-424-7404
1240 XXXX OO
1247 ●LOPEZ Vicenta M OO 8
1248 XXXX OO
1256 ●MELCHER David R OO 7
1264 ●CAMPBELL Lynda A OO 7
1271 ●GAMBOA Onofre O OO 7
1272 ●TOLENTINO Jesse L OO 8
X LIEDER DR
★ 0 BUS 27 RES 1 NEW

WALSH WAY 92115 SAN DIEGO

WEALTH CODE 8.0

X DROVER DR
5112 XXXX OO
5115 ●REYNOLDS Robt C 619-583-6940
5139 WELCH Mary Jo 619-583-7205
●WELCH Reuben R Rev 619-583-7205
5152 XXXX OO
5163 ●KING Harry A 619-287-3644
5164 ●DEVITA A J 619-582-8645
5173 XXXX OO
5174 XXXX OO
5183 ●ELLMAN Harry OO 7
5184 ●GREENSTEIN Herbert 619-286-1654
X SAXON
★ 0 BUS 11 RES 0 NEW

WALTER AV 92120 SAN DIEGO

WEALTH CODE 6.0

X WINONA AV
4907 XXXX OO
4908 HERNANDEZ Jesus Arturo 619-582-5077 8
4919 RUNYON Ann 619-286-6225
4920 ●GEAR E C 619-582-9019
4931 BUCHY Ellen 619-583-0120
●BUCHY Paul 619-583-0120
4932 XXXX OO
4943 ●COMETTI John A 619-583-7609 1
4944 XXXX OO
4955 ●GIGANTI Mike J OO +9
4967 ●ANDERS Paula A OO 7
4968 ●MARTIN Francis J OO 7
4979 CONSTANT Ernest G 619-265-2636
●CONSTANT Geo 619-583-9694
4980 XXXX OO
X 51ST
5007 ●HEUTON Ronald P 619-287-7117
5008 ●HATFIELD Kenneth M OO 7
5019 ●MCLELAND Shari OO 8
5020 ★TONY KELLER'S CUSTOM PAINTING 619-582-6293 8
5032 ●SUNDQUIST Saandra M OO 7
5043 ●FENNO Jerome W OO 7
5044 XXXX OO
5055 ●STOUGHTON Silva S OO 8
5056 XXXX OO
5067 ●KLEIN Mary C OO 7
5079 ●TARBOR Bessie E OO 8
5080 XXXX OO
★ 1 BUS 26 RES 1 NEW

WALTER WAY 92021 EL CAJON

333 ★TREPCO WEST CASH&CARRY 619-444-2666 +9
344 ★AUTO TECH INTNATL 619-442-0022 7
354 ★BEST AUTO REPAIR 619-588-9392
366 XXXX OO
398 HARRIS J 619-401-0912 8
SHERIFF Ben E 619-593-0784 +9
400 XXXX OO
★ 3 BUS 4 RES 2 NEW

WALTON PL 92116 SAN DIEGO

WEALTH CODE 0.0

X OHIO
3057 ●MAUTNER Rhonda OO 8
3060 ●ASARO A G OO 8
3061 XXXX OO
3064 XXXX OO
3069 ●PRESSLEY Bonnie J OO 8
3070 MANNON Susan E 619-640-1065 +9
WOLDEMEDHIN Biniyam D 619-528-4527 8
★ 0 BUS 7 RES 1 NEW

WANDA CT 92120 SAN DIEGO

WEALTH CODE 3.0

X DELOR CT
6050 ●BRIDGES John 619-501-1476 +9
●BRIDGES John 619-285-0910 +9
6053 ●STURROCK Mathew B OO 8
6056 XXXX OO
6062 ●ROGERS F E 619-284-4097 +9
6076 ●CALTON Jeff A OO 7
6085 ●BEHLMAN Ray D 619-283-5050
6088 ●ORLANDO J 619-283-2750
6095 XXXX OO
6098 XXXX OO
X TWAIN AV
★ 0 BUS 10 RES 3 NEW

WANDA WAY 91935 JAMUL

WEALTH CODE 8.0

13920 ●MONTE Rex Mrs 619-669-1767
X MAXFIELD RD
13955 WEDDLE Calvin L 619-669-0248
●WEDDLE Jessie L 619-669-0248
13960 SMITH Betty 619-669-1707
SMITH Lester 619-669-1707
13969 HARPER Alan 619-669-6657 +9
HARPER Cheryl 619-669-6657 +9
13996 ●MAYO Charles H 619-669-0518
★ 0 BUS 8 RES 2 NEW

WANDERMERE CT 92120 SAN DIEGO

WEALTH CODE 9 0

6660 CHARTIER Bill Cdr 619-460-5239
●CHARTIER Elayne 619-460-5239
6667 XXXX OO
6670 ●TRIPP Robt 619-698-7964
6675 ●MERINO Fred 619-465-6304
6685 ●NACHANT Fritz A 619-465-8506
X WANDERMERE DR
★ 0 BUS 6 RES 0 NEW

WANDERMERE DR 92120 SAN DIEGO

WEALTH CODE 9 0

X BRYNWOOD WAY
X RIDGE MANOR AV
6404 ●HOBEL Kathleen 619-583-9318
6405 ●BROOM Glen M OO 7
6431 XXXX OO
6437 ●VEHAR Mathew E 619-460-6004
X CLAREMORE AV
6450 XXXX OO
6456 ●LIPERA Larry OO 7
6469 ●JOYAL Edward A OO 7
6482 XXXX OO
6485 ●SERTICH Thomas OO 7
X DANVILLE AV
6510 ●BARTHOLOW John S OO 7
6513 XXXX OO
6522 ●SPEARS Calvin C OO +9
6525 ●RATTS Frank A OO 7
X BELLE HAVEN DR
6534 ●DENBOW Kenneth D Capt 619-583-3225 +9
6546 XXXX OO
X WANDERMERE CT
6558 ●CARNAHAN Mark 619-501-1892 +9
X MIRA VISTA LN
6572 ●CALLAWAY Ralph 619-582-0345 +9
6584 XXXX OO
6614 ●BATTEN Richard K 619-583-7183
6631 BURGUM Dan 619-463-2086 +9
BURGUM Dan 619-463-6045 +9
6632 XXXX OO
6649 KNETZER David 619-462-8562 6
KNETZER Leean 619-462-8562 6
6663 ●MOSCO A R 619-461-9759 3
6671 XXXX OO
6695 MAJOR Fred 619-469-0815 +9
6696 XXXX OO
X PARK RIDGE BLVD
6700 XXXX OO
6702 ★HENRY HI SC ADMIN 619-286-7700
★HENRY HI SC BAND 619-582-0577
★HENRY HI SC CHORAL 619-286-7664
★HENRY HI SC STDNT 619-583-8024
★SD SC SR HI HENRY 619-286-7700 1
6711 ●AWAMPATO Charles OO 7
6735 ●BUCKBY Richard A 619-481-0266
X PARK RIDGE BLVD
X CASSELBERRY WAY
X BONNIE VIEW DR

ZIP CODE 92119 SAN DIEGO

WEALTH CODE 8.0

X BELLE GLADE AV
6965 ●STRACHAN Todd M OO 8
6979 ABE Joe 619-462-9095
7005 XXXX OO
7021 XXXX OO
7030 ★GREEN ELEM SC 619-460-5755 1
★SD SC ELEM GREEN 619-460-5755 8
7037 XXXX OO
7053 HATCH Patricia 619-463-3259
●HATCH Richard 619-463-3259
7085 ●MILLS Harold V Jr 619-463-3326
X GREEN GABLES AV
7121 XXXX OO
X SUNNY BRAE DR
X GOLFCREST DR
★ 7 BUS 40 RES 7 NEW

WARBLER WAY 92037 LA JOLLA

WEALTH CODE 9 0

5551 ●MARTIN Melissa 858-456-7956 6
5560 CLOW Janet 858-454-5494 8
CLOW Michael 858-454-5494 8
5570 XXXX OO
5571 ●MENAS Andrew N OO 7
5580 ●BONN John J 858-459-5441
5581 ●NOON Timothy 858-459-1455 8
X SKYLARK DR
★ 0 BUS 7 RES 0 NEW

WARD LN (95) 91941 LA MESA

10076 BEARD Geoff 619-469-6146 8
★ 0 BUS 1 RES 0 NEW

WARD RD 92116 SAN DIEGO

WEALTH CODE 1 0

X CHEROKEE AV
3717 XXXX OO
3720 XXXX OO
3728 BATES Jodie 619-282-6087 +9
3735 XXXX OO
3737 XXXX OO
3739 CATE Daniel 619-640-6435 +9
3741 XXXX OO
3743 XXXX OO
3744...... APARTMENTS
CHAMPION Toby 619-584-0710 4
CONTERAS Herlinda 619-285-9728 +9
ESPINOZA Gerardo 619-640-6808 +9
GONZALEZ Juana 619-282-8907 +9
SCHULER William 619-281-6357
3744..................
3745 ●EMMETT Geo E 619-282-8821
3751 RAMSEY Vanessa 619-285-9121 +9
3752 MCCLURE James 619-563-7886 8
MELIN Lotta 619-516-2794 +9
WRIGHT Ian 619-563-9061 +9
3753 XXXX OO
3757 XXXX OO
3759 SANCHEZ Alma 619-285-9684 +9
SANCHEZ Raul 619-521-8568 6
3760 GUINN Robin L 619-640-0005 +9
ROY M 619-282-3761
3768 CHARLES Marissa 619-283-6231 +9
RICE Milton 619-640-8524 +9
3773...... APARTMENTS
BERNARD Leticia 619-521-0685 +9
BOUAPHAVONG Vanna 619-640-9556 +9
BROCKMAN John 619-516-2665 +9
FAUSTINA Guerrero-Baladez 619-563-2083 +9
FIELDS Margaret 619-640-7410 +9
PARKER A 619-640-1420 +9
3773..................
3778 DIMAS Anstao 619-280-8761 +9
HAMPTON Cedric 619-640-6327 +9
JASTER Jeefrey D 619-584-6492
3782 XXXX OO
X 38TH
3790 XXXX OO
3792 XXXX OO
3816 WOOLERY Shawn 619-280-4294 8
3818 XXXX OO
★ 0 BUS 40 RES 20 NEW

WARDLOW AV 92154 SAN DIEGO

WEALTH CODE 4 0

X REVENA
2603 CLAVERO Miguel C 619-575-0352
2606 ARCE Christian 619-429-0543 +9
2607 ●VALERO Romeo 619-423-8991 8
2610 ●SUASA Hernando 619-575-4178 5
2611 ●RAMOS Dina D 619-429-1692 4
2616 ●VILLALOBOS Librado 619-575-5724 3
2619 ●STCLAIR Joyce A OO 7
2620 ●GALANG F V OO 7
2625 ●ROMERO Brenda OO 8
2626 XXXX OO
2630 XXXX OO
2633 SWEETSER Jennifer L 619-429-7958 +9
2636 ●ROBLES Alfredo OO 7
2637 ●LICEA Francisco 619-429-0047 6
2640 ●MURILLO N M OO 7
2649 VILLAFANA Nancy 619-423-7912 +9
2650 LYNN Steven 619-424-6069 8
2656 ●JOHNSON David H OO 7
2659 XXXX OO
2660 XXXX OO
2665 XXXX OO
2666 ●MADDEN Jack C 619-429-9627
2669 ●DYE Ana 619-420-0245 +9
●DYE Tom 619-423-0245 +9
●DYE Tom 619-424-3235 +9
2673 ●ROJAS Maria C OO 7
2674 GARCIA Robert 619-575-5728 1
2677 XXXX OO
2678 ●CHESTER Robert L OO 7
2681 ●MIRANDA Adriano A 619-429-5535
2682 ARCEO Art 619-429-3041
●ARCEO Zenaida 619-429-3041
2685 XXXX OO
2686 ●ADAMS N OO 7
2689 ●RIOS Wilfrid L 619-423-6162 +9
2690 ●JOHNSON Robert A 619-424-8626 5
2693 ●GAPASIN O Jr 619-423-5248 3
2694 XXXX OO
2697 ●FRIJAS Emilio L OO 7
X INTERNATIONAL RD
2702 ●MALIG Ruben M OO 7
2705 ●GONZALES Adorato H OO 7
2712 ●BUYSON C C OO 8
2720 ●GLAZE David L 619-690-6218
2721 ●WINKLE Terry L OO +9
2729 ●CIRIGRANO Marvin L OO 7
2730 XXXX OO
2737 XXXX OO
2738 FLORES Juan 3D 619-690-4770 +9
2742 ●ARANDA Marcy R OO +9
2745 ●ESPONOZA Jolene R OO 7
2746 ●CLARK May T OO 7
2750 ●KOEHLER Alvin A OO 7
2754 ●INZUNZA Gilbert Dr 619-428-2233
2759 ●LOPEZ Dora L OO 7
2765 ●PEREZ Hector S OO +9

WARDLOW AV 92154 CONT
2771 ●VILLASENOR Carlos Y OO 7
2777 ●STERLING Donn A 619-690-6138
2783 ★EIDENT REALTY 619-428-3347 +9
2789 XXXX OO
2795 YEPEZ Andy 619-690-3520 5
●YEPEZ Josie 619-690-3520 5
X WARDLOW CT
2801 ●PASCUAL F E OO 7
2807 ●BUYSON E J OO 8
2831 ●SEGURA F V OO 7
2847 ●VANICEK Geo 619-690-3665
2853 ●HALL Derek OO 7
2859 XXXX OO
2865 ●VERTIZ Arturo OO 7
2871 FASO Julie A 619-428-0670 +9
2877 ●HASTEROK Greg T 619-428-8853
2883 ●MIRIAM Sanchez OO 8
2889 ●BOWMAN Jerry B OO +9
2895 PIZARRO Consuelo 619-428-2695
PIZARRO Dionisio 619-428-2695
X LAWNDALE
X WINTERSWEET
2901 ●AMAVISCA H 619-690-0791
2905 XXXX OO
2906 ●SINGSON Ernesto G OO 8
X BANDOLIER
2908 ●QUIMPO V C OO 8
2911 ●ALCANTARA Gustavo P OO 7
2923 ●LIMBO Luneta V 619-428-7760 7
2930 XXXX OO
2935 SANTI Bruno 619-690-5860
●SANTI Christine 619-690-5860
2940 ●MERCADO Ruben M OO +9
2947 DIAZ Gustavo 619-428-3817 +9
2950 ●SOLIS Rafael OO 7
2959 ●MEJIA Martha 619-690-5866 +9
2964 ●YATES Sergio 619-428-8366 8
YATES Sergio E 619-428-0855 +9
2983 NAVARRO Cezar C Jr 619-428-3204 7
2990 ●SANCHEZ Gloria G 619-428-2671 +9
2995 ●LIMBO Hazael G 619-428-4051
3004 XXXX OO
3007 ●VICTA Arturo N OO 7
3010 ●SMITH Andres 619-428-6365
3019 ●MANESS Ray F OO +9
3024 ●HAMMERLE Charlie S OO 7
3031 VARGAS Jose Luis 619-428-9802 1
3040 GARCIA Raymond P 619-428-6082 +9
3050 ●BEARD Thomas E OO 7
3055 XXXX OO
3060 ●ESPINOSA Albert F OO +9
3067 ●ENGINCO Antonio G OO 8
3070 PEREZ Georgina 619-662-0256 8
●PEREZ Ray 619-662-0256 8
X VALENTINO
★ 1 BUS 104 RES 22 NEW

WARDLOW CT (90) 92154 SAN DIEGO

1955 ●CERVANTES M S 619-690-4662 8
1967 ●ULLOA Alfredo OO +9
1970 ●CASILLAS Maria V OO +9
1980 ●SNYDER Terry R OO +9
1990 OROZCO Jose M 619-690-1456 8
★ 0 BUS 5 RES 3 NEW

WARFIELD WAY (91) 92019 EL CAJON

X SILVERBROOK DR
604 ★IDEAL LAWN&GARDEN 619-659-0246 6
●PAPENHAUSEN Heidi A OO 8
612 ●WIMER Manuel 619-659-9419 7
X HARBISON CANYON RD
★ 1 BUS 2 RES 0 NEW

WARING RD 92120 SAN DIEGO

WEALTH CODE 4 7

4545 ★GOOD NITE INN 619-286-7000 5
4850 XXXX OO
X HOWARD JOHNSON PL
X ADOBE FALLS RD
4950...... BUILDING
★A&JACX LIEB-LIEB&LIEB LLP ATTY 619-265-1811 8
★ALLAN G LIEB 619-265-1811 4
★ARGUS SAFETY OPTICS 619-286-5626
★AUTUMN HILLS REALTY 619-265-1811
★BARBELLA FUNDING 619-286-8421 +9
★BLOOM FINANCIAL SVS 619-287-8551
★D L WALLER&ASSOCIATES INC 619-229-0110 +9
★FREEMAN CHARLES R CFP EA 619-287-5877
★KELLETT CHAS W CPA 619-583-9922 1
★LIEB&LIEB ATTYS LAW 619-265-1811
★NATL EDUCATORS TAX 619-287-8551
★ONEIL FINANCL&INS 619-287-6551
★PARE DAVID F ATTY 619-265-8215
★PRECISION OPTICAL 619-287-4436
★PRECISION OPTICAL 760-480-9936
★SD PAINTING 619-582-8888 1
★TORTUGA REALTY 619-583-2977
4950..................
4954 XXXX OO
4955 XXXX OO
4962 LYLE J J 619-229-8149 8
4964 XXXX OO
4968 KALTHIA Mitesh 619-229-9099 +9
ONER Seda 858-625-8345 +9
4978 ●GRIME Norman 619-583-4504
4986 XXXX OO
4994 XXXX OO
5004 ●FUGLEBERG Kenneth D OO +9
5005 KROCZA Bruce 619-286-5546
5008 XXXX OO
5011 ●CHRISTENSEN Russell OO +9
5012 ●DILEO Suzanne OO 7
5024 XXXX OO
5025 ●SCHOENEN Robert L OO 8
5030 ●GARDELLA Stephen 619-286-1156 8
5031 XXXX OO
5037 ●WASSERMAN Ronald 619-287-1014
5042 CUNNINGHAM Robt 3D 619-582-3579 1
5043 SCHRAER Bruce 619-287-9233
SCHRAER Sharon 619-287-9233
5050 ●SACHSE Chas G 619-583-3660
5057 MARTINEZ Marie 619-286-9653 +9

WARING RD 92120 CONT
5065 KITCHELL Jeff 619-583-2626 +9
5066 MILLER W L 619-286-3831 7
5073 ●LEYENDEKER Lynn J OO 7
5074 XXXX OO
5081 ●BELTRAN Irma 619-255-2647 +9
5082 ●ABELL Robert E OO +9
5089 XXXX OO
5090 ●TIDWELL Kirk L OO +9
X ORCUTT AV
5102 ★ALLIED GRDNS CHEVRN 619-582-1515
★CHEVRON STATIONS 619-582-1515
5103 ★TEXACO FOOD MARTS 619-583-4508
5105 ★DELUCA GEO INS AGCY 619-583-5755 5
★EHBRECHT INS AGENCY 619-583-8500 3
★FARMERS INS AGENT 619-583-9354 3
★FARMERS INS AGENT 619-583-8500 3
★SUMII DAN INS AGCY 619-583-9354 3
5109 ★BOLLENBACHER&KELTON 619-582-9117
5111 ★HIT THE ROAD RV 619-582-7878 4
5113 XXXX OO
5115 ★HECK ALBERT C DR 619-583-2518
5119 XXXX OO
5121 ★FRESH CUT FLOWERS OF SD OUTLET 619-583-9790 6
★UNION BK BRANCH OFC 619-265-5737 5
5125 ★BISHOP ESCROW 619-229-2436 +9
5129 ★FOSTERS FREEZE STRS 619-583-4684
5132 ★HEAVENLY DONUTS 619-286-1997
5134 ★REALTY HEADQUARTERS 619-583-9773
5138 ★SC OF CHUNG MOO DOE 619-582-1800 6
5141 ★BRAUN HARDWARE 619-287-4798
★STITCH A CROSS 619-287-4798
5142 ★ALLIED GRDNS BARBER 619-582-6842
5143 ★VIDEO ISLAND INC 619-582-4422
5144 ★SALON OF BEAUTY THE 619-582-4327 8
★THE SALON OF BEAUTY 619-582-4327
5147 ★PAL JOEYS 619-286-7873
5149 ★ROYBERTO'S TACO SHOP 619-286-2419 6
5150 ★BROTHERS FMLY REST 619-287-0880
★CONAN CONCRETE&CONSTRUCTION 619-286-2119 +9
5151 ★EDWARD'S WINDOWS AND GLASS ETC 619-583-1003 8
5152 ★LEVY CAROL CTC 619-287-8900
★TRAVEL PLANNERS 619-287-8900
5154 ★FIT FOR SPORTS 619-286-4300 6
★RUNNER'S EXPO 619-286-4300 6
5155 ★COOPER SCANFANI&ASSOCIATES 619-229-2440 7
★COX PROPERTIES INC 619-258-9880 +9
★RESOURCE HOME LOANS 619-229-2500 6
★UNITD BROKERS NETWORK 619-229-2424 7
★UNITD BROKERS REALTY 619-229-2400 7
●WEHMEYER Richard OO +9
5156 ★MONA LISA ITLN REST 619-286-2242
5158 XXXX OO
5160 ★LOU'S SHOE&BOOT REPAIR 619-583-3276 8
5161 ★IDEAL PLUMBING&HEATING 619-583-7963 6
5165 ★OLITE CLNRS&LNDRY 619-582-2260
★MASTER DRY CLEANERS 619-582-2260
5172 ★TULIP NAIL 619-286-6276 5
5173 ★ALLIED GARDENS FMLY OPTOMETRY 619-583-1000 5
★CARDIFF BY SEA PUBLISHING CO 619-286-6902 3
CHALUPNIK Tony 619-287-5868 8
★D A ENGINEERING 619-286-5253 8
★MAIL BOXES ETC 619-265-9093 1
★UREY JOHN DD 619-583-1000 4
5177 ★KRAGEN AUTO PARTS 619-583-0775
5181 ★PAR LIQUOR STORES 619-583-7770
5182 XXXX OO
5185 ★LUCKY STORES 619-582-1607
5194 ★UNION 76 WARING RD 619-287-0432
★WARING RD UN 76 SV 619-287-0432
5197 ★BLOCKBUSTER VIDEO 619-287-7287 7
X ZION AV
5205 XXXX OO
5208 XXXX OO
5214 ●HUNT Anthony T 619-583-3223 6
5215 XXXX OO
5219 XXXX OO
5220 ●VILLEGAS Mark A OO +9
5221 XXXX OO
5226 HOXEL H G 619-582-4997
5227 XXXX OO
5238 ●LENKE Alfred A 619-583-3546
5243 XXXX OO
5244 DELAVEGA Hector Jr 619-582-3642
5249 XXXX OO
5252 ●FATTALEH Shukri OO 7
5255 CAMPBELL Floyd 619-287-2099
5260 ●THOMPSON Dale L 619-583-2507
5261 XXXX OO
5266 ●PROFFER Eugenia R OO +9
5267 ●BEDNARIK R S 619-582-2382
5273 ●ADAMCZYK Raymond OO +9
5278 ●FEIGERLE M E OO 7
5279 ●ESCOBAR Mario R OO 7
5285 ●COLLAZO Connie M OO +9
5286 XXXX OO
5290 ●HANDAL H N 619-265-2233
5293 SMITH Jerry C 619-582-8334
5294 ●MELLIZO Gloria OO 6
5297 ●MOFFETT Edw R 619-582-6206
X GREENBRIER AV
5298 ●ARNOLD E W 619-583-0724
5301 XXXX OO
5302 XXXX OO
5305 ●DEUBLE E A OO 7
5306 ●MAHRLING M OO 7
5309 XXXX OO
5310 MOORE Charles 619-287-0925
●MOORE Mary 619-287-0925
5313 XXXX OO
5314 ●HOSTETLER D 619-287-2012
5317 ●VARGAS Raul G 619-286-5765
5323 XXXX OO
5324 ●HECKLER John R 619-583-0390
5330 ●PFAFFENHAUSER Otto OO 7
5336 ●GWAZDACZ Thersa OO 8
5341 XXXX OO
5342 ●MURPHY Mary A OO +9
5348 ●TURNBULL Jeff A OO +9
5349 ●COOPER Lewis R 619-582-5963
5355 ●IGARTUA Guillermo 619-583-2850 3
5356 DERRINGER Milef A 619-229-8609 +9

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KETTNER BLVD 1984

(619) 231-3801 LOCALLY MANUFACTURED.

KETTNER BLVD—Contd
2034 Vacant
2036 Vacant
2044 Waterfront The cocktail lounge 232-9656
2045 Shanks & Wright Inc electronic equip whol 239-0176
2055 Nuncio Adam 234-5816
2055½★Bettancourt Rosaiva
2056 Keane M J Mrs ◎ 232-5603
2057 Davis L 233-4662
2062 Hapgood Peggy
2064 Mulligan Harry O

5

HAWTHORN ST INTERSECTS
2100 Thrifty Rent-A-Car 239-2281
2101 Tap-E-Co Products whol transmission parts 233-6215
2119 Airport Auto Body & Paint 234-6679
2136 K G Ceilings ceiling mfr-sls & serv 231-9641
2151 Pioneer Air Conditioning Co auto 234-6721
2174 Cutri-Medina Tuna Seiner Management auto rental 236-1191
Parkhurst Gordon L Co mfrs agt 232-0721
W IVY ST INTERSECTS
2205 Vacant
2210 Taylor-Dykema Mfg Co wood prods 232-0306
2215 Central Upholstery 234-0078
2227 Roach James L
2228 Howard Paul T 233-3405
2229 Ulloa Ramon
2241★Chimera Antonio ◎ 238-0716
2251★Argentino Dominico 236-9604
2253★Pratt Richd 232-1540
2266 Helix Whol Co (Whse)
JUNIPER ST INTERSECTS
2308 Campus Leasing Inc 239-7716
2310 Vacant
2311 Photophile photograph stock shots 234-4431
Click coml photography 234-4432
2313 Chrome film processors 233-3456
2321 Graphic Ink printing 234-0747
2327 Vacant
2345★Gangitano Jas 230-1263
2347 Bastidas Miguel 234-8208
2365 All Star Glass Co auto glass whol-ret 231-9668
2368 Bethlehem Imports Inc 233-6822
W KALMIA ST ENDS
2400 E T C gourmet cookware
Rudy's Custom Draperies 236-1741
Toyland Distributors Inc whol
Maple Creek Studio & Gallery art 234-2151
Broderick Walter & Associates (Uphol Dept) 239-0411
Broderick Walter & Associates (Whse) 239-0406
2401 Sea Lion Marine marine eng 235-0614
J & M Automotive 231-3701
2419 Gonzalez Jesus B ◎ 239-5814
2427 Mayoral Hector 232-5878
2429★Rydman Jay
2431★Mc Comb Jay 232-2541
2433 Oliver Robt 232-1269
2435 Vacant
2435½★Rojas Edw
2443 Sanfilippo Margt Mrs ◎ 239-8494
2453 Ladki Rent-A-Car (Annex)
LAUREL INTERSECTS
2501 Club The tavern 239-4377
2525 Vacant
2528 Kearny Mesa Federal Credit Union (Br Ofc) 234-1946
2555 Gracalone Frank 239-3835
2557 Jackson Stanley P. 234-8640
2559 Boyer & Brass typesetting & graphic arts 238-1525
MAPLE ST INTERSECTS
2601 Mc Namara John
2603★Billiard Robt
2605 Edison Kenneth 296-1906
2607 Gurnsey Floyd M 296-1167
2609 Vacant
2611 Highland Allen
2680 Janise Plating 295-9706
NUTMEG ST INTERSECTS
2727 Culligan Water Conditioning Of San Diego Inc 291-0450
2730 Vacant
2750 Neyenesch Printers Inc 297-2281
Super Color printing 297-5990
OLIVE ST INTERSECTS
2804 Kettner Radiator Shop repr 295-5171
2812 Flight Path tavern 574-9381

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PALM ST INTERSECTS
2929 Costumes Characters & Classics costume rentals 297-1063
2942 No Return
2958 Vacant
2960 Vacant
2962 Vacant
W QUINCE ST INTERSECTS
3002 Colombo Fidel ◎ 296-2980
3020 Tommy's Furniture Repair 295-8451
3066 Alamo Rent A Car 297-0311
3150 Airport Park & Ride 295-2832
SASSAFRAS ST INTERSECTS
3334 J-Nine Design woodworking 272-0121
3336 Bodyworks Auto Body & Fender Co 296-6148
3340 A C Company genl eng contrs 291-7422
3348 A C Company (Annex)
THORN ST INTERSECTS
3420 Coggeshall A W Plumbing Fixtures & Supplies 295-2149
W UPAS ST INTERSECTS

15

3550 Park And Ride Co airport valet parking serv 295-6659
3554 General Electric Co sls & serv 297-2975
Hotpoint sls & serv 291-9047
3564 Lapidary Journal Inc book & magazine publs 297-4841
3574 Paragon Design Co eng graphic arts servs 291-7670
3590 Arts & Crafts Press coml printers 297-0261
3634 Apartments
1 Gainey Phil M 295-8548
2★Landrum Chas L
3 No Return
4★Cotton Roy A
5 Vacant
6★Rogers Keith 295-6651
7 Vacant
8 Vacant
9 Sepe Pete
10★Mickelson Ron
3648 Stewart John Studio graphic design 291-4729
CHALMERS ST INTERSECTS

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ZIP CODE 92110
ANDREWS ST INTERSECTS
3779★Ludwig Al F
3785★Mullins T S 574-6249
3797 Lanning Margt L Mrs ◎ 296-2504
MC KEE ST INTERSECTS
3803 Oslar Walter R ◎ 296-1840
3809 Pires Joaquin M ◎ 296-4947
3821 Carroll Charles W ◎ 296-3000
3826 Komos Henry J ◎
3830 Robirds Margt M Mrs 296-1366
3831★Williams John M 298-4686
3831½ Lewis Richd
3832 Antos Dorothy L 299-5618
3833 Traylor Josephine L Mrs ◎ 291-0953
3838 Goodman Charles R
3839★Campos Victor
3841 No Return
3843★Guerrero R M 296-7390
3844 No Return
3845★Dariush N 297-2031
3847 Viorato Jose J ◎
3848 Parking Lot
PRINGLE ST INTERSECTS
3857 Vacant
3859 No Return
3865 Brandt K 295-7690

96

KEW TER —FROM 3400 NUTMEG ST SOUTH

ZIP CODE 92104
2603 Smith Manuel R ◎ 284-6554
2604 Gonzalez Robt 283-0402
2609 Chadwell Charlene Mrs ◎
2610 Stewart Michl E
2615 Gillingham Michl D ◎ 282-5588
2618 Burke Wm L ◎ 284-2783
2623 Vitacco Robt A ◎
2624 Pasquilli Paul ◎ 283-5343

574

KEYSTONE CT —FROM 11175 GANESTA RD EAST THEN NORTH

ZIP CODE 92126
8560 Garland Frank D 566-5736
8561 Javiel Orlando O ◎
8567★Ortmann Jon C
8568 Gonzo Larry R 578-3049
8575 Mc Kune Wm A ◎ 578-1014
8578★Tuckerman W Bruce 695-2450
8581★Vilna Fuenteball A ◎
8589 Simpson Kay Mrs ◎ 578-2088
8595 Pacheco Juan A ◎ 578-3267
8599 Langhammer Mary Mrs ◎ 566-7590
8608 Curry Patk J 566-2312
8609★Fleischman Robt J 566-2460
8619 Boon Lars O 566-5845
8628 Christensen Gene ◎ 578-1867
8629 Nascimento Brian ◎ 578-0173
8638 Ulrich Robt 578-0687
8639 Zylius Dennis ◎ 578-4467
8648 Mosteller Michl ◎
8649 Herbert Julia ◎ 566-2696
8658★Butkus Steph B ◎ 566-0728
8659★Bishop Roger K ◎ 693-8724
8668 Garland Steve C ◎ 578-7681
8669 Houchen Harry ◎ 271-5744
8679 Schooling Michl A ◎ 566-3174
8688 Mansfield L E ◎ 566-4207
8689 Stadler Steven D ◎ 578-6168

272

KIBLER DR —FROM SOUTH OF JADE COAST RD NORTH

ZIP CODE 92126
10043 Under Constn
10101 Under Constn
10139 Vacant
10147★Banaga Oscar ◎ 566-9454
JADE COAST RD INTERSECTS
10151★Farrington Alan ◎
10161★Baluyot Jesus ◎ 693-0745
10181★Holstein Thos 695-1546
10201★Guzman Flor ◎ 693-8362
10202★Bower David R ◎ 271-6578
10209★Archambault Jos L 271-9037
10210 No Return
10217★Boyd David J ◎ 578-1692
10233★Kubow Thos F 693-1481
10234★Sacman Roberta 693-0438
10241★Decker Delmar ◎
10249 No Return

173

KICKAPOO CT —FROM 3500 HATTERAS AV NORTH

ZIP CODE 92117
4506 Jones Ernest D 274-1671
4516 Putman A E ◎
4526 Duffee Leonard E 270-2550
4527 Clarr Harry K ◎ 273-6264
4536 O'Neal Norma V ◎ 272-8636
4537 Frank T W 270-0687
4546 Vacant

299

KILBOURN DR (LA JOLLA)—FROM 8566 SUGARMAN DR NORTH

ZIP CODE 92037
8601 Lazerow Herbert I ◎ 453-2388
8602★Schmidt John J 453-8854
8611 Gershuni David H ◎ 453-6933
8620 Brown Charles R ◎ 453-4965
8621 Kalla Joseph M Jr ◎ 453-0250
8631 Kohn Lois M Mrs ◎
8641 Wolfe Elaine W Mrs ◎ 453-8668
8650 No Return
8651★Brown Ronald D 453-8003
8660 No Return
8661 Orloff Marshall J ◎ 453-2709

187

KILKEE ST —FROM 5100 CONRAD AV NORTH

ZIP CODE 92117
5001 No Return
5002 Sirratt Dale E ◎
5009 Alvarado Eziquiel ◎
5010 Tran Vinh ◎ 292-4996
5017 Wells James R S ◎ 277-3389
5018 Nguyen
5025 Bailey Howard R ◎
5026 Russell Ray W
5033 Heath Thos C ◎ 277-1082
5034★Greenlees Wm H Jr 565-0374
5041 Rice Ray H ◎ 268-3223
5042 Steele Lola M Mrs ◎ 565-1819
5049 No Return
5050★Card Kenneth W 569-8732
5057 Tran Khuong ◎
5058 Lutz Robt J ◎ 292-4305
5065 Vacant
5066 Hauta Theo H 278-4620
5073 Degerhardt Wm 277-3408
5074 Rose Roland L ◎ 277-3254
5081 Poueu Rogo
5082 Gee Wm E
5088 Bernard Dewey M ◎ 279-0427
5089★Belfer Robt A 278-7592
5096 Pampel Mary Mrs ◎

659

KILT CT —FROM 4240 KIRKCALDY DR EAST IN A CIR

ZIP CODE 92111
7613★Morey Dennis M 565-1655
7614 Eggert Geo F Jr ◎
7623 Rico Edw 279-9546
7624 Crowe Hubert L ◎ 278-1070
7634★Altona Hans

605

KIM PL —FROM 9500 BLK RONDA AV NORTH

ZIP CODE 92123
2602 Crown Gertrude C Mrs ◎ 277-2127
2603 Lecompt Tim E ◎
2614 Cowart Walter E ◎ 560-7832
2615★Jamison David C 278-7567
2626 Witt Kenneth W ◎ 278-3243
2627 Pingry Gerald D ◎ 565-0886
2639★Yarberry Steve W ◎ 571-5022

99

KING ARTHUR CT (LA JOLLA)—FROM 6700 LA JOLLA SCENIC DR WEST

ZIP CODE 92037
2307 Metro Oil Products Inc oil gas products 459-8075
Ricci Henry 459-8075
2308 Sullivan Jas O ◎
2321★Forbes Geo ◎ 456-0205
2335 No Return
2336 Redmond Bruce N 459-9321
2349 No Return
2363 Heidemann Raymond L ◎ 454-7923
2366 Miner Robt W ◎ 459-6907
2377 Brelhan Donald W ◎ 459-6266
2390 No Return
2391 Schorn Victor G

191

KINGS WAY —FROM 4850 DIANE AV NORTH

ZIP CODE 92117
4805★Harrison Jeff 278-0649
4812 Frater Wayne K ◎ 277-5667
4815 No Return
4822 Klotzsche Erich A ◎ 279-0033
4825 Rostock T
4832 Harvey Edwin D ◎ 565-4166
4835 Harris Ellard W ◎ 277-3742
4842 Aguayo Alf J ◎ 277-5430
4852 Van Berle Theo M ◎ 278-4035
4855★Azamsuff Steve ◎
4862 Powell Wm J ◎ 277-0792
4872★Hixon Frank
MT ROYAL AV BEGINS

201

KINGSLAND RD —FROM 2300 GREENWING DR EAST

ZIP CODE 92123
8407 Tolan Lee J ◎ 565-2536
8415 Dubreuil Roland ◎ 279-6261
8423★Bunce Thos W
8426 Shilts Everett ◎ 565-6590
8431 Blase Colleen I Mrs ◎ 268-9512
8436 Chuckta Saml C ◎ 277-7802
8439 Cropsey Anne K Mrs ◎ 277-1106
8446 Peleti Tui S ◎ 279-4645
8447 Ritz John H ◎ 278-5368
8455★Cassady Marsh ◎ 576-0104
8458★Costa Chas H
8470 Patch Robt C ◎
8471 Hultquist Allen C ◎ 278-9798

33

KINGSLEY ST —FROM 290 ROSECRANS ST NORTHWEST

ZIP CODE 92106
3003 No Return
3021 Richardson Joseph L ◎ 222-2436
3022 Willis Mary M Mrs
3029 Dawes S A ◎ 223-5811
3030 Mc Cutcheon Elsie P Mrs ◎ 222-7786
3035★Fegan Jos C III ◎ 223-3421
3036 No Return
LOCUST ST INTERSECTS
3104 Ruth Philip N ◎ 222-8703
3105 Brown Earle V ◎
3111★Kunzler Leslie ◎
3114 Waterbury John A ◎
3121 Zanetti Ada J Mrs ◎ 223-0938
3122 Kennedy Martha A ◎ 223-8678
3130 Hofman Joseph H ◎ 222-4188
3131 Bartel Richd F ◎ 223-3734
3136 Schick Charles H ◎ 223-0042
3141 Gillespie James P ◎ 224-5492
EVERGREEN ST INTERSECTS
3212 Mc Keown Virginia C Mrs ◎
3226 Heissel Cath A ◎ 224-5597
CHATSWORTH BLVD INTERSECTS

31

CHATSWORTH BLVD INTERSECTS
3601 Gonsalves Joseph ◎ 222-0136
3602 Jason Robt L ◎ 224-2356
3606 De Lira Ruben ◎ 223-6390
3607 Correia Manuel ◎ 225-0722
3610 White Robt C ◎ 223-1795
3611 Frisbie Lois E Mrs ◎ 222-9825
3614 Breit Virgil C ◎ 223-0451
3615 Hamlin Dani A ◎ 222-1636
3618 Carvalho Ralph J ◎ 226-1987
3621 Rodriquez Cosantino
3622 Gonsalves Manuel C ◎ 222-6026
3625 Ball T F ◎ 222-1320
3626 Landram Jean E ◎ 223-1552
3629★Fiero Richd A 222-8616
3630 Burman C Phillip ◎ 224-7965
3633★Joseph J Edgar ◎ 226-2055
3636 Saleebey Henry S ◎ 223-3935
3637 Nadeau Maurice T ◎ 224-1534
3641 No Return
3642★Maher Michl E 224-4337
3647 Elkins Eric 223-1355
3648 No Return
3653 Harroun Douglas B 223-3968
3654★Sweet Kenneth A ◎ 224-1837
3659 Thompson Paul J ◎ 223-1321
3660 Beales Renea J
3702 Palmer John T ◎ 224-4998
3708 Bruni Amadeo G ◎ 224-1330
3711 Boyle John D ◎ 222-9030
3714 Nichols Jacob A ◎ 223-8422
3719★Foster Wm D 224-5389
3720★Dunne Christopher J ◎ 224-1961
3725 Johnson Douglas C ◎
3726 Moniz Joseph A ◎ 222-2936
3730 Burr Ralph G ◎ 224-7425
3731 Trechuelo Alice Mrs ◎ 222-5975
3737 No Return
3738 Boss Geo T ◎ 224-4598
3743 Wright James 223-3442
3744 No Return
3748 Gray Scott C 222-4557
3749 Hall Ralph E ◎ 224-2557
3755 Landon Peter E 224-7669
3756 Moses Elliott S Jr 224-1192
3760 Brannen James L 223-8229
3761 Thompson Robt D ◎ 223-0018
POINSETTIA DR INTERSECTS

377

KINGSTON CT —FROM 3371 OCEAN FRONT WALK EAST

ZIP CODE 92108
714 Moody Betty A ◎ 488-2372
717★Maddy Mike 488-0108
717½★Richardson Shawn
718★Cruz Judy 488-5032
719★Hatcher Mark 488-3516
721 Rock Harold ◎ 488-6143
722 Vacant
725a★Duncan Robt R 488-0742
725b Souza Don 276-4096
725c★Nicoli Dawn 488-3167
726 Heberlein Edmund F ◎ 488-4505
MISSION BLVD INTERSECTS
801 Vacant
803 No Return
805★Chavez Gregoria
807★Soseur Dwayne
809★Rigollato Paul J 488-4992
810★Angle David C 488-4185
311 Mc Carthy Brian ◎ 488-6575
812 Vacant
814★Whistler Terrance D 488-4904
815 Vacant
816★Simons Richd W 488-6433
818 Balaski Beverly S 488-8408
BAYSIDE LANE INTERSECTS
821★Jansk Sue 488-3147
823★Wigsbaurn Virginia A 488-6925
824★Reeves Jerel ◎ 488-7759
826 Mc Leod Gilbert ◎ 488-2752
BAYSIDE LA INTERSECTS

CALIFORNIA ST 1984

272
CALICO ST —FROM 10448 PARKDALE AV EAST

ZIP CODE 92126
7855 Betancur Anthony @
7865 Finkle Paul A 271-5259
7875 Moneda Francisco V 271-0795
7885 Duncan David A @ 566-9317
7895★Tariaso F @
ODELL RD BEGINS
7905 Vacant
7908 Browne James M @ 566-3606
7911 Gonzalez Salvador
7914 Vogel L Robt 578-5650
7917 Elcesser Michl @ 566-6408
7920★Haynes P @
7923★Richards D 271-9067
7926★Mulvey Gregory L 578-3039
7929★Doffing David @ 566-4324
7932 No Return
7935 No Return
7938 No Return
7941★Kaplan Ronald 566-3962
7944 Schjolberg Steven @ 566-1762
7947 Allred Miles J @
7950 No Return
7955 Lochmann Richd 271-9155
7960 Horner J W 566-5318
7963 Macho Geo S Rev @ 271-0088
7970 Lin C C 271-0113
7971 Reimnitz Stewart N Rev @ 271-7088
7979★Ludwig Joseph F G 578-3565
7980 Bucolo Dennis @
MANDA AV BEGINS
7987 Mumma Olen D @ 578-1878
7995 Terry Barbi
8003 Stocks Ed M @ 271-8336
8011★Roberts Keith A @ 693-0970
AMANTHA AV INTERSECTS
8019★Mendoza Bert @
8020 No Return
8029 Smith Oscar F @ 271-4005
8030 Erickson M
8039 Vacant
8040 Anderson Mary
8049★Alex Senato
8050★Peterson B K @ 566-2978
8059 Aquino Miguel F @ 695-0627
8060 No Return
8069 Griesbaber Gene A
8070 Malcangio Dominic 271-8628
8079★Marshall D R 566-8199
8080 No Return
8089 Zambito Gary F 578-4979
8090 Mac Innis Stewart M 271-0647
8106 Vacant
8107★Mc Carvel Bonnie F Mrs @ 695-3695
8112 Winter Gerard H @ 566-1185
8113 No Return
8118★Rakowski Edw 464-5083
8119 Isagurre Rodolph R @
8124 Callister Craig D @ 271-0477
8125 Vacant
8130★Holt Lanny @ 271-7389
8131★Rochte Randy
8136 Barrett Marene Mrs @
8137★Chapman Ron E @
CALCO CIR BEGINS
8142 Mc Henry Douglas @
8148 West Carol @ 578-8068
8149★Richey C R @
8154★No Return
8155★Jesula L R
8160★Rafanan Ricardo
8161 No Return
8166★Holder James E @ 271-1764
8167 Hespel Laurence W @
REAGAN RD INTERSECTS

568
CALIFA CT —FROM 6180 ROYAL GORGE DR NORTH

ZIP CODE 92120
8135 Zwiers Thos H @ 286-3937
8136 Linker F E @
8148 Rosun Ted F @ 286-2352
8149 Samoles Ralph W @ 287-4236
8160★Crafts Richd @ 286-5844
8161 Lockhead Robt S @
8175 Denino Darrell 287-1517
8176 Tidd Marsha J Mrs @ 287-6018
8189 No Return
8190 Lake Donald F @ 287-1663

903
CALIFORNIA ST —FROM 880 W MARKET ST NORTH

ZIP CODE 92101

902
BROADWAY ST INTERSECTS

901
BEECH INTERSECTS
1501 C & R Transfer Co whse
1560 Vacant
Skid-Lid Manufacturing Co bicycle mfr 234-4244
CEDAR INTERSECTS
1612 Aabco Inc (Whse)
1620 A A B C O Inc (Whse)

1
DATE ST INTERSECTS
1824 Fox Courier airport luggage carriers 239-8845
1832 Vacant
1842 Vacant
1930 Vacant
1932 Tellez Ramon
1940 Wood Bonnie G 234-2526
GRAPE ST INTERSECTS
HAWTHORN ST INTERSECTS

5
IVY ST INTERSECTS
JUNIPER ST INTERSECTS
LAUREL ST INTERSECTS
2554 Airborne Freight air frt forwarders 233-5475
2610 Vacant
NUTMEG ST INTERSECTS

9
PALM ST INTERSECTS
2929 No Return
2941 No Return
W QUINCE ST INTERSECTS
3005★Sun G 574-0102
3015 Boucher Terry E 291-7608
REDWOOD ST INTERSECTS
VINE ST INTERSECTS
3553 V W R Scientific Graphics Inc 297-4851
3596 Baron-Blakeslee Co chem mfg 295-0041
Charcoal Distributors 295-0041

15
WALNUT AV INTERSECTS
3630 Raggio John & His Unique Expressions sculpture 297-1470
3636 Benham Motors 692-4088
3650 Vacant
BEAN ST ENDS
CHALMERS ST INTERSECTS

21
ZIP CODE 92110
WASHINGTON ST INTERSECTS
SUTHERLAND ST ENDS
3911 Regional Economic Research 239-0888
3919 Carter Financial Inc 298-1600
Greenfield Builders Inc 298-1600
3922 No Return
3926★Dotson Kim @
3926½ Vacant
3929 Clark Richd 291-4899
3930★Martinez J
3931★Cook David
3935 Anselm Edwin B @ 296-3289
3938★Goodreau Kim
3942 Madick Ester Mrs 298-6986
3951 Vacant
3965 Parme Robt @ 297-8126
HENRY ST INTERSECTS

21
CALIFORNIA ST W —FROM HENRY ST WEST CONTINUATION OF CALIFORNIA ST

ZIP CODE 92110
1907 Huffman Robt E @ 295-1356
1917★Bays Robt E @ 296-3024
1925 Melody John D @ 298-6377
1931 Hilgeman Roy A @ 295-7956
1948 Crawford Rayburn E @ 291-4686
1955 Navarra Sam @ 298-1956
1958 Glacalone Joseph @ 296-6429
2005★Gates B J
2010 Vacant
2011 Kenny A B 298-3270
2017 Shough & Sons Construction genl contr 295-6732
Shough Geo J @ 295-6732
2025 Patterson Harold L @ 298-5670
2026 Anthony Geo K @ 297-2187
2031 Sepanik Lillian Mrs @ 295-7267
2037 No Return
2044★Coons James C @
2045 Shaw Howard I Jr @ 295-4445
2049★Grant W S 298-0041
2050★Jackson Bob @ 295-4228
2051 Stewart L Alex @ 295-2060
2061★Forsythe R 297-2169
2063★Skou Ron
2067★Goodwin Ralph E
2069★Garcia Theresa
2070 Tracey Herman 299-2340
2074 Vacant
2075 Taylor Harold 295-5707
2077★Taylor Steph E @ 295-7066
2085 Hobbs Maye C Mrs @
2086 Avalos Gary
2095 No Return
2097 Lepper Orville O @ 296-1106
2098 Vacant
BANDINI ST INTERSECTS
2105 Merritt Muriel L Mrs @
2015½ Vacant
2110 D'Amato Tony 299-5291
2111 Evans L P 295-9347
2121 Baird Kathryn C Mrs @ 295-9192
2127★Garrigues Maxine G Mrs
2137 Collier Earl M @ 295-9148
2143 Jarvis Richd H @ 295-3581
2146★Castenogila G @
2149★Pettis Burgess H
2149½ Vacant
2151 Shoven Arth E @ 296-7902
2152 No Return
2161 Sherman Clarence H @ 296-3539
2164 Busalacchi Mario J @ 298-6457
2171 Anderson Robt M Jr 295-7231
2174 Monsees Ralph G @ 298-2976
2175a Allaire David G @ 298-9683
2175b★Pettersen Wm D 260-0935
2186a★Robinson Richd
2186 Vacant
2191 Haggin Douglas E @ 291-4338

101
CALLAN RD (LA JOLLA)—FROM 11100 N TORREY PINES RD EAST

ZIP CODE 92037

233
CALLE ABAJO —FROM VALLEY RD NORTH 1 WEST OF END OF REO DR

ZIP CODE 92139
3001 Twin Hills Youth Park 470-9711
3129 Bonita Paradise mobile home 475-1800 SPACES
55 Schultz Arnold 475-1800
101 Avis Edwin M 267-0069
102 Kessler Robt C 479-4278
103 Maxey John M 475-4098
104 Osborne Ita H 475-4876
105★Goddard Lila S Mrs 479-0365
106 Hayes Barney 475-8595
107 Lech Margt 475-3271
108★Reaves Bob 267-2556
110 Fouch Clara 475-4811
111★Donaldson Garold B 479-9283
112 Rann Richd E 479-8860
114 Jacoby Michl M 479-6550
115★Kroth N C Mrs 263-2079
116★Clarke John W @ 479-6383
117 Williams Robt
118 Nielson Eunice Mrs @
120★Smith Geo @
121 Rudolph Dani W @ 479-2450
122 Ames V J 475-8198
123 Rudolf Paul
124★Mattes Jim @ 267-1959
125 Price Edwina Mrs @ 475-6620
126 Moles Ethel D Mrs 479-8205
127 Boris Frank J @ 475-4497
128 Jacoby Milton @ 479-6481
129 Murray Wm L 475-8039
130★Sparks Raymond L @ 267-9754
131 Mancini Emilio G @ 479-6960
132 Abel R K @ 479-1064
133 Parker Ira W @ 475-4159
134 Guenther Alf J 475-6146
135 Puncheon Louis R @ 475-4738
136 Wolfe Jack B @ 475-4836
137 Scobell John J @ 475-1572
138 Barber Wm A @ 479-7426
139 Kollada Geo P @ 479-9949
140 Franklin Fredk D @ 475-5285
141 Ketchpaw Sylvia R @ 479-1536
142★Pettersen Rory @
143 Bouck M W 267-3999
144 Costanzo Marian Mrs @ 479-6316
145★Yeager Nobel 479-1486
146★Puno Paciencia C @ 475-4778
147 Wood Austin @ 475-2700
148★Breum Wm @ 267-0551
149 Willardson Vincent @ 475-7220
151 Favor David @
152 King Edw W @ 475-3278
153 Snyder Les @
154 Brunson Garth R @ 475-3280
156 Sears M A @
157 Price Eug A @ 479-3804
158 Grant Clarence G @ 479-2887
159★Smith P B Mrs @ 257-5682
160★Pike Richd D @ 267-5505
162 Dominquez Ricardo 479-1301
163 Roffe Robt L @ 475-6686
164★Goff Bob @
166 Mendez Connie @
167 Garcia Raymond @ 475-4366
168★Quiroz Manuela 267-1759
169★Berry Bud E 479-5593
170 Vacant
171 Lee Donald T 475-3492
172★Beddiconto Carmine @ 267-7736
173 Peake Chris @
174 Carkonen Victor J @ 479-2888
175 Scott Charles W @ 479-2483
176 Guthrie Toni K @ 475-2786
177 Jensen Carl @ 475-0314
178 Backman Stig @ 475-3451
179 Huck Dorothea E Mrs 479-6280
180 Kennedy Mary C Mrs 475-3259
181 Cramer Lester J 475-3394
182 Williams Paul E 479-9110
183★Roberts Michl E 267-7977

236
CALLE AGUADULCE —FROM 6100 CUMBERLAND ST SOUTH

ZIP CODE 92114
2411 Rice Julia J Mrs @ 479-3743
2412 Diaz Rick L @ 475-0144
2420 Hyatt Charles E @ 479-3863
2426★Wilson Louis @
2434 Russell Park J @ 479-5195
CALLE TACON BEGINS
2440 Collen Howard D @
CALLE TOCON BEGINS
2441 Mendoz Delfino @
2446★Caranza Rene @
2451 Sablan Jos P @ 479-6341
2452★Gladding A Mike 475-5785
2457 Martin Ben @ 479-1269
2458★Springston Lanny E @
2463 Brewer Vernon M @
2466 Nitzel Donald L @ 475-3845
2469 Cole Walter R Jr @ 479-2801
2472★Dolmage Frank J 267-1336
2478 Sala Peter C @ 479-5832
2484 Silva Geo P @
2490 Mills Kenneth @ 479-3304
2491 Gruber Hubert V @ 479-5636
2504 Doughty Ellen V Mrs @ 479-2999
2505 Gregor Lois L Mrs @ 475-4999
2514 Munger Arth V @ 479-5995
2524 Sharman C A @ 479-3950
2529 Dolmage Vern L @ 479-1663
2534★Bateman David G 267-4398
2535 Ater Steven @ 479-3796
2544 Eskridge Arth W @
2545★Freeman Robt L 267-1559
2553 Guier Dorothy Mrs @
2554 Moreno Joaquin R
2563 Gist Bertha Mrs @ 479-2071
2573 Tallman Ronald W @ 479-8533

449
CALLE ALTA (LA JOLLA)—FROM CALLE VAQUERO SOUTH 1 EAST OF CALLE CAMILLE

ZIP CODE 92037
1517 Weiss Leon D @ 272-8466
1527 Lopez Leonard F 272-1276
1537★Brawley Robt W 272-5672
1547 Wright Charles A @
1557 Applestein Jeffrey M @ 272-3143
1567 Vacant
1577★Hirsch Jorge @ 483-4139
1587★Weiss Clarence J
1597 Farrell Eugene H 270-1942
1617 Maitland Richd D @ 273-5452
1637 Bachte
1657 Tisch Donald C @ 272-5054
1677★Steen-Ken Arvid L @
1697 Potter Ronald B @

149
CALLE ALTURA (LA JOLLA)—FROM 5500 BLK RUTGERS RD SOUTHEAST

ZIP CODE 92037
1413 No Return
1421★Cantaffos Ralph
1429 Carrie Robt G
1434 Mathews Wesley H @
1439 Rokoff Michl 459-4854
1442★Bay Gerald @ 456-0830
1447 Zuckerman Geri F Mrs @ 459-5966
1450 Malloy John M @ 454-8379
1455 Dominick Hans W F @
1458 Dahlem Rosemary Mrs @ 459-5362
1461 Abell Robt F @

233
CALLE ARRIBA —FROM 2850 MORNINGSIDE DR EAST

ZIP CODE 92139
5855★Sanicolas Saml S 479-8501
5860 Lucero Charlee M @ 475-2013
5870 Carter Bob M @ 267-1125
5871 Rader John W @ 475-3782
5880 Eddy Harold H @ 475-1428
5881 Mc Intosh Wm J @ 475-6156

274
CALLE CALZADA —FROM 8200 HYDRA LA NORTH

ZIP CODE 92126
8202 Brackett Richd S @ 566-9847
8203 Einolander Kenneth J @ 271-7891
8206 Vacant
8207 Sellers Robt L @ 566-3964
8210 Klein Duane F @
8211 Lorona Gilbert 578-2393
8214 Gray Arthur B Jr @ 566-3175
8218★Snyder Norman L @ 695-2823
8222 Whiteman Paul R @
8223★Davis Wm 566-8334
8228 Revis Dennis 578-4059
8233★Daigle Jan
8234 Tuttle Anne K @ 578-1097
8240 Rallo Vito @
8245 No Return
8246★Jackson Floregte E 566-2641
8252 Mc Carthy Francis P @ 271-7521
8255 Vine Geo T @ 566-2671
8258 Vacant
8261 Smith Byron L @ 578-8174
8264 Scott-Blair D Michl @ 695-2826
8267 Moore Geo E @ 566-2434
8270 Vacant
8273 Ward Jack H @ 271-8741
8276 Pence Richard L @ 695-1314
8283★Humpherys Harold L 271-8685
8284 No Return
8292 Joyce Robt R @ 566-6583
8293★Lubbes J Edwin @ 693-8154
8303★Kampp Thos E @ 271-6859
8304★Mc Entee Merle
8313 Marquez Harvey R @ 271-0545
8314 Walsh Michl H @ 566-7793
8323 No Return
8324 Lewis D J @ 271-7314
8333 No Return
8334 Revak Dan @ 566-1064
8343★Brock John 578-2927
8344★Shull Mark

449
CALLE CAMILLE (LA JOLLA)—FROM 5500 BLK CALLE MIRAMAR EAST

ZIP CODE 92037
1525★Shapoff Stan N @ 274-1322
1545 No Return
1555 Carlson Lane @ 270-5449
1565★Lieneweber Mark 270-5730
1575 Lloyd Walter L Jr 273-0404
1585 Farr Ronald W @ 272-3450
1595 Urgelles Arturo A
1625 Chase John E @ 276-8190
1645 North Eug C @ 270-1948
1655 Kosky Walter H @ 270-0679
1665 Carter Grant @ 270-3462
1675 O'Neal Michl H @
1685 Seeger Loren H @ 274-4770

449
CALLE CANDELA (LA JOLLA)—FROM 5620 CALLE MIRAMAR EAST

ZIP CODE 92037
1543 Lopez Antonio D @ 459-0187
1553 Hanlon John J @ 459-2435
1563 Morton Steve A @ 459-2525
1573 Erickson David L @ 459-7366
1583 No Return
1593 Hanke Ronald C @ 459-8879
1623 Chang Danl K S @ 223-1663
1635 James Richd P 454-7802
1647 Tallason Norman @ 459-8590
1659 Slaton Jack H @ 459-7536
1671★Diavahert Vahid 459-1072
1683 Donaldson John R 459-5626
1695 Moon James M 459-4762

233
CALLE CASAS BONITAS —FROM 2900 MORNINGSIDE DR EAST

ZIP CODE 92139
5702 Mc Clay Calvin @ 475-6333
5705 Morris Patricia
5722 Gastelum Adam @
5732 Shipma David J Rev @ 479-9229
5742★Mc Cathy A E @ 475-1759
5745 Amat Antonio S @
5752 Beardsley Tracy E @ 475-1068
5762 Stein Joe H @ 479-8842
5772 Ganal Alfredo A @ 475-2216
5782 Short Roger @
CALLE SALIDA DEL SOL
5811 Ochsner John H @
5812 Cuevas Ysidro Vere @
5840 Campbell Malcum D @ 475-2462
5850 Mc Kinsey Charles @ 475-4853
5860 Libed Eleuterio O @ 479-3606
5861 Chow Joe @ 267-1968
5871 Chavez Roselia 475-4945
5879 Thompson Lewis L @ 475-2725
5885 Thompson John R @ 475-8050

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

COLUMBIA ST 1984

Title Insurance Compan
Phone
411 Ivy Street (P.O. Box 808), San Diego (92101)
Tel. (619) 487-6454
Suite 4
lardo (92128)
rdo Center Dr.

COLUMBIA ST—Contd
WEST B INTERSECTS
1200 Ace Auto Parks coin operated
1260 Colombia Furniture (Annex)
WEST A INTERSECTS
1320 Vacant
1346 Westlands Bank The (Employees Parking Lot)

901
ASH ST INTERSECTS
1407 Vacant
1446 Admiral Exch Co (Stge)
BEECH ST INTERSECTS
1542 Greksouk Herman
1543 Riggin Deborah Mrs
1544 Arreguin Albert T 234-1341
1545 Dales John
1547 Ingargiola Carmen 232-0382
1549 Pistole Dana R
1555 Camarda Gaetana Mrs @ 239-7822
1557 Mason Brenda Design Associates interior design 238-1441
1572 Pioneer Hook & Ladder social club 232-3473
Firehouse Museum The 232-3473
CEDAR ST INTERSECTS
1629 Office Building
SUITES
100 Spievak James R lwyr 239-7306
100 Theep Raymond T lwyr 233-7306
100 Condon & Condon lwyrs 233-7306
150 Vacant
200 Hawkins Havelin & Harris 235-6531
250 Jones Arthur W lwyr 233-3116
250 Mullen John lwyr 233-3116
250 Hamor Steven D lwyr 233-3116
250 Frazier Ronald lwyr 233-3116
1642 Apartments
1 Balestreri Antonio 239-5936
2★Fuentes Ana B
3 Culbertson Charles P
4 Vacant
1645 Vacant
1647 Gabriel Poe Mrs 234-8641
1654 Vacant (1654-1658)
1659 Marconi Paul M Rev 234-4820
1660 Vacant
1668 Giacalone Leonarda Mrs @ 233-0823
1668½ Rosas Jesse 234-0646
1669 Italian Cultural Center meeting hall 233-7039

1
DATE ST INTERSECTS
1721 Tommy's Quality Meat Co whol 239-4065
1722 Moreno Jose 234-4502
1726 Alioto Rosario S 234-5494
1741 Lograsso Rose Mrs @ 232-8791
1746 Parnell & Leonard Inc plmb & htg contr 232-2929
Leonard Apartments
1 Vacant
2 Leonard Marie R Mrs @ 232-3910
3 Nielsen Fredk C 239-7201
4★Mc Call Blanche
1760 Vacant
1762 Sideman Michl S lwyr 234-2266
Meyer Eliz lwyr 234-2266
Franco Glorene lwyr 234-2266
Modrak Marian M lwyr 234-2266
1764 Sideman Michl S 239-0937
ELM ST INTERSECTS
1805 Estrada Eddie
1819 Crivello Anthony @
1824 Tarantino Jennie G Mrs @ 232-5321
1830 De Philippis Madeline @ 238-5207
1833★Asaro Vince @ 233-3981
1836 Carrao Andrew
1839★Call J 239-0151
1840 Vacant
1843 Carrillo Roberto 233-3783
1843¼ Yost Frank 233-0435
FIR ST INTERSECTS
1907 Apartments
1 Line By Line typesetting & graphic design 232-8295
2 Vacant
3★Sales Paulita A 235-9995
4 Cordelone Joseph
1918 Morales Josephine Mrs 234-1368
1920★Sandval Hope 232-0359
1922★Sanchez Melina
1924★Martinez Frank 230-1879
1926 Vacant
1928 Vacant
1929 Brunetto Pasquale @ 239-4656
1931 Brunetto Steve 234-0095
1933 Corona Grace Mrs 234-1678
1941 Narciso Joseph 232-9094
1945 Dibona Vita
1953 Bilardelli Armando T @ 233-1573
1959 Ashford Fannie L Mrs 234-3002
1965 Sardina Giovanni @ 239-5517
1970 Jackson & Blanc Heating Air Conditioning & Plmb contrs 236-1121
GRAPE ST INTERSECTS
2019 Collins Geo
2021★Heine Charles J 234-3849
2031 D'Acquisto Antonio 233-3952
2033 Corona Antonino 232-9293
2034 Sowavy Esther I Mrs
2034½★Huestis Peter 233-5723
2041 No Return
2043 Van Pelt Andrew @ 239-7488
2043½ Harrison Andrew
2044 Columbia Apartments 234-9585
A★Mederos Prospero
B Cortez Jose H 239-4727
C Wildman Geoffrey
D Golbrecht Barbara A
E Roberts R M
F★Rosales Weston 230-1214
G★Pinkston Catherine
H Kieffer Michl
2051 Puentes Alejo 239-4606
2053 Maitland Lester G 232-2700
2054★Martin Theodore @
2066 Apartments
1 Garcia Luis
2★Corona Ramon 232-5371
3 Vazquez Miguel 232-4784
4★Lopez Jose 234-2385
2071a Garcia Martha B
2071b Ravello Roman S 232-9852
2071c Phillips Roy H
2071d Vacant
2071e★Kodrich Kurt 239-5248

HAWTHORN ST INTERSECTS
2104 Ramirez Presilliano 234-5768
Sardo Salvatore @ 232-4462
2118 Navarra Maria Mrs @ 236-0220
2121 No Return
2130 Alioto Nancy Mrs @
2135 Rover Printers 234-0325
2136 Bregante Anthony E @ 233-3645
2146 Vacant
2154 Sardina Joe J @ 239-2957
2168 Chiappara Rosario
IVY ST INTERSECTS
2210 C D I Corporation designing engs 235-8707
2210c Vacant
2230 Adamo Antonio @ 239-5368
2250 Jerome-Dong & Associates archts 232-9787
2260 Mitchell-Webb Associates elec eng 238-1522
Tangent Data Systems Inc 232-9509
JUNIPER ST INTERSECTS
KALMIA ST INTERSECTS
ZIP CODE 92103
LAUREL ST INTERSECTS
2519 Kostya Louis A @ 232-5731
2519½a Garland Leonard 234-9591
2519½b★Desoto Jim
2525 Giacalone Josephine Mrs @
2525½ Acosta Alicia Mrs 239-7110
2545 Apartments
Columbia Crest Apartments mrs jackie m morrison mgr
A Fiorvanti Jim
B Vacant
C Pitts Wm
D Rodreguez Sonia
E Green Edw L
G Lopez Marion
H★Morrison Jackie M Mrs
J★Larson John D
K Mackey Robt
L★Vinta Pam 233-9414
M No Return
2565 Hebel Rollin E @ 239-6921
2587★Brown S
2569 Buscemi Jon 234-5315
MAPLE ST INTERSECTS
2601★Blancher Sharon
2603 Harry's Drain Service 291-8567
★Ussery Harry
2619 Mallow Thos W @ 297-1445
2621 Vacant
2629★Garfield Blanche
2629½ Lanfilai Robt A
2639 Kennedy Chas F @
2643★Wilkins L S 295-1753
2653 Mc Cune Mark T
2655 Vacant
2657 Hextell Orville G 297-1417
2669 Zimmerman Rudolph F @
NUTMEG ST INTERSECTS
2703★Rodriquez Michl 298-9090
2705 Conaway John D @ 298-2467
2710 Theaker Marga Mrs @ 299-4058
2715 Stanley Ethel J Mrs @ 295-5018
2727★Norton John
2729★Hirst Wm B III 692-3162
2732 Irving Michl T 298-5235
2733★Pringle Jesse
2737 Zizzo Salvatore A Jr 296-9640
2739 Vacant
2741 Vacant
2744 Middlebrook R Philip @ 295-5084
2753★Chandar E J 299-8929
Rear★Parme Lawrence 296-6581
2768 Cass Phillip D 291-5099
2773 Vacant
OLIVE ST INTERSECTS
2801 No Return
2803★Griffith Barbara L 296-2212
2805 Friel J
2807 Straube V
2811 Rains M
2816★Fenwick Terry
2818 Vacant
2825 Bonham H L 295-5380
2827 Hervig Edwin L 298-9116
2830 Music Teachers Association Of California professional orgn 296-4467
Fenwick E Bernice Mrs @ 296-4467
2831★Walker Annette 692-0913
2833 Winegarner R
2835 Brown Kent 692-3216
2837★Bedard Wm 296-9380
2840 Banda Maria Mrs @ 295-1285
2849 David Alice B Mrs @ 295-2642
2859a Colla Lilla Mrs @ 295-6311
2859b Colla Salvatore S 295-9075
2864 Morrison Ethel T Mrs @ 295-7046
2869 Pickens Margt L Mrs @ 296-4225

PALM ST INTERSECTS
2901 Bay State Apartments
Vacant
2903 Wells Robt 298-0499
2905★Koelling Sherry
2907★Blake Melanie 295-6098
2909★Kouran Steve
2911★Mooney Claire 692-4035
2913 Pereira Frank 295-1124
2915★Stahl Rodney P 299-5295
2917 Echlin Henry M 297-2061
2919★Davis Chas
2919a★Taylor Gretchel M
2921 Molina Hector
2930★Bernal Carlos C @ 295-5044
2940 Littlepage Russell S @ 295-2770
2950 Vacant
2952 Peabody Rosemary 291-1286
2954 Thomas Harry S @
2955a Under Constn
2964★Elfert Gary L @ 296-4062
2965★Stephens Donald E 295-1893
W QUINCE ST INTERSECTS
5
3002 No Return
3005 Stuart Nancy J
3007★Climer Robt L 296-4896
3009★Losek Theo T
3011★Hirsh Thos V 298-4967
3013★Sterling J 260-1381
3015 Langston Betty A
3017 Lennon Amime E 298-7606
3018 Apartments
A Girard Barbara J 298-8918
B Johnson Diane 295-2369
C Lux Patricia
3019★Espino M 297-5734
3021★Botelho Anthony F 291-6430
3023 Stuart Virginia L 296-7404
3025★Aiello Fred P 295-6790
3027 Sykes James C 295-7500
3028★Latrelle R Mrs
3029 Rill Linda L Mrs 291-5758
3030★Ragland Paul L 299-1007
3031★Atwater Russ 574-1458
3032★Bengtson Robt W 298-0716
3033★Carpenter John B 296-9671
3034★Mapson Carol J 295-4294
3035 No Return
3037 Bell K
3038 Bassham Bruce E 295-5841
3040 Bassham Mary L Mrs
3045 Mellusi James E @ 295-7571
3054★Miller Earl W @ 296-1942
3062 Singleton Louis J 291-9753
3064 Watling Christine L
3066 Cameron Georgia R Mrs 298-9494
3068★Waterhouse Judith Mrs
REDWOOD ST INTERSECTS
3217 Apartments
1★Loetterle John H 291-3662
2 O'Neil Maria E Mrs
3 Schreiber Alexander
4 Donovan Marilyn
5 Chamberlain Martha L 298-8947
6 Maroun Marvin A 299-4993
7★Davis Robt B 296-6314
8 Vacant
9 Frontino Ruth M
10 Henig Psyche G 692-1025
11 Ulsund Michl C 291-3217
12 Swanson C A 298-3309
13 Niederman Jerome 298-6438
14 Vacant
15 Collister Lori
3225 Cheek Reginald C @ 295-5335
3225a Cortes Juan
3225b★Baker Larry
3229★Green Chas R 299-5897
3242★Butcheck James @
3243 No Return
3245 Vacant
3250 Apartments
1 Razler John V 299-1413
2 Stadge Robt E 296-1184
3★Washington Frank
4 Hutcherson Wm E 291-6829
3260 Apartments
1 Bast Russell S 298-4437
2★Hermosillo Anthony L 298-4576
3 Simonelli Alfred D 295-6180
4 Johnston Tom 291-4703
SASSAFRAS ST INTERSECTS
3310 No Return
3319★Wilcoxson T V 296-3878
3320 Adams Charles C @ 295-6806
3321 Stowers Robt H @ 299-3848
3330 Miller Cath C Mrs @ 295-7690
3331★Burns Michl J @ 296-3736
3333★Mc Kinnon Nonie L 297-3418
3343 Vacant
3344 Stephens Frances A Mrs @ 296-3404
3345 Engebretson Pamela J 297-8978
3347★Turner Theo @
3354★Butler Delwin
3355 D'Alessio Henry 296-0779
3356★Ganem Elia S
3357 De Hart Helen E Mrs 298-4495
3364 Van Buren Dale L 295-4900
3366 Mauck Wm P Jr @ 296-0280
3368 Bruno Vincenzo @ 295-8294
3372 Carson Anthony L 298-0917
THORN ST INTERSECTS
3425 Ulak Edw
3427 Frieden Dennis E 298-5505
3429 Macomber Frank @ 298-0459
3431★Jahn Edw A 293-3065
3434★Nagy Frank 222-4371
3445 Essert Geo F @
3455 Crivello Vincent @ 295-4848
3465 Young Robt D @ 291-7978
3467★Hooper Robt 299-7837
UPAS ST INTERSECTS
9
3504★Richards Kenneth G @ 692-1286
3505★Ballou Albert J 296-7185
3506 Marick G
3509★Prell Scott 295-2578
3510★Delacueeta Carmen @ 298-8459
3510½★Shelley Ronald E
3512 Hoag Faith A Mrs 295-5433
3512½ No Return
3518★Brown Phyllia 296-4638
3515 California Silk Screen
★Warner Denis G 324-8884
3516 Rojas Cirilio G @ 295-7036
3517 No Return
3518 Ramirez Blanca 297-3779
3519 No Return
3520 Brazil Robt
3521 Wellner
3523 Watson Karen J 298-8613
3525 Gilmore Scott 291-6689
3528 Baker Viola M Mrs @ 296-3812
3531★Krutchik L
3535 Under Constn
3538 Crisci Dorotea Mrs @ 295-2869
3540★Elie Robt 296-3727
3542★Mediate Rocco 574-1580
3544★Haas M 296-9919
3546 No Return

15
WALNUT AV INTERSECTS
3600 Kohl D B
3602★Durham Duane
3604★Clark Richd 299-6746
3606★Sibley Raymond A
3608 Campbell Donna
3610 Vega Richd J 297-5384
3612★Dubbs Helen 296-4878
3614★Masaman Richd J 295-7024
3615 Mc Lennan Marilyn L @
3616★Francis T
3620 Schmidt Gladys J Mrs @
3621 Brown Lawrence H @ 295-9666
3622 No Return
3627 Kobe Garth
3629 Eddy Bertha 296-9054
3633 Apartments
A★Raham Akram Abdul 266-5734
B★Hansen K
C★Polikowski Richd F 291-1978
D★Malone Curtis
E★Russell Troy 296-2497
F★Andrew Ivy
3645a★Roger Greg
3645b★Morgan Mike
3645c Romeo Danl 298-6326
CHALMERS ST INTERSECTS
3661★Whitehead Darlene M
3662 Wade Glynda 296-2088
3663 Goldman Paul @
3667 No Return
3669★Kaetzel Steve
3669½ Hirlbach Gary S 298-5924
3670 Carvalis Joseph M 291-9559
3671 Ambler Robt B 291-4184
3677 Vacant
3678 Vacant
3680 Vacant
3680½ Vacant
3685 Beauregard Eliz 295-1076
3686 Dickinson L 295-9936
3687★Hughes Davis @ 692-3757
3688★Horne A 296-7885
3691 Knight Chuck 296-2435
3691½★Alisea-Leebolt Irene A 285-5927
3693★Gormer Tom 295-1539
3695 Schmid M
WELBORN ST BEGINS
WINDER ST BEGINS
1 Mc Guirk James 295-7479
2 Boudreau Valerie Mrs 291-1726
3708★Brisby Kent L 246-3824
3710 No Return
3712★Hoffmeyer David
3716 Dawson Patk
3718 Melendez Rafael 294-9828
3719★White Gerard W 298-0196
3720★Zekan Morta 692-3252
3723 Crisci Rose Mrs @ 295-3872
3730★Manley Jim
3731★Silva Jerry 298-4713
3736 Robin Wanda T 295-2826
3744★Fiscus M A 291-6039
3745 Buttemer D 296-1647
3746 No Return
3746★Garcia Michl
ANDREWS ST INTERSECTS

84
COLUMBINE ST —FROM 2700 FAIRMOUNT AV NORTHWESTERLY

ZIP CODE 92105
2680★Jackson John C 283-0326
2682★Coeby Ray
2684★Milsap Mary 584-7679
2715★Phillips Lonnie
2716 Grove Jon W @ 282-2574
2719★Pocheco Tony @ 281-0255
2722 Bales Elmer L @ 284-5775
2723★Herrara Benj @ 282-6770
2727★Arthur Nelida 280-4744
2729 Dooley James J @ 284-6744
2733 Olalde Jese R
2735★Raley C L 282-4099
OLIVE INTERSECTS
2803★Bray Robt @ 281-7027
2805★Tran Son 280-7219
2807★Childers Geo
2816★Martinez Ray
2820 Nanez Cruz @ 281-5794
2825★Gonzales Wm 584-2332
2828★Williamson Ron
2829★Quezada Celia
2831★Roel Richard 280-0067
2835★Cardenas Ed @ 281-1550
2837 Almaguer Americo 284-3959
2843 De Grenier Bill J @ 282-5203
PEPPER DR ENDS
2903 Vacant
2905 Wilson Jerry
2909 Errickson Patricia A Mrs @ 282-3450
2915 Jackson James E
2917 Mack Cecil R @ 280-2577
2921 Johnston John W @ 282-5172
2926★Welker Jerry

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

GLENWOOD DR 1984

GLENHAVEN ST—Contd
8649★Teriby F
8650★Traxler Buck 279-8714
8651 Watson Lynn C 278-6215
8653 Under Constn
8655 Berry Florence Mrs 278-7267
8661★Bennett B
8662 Strahan Lawrence B ◎ 277-3069
8663 Losh Charlotte L Mrs
8665★Vela Ricardo
8667 No Return
8673 Bryant M H 292-9258
8674 Klaus Delbert R ◎ 278-6998
8675★Alfaro J
8677★Wood Steve J 560-7420
8679★Isaacson Jeannine Mrs 271-5341
MILAGROS ST BEGINS
8701 Dupuis Joel G 571-8745
8702 No Return
8703★Duong Thinh Mrs 279-6014
8705 No Return
8707★Beltran Norma L 227-8517
8712 Vacant
8713★Hawk David N 277-2099
8715★Dais Russell D 278-0060
8717 Vacant
8719★Balmer Debra Mrs
8720 Elegino Ben ◎ 278-3237

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SANDROCK RD INTERSECTS
8770★Marshall Thos O 571-2776
8780 Vacant
8790 Whitaker James T ◎ 569-8502
8791 Lorkowski Richd A ◎ 277-5224
ALTRIDGE ST INTERSECTS
9801 No Return
9802 Crossleir G S
8809 Holland Edna R ◎
8810 Calacino Pat 279-0346
8817 Rasor Phyllis L Mrs ◎ 279-2792
8818 Penley Carter L ◎ 277-1183
8825★Maneins Walter R ◎ 277-3770
8826 Moore Paul J ◎
8833 Mc Teer Kenneth M ◎ 279-3757
8834 Yepsen Edw B ◎ 278-3631
8841 Puente Antonio ◎
8842★Gow Jack L 268-8293
8849 Cressey Otho R ◎ 278-5001
8850 Flood Joseph ◎
8857 Jarosin Stanley ◎ 277-8303
8858 Herbert Donald E ◎ 279-1156
8867★Alfaro Oscar ◎ 292-4457
8868 Halliman Steven A 278-2753
8877 Taylor Wm A ◎ 278-9661
8878 Gunning Lee ◎
8887★Fisher James ◎
8888 Parker Charles L ◎ 277-4247
EDIWHAR AV INTERSECTS

207

GLENLEA LA —FROM 6000 RIDGEMOOR DR EAST

ZIP CODE 92120
5917 Greenstein
5920 No Return
5940 No Return

209

GLENMONT ST —FROM 5617 MARNE AV EAST

ZIP CODE 92120
6301 Ravino Paul ◎ 583-1371
6311 No Return
6321 No Return
6331 No Return
6341 West G T
RAYMER AV BEGINS
6351 Wiles Bess M Mrs ◎ 287-5796
6360 Colldeweih I R ◎ 583-0997
6361★Ponte Anthony J 286-8582
6371 Neuenswander Paul I ◎ 286-7645
6381 Calvert Lowell M ◎ 583-5215
6390 Hill James S ◎ 582-6517
6391 Wagner Fred D ◎ 265-1546

647

GLENNON ST —FROM 4688 GAINARD WAY EAST

ZIP CODE 92124
10106 Evans Edward
10107 Shepherd Ron L 279-2224
10112 Vacant
10113★Di Carlo Donato F Jr 292-7414
10118 Ballard J W 292-8905
10121★Ostertag David P 569-1792
10122 No Return
10127 Lardin Wm
10128★Bollinger Kenneth 576-1483
10134★Otero Edwin J
10135 Goheen Donald C
10139★Harmeson Dean F
10140 Sims John
10146★Canada R T
10151 Vacant
10152 Martin Paul
10157★Williams Hodge
10158★Stewart Wm 569-5223
10163★Ritz Jim
10164★Dial Danl L
10167★Beals James
10170★Penz David L 268-9551
10171 Nelson Domas 278-8462
10173 Krager Robt M
10176★Shewmaker B Karl 268-0165
10177★Sualevei Nofo 279-2225
10182 Aanerud Dwayn 268-0235
10183★Dulube Victor L 560-6385
10188 Mondragon Ralph L
10189 Garner Alen S
10194★Rideout Welker
10195★Copeland Geo R

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GLENROY ST —FROM 5100 ORCUTT AV SOUTH

ZIP CODE 92120
6401 Baker Robt L ◎
6402 Mikesell June E Mrs ◎
6410 Hervey Roy A bldg contr ◎ 582-0183
6411 Harang Harold M ◎ 287-5950
6420★Wright Greg 287-3125
6421 Donovan Wm ◎ 582-3131
6430 Damarus Alf H ◎ 582-7821
6431 Wright Edw E ◎ 582-1412
6440 Willis Jerrilyn M ◎ 286-2132
6441★Younger Karlene 583-5305
6450 Jenkins Dorothy ◎ 583-2606
6451 Haug Shain B ◎ 286-7806
6460 Sharp Wm T ◎ 583-0198
6461 Walling Raymond B Jr ◎ 582-2420
6470 Aliment Rudolph L ◎
6471 Scudero Charles W ◎ 583-3824
6481 Fairbrother Edmund E ◎ 287-0460
6491 Conlon Lorne J ◎
ORCUTT AV INTERSECTS
6505 Price Elaine ◎ 265-7674
6510 Curry Robt H ◎ 582-0383
6515 Josselyn Irene E ◎ 582-8720
6518 Murphy Joseph M ◎ 582-4614
6525 Lord Phillip J ◎ 287-4202
6526 Deluz Medardo L ◎ 287-8216
6533 Lieras M Mary Mrs ◎
6534 Abrego Donald L ◎ 582-4075
6541 Crossley Eug I ◎ 582-8626
6542 Stone Dorothy W Mrs ◎
6549 Rukes Albert H ◎ 582-0581
6550★Dixon Jhon L ◎ 265-7517
6557 Summers Bob G ◎ 286-4019
6558 Bunch Richd E ◎ 582-3196
6565 Rubino Sallie F Mrs ◎ 582-5288
6566 Humiston Larry A ◎ 286-2136
6573★Hawes Vernice E ◎ 287-8090
6580 No Return
6581 Hendricks Ray
6590 Melton Ivan A ◎
ZION AV INTERSECTS
GREENBRIER AV INTERSECTS
6727 Paden Floy Mrs 583-4643
6735 Brett Robt A ◎ 582-4913
6743★Uber Jessie ◎ 582-9493
6751 Hammond Mitzi A Mrs ◎ 583-0244
6759 Weber Alex ◎ 583-4136
6760★Jones John ◎ 287-4540
6767 Cooper Donald ◎ 583-6310
6775 Loomis David M ◎ 583-6081
6776 No Return
6785 Nelsen Blance M Mrs ◎ 583-0294
6795 Sedgwick Michl T
GREENBRIER AV INTERSECTS
6801 Garcia Nancy ◎ 287-9185
6807 Manry Mendall A ◎ 583-1165
6811 Verryp Simon ◎ 582-7738
6815 Clark W E ◎ 583-2427
6821 Petersen Rick Rev ◎ 583-1997
6827 Rohrer Harry W ◎ 582-9381
6833★Williams John 265-8325
6839 No Return
6845 King James C ◎ 286-1439
6851 West Jas ◎
6859 Jackson Roland B ◎ 583-0352
6860 Schulz Frank K ◎ 583-4471
6863 Sullivan John P ◎ 286-8322
IRWIN AV INTERSECTS
6869★Anderson R C ◎ 582-8396
6870 Flanagan Thos J business consultant ◎ 583-3580
6875★Erickson Erick E 286-4453
6881 Fin's Well Inc contr-bldg-genl 583-6200
Findahl Carrol W ◎ 583-6200
LEWISON AV INTERSECTS
6885 Edwards John R ◎ 583-3744
6886 Buck Wm J ◎ 582-4772
6889★Berger Alex ◎ 265-8448
6892 Gibson Paul E ◎
6893 No Return
6897 Grim Benj R
6896 Olive Wm T ◎ 562-9065
PRINCESS VIEW DR INTERSECTS

582

6902 Hardin Wilbur G ◎ 265-1780
6903★Brady Marjorie
6908★Auller Lowanda B Mrs 582-8501
6909 Hillis Robt F ◎
6914 Beckman Keith A ◎ 583-4925
6915 Walford John D ◎ 583-0656
6922 Streit Robt D ◎ 582-9142
6923 Morley David G ◎ 583-1376
6928★Jones Carol A 582-0859
6929 Hoff Edwin J wallpaper hanger ◎ 583-1585
6936 Brooks Marvin D ◎ 583-0681
6942 Sweis Sadah ◎ 287-1961
6945 Garff Steph N ◎ 583-0072
6948 Mabee Dorothy H Mrs ◎ 583-4574
6954 Roshong Donald V ◎ 582-9539
6955 Macias Joe R ◎ 286-0803
6960 Hasenauer Edw J ◎ 583-3067
6965 Lakin Wm H ◎ 582-9188
6966 Bilicki Peter A ◎
HILLSBORO INTERSECTS
6975 Worden Wallace J ◎ 582-8974
COTTAGE AV INTERSECTS
7001 Stewart Robt W ◎ 583-7148
7004 Gallik Andrew ◎
7012 Mac Innes Ian C ◎ 286-3330
7020 Ibarra Herbert ◎
7028 Hicks W Kenneth ◎
7036 No Return
7044 Benyr Walton ◎ 582-9270
7052★Harris Robt E 287-4082
DUNDEE AV BEGINS
7060 Sumner James W ◎
7068 Van Wanseele Deborah ◎ 582-6817
7074 Delgadillo Margt 287-8318
7082 Lawrence Earl V ◎ 582-9659
7090 Donavon Wm E ◎ 582-9135
ELGIN ST BEGINS
7108 Schilling Gordon L ◎ 582-9303
7116★Amantrout Hazel N Mrs ◎
7126 Zelneronok Michl Rev 286-7768
7136 Hooper Perry ◎
7146 Solsbak Robt H ◎ 582-1528
FORBES AV BEGINS
7155 Gagnon Rene J ◎ 583-5564
7156 Cyr Angelina Mrs ◎
7176 Geisler Raymond B 287-7820
7186 Bach Eug H ◎

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GLENWICK LA (LA JOLLA)—FROM 8660 DUNAWAY DR WEST THEN NORTH

ZIP CODE 92037
8656 Yang Ling ◎
8675 Schminke Paul ◎ 453-2474
8687 Peterson James R 453-1229
GLENWICK PL BEGINS
8695 Clark Sidney B ◎ 452-5056
8696 Brody Stuart ◎ 453-1934
8703 Chrispeel Martin ◎
8704 Roberts Veri E ◎ 453-0112
8720★Harman Robt J 452-8087
8721★Cohen Geoffrey L ◎ 453-5246
8735 Schoene Thos W ◎ 453-3934
8736 Bennett Charles R ◎ 453-2968
8750 Freeman Richd J ◎ 455-9078
8751 D'Andrade Roy G ◎ 453-7739
8765★Dorne David 455-1727
BORDEAUX AV INTERSECTS

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GLENWICK PL (LA JOLLA)—FROM 8687 GLENWICK LA WEST

ZIP CODE 92037
2711 Arrhenius Gustaf O ◎ 453-2255
2712 Viterbi Andrew J ◎ 453-8198
2721 Bagley Marie L Mrs ◎ 453-0365
2722 Hillyard Steven A ◎ 453-6259
2731 Dennis Edw A ◎ 453-8741
2734 Copeland Dempsey ◎ 452-9307

15

GLENWOOD DR —FROM 3570 UNION ST WEST

ZIP CODE 92103
1504★Shirley Jay B ◎ 291-1589
1505★Daly Helen A Mrs ◎ 295-7323
★Celto Amy 296-0120
1507 Boone R 299-1049
1509 No Return
1511 Springer Leon ◎
1512★Mele Dorothy 692-9133
1512½★Badlack Virginia 291-4329
1519 Button Melvin H ◎ 298-5129
1525 Bridge Blanche W Mrs ◎ 295-9957
1530★Newman Clint 295-0649
1531 Gfroerer Helen K ◎ 296-3629
1533★Oroark Rosemary
1535 Davis Merle E ◎ 295-5067
1537 Vacant
1602 Covington Kid
1605★Peterson Geo 297-2633
1607 Ladd Rebecca S 296-2483
1609 Coffee Joseph J
1610 Hart Esther M Mrs ◎ 295-8170
1616 Clack Walter B ◎ 297-0673
1616½ Vasquez Elvira
1620★Clack M
1624 Peachey Douglas 291-8893
1626★Evans Michl
1628 Bashem S R 297-7066
1628½ Vacant
1630 Repine Claude E 295-7966
1630½★Mellon Mary 296-9177
1632★Baer Wm 295-1576
1633★Olvera Walter
1634★Mc Curdy Michl
1638 Vacant
1702 Toraitis Tom G
1704★Schwengl Paul
1706 Havens James L 291-4267
1708★Waynescott Darlene
1709 Elmore Geo S 298-5185
1710★Guardado Manuel
1711★Cromwell America
1712 Parks Terry M 295-2831
1715★Gewey Alf 296-0328
1716 Erwin Earl J 295-3369
1716½★Peterson Kathy
INDIA ST INTERSECTS

137

GLIDDEN CT —FROM 6600 GLIDDEN ST NORTH

ZIP CODE 92111
1720 Bozco Julian ◎ 277-9813
1721★Rorhs John 560-1363
1740 Ambroziak Edw ◎ 277-4641
1741 Delao Manuel C ◎ 277-5062
1760 Blando Romulo B ◎ 278-0405
1761 Flamian Giovanni ◎ 279-8654
1767 Lelicata Thos J ◎ 560-1890
1772★James Opistan ◎ 279-8619
1773 Donnelly John 279-1816
1778 Haselton Scott T 278-7815
1779 De Maria Lucy Mrs
1784 Cain Edw E ◎ 277-6140
1790 No Return

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GLIDDEN LA —FROM 1770 GLIDDEN CT WEST A CUL DE SAC

ZIP CODE 92111
6505 Mc Cracken Bess L ◎ 278-0908
6515 Russell Frank W ◎ 279-0629
6516★Weber Wm 569-7063
6525 Naiman Eileen H Mrs 560-4779
6526★Weiniger A ◎ 279-7903
6535★Gillings Michl 268-0412
6536★O'Neil Marcella 565-4295
6545★Marx Robt 569-6432
6546★Kelson Sherrie
6555★Jennings E J 576-1443
6556 Nucci C Arth ◎ 277-8894
6565 Fiorentine James ◎ 279-8082
6566 Serna Steph P 279-2572
6575★Korn Paul 277-5969

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GLIDDEN ST —FROM 1 WEST OF 1700 CORSICA ST EAST

ZIP CODE 92111
6309 Williams Else A Mrs ◎ 278-3607
6323 Horton Paul ◎ 483-4891
6337 No Return
6351 Vattimo Mark J ◎
6365 Dickinson Wayne E ◎ 279-3681
6401 Stehley Jerome ◎ 569-0635
6415 Clegg Ann S ◎ 568-6184
6429★Kiether Wm 279-4171
6443★Mc Rea C ◎ 560-9938
6457 Castagnola Michl ◎ 569-3561
6471 Israel Chas L ◎ 277-2966
CORSICA ST INTERSECTS
6519 Wiler Geo M ◎ 277-4498
6524★Peloquin A R 277-4295
6527 Carlisle Kenneth 277-1511
6538 Sullivan John S ◎ 279-0846
6539 Hill Wm T ◎ 278-6222
6552 Barvick Edw J ◎ 571-2701
6563 Weingarten Geo ◎ 268-8179
6566 Fuller Terry L 277-8686
6577 Valdez Alfredo B ◎ 292-9859
GLIDDEN CT INTERSECTS
6603 Tenco Mario ◎
6615 Jette Muriel E ◎ 292-5201
6626★Peterson Angie 277-1276
6629 Elmore Leonard K ◎ 277-0277
6640 Padilla Augustine
6643 Ogata Kasuke gdnr ◎ 278-9567
6657 Page Wm M ◎ 279-7361
Information Software Service Inc computer software-banking 569-1984
ALCALA KNOLLS DR INTERSECTS
6702 Bobek Louis ◎ 279-7811
6712 Villa Vista Apartments 279-4871
1★Gaglione Robt 278-8082
2 Dykstra Darrell C 565-0384
3★Huffstetor Paul
4 Chapman Margt V 292-0157
5★Kenny L 565-1574
6★Fahs Diya C 571-2976
7★Martin Jeff 279-4498
8 Umphres Roger W 278-0891
9★Bordow Ira B 279-0648
10 Treptow Dave
11 Vacant
12 Selts Wm
6713 Apartments
1 Stickney John 571-8855
2★Jones Rita 571-8961
3★Daly Michl M 576-1810
4 Laird David 276-8249
5★Ford Jeffrey 565-6810
6 Mack Paul H
7 Pasnak Julie 277-9619
8 Coleman Danl M 277-9771
9 Gibbons Jeff 279-2001
10★Ortega Maria 278-2378
11 Graham Jeff
12 Hopins Leslie
6730 Apartments
1 Stuart Patricia A 279-8231
2★Johnson Heather
3★Mawson K F 277-2301
4★Scribner Teddy 279-3426
6 Morales Antonio
6 Larkin Eileen 279-8398
6731 Apartments
1★Cottam Mark 277-4386
2 Silver Paul J 560-0798
3 Robles Domingo 279-0345
4 Shipley Reece Mae 569-0467
5★Hughes Michl 277-2032
6★Levinson Michl 573-0340
7★Carley Bonnie 278-6965
8★Bacca L 278-2294
6742 Apartments
1 Deltering Michl 268-8392
2 West Rodney
3 Ramirez Michl
4★Satterfield Rory A 268-3614
5 Mc Kee Thos
6★Stabile John G 279-8043
7 Dugan Kathleen M 292-0700
8★Chamberlain M A 279-0046
9★Myers Perry R 277-1890
10★Knowles Richd 569-0046
11★Dutter Jeff 576-1987
12 Don Patricia
6753 Apartments
1★Rodriguez Ronald H 277-1515
2 Theis Patk J 571-7637
3 Diaz Polito 569-0283
4 Campbell S Ila Mrs
5★Crawford Greg 277-1560
6 Kennedy John
7★Lenaerts J 560-4392
8★Taylor Carreen L 560-1855
9 Carlson Phyllis 571-0815
10★Orley Eug
11 Hochbrueckner Carol D 277-5709
12 Wulfson Julius 571-8867
13★Wilkinson Richd L 573-0294
14★Bush Michl G 279-1569
15 Roza Cynthia 571-7619
16★Markovinovic Mary 268-0063
6754 Apartments
1 Sosko David M 292-5438
2★Ovesy Raymond R 277-0112
3★Creedon C G 292-7793
4 Arias Geo
5★Stadler Rudolf M 279-9069
6 Tobin Thos P
6775 Apartments
1★Cody Laura
2★Beste Jeremy C 279-4492
3 Rorem Linda 560-6876
4★Johnson James P
5★Nelson B A 279-7852
6 Walker Pearl J Mrs 560-1957
7 Lokits Todd 279-9201
8★Desnoyers Mark
9 Pino Jim J 279-7279
10★Davis Brian 569-9392
11★Palmer Mark 279-3174
6782 Apartments
1★Gonzales Mark G 569-9887
2★Papen T 292-8010
3★Jefferson Geo 277-0113
4 Gage Ruth
5★Mulder Renus 565-8111
6 Griffin Ralph 565-7825
7 Baur Howard
8★Schoettler Lorraine 565-1171

57

LINDA VISTA RD INTERSECTS
BURTON ST INTERSECTS
6821 Puentes Salvador S ◎ 292-8345
6822 Starkell Wm V 560-9200
6831 Naranjo Mariano ◎ 279-2091
6832★Sharp G Dean ◎ 560-7780
6842 Garcia Andres ◎ 278-5935
6849 Waddell Mary Mrs ◎ 279-2554
6852 Hinrichs Carl J ◎ 277-4391

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

INDIA ST 1984

THE SAN DIEGO TRIBUNE
PAPER DELIVERY 299-4141
CLASSIFIED ADVERTISING 299-2121
ALL OTHER DEPARTMENTS 299-3131

INDIA ST—Contd
1752 Tarantino Carmela Mrs © 233-0832
1802 Lopez Guadalupe G ®
1804★Vasquez Danl R 234-6994
1806 Balistreri Antonio 239-4765
1808 Escobedo Everado 239-6754
1827 Scarab Potter pottery-ret 234-5739
1844 Daniels H G Co artist & drafting sups 232-6601
1847 Addressing And Business Machines Co mfrs agt 232-8644
FIR ST INTERSECTS
1909 Nelson Photo Supplies (Show Room)
1917 Nelson Photo Supplies retail 234-6761
1943 Balistreri Frank 239-5424
1949 Sardina Tom ® 234-4254
1953 Ty's Printing & Blueprinting Services Inc 234-8787
1961 Vacant
1971 La India Shop restr-mexican foods 233-3960
GRAPE ST INTERSECTS
2008 Travl-Car Rent-A-Car 232-3008
2027 Muscio Joseph 239-3676
2029★Crachiola Giovanni
2030 Vince's Barber Shop 239-0966
2031 D'Amico Antonio D 234-0951
2032 Casa De Luca Apartments
1★Lyons Larry M 234-5567
2 Reyes Maria
3 Campos Abraham 233-5972
4 Arizmendi Ruben
2033 D'Acquisto Phyllis Mrs © 239-8808
2034 Aztec Vinyl Co vnyl repr serv 232-5808
2038 Esquer Gilberto V
2040 Vacant
2043 Tumbiolo Maria T 235-4590
2045 Oddo Ignacio 235-8246
2046★Trevino Marco A 231-2942
2048 No Return
2060 San Diego Plating platers 232-7555
2061 Mona Lisa Italian Restr No 4 234-4893
San Diego Importing Co foods 239-5367
5
HAWTHORN ST INTERSECTS
2101★Ballejo Consuelo
2102 Vacant
2104 Vacant
2107 Vrizeno Bardomina
2111★Ortega Jose B 232-9170
2115 Deanda Alicia G Mrs
2119 Parris Olivia
2130 United American Italian Club
2131 Vacant
2132 Pico Mary
2134★Ramiriz Carlos 232-7251
2138★Cunningham Eliz
2138½ Garcia Elias
2140 Cook Helen L 232-9344
2140½ Codispoti Tina Mrs 232-5749
2142★Olsen Patricia 239-3185
2142¼ Doloroso Harrison T 231-3891
2144 Hitchens L
2144½ Sockaks Michl
2148★Cook Bob 233-4958
2157 International Human Resources Corp emp agcy 232-8686
A Vacant
2161 Color Mart painting sups 239-1121
2165 India Street Flower Market florist 230-1006
2171 Building
Basement Gold Coast Engineering 235-4487
Suites
A Walters Lynn & Associates archts 232-1677
A Amado & Associates archts 239-5114
A Shonkwiler Gerald W archt 235-8384
A California Nurses Bureau nurses registery 233-8801
A Baker & Kaplan Limited real est 234-3305
B Harborside Seiner Service bkpr serv 235-8899
C Bell Evans Yamamoto & Co architects 239-2311
D Vacant
E Playtime Parties Headquarters novelty store 235-8345
F Ronald Coover Inc bldg contr 234-1707
F Hostetter Realty & Investments 233-6332
F King Suzie Interior Design 233-5503
H Farris-Mokiao Advertising Inc 232-3040
K Kreemer Anten acct 235-8614
K Rowe Judi mfg rep 235-9020
STREET CONTINUED
IVY ST INTERSECTS
2202 Vacant
2206 Vacant
2215 Vacant
2220 De Brito Franscisca Mrs © 233-0958
2230 Asaro Antonio A © 234-0780
2236 Vacant
2240 Gangitano Lena Mrs © 233-3840
2270 H & R Automotive Service 232-3714
W JUNIPER ST INTERSECTS
2304 Canepa Mary ©
2305 Potter Engraving Co stationery engr 232-2388
2306 Crivello Elena Mrs 233-7915
2307 Bob Dean & Dale Ponsor Architectures int dec 232-2292
2314 Vacant
2315 Borrelli Michael & Associates designers & craftsmen 233-3642
2316 Cresci Frances Mrs © 232-5570
2326 Custom Repair Construction 239-4811
2328 Piranio Pete © 233-3958
2329 Arnold & Arnold marine ins adj 233-1096
2352 Sandbo Ralph Furniture Repair 234-0873
2355 Centre City Automotive auto repr 238-1161
Used Car Factory The used car sls 233-1200
2360a Chidgey & Son Silversmith & Music Instrument Repr 238-0464
2360b Sea Lion Marine marine repr 235-0614
2367 Golden West Rent-A-Car 231-0525
2375 Vacant
KALMIA ST INTERSECTS
2400 City Dry Cleaners 234-6509
General Uniform Corp rental 234-6509
2414★Voss David R 234-9238
2414½ Vacant
2416 Brassworks 239-4749
2418 Vacant
2420★Bryant Joann 239-5021
2422★Albarran Jorge R 233-5941
2424★Blunt Ardath
2424½ Alatorre Antonio C 233-3919
2426 Moyo Elvia M 233-0204
2426½★Johnson Sherman 232-5716
2428★Guadalupe Maria
2428½★Joy Billie 232-4655
2430★Martinez Maria T
2430½★Soto F O 233-3359
2438 Mc Intosh Debra Mrs 235-8030
2440★Moore Thos
2442★Garcia Pedro 232-7568
2442½★Comer P Thos 239-2610
2444 Tristan Victor V 233-6057
2444½ Vacant
2446 Errico Albert 232-2581
LAUREL ST INTERSECTS
2504 Ledford Muriel A 230-1049
2508 Jones Ray D 235-0946
2518★Luna Emilio 232-5308
2520 Martinez Cruz
2528 Gomez Salome 233-5710
2530★Munoz Maria
2532★Hernandez Felicitas
2540 Renteria Ramira 234-2625
2544★Mederos Gabriel 234-1798
2548 Lopez Esteban
2552 No Return
2554★Gonzales Miguel 234-4749
MAPLE ST INTERSECTS
NUTMEG ST INTERSECTS
OLIVE ST INTERSECTS
ZIP CODE 92103
2837 Lopez Felix 299-6308
2839 Vacant
2849 Boughan Gerald 299-9496
2867 Fenwick J J 574-7587
Vacant
2869★Smith Donald L 692-1264
9
PALM ST INTERSECTS
2921★Cornelio Ozeta
2923★Lozano Leo A
2923¾ Troller Ed
2927 Apartments
1 Linden R A
2★Singer Sol P 291-1762
3 Brockman Howard L
4 Johnannsen O L 291-2193
2971 Lensman Photography The 298-0732
2973 Vacant
W QUINCE ST INTERSECTS
3009 Silva J M Mrs © 296-6840
3033 Hammond Machinery & Supply Company Inc 298-6155
3051 Bausch & Lomb Inc 296-5806
3053 Camera Ready Graphics graphic design 244-0808
3055 Vacant
REDWOOD ST INTERSECTS
3103 Raffee Compleet Carpet Cleaners 296-0152
3129 Vacant
3141 Terramagra Michl R 245-5352
3153 Occupational Therapy Associates 291-8823
3153½ Vacant
3167 Murals By Teri 296-3468
3175 A Different Drum cocktail lounge 296-6789
3175a Hillcrest Auto Sales 296-6789
SPRUCE ST INTERSECTS
3211 Import Tire Co dealers & repr 291-9666
Mc Kane's Range Rover & Land Rover Sls land rover parts & serv 298-7371
3231 Mission Hills Auto Body 299-3998
3241 Grand Prix & Le Mans Auto Repair 692-9797
3265 Do-All San Diego Co mach sup 291-4600
SASSAFRAS ST INTERSECTS
3325 Greengrass Murray Construction bldg contr 582-3164
3341 Bailey Rich W
3341a Vacant
3341½ Rodriguez Jesus 296-2322
3343 Young Robt T
3343½ Garcia Malaquias M
3345 No Return
3347 No Return
3351 Admiral Termite Inc 298-6305
Admiral Construction Co genl contr 298-1857
Mission Park Realtors 296-4010
3351a Su-Mi-Ko Oriental Massage Parlor massage parlor 296-0569
3353 No Return
3355★Rogers Kevin R
3365 Razz's Aero Club tavern 574-9758
3367 Twigg Electric Marine 239-3951
3443 Courtsports raquet ball courts 294-9970
UPAS ST INTERSECTS
3503★Alonso E 296-3464
3505 Vacant
3507 Stevens Sonia 297-1058
3509 Esquer-Duarte Antonio 692-4425
3511 Vacant
3519 Marks Robt
3519½ Vacant
3521 Stromwall Grace
3523 Mc Swain & Associates real est als 297-1270
3535 Keyser Chevron Service 260-1787
VINE ST INTERSECTS
3555 Amfac Drug Supply 298-7151
GLENWOOD DR INTERSECTS
3585 Tonys Union Seventy Six 298-1618
15
WALNUT AV INTERSECTS
3615 James Automotive Service 297-8090
3617 A T S Automatic Transmission Service 297-0251
3623 S & M Printing & Graphics comi prntr 298-2922
Martin George M Photography 297-7678
3645 Budge-It Home Remodeling Inc 293-3364
3647 Comco cstr mkrs 574-0343
Sanford Robertson Interiors furn-ret 574-0343
3649 American Pickle Co whol 291-2222
3659 Building
ROOMS
100 Vacant
104 San Diego County Carpenters Group Insurance
200 Gottlieb & Company real est 571-8800
201 O'Mara Colville & Co 291-1160
203 Farmers Insurance Group (Dist Ofc) 299-6773
203 Carlile Morton J Inc genl ins 299-6773
STREET CONTINUED
3667 Music Box tavern
3667½ Coe Clyde C
3675 Vacant
3685 Randulph Lorna 297-0703
3687 Seymour Cath Mrs 298-4054
3689 Dillon Helen Mrs
3695 El Indio Tortilla Shop tortilla mfrs 299-0333
3695½ Pesqueira Ralph R © 299-0746
3697 Bernie's Corner beer & wines 298-9582
WINDER ST INTERSECTS
3701 Vacant
3711a Vacant (3711a-3711b)
3715 Canora's Sandwich Terrace restr 291-5938
3717 Marquis Public Theater The 298-8111
3719 Marquis Gallery Theater live theater 298-8111
3731 Marquis Public Theater Corp theater operators 298-7674
3735 Vacant
3735½ Angels Massage 692-9025
3737 Doodle Burgers restr 295-5121
3741 Language World language classes 692-3181
3743 Language World (Annex)
3745★Cummings Alan
3745½ Busath Scott J 692-1251
3749-51 Language World (Annex)
3753 Vacant
9
107
WASHINGTON ST INTERSECTS
ANDREWS ST INTERSECTS
3766★Bellamy Wm S 692-3674
3766½ Quade Philip W
3768★Moore Masako
3770★Colldenweh Alan B 291-2488
3772 Tillotson M L 692-1914
3772½ Helsel Howard
3779 Swap A Tape 574-0103
3780 Iversen Thor L ©
3792 Burson Jean A Mrs © 295-7137
173
INDIAN WAY —FROM 4400 CLAIREMONT AV WEST

ZIP CODE 92117
3659 Vacant
3660 Corley Arnold 275-2684
3666 Shearer Mary E © 276-2615
3667 Fisher Thos J © 270-1292
3672 Lucero Paul 483-0756
3675★Reyes Jorge A 483-3765
3678★Moaher Tomi
3684★Seno Jean M ©
3689 Trevino Antonio ©
3690 Coates Geo M © 274-5174
POCAHONTAS INTERSECTS
3710 Carlson Robt H 273-7973
3711 Taylor John T © 276-6857
3781 O'Malley Thos E © 270-5514
GILA AV INTERSECTS
3810★Heil Freda Mrs © 270-0341
3811★Schenewerk Greg © 276-5658
3880★Baz D 270-2606
3881 Diep Tai 270-5323
3882★Marion Elsie 272-0231
3883 Rodi Klaus H 270-8009
CLAIRMONT DR INTERSECTS
112
INDIANA ST —FROM 1800 E UPAS ST NORTH

ZIP CODE 92103
3503 Cristin Marcel J © 296-0841
3510 Indiana Apartments 295-3901
1 Merritt Leland C 298-6238
2★Kinberg Sheila
3★Gospenpud Paul
4★Chalmers Phyllis
5★Turner M 291-5250
6 Sani Walter B 296-1368
7 Bowen Thelma F Mrs 298-7410
3514 Beermann Clarice T Mrs © 295-3901
3515 No Return
3517 Walke Gina J Mrs
3522 Ellis Sophia Mrs 692-9224
3524 Vacant
3528★Willard W D
3530 Pugh Anis
3532 Trestick Michl 296-4865
3537 Minter Daisy Mrs
3538 Parker
3544★Coit James T 234-1677
3545 Edson Mabel
3546 Fullington Lawrence V 295-8331
3547★Dunh Walter T 295-4997
3548★Barnes Roger 298-3674
3549 Frost Carl H Mrs 295-7474
3551★Graham Kathleen M 296-3792
3554 Apartments
A Mc Ardle Sally A 297-2642
B Ollie Henry
C★Boland John
D Stimac Joseph J 298-6596
3554½ Hamm Lester J
3559 Apartments
1 Davidson Louise 295-1928
2★Clausen Trond 295-6331
3★Minardi Emanuele 260-1741
4★Rodriguez J
5 Norris Thelma B Mrs 295-8021
6 Orton Bruce 296-9541
7 Oroski M J 299-8837
8★Stewert J
9★Pugsley James B Jr 296-0827
3602★Andreasen Robt C Jr 574-1552
3604 Psomas Penelope Mrs 297-2349
3605 Cunningham Eugene 291-1088
3606 Braus
3606a★Gaines Jan
3606b★Peilot V
3606½ No Return
3607 Fowler Les © 299-3607
3608 Rogers S 295-7079
3608½ Sedillo Juana M Mrs 299-4386
3609★Serrao Thos R 295-6275
3609½ Furrow Ronald D
3610 Koppel Karl 291-1526
3611 Klima Tony J © 298-4034
3611½ No Return
3612 Heff Tina R Mrs 295-4740
3612½★Storey Chris
3613 Skowkenski Martin T 299-4164
3614★Sedillo James
3614½★Ambrose Kinga
3616 Hoff Loren K © 296-1515
3621 Apartments
1★Derrer K
2★Birkmaier Bill 299-2369
3★Barry M
4★Kendall B
5★Scharp Herbert O 574-7506
6 Doherty Harry 295-9553
7 Manley Kay Mrs
8★Bradshaw Eric
9★Gutier J
3622 Mc Vay E P © 295-5378
3628 Holman L D
3630★Rorcine Cathy
3633 Apartments
1★Dubois P
2★Asaro L 574-7586
3★Stirling J
4★Shipley M
5★Carter J
6★Klein M
7★Rigo J
8★Snook V 298-6327
9★Hopper Bill 294-9902
10★Fleishars T 295-8818
11★Huffer R
12★Peterson
13★Keleher M 692-2084
14★Skowronski G 574-7527
15★Piper
16★Gilbert H
17★Ploth R 295-1649
19★Thomas M
20★Cutley J
22★Ray F
23★Lugenbehl B
24★Mc Laughlin C
25★Govern C
27★Fliter R
28★Peppe J
29★Lumas D
3634 No Return
3636 Danilson Doris M Mrs 298-1255
3638 Hunemuller Wilbert
3640 Mayorga Malcolm E 298-4062
3642★Castayna R
3644 Apartments
1★Promer K
2 Alsup D L Mrs 296-2545
3 Miller D
4 Allen Robt E 297-3651

CYPRESS AV INTERSECTS
3650 Stone Manor Apartments 296-3005
★Colonese Carlos 296-6716
3652★Calor Emma L Mrs 295-6324
3654★Sye Camille 291-4567
3656★Jankanich David R 296-3947
3662 Hellenic Cultural Society Of San Diego 291-2030
3667★Stepanivk Sophia 291-6315
3669 Hall Frances P Mrs © 295-6063
3680 Crawford Richd F 692-0494
3681 Apartments
1 Vacant
2 No Return
3 Vacant
4★Mc Intyre Clinton
3683 Chevalier Mozelle Mrs
3685 Shermont Robt A 295-7556
3688★Chevalier A 692-3988
3689 Furrow Emanuel W
3690★Maranthos Nicholette
3692★Margaret Kathy
3694 Pearson Helen C Mrs © 297-1382
3695 Reedy Danl F © 298-2375
3697★Green Roger 692-1623
3702★Leong Benjamin 299-3268
3704 Burgad Frank © 295-5695
3706 Berry E L 298-0188
3707 Bugbee Eliz D © 296-4667
3708 Riggs Mary H Mrs 296-4894
3710★Sackett B 296-2814
3710a★Nelson L
3712 Lewis Arth E 297-0497
3714 Lewis Arth E Co Inc 299-4234
3715 Kuhnel Geo H © 297-3607
3716★Mc Kenney T M 291-4069
3718★Luchs Stephen 260-8291
3720★Garcia Michl 295-0326

PACIFIC HWY 1984

REALTOR® 1875 CABLE STREET Including Entire County - Specializing Pt. Loma - Ocean Beach TEL. 2
IS AS IMPORTANT AS, WHERE TO SELL GOODS

PACIFIC HWY—Contd
County Dept Health Servs (Venereal Disease Control) 236-2264
County Dept Of Health Serv chronic disease control 236-2237
Vacant
County Dept Health Serv (Nursing Div) 236-2245
County Dept Health Servs (ENG) 236-2237
1747 Rent A Car Cheep III Inc 238-1012
W ELM ST ENDS
1825 Boll Weevil restr 234-2464
1919 Seven Plus One Motel 232-1077
Hemmings Fred
1943 Bayview Travelodge motel 232-7551
Moss Helen Mrs
W GRAPE ST INTERSECTS
2008 Rollins Shell Service 239-4251
2045 Body Beautiful Car Wash 232-8903
Chevron Service Station 232-8903
2070 Pacific Union Seventy Six 234-0812
W HAWTHORNE ST INTERSECTS
2137 Fat City restr 232-0286
China Camp chinese restr 232-1367
W IVY ST ENDS
2200 Solar All Faith Chapel
Solar Turbines Internatl (Int Harvester Group) gas turbine & aerospace mfg 233-8241
2233 Super City Office Equipment 239-2139
2263 Barnicle Service Station gas sta 239-7134
Vacant
W JUNIPER ST ENDS
2305 Cal-American Rent-A-Car 239-8088
2353 Airport Travelodge 232-8931
Harris Philip D
2401 Aztec Rent-A-Car 232-6117
2401b Applied Consulting & Technical Servs Inc eng 233-0062
2405 Applied Consulting & Technical Servs Inc (Ofcs)
2407 Applied Consulting & Technical Servs Inc (Ofcs)
2431 Dirty Dan's cocktail lounge 233-7359
2499 American International Rent-A-Car Inc 234-8343
W LAUREL ST INTERSECTS

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W LAUREL ST INTERSECTS
2521 Sievers Shell Service 233-4120
2535 Budget Rent-A-Car 297-3317
Sears Rent A Car 234-4466
2585 Pacific Car Rental 239-2111
2775 Port Of San Diego (Pkg Lot)
2830 Palm Street Auto Park (Self Serv)
W PALM ST ENDS
2888 Tuxedo Charlie's restr 295-9023
2904 Bracamonte Enterprises Inc restr oprs 298-7704
Jimsair Aviation Services Inc als & serv 298-7704
Windsock The restr 291-2931
2975 Five Dollar A Day Rent A Car 260-1721
2980 Lindbergh Field (Old Terminal)
Natl Weather Serv 297-2107
Fed Aviation Administration (Flight Serv Sta) 293-5285
F A A Flight Serv Sta Operations Floor pilot weather reports 293-5530
3090 General Dynamics Corp-Elec Div (Plant)
3125 General Dynamics Corp Convair Division electronic div ofc
3165 San Diego Unified Port Dist 291-3900
W SASSAFRAS ST ENDS
3302 General Dynamics Corp Convair Aerospace Division lindbergh field plant 277-8900
VINE ST ENDS
3555 Turk's Independent Mercedes new auto als & serv 299-7700
3565 Phillips Chatty A 295-0400
3567 Golden
3569*Shrader Bob
3605 Vinyard Garage Doors Inc 298-9951
3655 Southwest Safety 291-9500
3655b Pameco-Aire Refrigeration & Air Conditioning) 692-0451
ZIP CODE 92110
BEAN ST ENDS
3705 Antique Alley Custom Rod Shop auto restoration 295-4837
WASHINGTON ST INTERSECTS
SUTHERLAND ST ENDS
3877 Arise Equipment Sls ladder scaffolding 299-5995
3881 Vacant
3885 Don's Photo Service 295-9924
3895 Pacific Highway Pet Clinic 295-4231
NOELL ST ENDS
3911 Communications Company Inc (Admn Ofc) audio visual equip 297-3261
Musicale Sound background mus serv 291-4430
ROOMS
100 Lithographers & Photo Engravers Intl Union 227 296-1566
102 Harris Electronics Corp 299-7097
109 Hay Erik K income tax serv 291-6185
103 Graphic Arts International Union Local 40b lab organization 291-1886
104 Vacant (Rms 104-201)
202 Independent Cab Owners Assn Inc 291-3333
203 Vacant
208 Vacant
3923 Little R W Co Inc sandblasting contr 297-3705
ESTUDILLO BEGINS
3955 Vacant
3957 Vacant
3967 Vacant
WRIGHT ST ENDS
4025 Cousins Appliances appliance whsl 293-3137
Cousins Photo & Appliance Warehouse 292-3137
4031 Yale A E Enterprises adhesives-distr 299-7710
4035 Chico's Blueprint Co 295-5510
Rear Tar Stop Inc cigarette filter mfrs 296-4848
4055 Gary's Tux Shops rent & sell formal attire 298-5310
BANDINI ST BEGINS
4085 Monarch Self Serv Gas 298-6060
Pacific Services clo eln 298-6060
Pacific Services lndry 298-6060
Lunch Bag Deli 295-3484
4089 Pacific Services Barber Shop 296-0694
COUTS ST BEGINS
4101 Pacific Rest Motel 298-8364
Smart Lester P 291-7414
4141 Hart Enterprises Inc publishers 296-8811
WITHERBY ST ENDS
BARNETT BEGINS
ZIP CODE 92138
4250 Barnett Commercial Center bldg-ofc 225-0233
SUITES
101 Vacant
102 Vacant
103 Best Tabs Inc business sys 224-5434
104 Carefree David Travel 223-8162
104c Coop Rent A Car 223-8020
105 Salt Of The Earth Inc clothing ret 226-8311
108 I-Deal Services typesetting & graphic arts 224-3418
109 State Farm Ins Co 223-2247
110a Vacant
110b Vacant
111 I B M (Fed Sys Div) 223-2311
114 Vacant (Suites 114-115)
117 E G & G-Washington Analytical Servs Center Corp eng consultants 223-3173
117 E G & G Environmental Equip Sea Link Sys engs-consultants of ocean 223-3173
118a Vacant
119b First City Video
120 Palash J K & Associates carpet & drapes contr als 222-0381
121 Vacant
122b Analitic Nutrition Services 222-8252
123b Barnett Commercial Center (Leasing Ofc) 225-0233
124 Vacant
125 Acacia Travel Inc travel agcy 225-1233
125 East African Wild Life Socieity non profit orgn 225-1233
126 Persona-Matic Letter Service word processing & sec servs 223-2315
126 C R C Systems Inc telecommunications sys 223-5501
127 Hiro's Keypunch Service data processing serv 223-3826
128 Collins Greeting Cards 223-5381
129 T & A Deli 223-0010
130 Five Minute Portrait Studios 222-6311
203 Marine Amicable Life 224-1890
204 Applied Technical Systems 224-1890
205 Computer Management Services 224-3633
206 No Return
207 No Return
208a Kahn Associates Inc publrs 224-3367
209 Granfield Security Systems 225-9535
210a No Return
210b Trans Pacific Air Cargo 225-1278
210b Southwest Airlines Co 232-1231
213 Expandable Bus Sys
212b Neu Services publishers 224-3507
214 No Return
216a Q E D Systems Inc (Ofc)
216b Vacant
222 Q E D Systems Inc eng servs 224-2496
223 Advanced Marine Enterprises Inc eng services 223-5396
225 Boone James E lwyr 223-9699
225 Wheeler Wm J lwyr 223-9699
225 Boyce Charles E lwyr 223-4699
226 No Return
227 American Agency Of San Diego collection agcy 225-9344
228 Columbia Research
229 No Return
230 Medi-Trans Ltd med transcribing serv 225-1297
231 No Return
ENTERPRISE ST BEGINS
SPORTS ARENA BLVD BEGINS
4297 USn Electronic Sys Engineering Canter San Diego command sw div 225-4367
US Defense Contract Admn Servs (Dist S D) 225-4731
USn Sea Support Cntr Pac 225-3233
Dean's Snack Bar snack bar 291-4963
4306 Hans Foreign Car Serv auto repr 298-8575
4310 Mission Graphics graphic arts 297-0557
4320 Johnstone Supply hsehold appliance parts 298-7168
U S Courier Corp courier & message serv 291-5505
Messenger Air Freight 291-0744
4325 U S Naval Ord Sys Support Ofc (Pacific Annex) 225-5571
4350 T F I Plumbing Supply 299-7171
T F I Water Works Supply water pipes whsl
4360 T F I Plumbing Supply (Whse)
4370 Emerald Express 299-2160
4380 Vacant
4386 Vacant
KURTZ ST BEGINS
4420 Panel Lock Fence Co 297-6711
SMITH ST ENDS
4444 Old Town Budget Inn 260-8024
Thompson G S 295-6444
TAYLOR ST BEGINS
ROSECRANS ST INTERSECTS
4606 Ital Automotive serv sta 297-6620
4610 Season's Restaurant 298-0354
4635 Naval Electronic Systems Engineering Center S D
INTERSTATE 8 INTERSECTS
4764 State-Division Of Highways (Mtce Yard)
SAN DIEGO RIVER CROSSES
4800 Old Town Storage mini stge 298-3023
Bodah Richd L
Bravo Group real est development 299-2343
ANNA ST INTERSECTS
4891 Building
Ninety One X-F M Mighty 690 A M Radio 298-9434
Suites
201 Karen's Copy Shoppe 295-1211
201 Sandau Business Services 295-0508
201 Business Graphics Of San Diego 296-0508
203 Macklin Three Inc financial management 260-1880
205 Action Financial 298-6666
206 Jensen Company The
210 Trans World Systems collection agcy 584-4225
218 American Federal Financial Corp 298-9434
4895 Progressive Auto Werkes
ANNA AV ENDS
4901 E J R Plastics (MFG) 297-7220
4902 State Highway Patrol 296-6661
4903 No Return
4905 I P S Instant Printing Service advision of neyenesch painters 298-7513
Pacific Service Station Supply Warehouse 299-0256
4909 Portalign Tool Corp portable drill guide mfg 297-7760
Brook Geo E lwyr 299-1720
4955 Under Constn
5175 Public Storage Management Inc storage rental-leasing 299-8553
No Return
INTERSTATE 5 INTERSECTS

55

SAN DIEGO RIVER CROSSES

387

PACIFIC VIEW DR —FROM 4950 OCEAN BLVD NORTHEAST

ZIP CODE 92109
604 Hauseur Fred J 488-8578
610 Hauseur C Thos 273-1610
615 Cope Jesse D 483-7367
616 Beha Geo
622*Wren W V 272-2066
628 Vacant
631 Buck Barbara T Mrs 488-5900
634 Barnhill Robt J
639*Guasco C
640 Hill Joseph L 488-1905
645 Cardinal John 488-5281
646 No Return
651*Janoff M
652*Knox Robt 272-3798
657 Laying Darla Mrs 270-5138
658 Matthews Richd W Jr 488-6451
665 No Return
666 Weinman Phyllis A Mrs 483-7594

373

PACIFICA DR —FROM 5500 SOLEDAD MOUNTAIN RD SOUTH

ZIP CODE 92109
4846 Miller Melvin D 276-2964
4856*Walsh S 273-4037
4866 No Return
4876*Weaver D D 483-4641
4906 Davis James M 272-6237
4909 Mc Rae Robt D 272-9855
4910 Duerksen Wm 274-6547
4914*Kim C W
4917 Kronberger Wm H Jr 276-7856
4918*Abbott Timothy J
4922 Beauchesne C L 272-0202
SAN ANSELMO ST INTERSECTS
4934 No Return
4935 Sparks Donald E 274-5684
4938 Thornhill Michl S
4939 Whited Patsy A Mrs 273-5768
4942*Kettner Norman W 273-5223
4943 Porter Julian A
4945 Gabele John L 272-5794
4946*Peters Mark M
4949 Williams James R 273-5351
4950 Bartlett Ronald D 272-8020
4953 Speciall Joseph V 274-5446
4954 Lee James M 272-1567
4967 Bronin Patk I 274-4957
4961 Zogg Gordon J 274-0816
4962 Hood John
4965 Bennett Wm K clo mfr agt 273-6308
4969 Taylor Gladys D Mrs 273-8707
4973 Snyder Joyce C Mrs
4977 Wong David Y 274-5058
4980 Wehbring John L 270-0181
4981 Schildt Wm J 274-5533
4985 Sheppard Margt M Mrs 276-2344
4988 Stewart Phillip
4989 No Return
4993*Backes Geo M

73

5001*Jensen Pual 483-7885
5004 Graham Mary
5007 Smith Ray T Jr 272-5603
5008 Shaffer Chris C 272-0824
5013*Flynn Clyde F 274-0304
5016 Bruney Michl R 275-3336
5019 Lank Nancy G Mrs 274-9287
5022 Calvert Seymour
5025 Larson Marian J Mrs 274-8127
5030 Landa Victor R 274-5154
5031 Diller David H 274-1307
5036*Foothacre Rod M 270-8218
5037 Larrabee John A 274-2416
5043 Snyder Ellis O
5044 Lemley Kenneth R 273-9642
5049 Varo Irene Mrs 272-1911
5052 Fowler Marguerite E Mrs 272-1683
5055 Beach Paul L 273-1100
5060*Oberlin John
5063 Stocklin Robt 272-1414
5071 Edwards John C 272-5071
5072 Boyle Rose D Mrs 274-4745
5079 Bangs Louis L 274-4672
5080 Metz Sheldon E
5088 Blaylock Albert J 274-4740
5089 Carroll Jerome W 270-9305
5096 No Return
5097 Jabinson Louis R 273-9861
5102 Bernd Paul 273-0330
5105 Colopy Glenn J 274-2602
5108 Doucette Geo
5111 Robison Robt F 273-8164
5116 De Land Roy O
5117 No Return
5123 Hicks Marlyn L 273-8913
5126 Brantz Emanuel E
5129 Del Bene John V 274-7531
5132 Goodrich Murray H 273-1604
5135 Greenwald Harold 270-1818
5138 Vasques Horace A 273-1246
5141 Lukas Benj J 270-5356
5144*Swolinzky Jamie 272-8506
5147 Shephard Max L
5150*Johnson Thos P
5153 Leib John E
5156 Mazzone Walter F 274-9376
5159 Mc Mikle Barbara Mrs
5162 Lucas John E 273-5450
5165 Kubias Fredric F 272-3564
5168 No Return
5171 Meagher Don T 270-2120
5174 No Return
5177 Hanville Corallie Mrs
ROMNEY RD INTERSECTS
5205 Elliott Michl M 274-0012
5215 Pierce Eliot N 270-3678
5225 Dodson Edith E Mrs
5228 Hughes Herbert G 273-0322
5235 Kimura James T 273-3848
5238 Schmitt James E 273-0454
5243 Paull Robt R 273-8372
5251 Davis Florence G Mrs
BAJA CERRO CIRCLE INTERSECTS
5259*Richards Elise 272-9205
5268*Mazzola Ronald
5271 Davis J Wm 270-3939
ALTO CERRO CIR INTERSECTS
5305 Cooper Robt H 273-1881
5315 Sattler John 276-8915
5325 Dahl Frank C 274-1465
5335*Gossett Brenda 270-5811
5340 Burnette Raymond E 272-1475
5345 Roe Craig W 273-6073
AMITY ST INTERSECTS
5355 Derakhshan Soheyl
5365 Yelenosky Robt J 274-6718
5370 Mecklenburg Richd K
5375 Hale Danl W 273-9318
5405 Kobacebia Michl
5410*Drogir S
5420 Hurd Charles 273-1563
5425 Johannsen
5431 Under Constn
5437*Merkin D
5438 Kerr John E 270-1213
5443 Alessandra Anthony J
DRESDEN PLACE INTERSECTS
5448*Gerber D
5449 Shaw Wm Y 274-4729
5455 Griebe Richd E 272-2867
5458 Brown Douglas E
ALMERIA INTERSECT
5473 Eddy Carl L
5476*Landry Richd
AVENIDA FIESTA INTERSECTS

270

PADGETT ST —FROM 9300 MIRAMAR RD NORTH

ZIP CODE 92126
9525 Yellow Freight System Inc frt trucking 271-1551

471

PADUCAH DR —FROM 3400 CADDEN DR NORTH

ZIP CODE 92117
3811 Georgion Wm T 273-8311
3821 Jones Glenn O 270-7662
3831 Kostakis Geo 272-6006
3841 Parsons Edwin F Jr 276-4033
3851 Tapp Joseph R
3861 Steinemann John H 274-1657
3888 Benedictine Convent Of Perpetual Adoration 274-1030
3905 Skordas Gust 272-9525
3915*Stalnaker John H
3925 Dean Dodge H 274-4533
3935 Haskell John Jr 273-1514
3945 Searles Donald W 270-2976
3955 Jones Caroll 270-0548
3965 Smiechowski Thaddeus A 276-0072
3975 No Return
3978 Walsh Michl J
4010 Oxford Keith E 276-9665
4015 Markarian Agavini Mrs
4035 Gwynn F B 272-9682
4040 Vacant
4050 Swenson Theresa L Mrs 276-5095
4051 Bay Mesa Realtors 273-3131
Scott Charles C 273-3131
4060 Wright Roy N 273-7646
4065 Adams Franklin E 273-1036

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

UPAS/COLUMBIA ST 1984

UPAS ST—Contd
1634a★Craig Don
1634b★Craig Wm E 692-0378
1634c★Bishop L
1634d Heimbach Josephine F Mrs 296-3821

112

PARK BLVD INTERSECTS
1714 Kilkenny Myrtle L Mrs 298-7902
1716 Dickason Mary L 298-3741
1718 Besemer John J 291-0154
1720 Hahn Otto W @ 295-5429
1726 Gramercy Court apts
Dolan John
1726½★Lange Naomi
1728 Lawson Billie F 299-1080
1728½ Raether Gertrude Mrs 298-2878
1730 Beaghan Doris M 291-3847
1730½★Hill Szella M 296-4079
1732½ Van Luvanne Nora 299-1841
1734★Greene Michl
1734½ Angell Shirley M Mrs 298-9471
1736 Mc Donnell Eliz 298-8479
1736½★Clifton Geraldine 692-4429
1738 Laurentsen Lillian H Mrs 297-2373
1738½ Borneman Irene 296-4752
1740 Park Gardens apts 297-3144
1 Vacant
6★Miller Danny T 299-3319
7★Dorsey Kim 296-7414
8★Ruka Val T 296-9270
9★White Richd 295-3408
10★Turner Katy L 299-8160
11★Boulerice Eliz 297-3144
12★Burns Gilbert C
14 Vacant (apts 14-17)
18★Westfall Jeanne R
19★Anscombe J
20★Keilig Maxine E 298-0321
21★Jay Carol 297-9239
22★Leabo Vernon K
23★Parker M V
24★Greismer Raymond 297-1315
25★Breece Randy Mrs 574-1554
INDIANA ST INTERSECTS
1800 Terrace Park Apartments
1804★Mc Caffrey Betty Mrs 299-9644
1805 Blind Recreation Center 298-5021
Lions Optometric Vision Clinic 298-5273
1806★Lindley Calvin 295-4564
1807 Braille Transcribers Guild Of San Diego Inc 298-4219
1808 Clark Janet M 296-2872
1810★Turnage James 296-3984
1812★Carter Mike 297-5893
1814 Calkins Russell C 297-2074
1816★Quayle Ed 298-8499
1818★Johnson Junie 260-0814
1820★Pike Susan 297-0649
1822★Burkes Jerry 296-7753
1824 Stephens Martha C Mrs 298-2585
1826★Court Ramona 574-7526
1830 Upas Mandarin Apartments 298-8903
1 Miller G Ben 295-1092
2★Hiatt R
3 Capos Penny Mrs
4★Schaal Lawrence 297-0775
5★Veseth A J 299-3306
6 Knight Grafton 299-5257
7★Santy S 298-4658
8★Peterslie Rodney 692-9085
9★Stewert T W 291-9446
10 Cuelbar Linda Mrs 295-1147
11★Landry Bob
12★Bolding Robt 297-1257
13 Vacant
14★Colangelo W
15★Vamada K
16★Girardeau E 297-1990
17★Conklin R
18★Lathrum C E 260-0348
19★Selig John 692-1496
20★Kuebler Douglas R 295-4646
21★Wright Wm O 296-8159
22 Minnie Robt J 297-3659
23 Watson Frank
24★Preston Henry R 692-1998
25★Bushore K
26★Heagy Gary 260-0950
27★Ebersole Raymond
28★Corcione Jay M 692-3720
29★Rodriguez M
30 Norwood Lois H Mrs 295-1925
31★Gann L
32★Smith F
33★Hostetter Kirk 260-1198
34★Najera Francisco 299-4190
35 Caracccio Albert R 296-0517
36★Baker Carol 299-3286
37★Rice Tod 296-4642
38★Durso R
39★Rothenberger B
40★Robertson Gordon W 296-9598
41★Weiss S
ZIP CODE 92104
FLORIDA ST INTERSECTS
2034★Griffin Montague D @ 291-3633
2044 Scott Lou 299-0589

414

ALABAMA ST INTERSECTS
2102 Ames Douglas B @ 298-5393
2114 Berryman A Carmack @ 296-1156
2124 Oechel Gloria D Mrs @
2132★Field Harry G @ 574-1596
2140 Boyer Harry H @ 296-7305
2141 Balboa Tennis Club 296-9430
MISSISSIPPI ST INTERSECTS
2212 Wortman Edgar C Jr @ 296-0228
2222 Ashbrook Temple W II @ 297-4767
2228 No Return
LOUISIANA ST INTERSECTS
2306 Lacy Dexter J @ 291-1781
2318 Phipps Walter A @ 295-8194
2328★Drucker Walter R 299-8269
TEXAS ST INTERSECTS
2420 Reyburn Lewis F @ 295-2977
2426 Anderson Stuart J @ 299-2957
2436 Walters Joy
ARIZONA ST INTERSECTS
2516 No Return
2518 Caperton Virginia V Mrs @ 296-4258
2530 Stokloss Richd G @ 298-1339
ARNOLD ST INTERSECTS
2566 Kellar James W @ 298-0325
2586 Beaver Aides Communications sls and reprs elec parts 692-3333
★Schimuta Jerry 692-3333
VILLA TER INTERSECTS
2602 No Return
2612 Fullerton Robt 296-1415
2616 Grant La Mar Mrs @ 296-3307
2618 Batten R K Jr 297-7596
2630★Summers S Chris 260-0921
2628 Aycock Jean K Mrs @ 298-0240
PERSHING AV INTERSECTS
2704 Bennet Gertrude M Mrs @
2718 Arnold Roger E @ 295-1219
2728 Belden Dorothy A Mrs @ 296-2275
2738 Assistance League Of San Diego County social serv 298-7050

98

28TH ST INTERSECTS
2812 Vacant
2828★Church Gary R 298-9155
2828½ No Return
2830★Matus Sheri
UTAH ST BEGINS
GRANADA AV INTERSECTS
2832 Sullivan Dorothy A Mrs @ 295-7987
2853 Walsh A
2873 No Return
2875 Record Larry @ 295-1448
29TH ST INTERSECTS
2905 Davies James H @ 295-8790
2911 Cresswell Clement L 298-5219
2917 Pendleton Nellie M Mrs @ 295-2989
2923 Adams Alterations 297-1647
2925 Boisen Clarence G @ 298-5782
2926 Edward's Oriental Rugs 295-1100
Panek Edw E 295-1100
DALE ST ENDS
2959 Jack In-The-Box Drive-Thru restr 295-8443
2975 Namie's Place tavern 298-5740
2977 Formal Time Tuxedo Rental 295-0354
2979 Formal Time Tuxedo Rental (Annex)
RAY ST BEGINS

308

30TH ST INTERSECTS
3025 Rowe Estes 281-5258
3028 Four Corners Tavern 295-1188
Krill Harold @
3036 Vacant
3040 Skelley's Garage 281-1901
GRIM AV INTERSECTS
3065★Goddard Denise @ 282-4215
3074 Vacant
3075 Barnes James P 280-2130
31ST ST INTERSECTS
3108★Vo Kim 283-5056
3114★Le Nhung
3115★Chavez Charlene
3127 Vacant
3128 Martin Del Campo Alice
3130 Eakins Isabel M Mrs @ 563-9650
HERMAN AV INTERSECTS
3162 Jones Aubrey R @ 280-3109
3162a★Boyd Joseph 280-9259
3162b★Ludwig Chester M 280-3648
3174★Vazquez Joaquin @
3177 Love Malcolm N 283-9436

288

32D ST INTERSECTS
3215 Mc Loughlin Charlotte Mrs @ 281-7659
3218 Cardenas Arturo H
3224★Balleresteros Manuel
3231 Cropley Winnie B Mrs @ 282-7482
BANCROFT ST INTERSECTS
3254 Neuhaus Ida Mrs @
3271 Philip Olga M Mrs @ 284-1656
3274 Rohr Carl E @ 283-8468
33D ST INTERSECTS
3305 Vacant
3316★Canon Carol
3317 Vacant
3322★Mc Clary Nancy
3324 Vacant
3325 Cunningham Barrett L @ 281-4447
3344 Markin Al E 280-7687
FELTON ST INTERSECTS
3354 Ayala Juanita O Mrs @ 281-2159
3376 Prebisinis Bronice A Mrs @ 284-0285
3380 Carr Wm A @ 283-9452
3386 Andrade Clara P @ 282-2000

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UPAS ST W —FROM 3400 1ST AV WEST

7

ZIP CODE 92103
102 Shepherd John W 296-6900
104★Pinarov L S 298-2259
106★Green C J
107 Carvalho S L 291-6180
108 Marshall J M 295-7782
109★Borland J R
120 Struthers E M 298-5579
122★Wong Larry 298-8594
124 Lawson Hazelle A Mrs 296-0382
126 Ferguson Shirley
142★Rosser Gregory J 295-3248
144★Pulsgrove Raymond
146 Mark Rosemarie 296-1186
148 No Return
GEORGIA ST INTERSECTS
FRONT ST INTERSECTS
ALBATROSS ST INTERSECTS
335 Watson Willard N @ 296-2355
336 Mandel Bernhard H @
410★Geils Sarah 692-3647

11

REYNARD WAY INTERSECTS
702 Sheets Andy
705★Jones Welton 291-8788
716★Chiodo Aileen 295-8285
719 No Return
724 Lamb Allison
726★Dela Cruz Kim C 296-3910
728★Basdan Gary 574-6232
729 Wocet Wm H @ 295-2484
730 Cline O T 291-2239
732 No Return
741 Walker Garrett S @ 295-2253
753 Wolinski A E 295-4570
807 Busalacchi Thos J @ 299-5649
810★Szkotak Michl L @ 296-7960
817 Rehm Danl E
820★Mayer Fred W @ 297-0074
832 Farrow Wm T @ 295-1072
845 Razzeto Suzane M Mrs @
850★Castelo Cecilia @ 295-1056
GOLDFINCH ST INTERSECTS
HAWK ST INTERSECTS
1010 Under Constn (1010-30)
FALCON ST INTERSECTS
KITE ST INTERSECTS
1307 Rundle Gerald G @ 298-3327
1315 Morrill Eug L
1350 Scafidi Joseph @
UNION ST INTERSECTS

9

STATE ST INTERSECTS
1506★Ladewig M L 297-1556
1508 Clark Marjorie A
1510★Gerlach M M 692-9556
1512 Vacant
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS
KETTNER BLVD INTERSECTS
PACIFIC HWY INTERSECTS

70

UPLAND ST —FROM 1600 60TH ST EAST

ZIP CODE 92114
6023 No Return
6033 No Return
6038 Torres Ralph 264-6791
6040 Mac Laurin Michl @
6060 Owen Eliz L Mrs @

89

UPPER HILLSIDE DR (LA JOLLA)—FROM 7300 ENCELIA DR EAST

ZIP CODE 92037

27

UPSHUR DR —FROM 3224 BARNETT AV NORTHWEST

ZIP CODE 92110
2602★Seabolt Grover W 224-7826
2604 Mallare Juanito T 223-4197
2608 Crouch Paul 224-5418
2612 Brown Earnest
2614 Banks Jackie D 222-6090
2618 Leach Wm D 223-4293
2622 Thomas A D 223-1082
2624 Orton Don
2628 Buenaflor Lito C 225-9777
2701★Farrow Floyd 222-9409
2702 La Grone Mike
2704★William Ulbert 223-8655
2705★Walter Wm D 224-4541
2707★Wycoff Guy 224-8855
2708★Williams Michl 226-2711
2711★Edison Frances B 223-3375
2712 Brown Ernest D 226-0395
2714★Weaver David
2717 Le Baron Rodney S
2718 No Return
2719★Dawdy Rickie D 226-6798
2721★Kannow Michl J
2722★Rogers Leonard 226-1305
2724★Isaac Felix 223-4645
2725★Corbn Jerry 226-2752
2727★Clark Lorna V 223-1066
2728★Wilson Wm J 223-8961
2731★Sweatfield J 224-7479
2732 Holmes Steph K 223-2828
2734★Conner Carl F 226-0836
2735 Vacant
2737★Hoffman John W
2738★Mc Fall Larry D Jr 224-8805
2741 Molles Pablo
2742 Hohnberger John H
2744★Lee Geo P 225-0734
2745★Medellin Danl 226-1737
2747★Williams Norman 222-1567
2748★Johnson Wm G 483-5481
2751★Coplin Ernest P 223-4688
2752★Munoz Ramon
2754 Ladiero Fransico I Jr 222-4844
2755 No Return
2757★Davis Donald 223-0968
2758 No Return
2761★Groas David 223-2761
2762★Sebazco Angela A 224-6774
2764★Jones Gordon 224-6238
2765★Nejman Jos 226-6238
2767 Ritnour Michl 222-7762
2768 No Return
2772 Corpuz Demetrio G
2774★Mestre Hector L 223-2941
2778★Meyers L L 226-4205
2782★Batt Thos R 222-1363
2784 No Return
NORMAN SMITH DR ENDS
2788★Nichols Allen 222-4484
2792★Hartsell Jeffrey S 225-8766
2794★Cobarrubias Dan V 226-6341
2798 Dantzler Thomas G 222-6844

1

UPSHUR ST —FROM 1050 SHAFTER ST WEST

ZIP CODE 92106
2826 Imperial House Apartments 222-1570
101 No Return
102 Vacant
103 No Return
Rogers Britt
104 Vacant
105 Cohen Andrea M 224-3916
107★Falting John C 226-8452
108 Vacant
109 Baker Ray 224-6244
111 Nicholas Scott L 224-6935
112 Wood Forrest G 223-8303
113 Vacant
114 Vacant
116 Greve Richd N 223-1224
118 Vacant (apts 118-120)
121 O'Brien Maurine 223-5854
122 Wilcox Dwight R 224-2504
123 No Return
124★Nagel Jeff 224-8395
125 Parkinson Tom 222-7223
126★Stardem Gilbert 224-5251
201 Vacant
202 Vacant
204 Vaughn Adele Mrs 223-8397
205★Meek Jack P 224-3823
207 Freeman Mona
208 Vacant
209 Clark Woodrow W 226-1504
211 Kopp Gus W 222-7460
212 Szalwinski Laura
213 No Return
215 Schuele Christine L Mrs 224-6614
216 Hansen Rupert P 223-9749
218★Russell E M 224-1858
219 Vacant
220 Olson Lynda M 224-8190
221 Lynch Dennis
222★Adriany John J 225-9945
223 Vacant
224 Levine Paul H 224-7787
225★Migdal Seymour 224-6855
226 Vacant
A Vacant
B Saffaran Remmy

SCOTT ST INTERSECTS
2901 No Return
2901½ No Return
2903★Hoffman Phil D 225-0791
2903½★Bresch Richd L 223-2050
2905 Francisco Marie G Mrs
2911 No Return
2913 O'Brien Duane 222-9868
2913b No Return
2918 Vacant
2919 Portugese Historical Center non profit 223-8893
2920★Parsons Diana
2921★Tyson Kerry 224-5813
2922★Klema Kanneth 226-7768
2924★Moore Fred
2924½★Terrance Wm 223-2910
2926★Conti Janine 226-4714
2926½ No Return
2927 Debraga Jessie D @ 223-6709
2928 No Return
2934 La Maison gifts 223-2934
ROSECRANS ST INTERSECTS
3001 Dean's Photo Service photo developing 223-8970
3003 Cinnamon Art Center For Hair Design 226-1866

UPTON CT —FROM 2600 ULRIC ST WE IN A SEMI-CIRCLE

ZIP CODE 92111
6801 Green Saml @ 277-4377
6802 Landry E Eug @ 277-4768
6811 Smith Richd L @ 277-3742
6812 No Return
6821 Williamson Thos C @ 292-7371
6822 Verdin Manuel M @
6831 Trerina Ruth
6832 No Return
ULRIC ST INTERSECTS

UTAH ST —FROM 2850 UPAS ST NORT

ZIP CODE 92104
3404★Horten M @ 295-7358
3411 Anderson Alden H @ 298-5921
3412★Harkin K S @ 291-4724
3419 Goodale Lawrence E @ 299-2305
3419½ No Return
3422 Matson Earl J @ 298-3911
3429 Schwartz Milton J @
3430 Neyer Arth E @ 296-2816
3436 Linges Steph @ 296-4545
3437 Srigley Bertram C @ 291-2571
3441★Post Ruth
3443 No Return
3446 Oberg Gustav R @ 296-6781

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TP	Adjoining	Source
-	✓	R. L. Polk & Co.

VINE ST 1984

VILLAGE GLEN DR—Contd
237★Horton-Payne Janet
238★Dittenhoefer Raymond ⊙
BUILDING 1
101★Schmidt J
102★Vela Martin 560-2906
103 Long Chas 279-0589
104★Hutchison H W
105 Paulsen David
106★Pemberton Barry R
107★Bruenig L
108★Austin W
109★Bigley M
110★Montgomery A
201 Chang Manlu 569-0859
202★Walker M T
203★Whitten Larry J 279-5182
204 Berry D
205★Love Michl D 560-7152
206★Shephard P
207 Pena Paul 566-7059
208★Pashkowski K 560-5175
209 Vacant
210★Gunther Joachim N 277-3002
9269 Apartments
BUILDING 3
125 Douglas Curt R 268-0069
126★Yokoyama Kazumi ⊙
127★Sheakey Joseph 279-7614
128 No Return
129★Hirst J
130★Castle P
225★Gleeson M
226★Walz Karen
227★Simons J
228★Youngers K 277-0709
229★Aten Richd 569-1790
230 Boyd Tom ⊙
9289 Apartments
BUILDING 2
111★Washington C
112★Nelson P
113★Lyon Karen K 292-4010
114★Moore Shirley 278-3336
115 No Return
116 Aleszka James 569-0177
117 Mc Murray Garland ⊙ 279-5343
118★Nutt Janet L
119 Donnenfeld
120 No Return
121★Alrasheed Faisal
122 Ornelas Nancy L ⊙
123★Gabriel P
124 Vacant

169

VILLANOVA AV —FROM 6589 DENNISON ST NORTHWEST

ZIP CODE 92122
3209 Way Todd D ⊙ 453-4919
3210 Jett Paul S ⊙
3224 Keil Tenny J ⊙ 453-7783
3225 Kopela Gerald E ⊙ 453-3871
3237 No Return
3238 Coiner Preston B ⊙ 455-1921
3253 Vacant
3254 Santillan Saml B ⊙ 453-5321
3269 Machuzak Joseph ⊙ 453-5296
3270 Estee Beverly L ⊙ 453-1180
3285 Carlson Thos L
3286 Schwartz Melvin L 255-6271
3298 Bevis Barbara ⊙ 453-0227
3299 Thiele Alan G ⊙ 453-3651
3327 Agueda John S ⊙ 453-2754
3328 Applestein Neil J ⊙ 453-5839
3345 Manber Malcolm ⊙ 453-1246
3346 Wall Robt Jr ⊙ 452-8955
3363 Lee John ⊙ 453-6175
3366★Burbach Jean Mrs ⊙ 453-2150
3385 Drake Dennis F ⊙ 452-9820
3386 Laturno Shirlee ⊙ 450-0406
3430★Garrison John
★Di Cataldo Joan ⊙
3431 Kuttler M D Jr ⊙ 453-5458
3436 Brooks Neal ⊙ 452-1951
3437 Fitzsimmons Jerry W ⊙ 453-5787
3442 Kinnan Kenneth W ⊙ 452-1576
3443 Vaux Richd W ⊙ 453-2086
3448 Enach J C ⊙ 452-8037
3449 Spong Fredk W ⊙ 453-5141
3515 Vowinkel Russell C ⊙ 453-2376
3516 Whitehead Carolyn L Mrs ⊙ 453-4126
3527 Crahan Park J ⊙ 453-1317
3528 Ruettgers John J ⊙ 453-5883
3544 Shapiro Philip A ⊙ 452-0230
3545 Holm David R ⊙ 453-7870
3564 Roitman Leo ⊙ 453-2471
3565★Saville Eric 457-5820
MERCER ST INTERSECTS
DENNISON ST INTERSECTS

643

VILLARRICA WAY —FROM 10700 PORTOBELO DR EAST

ZIP CODE 92124

194

VINCA WAY —FROM 930 61ST ST EAST THEN SOUTH

ZIP CODE 92114
1304 Yuvienco Honrado L 264-3394
1305 Raquel Ricardo ⊙
61ST ST INTERSECTS
1311 Siviley Rhamphet 263-5715
1312 No Return
1319 Vacant
1320★Russell Marian ⊙
1325 Vacant
1333 No Return
1334 Fields Richd 262-4756
1339 No Return
1347 Vacant
1353★Ardrey D 263-1099
1360 Arrero Wilfredo A ⊙
1361 Afan Aristoleles D ⊙ 263-9705
1369 Brown Mae ⊙
1370 Matargo Rolanda ⊙
1379 Davis Clayton ⊙
1380 Hingada Mario D 479-8245
1387 Waters Chuck
DIVISION ST INTERSECTS

93

VINCENTE WAY (LA JOLLA)—FROM 6400 ELECTRIC AV EAST

ZIP CODE 92037
404★Emery B 459-0938
405★Leshefka Jack ⊙ 454-7765
411 Cohn Alda 454-1404
412★Lewis Molly Mrs ⊙
419 Hansen Terry ⊙ 454-7027
420 Brown Everette R ⊙ 458-5638
427 Floyd Charles E 454-2982
428 Lanphier Thos G ⊙ 464-0049
436 No Return
DOWLING DR INTERSECTS
531 Lindberg Trish 454-9325
533★Williams V 454-6478

26

VINE CT —FROM ½ BLK WEST OF 750 S 29TH ST EAST

ZIP CODE 92113

9

VINE ST —FROM 3550 UNION ST WEST

ZIP CODE 92103
1405b Josserand Vera D Mrs 297-0704
1405½ Rust Lucile E Mrs 295-4907
1412 Ballsteri Antoinette
1417 Vinyard Fred A ⊙ 296-1134
1420★Hart Thos G ⊙ 297-6124
1421 Griswold Frank ⊙ 295-4388
1430 Day Robt P ⊙ 295-4884
1438 South Ruby C Mrs 295-5040
1440 Mc Cardle Harriet E Mrs 295-6109
1442 Poole Wm D 291-0194
1449★Haan Maurice P ⊙
STATE ST INTERSECTS
1501 Wilson Wm
1511 Colldeweih Robt 299-3319
1512 Vacant
1515 Vacant
1516★Schafer Robt ⊙ 296-5760
1524 Carman Richd T 291-1155
1526★Rockwood Keith 296-3970
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS

240

VINLEY PL —FROM 6200 DEL CERRO BLVD NORTH

ZIP CODE 92120
5725 Sterling Homer ⊙ 583-0651
5738 Glazer Sidney ⊙ 583-0975
5739 Passenheim Betty Mrs ⊙ 582-9192
5750★Ledsam Doug ⊙ 286-4434
5755★Road Rex 297-2081
5762★May Tom 287-4815
5767 Eucces James ⊙
5774★Latta Wm L 582-2681
5783 Bagby Harry F ⊙ 582-1838
LAMBDA DR INTERSECTS

127

VIOLA ST —FROM 1296 MORENA BLVD EAST

ZIP CODE 92110
GERTRUDE ST BEGINS
1308 Twombly Robt N ⊙ 276-1956
1315 Torres Paul ⊙ 276-7553
1320 Kildare Douglas ⊙ 276-0478
1325 Hafner Richd ⊙ 276-2537
1344 Michalek Stanley J ⊙ 276-6346
1345 Alberico Mary A Mrs ⊙ 276-1614
LILLIAN ST INTERSECTS

84

VIOLET ST —FROM 1 BLK SOUTH OF 4182 SYCAMORE DR NORTH

ZIP CODE 92105
2502★Penbody Mary O ⊙ 284-2940
2504★Thde Paul A 283-3781
2507★Harvey Dwight
2510 Stevenson James M ⊙ 283-5209
2511 Harvey Delmar J ⊙ 280-7677
2518★Mosen David A ⊙ 283-5249
2519 Witek Fredk J ⊙ 283-8477
2524 Garner Jerry ⊙
2525 Jackson Paul D ⊙ 284-2422
2530 George Ruth G Mrs ⊙
2535 Gibbons Edw L 284-0197
2536 Oliver Weldon C ⊙ 281-0237
2537★Green Robert W
2540 Wilkerson Roy C ⊙ 282-9300
SYCAMORE DR INTERSECTS
2544 Degallardo Maria ⊙ 282-7731
2547★Griffin Anne ⊙
2548 Molly's Childcare Center 281-2372
Liberatore Molly L Mrs ⊙ 281-2372
PEPPER DR INTERSECTS
2550 Bishop Susan J 282-4159
2552★Infanta John A
2554 Choate Jeffrey L ⊙
2556 Choate Robt J ⊙
PEPPER DR INTERSECTS
2560 Choate Jeanette C Mrs ⊙ 264-8537
2564 Barajas E C 280-4546
2568 Jacobs Marvin P ⊙ 281-8009
2571 No Return
2572★Meester Ewards 584-2189
2576 Vacant
2580 Bostwick S C 283-1436
2581 Beard A C 284-0864
2583★Dobyns Marilyn
2596 Azalea Recreation Center 284-9961
POPLAR ST BEGINS
2608★Angels Tadeo 563-9544
2614 Smith P A ⊙ 281-6301
2622★Barbours Jerry
2623 Vacant
2624 Jeuhls Aug 282-5808
2625 Vacant
2629★Quan Chau-Wah 280-9291
2629½★Yankey Gene
2631★Kenney Sean
2632 Von Goerlitz Eric ⊙ 281-5200
2634★Inglett Susan
2637★Erickson Ron J 281-7431
2639 Simmons Larry D 280-8398
2640★Rivera Gilbert H 281-1870
2643★Do Nu 283-0890
2646 No Return
2648 Bates Montelle III 284-4873
2649 Vacant
2650★Allen David M 584-2104
2651★Merdosko Tabu
2652 Erickson Robt L 563-9656
2656 Tallaksen Robt W 281-3861
2661 Garcia Gloria ⊙ 284-7483
MANZANITA DR INTERSECTS
POPPY PL ENDS

145

VIRGINIA AV —FROM 6500 BLK ACORN ST NORTH

ZIP CODE 92116
4567 Durman Dwayne A ⊙ 583-1790
4568 Kern Joseph R ⊙ 583-6760
4575 Savel Joseph S ⊙ 582-2600
4576 Seidel Geo A ⊙ 583-3939
4583 Zane Stanley D ⊙ 286-2529
4584 Groccia John J ⊙
4591 Seevers Branch
4592 Bailey Harley S ⊙ 286-6808
4611 Mendoza Judith T Mrs ⊙ 582-4142
4612 Smith Paul K
4617 Butler Klyde F ⊙ 582-8422
4618 Zito Realty 582-3670
Zito Joseph J ⊙ 582-3670
4623 Loman Esther H Mrs ⊙ 583-7153
4624 Little Gary D ⊙ 286-0286
4629 Snavely Le Roy 582-0462
4630 Peale Marilyn S Mrs ⊙ 583-3692
4635 Schaner Alex ⊙ 582-7035
4641 Butler Frank O ⊙ 582-7541

453

VIRGINIA WAY (LA JOLLA)—FROM 7600 GIRARD AV NORTHEAST

ZIP CODE 92037
TORREY PINES RD INTERSECTS
1027 Gletz Heinz Autohaus Inc auto dlr 454-7137
HERSCHEL AV INTERSECTS
1105 Barrett Murray J 459-5882
BLUEBIRD LA BEGINS
1120 Alkazin Joseph J ⊙ 454-7007
1121 Lumpkin Marie Mrs ⊙ 454-2721
1127 Harris J F ⊙ 459-7943
1138 Ward Jack O ⊙
1142 Barca Zita V Mrs ⊙ 454-7623
HIGH AV INTERSECTS
1155 Penry Willard W ⊙ 454-4955
1156 Lindkvist Ann S Mrs ⊙
1168 Fellows Wendy E Mrs ⊙ 459-5589
1178 Vacant
1201★Gulden T L ⊙ 454-8331
1208 No Return
1211 Price Ernest H ⊙ 459-1406
1214 Kyte Jack E ⊙ 454-9478
1215 Farnsworth Paul A 459-2289
1221 Gallagher John J ⊙ 454-1488
1224 Nicol Catherine E Realty 459-5073
Nicol Cath E Mrs ⊙ 459-5073
1231 Vacant
1235 Freed Richd ⊙ 456-0923
1236 Burke John S ⊙
1245★Le Beau Jas S 459-1540
1246 Smith Francis M ⊙ 459-5597
1252 Copley David ⊙ ⊙
1257 Schaechlin Patricia A Mrs
1260 No Return
1263 Schultz Robt T
1271★Case Terrence H 454-6333
1271½ Vacant
1274 Sasse Lewis Rev ⊙ 454-3620
1275★Burda Mark W 454-5876
1285★Ericson Dean 454-8680
1287 Stuart Paul S Jr ⊙ 454-8971
1299 Andreasen Henning O ⊙ 454-1351
IVANHOE AV BEGINS
1301 Judge Roger ⊙ 459-5184
1304★Washburn Lawrence ⊙ 454-5574
1314 Meek Matthew E ⊙ 459-9415
1320 Munds John 454-0696
1321 Herring Clarke F ⊙ 459-1475
1324 No Return
1325 Jordan John A ⊙ 459-5080
1328★Windemere B
1335 Williams Robt H ⊙ 459-2136
1338★Stravinsky Paul
1345 Marsden Winifred H Mrs ⊙ 459-7824
1350 Brown Russell B
1351 Booth Doris G Mrs ⊙ 454-4008
1356 Gardner John S ⊙ 454-2962
1356a Cundiff Helen S Mrs ⊙ 454-7337
1361 Longenecker Martha M Mrs ⊙
1364 Helfgot Robt H ⊙ 459-9396
EXCHANGE PL INTERSECTS
1400 Weirather Hal E ⊙ 459-8871
1401★Clark John P 459-8487
1411★Peacock D ⊙ 456-0798
1412 Hosie Bernard P ⊙ 459-6192
1414 Mac Intyre Neil R ⊙ 454-5105
1419 De Bolt Wm L ⊙ 459-8159
1436 Chambers Ada M 456-1425
1437★Ware Donald A ⊙ 454-3959
1440 Morris Robt ⊙ 454-0379
1445 Rumsey Anne ⊙ 454-4739
1453 Ferry Phyllis C ⊙ 459-5927
1454 Wertham Geo C ⊙ 459-5786
1461 Lee Geo R ⊙ 454-1644
1475 Duntley S Quimby ⊙ 454-1742
PROSPECT PL INTERSECTS
1520 Andersson Hudnall 454-1036
1523★Munoz Robt R 459-5339
1524 No Return
1528 Largent Frank D ⊙ 459-0317
1532★Stubbs Robt C ⊙ 459-8140
1533 Walker Christine ⊙ 459-2164
Heifetz R Mrs 459-2160
1540★Frieman Edw A ⊙ 454-4864
1556★Riley Richd ⊙
1563 Cady Harlow G ⊙ 454-2371

574

VIRGO PL —FROM 6385 BOREALIS RD NORTH

ZIP CODE 92426
11010 Flynn Wayne
11018 Teeter James L ⊙
11026 Vacant
11034 Mc Cormick Michl D ⊙ 271-4413
11042 Zeiss Robt A ⊙
11050 Sakurauchi Hideo ⊙ 271-7788
PALLUX WAY BEGINS
11058★Lobel Lyn ⊙ 271-5483
11066★Heid Leo V
11074★Pittman Randolph 566-0071
11082 Coulter Marshall A ⊙ 271-6958
11090 Roberts Lois E Mrs ⊙ 271-7979
11096★Mondy Monica ⊙ 693-1485
ARIES RD BEGINS

128

VIRGO RD E —FROM 5600 REDWOOD ST NORTH

ZIP CODE 92105
3203 Woolcock Joel 287-5120
3204 Baxter Fred C ⊙ 583-0842
3212 Darton Jay T ⊙ 583-4697
3215 Nelson Jeanne Mrs ⊙ 286-2685
3220 Hynes Robert R ⊙ 583-8565
3225 No Return
3230 Nilsson Bengt B ⊙ 582-1552
3235 Russell James ⊙
3240 Aguilar Manuel E ⊙ 583-5375
3245 Traber Ralph ⊙
3250 Jewell Michael D ⊙ 287-0630
3256 Phrommayon Phisal ⊙ 286-1208
3260 Hardy Charles P ⊙ 286-9230
3263 George J Donald ⊙ 286-3751
3269 Pickering James P ⊙ 286-9185
3270 Zacarian Martin
3275★Mc Guinn Martin ⊙
3281 Simo Ralph G ⊙ 583-0942

128

VIRGO RD W —FROM 5550 REDWOOD ST NORTH

ZIP CODE 92105
3104 Krskauer Max F ⊙ 582-5960
3112 Warren Ayton J ⊙ 583-0103
3117 Sibrel James C ⊙ 287-2045
3122 Brackett Robt F ⊙
3131 No Return
3132 Aguayo Claude D ⊙
3142 Pino Carlos E ⊙ 582-2521
3149 Knapp Herman B ⊙ 583-5094
3150 Wilke Royal M ⊙ 583-5102
3203 Paredes Richd Jr ⊙ 583-9277
3204 Palmer James W ⊙
3211 Branstetter Kent A ⊙ 582-8024
3212 Ball Dale
3221 Moore Ronald B ⊙ 582-7012
3222★Bellasterie Pete ⊙
3231 Jacobs Elmer F ⊙ 583-2155
3232 Bershaw John L ⊙ 583-8504
3241★Desanto Robt
3242 Jewell James E ⊙ 583-9389
3250 Schneider Arth L ⊙ 583-0318
3251 Fair Patricia Mrs ⊙ 583-3062
3258 Wilker Barbara J Mrs ⊙
3261 Tullis Gary M ⊙ 583-3099
3264 Robinson Richd E ⊙ 582-6123
3270 Van Auker Rose A Mrs ⊙ 582-6506
3276 Burke J Harold ⊙ 583-0486

570

VISION DR —FROM DEAD END WEST OF 9640 EASTER WAY EAST

ZIP CODE 92121
4340 Barnard Arthur ⊙ 455-1761
4342 Fujinami Robt 452-7948
4344 Brayfield Ralph S ⊙ 453-0977
4346 Allen Willes M Jr 452-9219
4350 Honore Ann L Mrs ⊙ 453-2281
4352 Sylvester Leona E ⊙ 453-4820
4354★Goldsmith Amy
4356 Torre Louis 453-9103
4360 Datte Michl J ⊙ 445-0364
4362 Bailey Ruth ⊙ 455-0242
4364★Stewart Robt H 453-8963
4366 Heller Will S ⊙ 453-0698
4370★Hake Angela 452-8793
4372 Spivak Matthew A 452-9665
4374★Wilson John S 453-5491
4376★Heinselman Lisa 452-0659
4380★Fuerst Russell S 457-2749
4382★Siddall Marshall 452-9889
4384 Bollen Andrew 457-3904

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WALNUT AVE W 1984

WALMAR LA—Contd
2300 No Return

106
WALNUT AV —FROM 3500 1ST AV EAST

ZIP CODE 92103
115 Apartments
A Wilborn David
B Bentson Ruth S Mrs
C*Sciacchetano Carol
D Wilborn Rebecca
E*Chacraft Douglas 295-8609
F*Millis Tom 232-9308
G*Ojeda Marilyn 296-0562
H*Salvatierra E T 574-0231
140 Grosvenor House condominums
2a Scudder John C @ 295-8478
2b Sutter Zada A Mrs @ 297-0660
2c Walen S Mrs @
2d O'Callahan Irene @
2e Reiner Carol Mrs @ 291-6208
2f No Return
2g Dumas Dorothy L Mrs @ 295-7512
3a Schweiger Milton B @ 297-0092
3c Kaufman Roberta 295-5505
3d Reed
3e*Patch Wm B 291-9123
3f Drennen T @
3g Feliz Lou @
4a Connor Lawrence W @ 295-6835
4b*Salser N @
4c Fitzgerald Lewis @ 298-1963
4d Newland Bert 295-0768
4e*Carlisle J @
4f Soltys Virginia M @ 298-3762
4g Mc Clain Alice @ 295-3202
2D AV ENDS
206 Berger John A phys 295-2147
207 Stella Salvatore L phys 291-7730
211*Berger Leif 295-4536
225*Zweckbronner Lora

406
3D AV INTERSECTS
305 Schiefer Wm E dentist 291-1181
Lauer John C dentist 291-1181
306 Walnut Professional Building
306 SUITES
21 Slonim Mark S phys 297-9181
23 Eye Surgical Medical Group Of San Diego Inc 291-6191
23 Home Optical Co sup als 298-4200
23 Rozansky Norman M phys 291-6191
24 Balboa Internal Medicine Med Group (Business Ofc) 299-0335
25 Tyler Michl J dentist 298-2893
26 Brockett Pavel & Hendrix dentists 299-3320
29 Hanson Eug C dentist 298-2291
31 Vacant
32 Lueck Bernard W dentist 299-3560
33 San Diego Podiatry Group 291-0777
33 Green Richd M podiatrist 291-0777
33 Kroepel Larry R podiatrist 291-0777
34 Liegel Henry C dentist 297-6720
36 Plastic & Anesthetic Surgical Center 297-4433
36 Moore Lawrence T phys 297-4433
36 Vecchione Thos R phys 297-4433
38 Balboa Internal Medicine Med Group Inc 299-2350
38 Channick J Michl phys 299-2350
38 Roland Arnold S phys 299-2350
38 Steinberg Steven M phys 299-2350
38 Villalobos Richd phys 299-2350
39 Carlson Robt D dentist 299-3200
315 Armstrong Charles B dentist 297-2954
Watson John A dentist 297-2836

506
4TH AV INTERSECTS
418 Beckman Frances G Mrs
420 California Acupuncture Coll Clinic 296-2178
5TH AV INTERSECTS

108
WALNUT AV W —FROM 3500 1ST AV WEST

ZIP CODE 92103
101*Wood G 298-9123
103 Mc Guiney Margt M
105*Ryan M
109 Sandu Marian 297-6627
111 Orainne Andre
117a Cook Gregory J 295-7586
117b*King Jef
117c*Bregard R
119 Apartments
1 Vacant
2*Rosas Jorge 299-2785
3 Sanchez C
4*Shawkey J R
5*Brockman R W
6*Durbin L
7 Woodward Gloria L
8 Gebauer Oscar
9 Vacant
FRONT ST INTERSECTS

413
FRONT ST INTERSECTS
205 Larson E H 295-7689
207 Franklin
211*Madden A 298-5415
230 Apartments
A Franklin Roland
B*Gross H
C*Bailin M
D*Morton D
ALBATROSS ST INTERSECTS
315*Lundy C A 291-4018
321 Riley Timothy B @ 296-1556
W WALNUT ENDS
OTSEGO DR INTERSECTS
605 Zink Melda S Mrs @ 295-3222
Fleener Robt W 295-3222
615 Kundra Tom J 298-9462

11
HAWK ST INTERSECTS
1004*Snyder R W 296-7881
1012 No Return
1021*Keeler Mitchell
1025 Jones Mary K Mrs @ 296-3396
1041 Enright Patk J @ 296-1672
IBIS ST INTERSECTS
1141 Edwards John F @ 298-2769
JACKDAW ST INTERSECTS
KITE ST INTERSECTS
1300*Burt Richd A 299-6742
1302 Ocampo Ralph R 296-4339
1333 Schlappi Eliz R Mrs 295-1640

15
STATE ST INTERSECTS
LARK ST INTERSECTS
UNION ST INTERSECTS
1617 Moos K O 296-6995
1617½ Ferem Maureen P 298-0153
1621 Brown Clair W @ 298-7363
1623 Slavick Stanley Mrs 296-0249
1625a Claesson Carol A
1626b*Till Donald R 295-7965
1627*Hasson Leslie A 297-2401
1628 Coleman Richd R
1629 Eltz Dennis 291-3624
1631 Roome Fredk T 298-7673
FALCON ST INTERSECTS
COLUMBIA ST INTERSECTS
1703 Buckingham Thos
1703½*Young C 231-6609
1709 Davis Harry M @ 295-9114
1711*Pruett Richd K 296-0276
1717 Gregory Jon C 291-1593
1719*Hannah J Thos 692-2073
KETTNER BLVD INTERSECTS
ZIP CODE 92101
1949 Vacant

174
WALSH WAY —FROM 5300 DROVER DR EAST

ZIP CODE 92115
5105 Nepi Wm @ 582-5976
5112 Blumer Sara Mrs @ 583-5263
5115 Reynolds Robt C @ 583-6940
5127 Prebonick Joseph @
5138 Drexler Robt B @ 582-8919
5139 Welch Reuben R Rev @ 583-7205
5151 Grawunder R M @ 583-1244
5152 Silverman Irving @ 286-1226
5163 No Return
5164 De Vita Lewis & Son prod brokers 582-8645
De Vita Anthony J @ 582-8645
5173 Foster Geo H @ 583-2945
5174 Johnson Arvid T @ 583-3624
5183 Ellman Harry @
5184 Greenstein Herbert @ 286-1654

544
WALTER AV —FROM 6705 WINONA AV EAST

ZIP CODE 92120
4907 Peller Ruth S Mrs @ 287-3699
4908 Beyer Ronald D @ 286-1313
4919*Runyon A M Mrs 286-6225
4920 Gear Eli C @ 582-9019
4931 Buchy Paul Jr @ 583-0120
4932 Deneen Douglas 287-7839
4943*Rasmussen Marc 582-9515
4944 Johnson Kennard H @ 582-1410
4955*Ribner Lewis @ 287-2246
4956 Breese Paul M @ 583-0283
4967 Mars Russell W @ 583-8816
4968 Martin Frances Mrs @
4979 Constant George E @ 583-9694
4980*Carpenter Mark H 286-5480
5007 Heuton Ronald P 287-7117
5008 Hatfield Kenneth M @ 582-2485
5019 Suchar Valentina Mrs @ 582-8761
5020*Bell June
5031 Loftus James H @ 286-0636
5032 Morris Lester M @ 582-5297
5043 No Return
5044 Burek Jack @ 582-4959
5055 Nygaard Evelyn Mrs @ 583-1685
5056 Adams James J @ 287-1445
5067 Christianson Orland V @
5068 Wylie Carolota @ 582-8884
5079 Wetzel Paul E @ 286-1949
5080 Hobbs Butch 286-4776
51ST ST INTERSECTS

622
WALTON PL —FROM 4531 OHIO ST EAST

ZIP CODE 92116
3057 Agner John H @
3060 Asaro Giovanni
3061 No Return
3064*Delaney Dave
3069*Clock Dale R 283-5196
3070*Anderson Alonzo @ 284-0312
3072 Under Constn apts

249
WANDA CT —FROM 6000 DELOR CT NORTHWEST

ZIP CODE 92120
6050 Green K A @ 284-1261
6053 Klein Larry R @ 282-0350
6056 No Return
6062 Rogers Forrest E @ 284-4097
6070 Schindler Ernest
6076*Schindler Neil @ 283-5217
6082 Arnold James C @
6085 Behlman Ray D 283-5050
6088 Masters Robt C @ 284-7904
6095 Ortega James P @ 283-3329
6096*Roos Paul
TWAIN AV INTERSECTS

207
WANDERMERE CT —FROM 6600 BLK WANDERMERE DR SOUTH

ZIP CODE 92120
6660 Chartier Wilfred G @ 460-5239
6667 Cox Frank C @ 461-5481
6670 Conroy Christopher
6675 Merind Fred @ 465-6304
6685 Nachant Fritz A @ 465-8506

207
WANDERMERE DR —FROM 6400 PASATIEMPO AV NORTHEAST

ZIP CODE 92120
6404 Hobel Frank E @ 583-8318
6405*Matranga Ted
6431 No Return
6437 Vehar Mathew E @ 460-6004
6450 Vilott Harry D @ 583-7620
6453 No Return
6466 Adams Wm T @ 287-2495
6469 Joyal Eddie @ 698-1100
6482 Kimball James R @ 287-0125
6485 Boghaiti Anoush @ 697-0510
6510 Kawahara Francis K @ 286-1865
6513 Furuoka S F @
6522 No Return
6525 Ratts Frank A @
6534 Tisi Gennaro M @ 286-8164
6537 Vacant
6546 Lang J Eug @ 583-3167
6558 Ogilvie Joe G @ 287-9609
6572 Ellis Feliz A @ 583-2775
6580 No Return
6588 Mole Thos H @
BELLE HAVEN DR INTERSECTS
6614 Nagai Ryusho @ 287-5377
6631 Togut Jack @
6632 Smith Lawrence K @
6649 Knetzer David @ 697-0281
6663 Landefeld John D @ 460-9032
6671 James Skip Wall Covering-Unlimited Painting 693-0541
James G W @
6583 Choukair Elias @ 464-2155
6695 Arthur Neil @
MIRA VISTA LA INTERSECTS
6702 Henry Patrick High School 286-7700
6711 Avvampato Charles @
6735 Buckby Richd A @ 461-0286
PARK RIDGE BLVD INTERSECTS
BONNIE VIEW DR INTERSECTS

241
ZIP CODE 92119
6965 Strachan Douglas N @
6979 Abe Joe @ 462-9095
7005 Rothstein Eug L @ 465-3463
7021 Mitchell Steph C @ 465-3047
7030 Green Myron B Elem Sch 460-5755
7037 Holmes Joseph E @
7053 Hornbeck Frederick W @ 463-5916
7069 Gargett Robt E @ 462-2014
7085 Mills H Vance @ 463-3326
GREEN GABLES AV INTERSECTS
7121 No Return
SUNNY BRAE DR INTERSECTS
GOLFCREST DR INTERSECTS

91
WARBLER WAY (LA JOLLA)—FROM 1100 SKYLARK DR SOUTHWEST

ZIP CODE 92037
5550 Kennedy R Patk @ 459-2279
5551 Martin Fredk @ 459-3205
5560 Carpenter Stewart @ 459-6322
5561 Fiengo Louise M Mrs 454-3680
5570 No Return
5571 Miller Morey 454-1522
5580 Bonn John J @ 459-5441
5581 Sing P

160
WARD RD —FROM 4600 CHEROKEE AV EAST

ZIP CODE 92116
3716 Erwin Charles B @
3717*Bowling Jimmy R 284-7091
3720*Nichols Carole 281-5178
3728 Apartments
1 Mc Gregor M S 282-9418
2 Arsis Angelo J @ 283-5160
3 Turner Pauline 283-1199
4*Roe Natalie 281-3664
5 Menzies Bruce E 282-1601
3735*Erwin Wallace 280-8875
3737 Naley Sally J Mrs 280-6413
3739*Walker Ann 283-0461
3741*Crawford Danl 281-4412
3743*Collins Charles 283-1036
3744 Apartments
1 Kartsone G 283-0488
2*Grunwald K
3*Sorensen R
4*Amarias Lance R 281-4302
5*Fournier D 563-6683
6*Darpel Robt 280-0847
7*Tran Bac 281-3178
8*Park Soosa-Rang 280-4490
9 Barnes M
10*Ullom Helene
11*Fox Theresa
12*Mann Jeffrey 284-6117
14*Schuler Wm 281-6357
3745 Emmett Joe @ 282-8821
3751*Cruz Jose I
3752 Vacant
3752½ Vizcarra Yolanda Mrs 282-1436
3753*Filborn Timothy R 280-4594
3757 Pengelley Charles V 282-3986
3759 Zink Geo C 283-3033
1*Porter Ralph E 284-0481
2*Wilson R
3*Davis E
4*Salinas Salvatore
5*Prince Lewis A 284-6723
3768 Apartments
1 Dooley Sean M 280-9796
2 Alidowlatabadi A
3 Albright Susan
4 Norris
5 Brandow Sandra
6 Hoffman Josiah O III 563-9878
3773 Apartments
1 Vacant
2*Falk Jack
3*Banks Sherry D 282-4317
4*Hartog Darrin D 563-1540
5*Ritchie Gary G 280-3093
6*Barkley Christine D Mrs 584-8089
7*Baer Lauretta 280-9843
8 Rhodes Sharon Mrs
9*Hyatte
10 Johnson
11*Belcher Claude A 282-8212
12*Ryles David G 284-5655
13*Benson Bob 584-4615
14*Mayall Bill 280-1548
15 Bryant A
3778 Apartments
1 Medina Ismael 281-3507
2*Griffin Robt
3 Vacant
4*Ferguson Donna
5*Holwell Alice 284-1205
6*Stott Brian 584-7628
7*Markin T
8*Johniken Tany 283-1867
9*Moffett James
10*Lee Freida
11*Berger Paul O 584-9208
12*Cofey Ann
13 Vacant
14*Williams Roberta
15*Simon Yvonne 282-9284
16*Edwards Stacy 282-3099
3790*Stephens Telisa G 284-3108
3792*Tran Can 283-9431
3794 Blunt Sandy
3796*Mc Dermott Fred J 282-0625
38TH ST INTERSECTS
3816 Cobb Henry F @
3818 Vacant

301
WARE CT —FROM 7100 CARROLL RD EAST TO A DEAD END

ZIP CODE 92121
8925 Smith Engineering 566-6653
8926 T R W electronics mfg 693-6000
8949 Southwestern Cable TV 695-3110

182
WARING RD —FROM INTERSTATE 8 NORTH 1 MILE EAST OF FAIRMOUNT AV

ZIP CODE 92120
4525 Adobe Falls Chevron 287-8700
4545 Howard Johnson's Motor Lodge 286-7000
Howard Johnson's Restaurant 265-1785
HOLIDAY PL BEGINS
ADOBE FALLS RD BEGINS
4850 Martinez Lupe Mrs 287-7505
Martinez Antonia 583-9190
4950 Office Building
Suites
1a Vacant
2b Mid Continent Life Insurance Co 286-5027
3 Precision Optical 287-4436
6 Vacant
7 Vacant
8 O'Neil Financial financial planner 287-6551
9 Rowe Lee W lwyr 265-8215
9 Pare David F lwyr 265-8216
10 Barrett Bonding genl ins & bonds 229-0211
11 Lieh Allan G lwyr
12 O'Mea Robt G & Associates ins 287-6181
A*Little Charls 265-2306
B*Hall Patk M 287-6628
4962 Tennis Town Homes
A Vacant
B*Hewitt M
C*Grayson B
A No Return
B Vacant
C*Bauer L
C*May K
A Vacant
B*Mirowitz J M 287-9669
C*Gordon F
4968*Terrell Jeffrey D 287-3013
C*Jackson John J 582-9664
4978 Grime Norman 583-4504
4986 Stubbs Eleanor Mrs @
4994*Curran James 582-7465
5004 No Return
5005 Krocza Sharon M Mrs 265-0762
5008 No Return
5011*Fuchs Robt A 583-3325
5012 No Return
5017 Brahm Robt L @ 583-3291
5018*Binnell Rebecca @ 582-5226
5024 Petersen Marvin H 287-4971
5025 Schoenen Marjory K Mrs @ 583-8513
5030*Jones Keith 582-4285

LAND-ROVER
3211 India St.
McKane's Range Rover and Land-Rover Sales
of San Diego
AUTO ACCESSORIES AND PARTS • AUTO DEALERS
Range Rover
Tels. 298-7371 or 298-4434

TP	Adjoining	Source
✓	✓	R. L. Polk & Co.

KETTNER BLVD 1980

KETTNER BLVD—Contd
3334 Industrial Evolution custom furn mfg 296-6433
3336 Bodywerks Auto Body & Fender Co 296-6148
3340 A C Co genl eng contrs 291-7422
3348 A C Co (Annex)
THORN ST INTERSECTS
3420 Coggeshall A W Plumbing Fixtures & Supplies 295-2149
W UPAS ST INTERSECTS

15
3550 Park And Ride Co airport valet parking serv 295-6659
3554 General Electric Co sls & serv 297-2975
Hotpoint sls & serv 291-9047
3564 Lapidary Journal Inc book & magazine publs 297-4841
3574 Paragon Design Co eng graphic arts servs 291-7670
3590 Arts & Crafts Press coml printers 297-0261
3634 Apartments
1 Gainey Phil M 295-8548
2 Vacant
3★Montoya Joseph M
4 No Return
5 Vacant
6 No Return
7 Vacant
8 Vacant
9★Sepe Pete
10 Thomann Cliff R 299-6614
3648 Stewart John Studio graphic design 291-4729
CHALMERS ST INTERSECTS

107
ZIP CODE 92110
ANDREWS ST INTERSECTS
3779 L S W B Engineers (Elec & Mech Annex) 291-7990
3785★Halling Wm
3797 Lanning Margt L Mrs ◎ 296-2504
MC KEE ST INTERSECTS
3803 Oslar Walter R ◎ 296-1840
3809 Pires Joaquin M ◎ 296-4947
3821 Carroll Charles W ◎ 296-3000
3826 Komos Henry J ◎
3830 Robird Margt M Mrs 296-1366
3831★Brodniak Gloria 692-1756
3831½★Lewis Richd
3832 Antos Dorothy L 299-5618
3833 Traylor Josephine L Mrs ◎ 291-0953
3838 Goodman Charles R
3839 Flores Juan
3841★Schultz Solveig 291-7639
3843 Molina Victor P 295-1340
3844★Bangert Cath 692-1264
3845 Gers Ivy 296-9680
3846★Morgan S 574-0055
3847 Viorato Jose J ◎
3848★Glover M 299-7995
PRINGLE ST INTERSECTS
3857 Vacant
3859 Rogers Dave 296-3765
3865 Brandt K 295-7690

96
KEW TER —FROM 3400 NUTMEG ST SOUTH

ZIP CODE 92104
2603 Smith Manuel R ◎ 284-6554
2604 Gonzalez Robt 283-0402
2609 Chadwell Charlene Mrs ◎
2610★Stewart Michl E
2615 Gillingham Michl D ◎ 282-5588
2618 Burke Wm L ◎ 284-2783
2623 Vitacco Robt A ◎
2624★Pasquilli Paul ◎ 283-5343

574
KEYSTONE CT —FROM 11175 GANESTA RD EAST

ZIP CODE 92126
8560★Garland Frank D 566-5736
8561 Javiel Orlando O ◎ 578-4329
8567 Lindholm Kevin 578-6478
8568 Gonzo Larry R 578-3049
8575 Mc Kune Wm A ◎ 578-1014
8578 Vacant
8581 Flores Rafael R ◎ 578-1275
8589 Simpson Danl ◎ 578-2088
8595 Pacheco Juan A ◎ 271-4103
8599 Langhammer Mary Mrs ◎ 566-7590
8608 Curry Patk J 566-2312
8609★Steffey Zack
8619 Boon Lars O 566-5845
8628 Christensen Gene ◎ 578-1867
8629★Nascimento Brian ◎ 578-0173
8638 Ulrich Robt 578-0687
8639 Zylius Dennis ◎ 578-4467
8648 Mosteller Michl ◎
8649 Herbert Julia ◎ 566-2696
8658 Kilcline Georgene B Mrs ◎ 566-0728
8659 Dietz Randy ◎ 566-9527
8668 Garland Steve C ◎ 578-7681
8669 Houchen Harry ◎ 271-5744
8679 Schooling Michl A ◎ 566-3174
8688 Mansfield L E ◎ 566-4207
8689★Stadler Steven D ◎ 578-6168

173
KICKAPOO CT —FROM 3500 HATTERAS AV NORTH

ZIP CODE 92117
4506 Jones Ernest D 274-1671
4516★Putman A E ◎
4526 Duffee Leonard E 270-2550
4527 Clarr Harry K ◎ 273-6264
4536 O'Neal Norma V ◎ 272-8636
4537 Frank T W 270-0687
4546 Vacant

299
KILBOURNE DR (LA JOLLA)—FROM 8566 SUGARMAN DR NORTH

ZIP CODE 92037
8601 Lazerow Herbert I ◎ 453-2388
8602 Welp Otto G 453-9464
8611 Gershuni David H ◎ 453-6933
8620 Brown Charles R ◎ 453-4965
8621 Kalla Joseph M Jr ◎ 453-0250
8631 Kohn Lois M Mrs ◎
8641★Wolfe Elaine W Mrs ◎ 453-8668
8650 No Return
8651★Aguilar Guellermo
8660 Galloway Robt L ◎ 453-5619
8661 Orloff Marshall J ◎ 453-2709

187
KILKEE ST —FROM 5100 CONRAD AV NORTH

ZIP CODE 92117
5001 Duncan Danny 279-7039
5002 Sirratt Dale E ◎
5009 Alvarado Eziquiel ◎
5010 Tran Vinh ◎ 292-4996
5017 Wells James R S ◎ 277-3389
5018 Brown Lepidia Mrs ◎
5025 Bailey Howard R ◎
5026 Russell Ray W
5033 Heath Thos C ◎ 277-1082
5034 Woodall Sharon 279-7922
5041 Rice Ray H 565-7428
5042 Steele Lola M Mrs ◎ 565-1819
5049 No Return
5050★Reed Wm ◎ 279-5862
5057 Tran Khuong ◎ 292-8684
5058 Lutz Robt J ◎ 292-4305
5065 Vacant
5066 Hauta Theo H 278-4820
5073★Degerhardt Wm 277-3408
5074 Rose Roland L ◎ 277-3254
5081 Pouèu Rogo
5082 Gee Wm E 278-3010
5088 Bernard Dewey M ◎ 279-0427
5089★Dugal Carson B 279-2714
5096 Pampel Mary Mrs ◎

659
KILT CT —FROM 4240 KIRKCALDY DR EAST IN A CIR

ZIP CODE 92111
7613★Nichols Patricia M Mrs 279-4225
7614 Eggert Geo F Jr ◎ 565-4242
7623 Rico Edw 279-9546
7624 Crowe Hubert L ◎ 278-1070
7634★Alotona Hans

605
KIM PL —FROM 9500 BLK RONDA AV NORTH

ZIP CODE 92123
2602 Crown Gertrude C Mrs ◎ 277-2127
2603 Lecompt Tim E ◎
2614 Cowart Walter E ◎ 560-7832
2615 Kellum Maurice L 279-3536
Conkle Geo D
2626 Witt Kenneth W ◎
2627 Pingry Gerald D ◎ 565-0886
2639 Swanson Richd ◎ 279-6921

99
KING ARTHUR CT (LA JOLLA) FROM 8700 LA JOLLA SCENIC DR WEST

ZIP CODE 92037
2307 Metro Oil Products Inc oil gas products 459-8075
Ricci Henry 459-8075
2308 Sullivan Jas O
2321 Hoffman John J ◎ 454-7324
2335 No Return
2336 Redmond Bruce N 459-9321
2349 No Return
2363 Heidemann Raymond L ◎ 454-7923
2366 Miner Robt W ◎ 459-6907
2377 Breihan Donald W 459-6266
2390 Pulaski Edw J 459-1967
2391 Schorn Victor G

191
KINGS WAY —FROM 4850 DIANE AV NORTH

ZIP CODE 92117
4805 Vacant
4812 Frater Wayne K ◎ 277-5667
4815 No Return
4822 Klotzsche Erich A ◎ 279-0033
4825 Rostock T
4832 Harvey Edwin D ◎ 565-4166
4835 Harris Ellard W ◎ 277-8742
4842 Aguayo Alf J ◎ 277-5430
4852 Van Berlo Theo M ◎ 278-4035
4855 Atanasoff Steve ◎
4862 Powell Wm J ◎ 277-0792
4872★Chester Andrew C 279-6238

201
KINGSLAND RD —FROM 2300 GREENWING DR EAST

ZIP CODE 92123
8407 Tolan Lee J ◎ 565-2536
8415 Dubreuil Roland ◎ 279-6261
8423 No Return
8426 Shilts Everett ◎ 565-6590
8431 Blase Colleen I Mrs ◎ 279-1668
8436 Chuckta Saml C ◎ 277-7802
8439 Cropsey Anne K Mrs ◎ 277-1106
8446 Peleti Tui S ◎ 279-4645
8447 Ritz John H ◎ 278-5368
8455 Vacant
8458 Doedderlein Robt J 278-9397
8470 Patch Robt C ◎
8471★Hultquist Allen C ◎ 278-9798

33
KINGSLEY ST —FROM 290 ROSECRANS ST NORTHWEST

ZIP CODE 92106
3003 No Return
3021 Richardson Joseph L ◎ 222-2436
3022 Vacant
3029 Dawes S A ◎ 223-5811
3030 Mc Cutcheon Elsie P Mrs ◎ 222-7786
3035 Warren Williston L ◎ 223-8672
3036 Luther Dick
LOCUST ST INTERSECTS
3104 Ruth Philip N ◎ 222-8703
3105 Brown Earle V ◎
3111 Crossman Kathryn M Mrs ◎ 223-8576
3114 Waterbury John A ◎
3121 Zanetti Ada J Mrs ◎ 223-0938
3122 Kennedy Martha A ◎ 223-8678
3130 Hofman Joseph H ◎ 222-4188
3131 Bartel Richd F ◎ 223-3734
3136 Schick Charles H ◎ 223-0042
3141 Gillespie James P ◎ 224-5492
EVERGREEN ST INTERSECTS
3212 Mc Keown Virginia C Mrs ◎
3226 Heissel Cath A ◎ 224-5597
CHATSWORTH BLVD INTERSECTS

31
CHATSWORTH BLVD INTERSECTS
3601 Gonsalves Joseph ◎
3602 Jason Robt L ◎ 224-2356
3606 De Lira Ruben ◎ 223-6390
3607 Correia Manuel ◎ 223-3087
3610 White Robt C ◎ 223-1795
3611★Frisbie Lois E Mrs ◎ 222-9826
3614 Breit Virgil C ◎ 223-0451
3615 Hamlin Danl A ◎ 222-1636
3618 Carvalho Ralph J ◎ 223-6375
3621★Rodriquez Cosantino
3622 Goncalves Manuel C ◎ 222-6026
3625 Ball T F ◎ 222-1320
3626 Landram Jean E ◎ 223-1552
3629★Kessler David 226-8760
3630 Burman C Phillip ◎ 223-6301
3633 Izzarelli Ruth C Mrs ◎ 224-5006
3636 Saleebey Henry S ◎ 223-3935
3637 Nadeau Maurice T ◎ 224-1534
3641 Lampert Geo E ◎ 224-9119
3642★Pippin Robt L 225-8917
3647 Elkins Eric 223-1355
3648 No Return
3653 Harroun Douglas B 223-3968
3654★Redman Kim J
3659 Thompson Paul J ◎ 223-1321
3660 Beales Renea J
3702 Palmer John T ◎ 224-4998
3708 Bruni Amadeo G ◎ 224-1330
3711 Boyle John D ◎ 222-9030
3714 Nichols Jacob A ◎ 223-8422
3719 Myernick Bob 224-7455
3720 Tucker Helen M ◎ 224-1309
3725 Johnson Douglas C ◎ 224-3841
3726 Moniz Joseph A ◎ 222-2936
3730★Burr Ralph G 224-7425
3731 Trechuelo Alice Mrs 222-5975
3737★Totzke R 224-9856
3738 Boss Geo T ◎ 224-4598
3743 Wright James 223-3442
3744 Vacant
3748 Gray Scott C
3749 Hall Ralph E ◎ 224-2557
3755★Landon Peter E 224-7669
3756★Moses Elliott S Jr 224-1192
3760 Brannen James L 223-8229
3761 Thompson Robt D ◎ 223-0018
POINSETTIA DR INTERSECTS

377
KINGSTON CT —FROM 3371 OCEAN FRONT WALK EAST

ZIP CODE 92108
714 Moody Betty A ◎ 488-2372
717 Scott Sid W 488-6944
717½ Vacant
718 Weisz Judy 488-5032
719★Crossman Greg P 488-8174
721 Rock Harold ◎ 488-6143
722 Vacant
725a Mackenzie Judy
725b Souza Donald 488-8171
725c★Johnson John K 488-4708
726 Heberlein Edmund F ◎ 488-4505
MISSION BLVD INTERSECTS
801 Vacant
803 Russell Robt 488-7918
805 Vacant (805-809)
810★Evans Jan M
811 Mc Carthy Brian ◎ 488-6575
812 Mc Knight M 488-3833
814 No Return
815 Granger David J pntg contr 488-4715
816★Jackson Wade 488-2350
818 Balaski Beverly S 488-8408
BAYSIDE LANE INTERSECTS
821 No Return
823 Johnson David A 488-8642
824 Karnes Kendal C ◎ 488-7706
825 Mc Leod Gilbert ◎ 488-2752
BAYSIDE LA INTERSECTS

237
KINGSWOOD ST —FROM 327 SUNSWEPT ST WEST

ZIP CODE 92114
306 Salas Ignacio A ◎ 479-4972
307 Kelly James ◎
316★Schirm John A ◎
321 Johnson Donald C ◎ 479-2286
326 Jamindang Frances Mrs
334 Mitchem Hampton ◎ 479-2389
337 Osburn David E ◎ 479-2883
344 Blas Manuel C ◎ 479-2613
353 Jorgenson Joshua E ◎
354 Abano Alfredo Jr ◎
364 Bute Rodney K 479-9933
365 No Return
374 Harder Aaron J ◎ 479-2340
377★Walsh Tim 479-7152
384 Mac Mahan David H 267-1315
BROOKHAVEN RD INTERSECTS
416 Rubalcaba Joseph R ◎ 479-4678
BIG OAK ST BEGINS
426 Tesoro Jesus ◎
436 Gilmore Charles L ◎
446 Contreras Joseph W ◎
456 Heath Geo ◎ 479-8366
GATEWOOD ST BEGINS
466 Webb Nobuko Mrs ◎ 475-0752
476 Gordon W James ◎
486 Smith Leon C ◎
FARMDALE ST BEGINS
504 Arizpe Edgar ◎ 479-3051

275
KIRBY CT —FROM A DEAD END WEST OF 11345 POLARIS DR EAST

ZIP CODE 92126
9020 Mullins Paul 271-0337
9023 Bretz G N ◎ 566-3214
9026 Elkins John T ◎ 566-9258
9031 Smith Jacob L ◎ 271-7981
9034 Gilbert Arnold J ◎ 566-5109
9039 Bartley John S ◎
9040 Cary John D ◎ 566-3135
9047 Lugay Mario G ◎
9048 Fitzgerald Ron L
9054★Taylor Delmain 578-4094
9055 Vacant
9062 Miller Thornton S ◎ 566-7852

DAN-LEN CONSTRUCTION, INC.

CALICO ST—Contd
7865 Finkle Paul A 271-5259
7875★Moneda Francisco 271-0795
7885 Duncan David A ◎ 566-9317
7895★Stuckhardt Michl H ◎ 578-3027
7905 Chase Corey W ◎ 271-1726
7908 Browne James M ◎ 566-3606
7911★Gonzalez Salvador
7914★Vogel L Robt 578-5650
7917 Elcesser Michl ◎
7920 Bertelson Thos W ◎ 578-0834
7923 Campbell D D 271-9067
7926 Vacant
7929 Paik Woo H ◎ 566-0638
7932 No Return
7935★Nelson Peter R 566-8549
7938 Soper Danl M 566-9704
7941 Vacant
7944★Schjolberg Steven 566-1762
7947 Allred Miles J ◎
7950 Legerretta Sebastian
7955★Lochmann Richd 271-9155
7960★Horner J W 566-5318
7963 Macho Geo S Rev ◎ 271-0088
7970★Lin C C 271-0113
7971 Reimnitz Stewart N Rev ◎ 271-7088
7979★Wilson Chas 578-9345
7980★Bucolo Dennis ◎
7987 Mumma Olen D ◎ 578-1878
7995 Terry Barbi
MANILA AV BEGINS
8003 Stocks Ed M ◎ 566-8197
8011★Maybee Thos M ◎ 271-9184
AMANTHA AV INTERSECTS
8019★Smith Jack E ◎ 578-4790
8020 Balzano Gerald J 271-5064
8029 Smith Oscar F ◎ 271-4005
8030 Erickson
8039 Vacant
8040 Anderson Mary
8049 No Return
8050 Parnell Bill ◎
8059 Aquino Miguel P ◎ 271-5012
8060 No Return
8069 Grieshaber Gene A ◎
8070★Malcangio Dominic 271-8628
8079 Vacant
8080 Jenkins Edwin ◎ 271-0751
8089 Zambito Gary F 578-4979
8090★Mac Innis Stewart M 271-0647
8106 Vacant
8107★Shaunessy Dan 578-7031
8112 Winter Gerard H ◎ 566-1185
8113 No Return
8118 Ellis James H 578-0069
8119 Isagurre Rodolph R ◎
8124 Callister Craig D ◎ 271-0477
8125 No Return
8130 Neber Phillip D ◎ 578-5508
8131 Vacant
8136 Barrett Marene Mrs ◎
8137★Wallace Wade ◎
CALICO CIR BEGINS
8142★Mc Henry Doug ◎
8148★West Carol ◎ 578-6068
8149 Biddick C J ◎ 566-6847
8154★Richey C R 578-4043
8155 Vacant
8160★Faranan M 566-4969
8161★Jackson T E 566-2641
8166 Kujawa Edward Jr ◎ 578-3385
8167 Hespel Laurence W ◎
REAGAN RD INTERSECTS

568
CALIFA CT —FROM 8180 ROYAL GORGE DR NORTH

ZIP CODE 92120
8135 Zwiers Thos H ◎ 286-3937
8136 Linker F E ◎
8148 Rossin Ted F ◎ 286-2352
8149 Samoles Ralph W ◎ 287-4236
8160 Gillpatrick Ronald W ◎
8161 Lockhead Robt S ◎
8175 Denino Darrell 287-1517
8176 Tidd Raymond W ◎ 287-6018
8189 Taylor Jimmie W ◎ 287-4967
8190 Lake Donald F ◎ 287-1663

903
CALIFORNIA ST —FROM 880 W MARKET ST NORTH

ZIP CODE 92101

902
BROADWAY ST INTERSECTS

901
BEECH INTERSECTS
1501 C & R Transfer Co (Whse)
1560 San Diego Smart Shopper Newspaper adv newspaper publrs 239-9444
Skid-Lid Manufacturing Co bicycle helmet mfrgs 234-4244
CEDAR INTERSECTS
1612★Martinez Alfred A 239-3224
1620 A A B C O Inc (Whse)

1
DATE ST INTERSECTS
1824 Transport Luggage Corp airport luggage carriers 233-5485
1832 Gallegos Rosa 232-7051
1842 Asaro Vincent 233-7000
1930★Tellez Ricardo
1932 Tellez Ramon
1940 Wood Bonnie G Mrs 234-2526
GRAPE ST INTERSECTS
HAWTHORN ST INTERSECTS

5
IVY ST INTERSECTS
JUNIPER ST INTERSECTS
LAUREL ST INTERSECTS
2554 Airborne Freight air frt forwarders 233-5475
2610 Americar car rental 291-9555
V I P Limousine Service limousine rental 299-7000
NUTMEG ST INTERSECTS
2801 Murphy Maurice C ◎ 295-3866

9
PALM ST INTERSECTS
2929 No Return
2941 Solorzano Robt M ◎ 295-1978
W QUINCE ST INTERSECTS
3005 Whitehurst Ronald
3015 Boucher Terry E 291-7608
REDWOOD ST INTERSECTS
VINE ST INTERSECTS
3553 V W R Scientific Graphics Inc 297-4851
3596 Baron-Blakeslee Co chem mfg 295-0041
Charcoal Distributors 295-0041

15
WALNUT AV INTERSECTS
3630 Raggio John & His Unique Expressions sculpture 297-1470
3636 Vacant
Recycled Treasures auto repr 293-7622
3650 Vacant
BEAN ST ENDS
CHALMERS ST INTERSECTS

21
ZIP CODE 92110
WASHINGTON ST INTERSECTS
SUTHERLAND ST ENDS
3911 Vacant
3919★La Riviere Reese 299-5045
3922 No Return
3926 Viery Emily D Mrs ◎ 298-5977
3926½★Viery G Joseph 692-9415
3929★Clark Richd 291-4899
3930 No Return
3931★Rainey Jim 298-3077
3935 Anselm Edwin B ◎ 296-3289
3938 Vacant
3942 Madick Carl real est slsmn 298-6986
3951 Vacant
3965★Parme Robt ◎ 297-8126
HENRY ST INTERSECTS

21
CALIFORNIA ST W —FROM HENRY ST WEST CONTINUATION OF CALIFORNIA ST

ZIP CODE 92110
1907 Huffman Robt E ◎ 295-1356
1917★Feys Robt E ◎ 296-3024
1925 Melody John D ◎ 298-5377
1931 Hilgeman Roy A ◎ 295-7956
1948 Crawford Rayburn E ◎ 291-4686
1955 Navarra S Mrs ◎ 298-1956
1958 Giacalone Joseph ◎ 296-6429
2005 No Return
2010 Vacant
2011 Kenny A B 298-3270
2017 Shough & Sons Construction genl contr 295-6732
Shough Geo J ◎ 295-6732
2025 Patterson Harold L ◎ 298-5670
2026 Anthony Geo K ◎ 297-2187
2031 Sepanik Lillian Mrs ◎ 295-7267
2037★Coons James C ◎ 295-6456
2044 Vacant
2045 Shaw Howard I Jr ◎ 295-4445
2049 Gallagher Kenneth M 299-1618
2050 Garapich Gerald ◎
2051 Steward L Alex ◎ 295-2060
2061 Paralegal Services Inc paralegal placement agency 235-8255
Quimette Herbert D 297-2169
2063★Bourquin R W 692-3974
2067 Taylor Harold 295-5707
2069 Gross Saml
2070★Tracey Herman 299-2340
2074 Vacant
2075 Taylor Steph E 295-7066
2077 Danskin Margt ◎ 295-5707
2085★Hobbs Maye C Mrs ◎
2086 Avalos Gary
2095 No Return
2097 Lepper Orville O ◎ 296-1106
2098★Chavez Geo
BANDINI ST INTERSECTS
2105 Merritt Muriel L Mrs ◎ 295-2649
2105½ Dier H A 298-7395
2110 D'Amato Tony 299-5291
2111 Evans L P 295-9347
2121 Baird Kathryn C Mrs ◎ 295-9192
2127★Sharp Donald J 295-1911
2137 Collier Earl M ◎ 295-9148
2143 Jarvis Richd H ◎ 295-3581
2146 Chowning Stata T Mrs ◎
2149 Nussey Herbert V 297-2138
2149½ Pettis Burgess
2151 Shoven Arth B ◎ 295-7902
2152 Collier Harold M ◎ 296-1273
2161 Sherman Clarence H ◎ 296-3539
2164 Busalacchi Mario J ◎ 298-6457
2171★Anderson Robt M Jr 295-7231
2174 Monsees Ralph G ◎ 298-2976
2175a Allaire David G ◎ 298-9683
2175b Kolar Jane 291-7448
2186a No Return
2186 No Return
2191 Haggin Douglas E ◎ 291-4338

101
CALLAN RD (LA JOLLA)—FROM 11100 N TORREY PINES RD EAST

ZIP CODE 92037

233
CALLE ABAJO —FROM VALLEY RD NORTH 1 WEST OF END OF REO DR

ZIP CODE 92139
3001 Twin Hills Youth Park 479-9711
3129 Bonita Paradise mobile home club 475-1800
SPACES
55 Schultz Arnold 475-1800
101★Avis Edwin M
102 Kessler Robt C 479-4278
103 Maxey John M 475-4098
104 Osborne Ita H 475-4876
105 Connor Judy
106 Hayes Barney 475-8585
107 Lech Margt 475-3271
108★Mason Myron E 479-0303
110★Fouch Clara 475-4811
111★Pfeifer Thos E 267-0595
112 Rann Richd E 479-8880
114 Jacoby Michl M 479-6550
115★Crankshaw Jesse L
116★Squibb Dwight ◎
117 Williams Robt
118 Nielson Eunice Mrs ◎
120 Hall M K ◎ 475-5366
121 Rudolph Danl W ◎ 479-2450
122★Ames V J 475-8198
123 Rudolf
124★Mayas Ovella D Mrs ◎ 479-6987
125 Price Edwina Mrs ◎ 475-6620
126★Moles Ethel D Mrs 479-8205
127 Boris Frank J ◎ 475-4497
128★Jacoby Milton ◎
129 Murray Wm L 475-8039
130 Cook D A ◎ 479-2735
131 Mancini Emilio G ◎ 479-6960
132 Abel R K ◎ 479-1094
133 Parker Ira W ◎ 475-4159
134 Guenther Alf J 475-6146
135 Funcheon Louis R ◎ 475-4738
136 Wolfe Jack B ◎ 475-4836
137 Scobell John J ◎ 475-1572
138 Barber Wm A ◎ 479-7426
139 Kollada Geo ◎ 479-9949
140 Franklin Fredk D ◎ 479-5285
141 Ketchpaw Sylvia R ◎ 479-1536
142 No Return
143★Bouck M W 267-3999
144 Costanzo Marian Mrs ◎ 479-6316
145 Vacant
146★Reynolds Miyoko ◎ 475-0898
147★Wood Austin ◎ 475-2700
148 Morin Mattie L Mrs ◎ 475-3640
149 Willardson Vincent ◎ 475-7220
151★Favor David ◎
152 King Edw W ◎ 475-3278
153★Snyder Les ◎
154 Brunson Garth R ◎ 475-3280
156★Sears M A ◎
157 Price Eug A ◎ 479-3804
158 Grant Clarence G ◎ 479-2887
159 Farell Edith Mrs ◎
160★Adams Ed ◎
162★Dominquez Ricardo 479-1301
163 Roffe Robt L ◎ 475-6686
164 Richards Leona ◎ 475-7426
166 Mendez Connie ◎
167 Garcia Raymond ◎ 475-0440
168 Vacant
170 Vacant
171 Lee Donald T 475-3492
172★Little Paul ◎
173★Peake Chris ◎
174 Carkonen Victor J ◎ 479-2888
175 Scott Charles W ◎ 479-2483
176 Guthrie Toni K ◎ 475-2786
177 Jensen Carl ◎ 475-0314
178 Backman Stig ◎ 475-3451
179 Huck Dorothea E Mrs 479-6280
180 Kennedy Mary C Mrs 475-3259
181 Cramer Lester J 475-3394
182★Williams Paul
183 Sherman Milford 479-0509

236
CALLE AGUADULCE —FROM 6100 CUMBERLAND ST SOUTH

ZIP CODE 92114
2411 Rice Julia J Mrs ◎ 479-3743
2412 Diaz Rick L 475-0144
2420 Hyatt Charles E ◎ 479-3853
2426 Kraft Herbert H ◎ 479-5267
2434 Russell Patk J ◎ 479-5195
2440 Collen Howard D ◎
CALLE TOCON BEGINS
2441 Mendoz Delfino ◎
2446★Hices Steve
2451★Sablan Jos P ◎ 479-6341
2452 Colvin Charles F ◎ 479-2905
2457 Martin Ben ◎ 479-1269
2458 Davis Charles R ◎ 479-2041
2463 Brewer Vernon M ◎
2466 Nitzel Donald L ◎ 475-3845
2469 Cole Walter R Jr ◎ 479-2801
2472 Cole Harold W
2478 Sala Peter C ◎ 479-5832
2484 Silva Geo P ◎
2490 Mills Kenneth ◎ 479-3304
2491 Gruber Hubert V ◎ 479-5636
2504 Doughty Ellen V Mrs ◎ 479-2999
Sparks Jean E Mrs 479-2736
2505 Gregor Lois L Mrs ◎ 479-4999
2514 Munger Arth V ◎ 479-5996
2524 Sherman C A ◎ 479-3950
2529 Dolmage Vern L ◎ 479-1663
2534 Baker Kenneth
2535 Ater Steven ◎ 479-3796
2544 Eskridge Arth W ◎
2545 Shirk Sherwood ◎ 479-5246
2553 Guier Dorothy Mrs ◎
2554 Moreno Francisco ◎ 479-6774
2563 Gist Bertha Mrs ◎ 479-2071
2573 Tallman Ronald W ◎ 479-8533

449
CALLE ALTA (LA JOLLA)—FROM CALLE VAQUERO SOUTH 1 EAST OF CALLE CAMILLE

ZIP CODE 92037
1517 Weiss Leon D ◎ 272-8466
1527 Lopez Leonard F 272-1276
1537 No Return
1547 Wright Charles A ◎
1557 Applestein Jeffrey M ◎ 272-3143
1567 Vacant
1577 Azuelos Joseph 272-9103
1587 Scarpella Frank K
1597 Farrell Eugene H 270-1942
1617 Maitland Richd D ◎ 273-5452
1637★Brawley Robt W 272-5672
1657 Tisch Donald C ◎ 272-5054
1677 Du Plessis Louis A ◎
1697 Potter Ronald B ◎

149
CALLE ALTURA (LA JOLLA)—FROM 5500 BLK RUTGERS RD SOUTHEAST

ZIP CODE 92037
1413 Cantafio Ralph
1421 No Return
1429 No Return
1434 Mathews Wesley H ◎
1439 Rokoff Michl 459-4854
1442 Post John S ◎ 454-7094
1447 Zuckerman Geri F Mrs ◎ 459-5966
1450 Malloy John M ◎ 454-8379
1455 Domnick Hans W F ◎
1458 Dahlem Karl ◎ 459-5362
1461 Abell Robt F ◎

233
CALLE ARRIBA —FROM 2650 MORNINGSIDE DR EAST

ZIP CODE 92139

WESTERN RADIO ELECTRONICS

COLUMBIA ST 1980

COLUMBIA ST—Contd
2629½ Lanflisi Robt A 298-0278
2639★Kennedy Chas F ◎
2643 Babka Isali 293-7464
2653 Mc Cune Mark T
2655 Vacant
2657 Hextell Orville G 297-1417
2669 Zimmerman Rudolph F ◎ 297-2752
NUTMEG ST INTERSECTS
2703 Fuller Leonila A Mrs 298-4879
2705 Conaway John D ◎ 298-2467
2710 Theaker Marga Mrs ◎ 299-4058
2715 Stanley Ethel J Mrs ◎ 295-5018
2727 Vacant
2729 Norton John ◎
2732 Irving Michl T 298-5235
2737 Zizzo Salvatore A Jr 297-1370
2739★Tubach Gary 692-0165
2741 Zizzo Maria Mrs ◎ 295-1096
2744 Middlebrook R Philip ◎ 295-5084
2753★Huard B 295-6982
Rear Lewis R G
2758 Cass Phillip D 291-5099
2773 Kidder Harlan D ◎ 297-1360
OLIVE ST INTERSECTS
2801 No Return
2803 Acheson Fred 299-6390
2805 Friel J
2807 Straube V
2811 Rains M
2816 Tuohy Tim
2818 Wasion Larry R
2825 Bonham H L
2827 Hervig Edwin L 298-9116
2830 Music Teachers Assn Of California professional orgn 296-4467
Fenwick E Bernice Mrs ◎ 296-4467
2831 Vacant
2833★Winegarner R
2835★Brown Kent 692-3216
2837 Anderson Lyle J 295-7515
2840 Banda Maria Mrs ◎ 295-1285
2849 David Victor R ◎ 295-2642
2851 Zambrano Jose 297-3971
2859a Colla Lilla Mrs ◎ 295-6311
2859b Colla Salvatore S 295-9075
2864 Morrison Ethel T Mrs ◎ 295-7046
2869 Pickens Margt L Mrs ◎ 296-4225

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PALM ST INTERSECTS
2901 Bay State Apartments
★Tarantino Isadore J
2903 Wells Robt 298-0499
2905★Enos Stephen
2907★Crawford Gary L
2909★Gotsis Tina
2911★Smith Brian 692-0708
2913 Pereira Frank 295-1124
2915★Zeballos-Peralta Roberto O
2917 Echlin Henry M 297-2061
2919 Lawrence J C 298-2056
2919a★Bollmann Klaus
2921★Molina Hector
2930 Huffman Ira A ◎ 299-3668
2940 Littlepage Russell S ◎ 295-2550
2950 Garcia D 297-6078
2952 Peabody Rosemary 291-1286
2954 Thomas Harry S ◎
2955a Vacant
2955b Vacant
2964 Norris Pearl Mrs ◎ 295-3726
2965 Edgar Richd T
W QUINCE ST INTERSECTS
3002 No Return
3005★Stuart Nancy J
3007 Washburn
3009 Morin Mary J
3011 Kanady Ellen
3013 Hansen
3015 Langston Betty A
3017 Lennon Amime E 298-7606
3018 Apartments
A Girard Barbara J 298-8918
B Johnson Diane 295-2369
C★Lux Patricia
3019 Schneider Geo R
3021 Solheid Cheryl A
3023 Stuart Virginia L 298-0212
3025 Bane Donald
3027 Sykes Jeffery L
3028 No Return
3029 Rill Linda L Mrs 291-5758
3030 Schiller Brian M
3031★Burns Peter J 296-9727
3032 Murphy Thos C
3033 Buss Wayne 291-1453
3034 Ransaw Reginald 291-1066
3035 Mc Cormick Ross A 296-6073
3037 Bell
3038 Bassham Bruce
3040 Bassham Mary L Mrs
3045 Mellusi James E ◎ 295-7571
3054 Dalfio Pauline Mrs
3062 Singleton Louis J 291-9753
3064 Watling Christine L
3066 Cameron Georgia R Mrs 298-9494
3068★Twombley Jay 297-5694
REDWOOD ST INTERSECTS
3217 Apartments
1 Powell David R 295-5469
2 O'Neil Maria E Mrs
3 Schreiber Alexander
4 Donovan Marilyn
5★Chamberlain Martha L 298-8947
6 Maroun Marvin A 299-4993
7 O Connor James D 296-9827
8 Vacant
9 Frontino Ruth M
10★Henig Payche G 692-1025
11 Ulsund Michl C 291-3217
12 Swanson C A 298-3309
13 Niederman Jerome 298-6438
14★Scott Michl 291-9564
15★Collister Lori
3225 Cheek Regnald C ◎ 295-5335
3225a★Cortes Juan
3225b★Rodriguez Joe
3229★Smith V L
3242 Cheek Lida C Mrs ◎ 291-9704
3243 Smith
3245 Hoel Larson L
3250 Apartments
1★Razler Valentine J 297-8149
2 Stadge Robt E 296-1184
3★Faulkner D
4 Hutcherson Wm E 291-6829
3260 Apartments
1 Best Russell S 298-4437
2 Mora Juan M 298-4576
3 Simonelli Alfred D 295-6180
4★Johnston Tom 291-4703
SASSAFRAS ST INTERSECTS
3310 Hobar Lucille R
3319 Triplett J K 298-8775
3320 Adams Charles C ◎ 295-6806
3321 Stowers Robt H ◎ 299-3848
3330 Miller Cath C Mrs ◎ 295-7690
3331 Hall Artelia R Mrs ◎ 297-3041
3333 No Return
3343 Harper Terry D 296-4169
3344 Stephens Frances A Mrs ◎ 296-3404
3345★Engebretson Pamela J 297-8978
3347 Armstrong Jack 297-8978
3354★Cyr Geo
3355 D'Alessio Henry 296-0779
3356★King Brooks
3357 De Hart Helen E Mrs 298-4495
3364 Van Buren Dale L 295-4900
3366 Mauck Wm P Jr ◎ 296-0280
3368 Bruno Vincenzo ◎ 295-8294
3372 Carson Anthony L 298-0917
THORN ST INTERSECTS
3425 Ulak Edw
3427 Frieden Dennis 298-5505
3429 Macomber Frank 298-0459
3431 Vidonne Charles 298-4126
3434 Under Constn
3445 Essert Geo F ◎
3455 Crivello Vincent ◎ 295-4848
3465★Young Robt D ◎
3467 Vacant
UPAS ST INTERSECTS
3504 Leggitt Donald R pntr contr ◎
3505 Kalvitz Cindy M
3506 Murick G
3509 Vacant
3510 Edwards Gladys M Mrs ◎
3510½★Fredericks Adreanna L
3512 Hoag Faith A Mrs 295-5433
3512½ Kirtwright Oscar A 298-7897
3513★Gagliano John A
3515 Peck D 296-6735
3516 Rojas Cirilio G ◎ 295-7036
3517 Courtney Richd B 295-5207
3518 Ramirez Blanca 297-3779
3519 Tate
3520 Brazil Robt
3521 Vacant
3523 Watson Karen J 298-8613
3525 Gilmore Scott 291-6689
3528 Baker Robt W ◎ 296-3812
3531 Vacant
3535 Grenier Dennis 296-9875
3538 Crisci Dorotea Mrs ◎ 295-2869
3540 Renaldi Richd
3542 Weinmeier
3544 O'Malley Dan 295-6676
3546★Lautt Connie

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WALNUT AV INTERSECTS
3600★Kohl D B
3602 Hansen A M 298-7359
3604★La Rivere Gilbert
3606 Moore Robt J 295-1144
3608 Campbell Donna
3610 Vega Richd J 297-5384
3612★Bumgarner Bob 296-4878
3614★Christopherson C R
3615 Mc Lennan Marilyn L ◎
3616★Iadevaia Anna
3620 Schmidt Gladys J Mrs ◎
3621 Brown Lawrence H ◎ 295-9666
3622 Lucas Michl E
3627★Kobe Garth
3629★Eddy Bertha 296-9054
3633 Apartments
A★Chipp Randell 299-7306
B★Vehanen James
C Betancourt Carl M 299-7876
D★Alvarez Arth
E Mc Daniels
F Vacant
3645a Strikland Ruth M Mrs
3645b No Return
3645c★Romeo Danl 298-6326
CHALMERS ST INTERSECTS
3661 Pickens Chas A
3662 Wade Glynda 298-1170
3663 Goldman Paul ◎
3667 No Return
3669 Runkel Harold A 295-8794
3669½★Hirlbach Gary S 298-5924
3670★Carvalis Joseph M 291-9559
3671 Ambler Robt B 291-4184
3677 Vacant
3678 Vacant
3680 Vacant
3680½ Vacant
3685★Beauregard Eliz 295-1076
3686 Dickinson L 295-9936
3687 Kuljif Jan A A ◎ 295-9592
3688 Harvey Philip
3691 Knight Chuck 296-2435
3691½ Tourville Stewart 299-9837
3693 Rangel
3695 Schmid M
WELBORN ST BEGINS
WINDER ST BEGINS
1 Mc Guirk James 295-7479
2★Boudreau Valerie Mrs 291-1726
3708 Vacant
3710★Klemm Erika I 297-9775
3712★Levinson Louis J 574-0175
3716 Dawson Patk
3718 Melendez Rafael 294-9828
3719 Relster Dot 298-0196
3720★Merchant Lee E 299-1435
3723 Crisci Rose Mrs ◎ 295-3872
3730 Vacant
3731★Elias Charles N 297-2190
3736★Robin Wanda I 295-2826
3744★Taylor Sherry E 298-6462
3745★Buttemer D 296-1647
3746 No Return
3748 Brenneman R
ANDREWS ST INTERSECTS

84

COLUMBINE ST —FROM 2700 FAIRMOUNT AV NORTHWESTERLY

ZIP CODE 92105
2680 Edwards John R
2682 Schmiedel Jean 282-0765
2684★Linton Russ 282-8424
2715 Clark Peter D Jr 280-4535
2716 Grove Jon W ◎ 282-2574
2719 Pacheco Tony L ◎ 281-0255
2722 Bales Elmer L ◎ 284-5775
2723 No Return
2727 Cottrell Hubert 283-9924
2729 Dooley James J ◎ 284-6744
2733 Olalde Jese R
2735 No Return
OLIVE INTERSECTS
2803 Vacant
2805 No Return
2807 Vander Charles C Jr ◎ 284-7760
2820 Nanez Cruz ◎ 281-5794
2825 Piper Jos
2828 Posada Simon Jr 282-4336
2829 Talavera S Mrs 283-1346
2831 Johnson Marjorie 281-5251
2835 Childers Geo ◎
2837 Almaguer Americo 284-3959
2843 De Grenier Bill J ◎ 282-5203
PEPPER DR ENDS
2903 Vacant
2905 Wilson Jerry
2909 Errickson Patricia A Mrs ◎ 282-3450
2915 Jackson James E
2917 Mack Cecil R ◎ 280-2577
2921 Johnston John W ◎ 282-5172
2926★Oviatt Joyce F
2927★Blackman Sharon M 280-9534
2927½ Blair Roy O 282-4946
2930★Phelps G A
2933★Aranda Francisco
2939 Mitchell Beatrix E Mrs ◎ 284-7013
QUINCE ST INTERSECTS
2954 Cole Richd 284-4116
POPLAR INTERSECTS
3014 Krum Marie Mrs ◎ 284-7805
3019 Vlach Ruby J Mrs ◎ 283-3429
3020 Ramos Robt G ◎ 282-9007
3021 Southwick Dortha M Mrs 280-4590
3026 Young Kenneth D Gardening Service
Young Kenneth D ◎ 563-0593
3029 Norman Guy R ◎ 283-8933
3032 Elliott Betty Mrs
3033 Adams Walter H ◎
3038 Huillett Pauline R Mrs ◎ 281-9588
3041 Jones Margt V Mrs ◎ 284-7643
3042 Higgs Elsie L Mrs ◎
3044 Smithson Sylvania W
MANZANITA DR INTERSECTS

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COLUMBUS ST —FROM 10470 AMANTHA AV EAST

ZIP CODE 92126
8019 Strong Thos V 566-3357
8020 O Quinn Christopher D ◎
8029★Simpson Doris ◎ 578-8858
8030★Fargo Wm G ◎ 578-6736
8039 Castillo Rodolfo B ◎
8040 Hertel Wilbur J ◎ 566-2541
8049 Stratton Wm E ◎ 566-5468
8050★Munzer Ronald K ◎ 578-7199
8059 Lawson Brent W ◎ 566-3317
8060★Kiln Arth K ◎ 566-1416
8069★Cook Andre
8070★Madden C B 566-0312
8079★Graupman Roger ◎ 566-8753
8080 Holman Kirk L ◎ 578-4841
8089 Sadlowski L M 578-0967
8090 Bond Robt D ◎ 566-2017
8109 Weaver Greg W ◎ 578-6758
8110 Vacant
8115 Hansen Danl M ◎ 566-0541
8116 Gagliardi Frank A ◎ 271-0785
8121 Milhausen Richard H ◎ 271-1017
8122 Wagner Donald A ◎ 566-4436
8127 Alvarez Rafael ◎
8128 Hollenbeck Gordon D ◎ 566-2007
8133 Higgs Ronald L ◎ 566-1678
8134 Ross Carolyn ◎ 566-9247
8139★Sanidad Oscar D ◎
8140★Preston H ◎ 566-1587
8145 Vanard R M ◎ 566-1587
8146★Macaspac Hector O ◎ 566-2457
8151 Tarrant Sandra J
8152 Malley Raymond E ◎ 566-2059
8157 Smith Ray C ◎
REAGAN RD INTERSECTS

129

COLUSA ST —FROM SOUTH OF 5600 FRIARS RD NORTH

ZIP CODE 92110
YUMA ST INTERSECTS
1101 Vacant
1111★Sloan Richd J ◎ 692-9694
1111½★Coers Nora
1121 Falls Joe D ◎ 291-5851
1126★Mello Dennis
1129 Fierro Leonard Jr ◎ 295-1236
1130★Plein Kerri
1135★Fox Shirley
1135½ Vacant
1145 Martin John B ◎
RILEY ST INTERSECTS
1205 Mission Valley Manor Apartments
1★Strout Nancy J 574-1489
2 Saulnier James E 298-5641
3★Goldstein Doug
4★Weeden Noreen 296-3982
5★Concha Anthony
6★Phayer C Thos Jr 692-4346
7★Potter Theo P 295-3659
8 Gomaa D 297-9196
9 Vacant
10 Vacant
11★Cheung Lelia 693-8160
12★Pengelly D
13 Locke Harry 295-8759
14★Lipton Scott
15★Nagata Joyce 298-8312
16 Zughaibi L
17★Erickson Mary 574-0895
18★Omsted Pete 297-5789
19★Geiser Tina 295-3292
20★Platt Veronica M 299-6743
21★Torpey Karen 299-0780
22★Misch Pam
1236★Perry James D
1238 Gomes Bryan B
1240 Mc Laughlin Charles S 297-6307
1242★Saholt Susan J 295-9029
1244 Vacant
1245 Cain John ◎
1246 Whittaker Conrad 295-3437
LAURETTA ST INTERSECTS
1251★Jiminez Alberto
1253 O'Rear S Lois 299-6744
1255 Hussey Peter B 299-2765
1270★Mc Kievick Peter A 294-9572
MILDRED ST INTERSECTS
1307 Apartments

7841 Balboa Av., Suite 107

Mildred Hawkins and Associates Serving San Diego Since

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

GLENWOOD DR 1980

GLENROY ST—Contd
6431 Wright Edw E ◎ 582-1412
6440 Willis Jerri M Mrs ◎ 286-2132
6441 Mc Laughlin Wm T ◎ 286-7267
6450 Jenkins Dorothy ◎ 583-2608
6451 Haug Shain B ◎ 286-7808
6460 Sharp Wm T ◎ 583-0198
6461 Walling Raymond B Jr ◎ 582-2420
6470 Aliment Rudolph L ◎
6471 Scudero Charles W ◎ 583-3824
6481 Fairbrother Edmund E ◎ 287-0460
6491 Conlon Lorne J ◎
ORCUTT AV INTERSECTS
6505★Price Elaine ◎ 265-7674
6510 Curry Robt H ◎ 582-0383
6515 Josselyn Irene E ◎ 582-8720
6518 Murphy Joseph M ◎ 582-4814
6525 Lord Phillip J ◎ 287-4202
6526★Daluz Medardo L ◎ 287-8216
6533 Lieras Vincent ◎
6534 Abrego Donald L ◎ 582-4075
6541 Crossley Eug I ◎ 582-8626
6542 Stone Dorothy W Mrs ◎
6549 Rukes Albert H ◎ 582-0581
6550★Olsen Jesse D ◎ 265-7517
6557 Summers Bob G ◎ 286-4019
6558 Bunch Richd E ◎ 582-3196
6565 Rubino Sallie F Mrs ◎ 582-5288
6566 Humiston Larry A ◎ 286-2136
6573 Gifford Max W ◎ 583-6143
6580 No Return
6581★Hendricks Ray
6590 Melton Ivan A ◎
ZION AV INTERSECTS
GREENBRIER AV INTERSECTS
6727 Paden Van 583-4643
6735 Brett Robt A ◎ 582-4913
6743 Huber Jessie ◎ 582-9493
6751 Hammond Edw J ◎ 583-0244
6759 Weber Alex ◎ 583-4136
6760 James Wm R ◎
6767 Cooper Donald ◎ 583-6310
6775 Loomis David M ◎ 583-6081
6776 No Return
6785 Nelsen Robt L ◎ 583-0294
6795★Sedgwick Michl T
GREENBRIER AV INTERSECTS
6801 Garcia N ◎ 287-9185
6807 Manry Mendall A ◎ 583-1165
6811 Verryp Simon ◎ 582-7738
6815★Clark Wm ◎ 583-2427
6821 Petersen Rick Rev ◎ 583-1997
6827 Rohrer Harry W ◎ 582-9381
6833 Roth Paul M 583-3864
6839 No Return
6845 King James C ◎ 286-1439
6851 West
6859 Jackson Roland B ◎ 583-0352
6860 Schulz Frank K ◎ 583-4471
6863★Sullivan John P ◎ 286-8322
IRWIN AV INTERSECTS
6869 Carrillo Joseph ◎ 287-7374
6870 Flanagan Thos J business consultant ◎ 583-3580
6875 Johnson Larry S 286-0657
6881 Fin's Well Inc contr-bldg-genl 583-6200
Findahl Carrol W ◎ 583-6200
LEWISON AV INTERSECTS
6885 Edwards Constance L Mrs ◎ 583-3744
6886 Buck Wm J ◎ 582-4772
6889 Cisterna Manuel ◎ 287-0183
6892 Gibson Paul E ◎
6893 No Return
6897 Grim Benj R
6898 Olive Wm T ◎ 582-9065
PRINCESS VIEW DR INTERSECTS

582

6902 Hardin Wilbur G ◎ 582-4034
6903 Kidd Carol A ◎
6908★Avier Lowanda B Mrs 582-8501
6909 Hillis Robt F ◎
6914 Beckman Keith A ◎ 583-4925
6915 Walford John D ◎ 583-0656
6922 Strait Robt D ◎ 582-9142
6923 Morley David G ◎ 583-1376
6928★Williams Mark
6929 Hoff Edwin J wallpaper hanger ◎ 583-1585
6936 Brooks Marvin D ◎ 583-0681
6942 Sweis Sadah ◎ 287-1861
6945 Garff Steph N ◎ 583-0072
6948 Mabee Dorothy H Mrs ◎ 583-4574
6954 Roshong Donald V ◎ 582-9539
6955 Macias Joe R ◎ 286-0803
6960 Hasenauer Edw J ◎ 583-3067
6965 Lakin Wm H ◎ 582-9188
6966 Bilicki Peter A ◎
HILLSBORO INTERSECTS
6975 Worden Wallace J ◎ 582-8974
COTTAGE AV INTERSECTS
7001 Stewart Robt W ◎ 583-7148
7004 Gallik Andrew ◎
7012 Mac Innes Ian C ◎ 286-3330
7020 Ibarra Herbert ◎
7028 Hicks W Kenneth ◎
7036 No Return
7044 Benyr Walton R ◎ 582-9270
7052 Georggin Nicholas E ◎
DUNDEE AV BEGINS
7060 Sumner James W ◎
7068★Van Wanseele Deborah ◎ 582-6817
7074 Delgadillo Margt 287-8318
7082 Lawrence Earl V ◎ 582-9659
7090 Donavon Wm E ◎ 582-9135
ELGIN ST BEGINS
7106 Schilling Gordon L ◎ 582-9303
7116 Armantrout John W ◎ 583-0764
7126 Zelneronok Michl 286-7768
7136★Hooper Perry ◎
7146 Solsbak Robt H ◎ 582-1528
FORBES AV BEGINS
7156 Gagnon Rene J ◎ 583-5564
7166 Cyr Angelina Mrs ◎
7176★Geisler Raymond B 287-7820
7186 Bach Eug H ◎

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GLENWICK LA (LA JOLLA)—FROM 8660 DUNAWAY DR WEST THEN NORTH

ZIP CODE 92037
8656 Yang Ling ◎
8675 Schminke Paul ◎ 453-2474
8687 Peterson James R 453-1229
GLENWICK PL BEGINS
8695★Clark Sidney B ◎ 452-5056
8696 Brody Stuart ◎ 453-1934
8703 Chrispeel Martin ◎
8704 Roberts Verl E ◎ 453-0112
8720★Rodgers Douglas L 452-1786
8721 Rogers Florence J Mrs ◎ 453-5847
8735 Schoene Thos W ◎ 453-3934
8736 Bennett Charles R ◎ 453-2968
8750 Freeman Richd J ◎ 455-9078
8751 D'Andrade Roy G ◎ 453-7739
8765 Vacant
BORDEAUX AV INTERSECTS

457

GLENWICK PL (LA JOLLA)—FROM 8687 GLENWICK LA WEST

ZIP CODE 92037
2711 Arrhenius Gustaf O ◎ 453-2255
2712 Viterbi Andrew J ◎ 453-8198
2721 Bagley Marie L Mrs ◎ 453-0365
2722 Hillyard Steven A ◎ 453-6259
2731 Dennis Edw A ◎ 453-8741
2734 Copeland Dempsey ◎ 452-9307

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GLENWOOD DR —FROM 3570 UNION ST WEST

ZIP CODE 92103
1504★Hynum Barry ◎
1505 Daily Helen A Mrs ◎ 296-7323
Horton Janet L 296-1871
1507★Boone R 299-1049
1509 No Return
1511 Springer Leon ◎
1512 Johnson Peter B 299-1927
1512½ No Return
1519 Button Melvin H ◎ 298-5129
1525 Bridge Blanche W Mrs ◎ 295-9957
1530★Haynes Steve 298-5356
1531 Gfroerer Helen K ◎ 296-3629
1533 Burrow Wm C 295-4638
1535 Davis Merle E ◎ 295-5067
1537 Vacant
1602★Covington Kid
1605★Rizer C
1607 Ladd Rebecca S 296-2483
1609 Coffee Joseph J
1610 Hart Esther M Mrs ◎ 295-8170
1616 Clack Walter B ◎ 297-0673
1616½ Vasquez Elvira
1620 Vacant
1624 Peachey Douglas 291-8893
1626 Taylor Carol
1628 Bassham S R 297-7066
1628½ Vacant
1630 Repine Claude E 295-7966
1630½ Baer Nancy 297-9942
1632 Siegel David C 295-1878
1633★Bembry Thos
1634 Papitto Joe
1636★Schwingl Paul F 291-5530
1702 Toraitis Tom G
1704 No Return
1705 Havens James L 291-4267
1708 Vacant
1709 Elmore Geo S 298-5185
1710★Repine Sylvia
1711 Horner Henry H 295-4861
1712★Parks Terry M 295-2831
1715 Garrisi Joseph L 296-9289
1716 Erwin Earl J 295-3359
1716½★Boddenhammer Thos C 299-1921
INDIA ST INTERSECTS

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GLIDDEN CT —FROM 6600 GLIDDEN ST NORTH

ZIP CODE 92111
1720★Bozco Julian ◎
1721 Booth Richd ◎ 560-5216
1740 Ambroziak Edw ◎ 277-4641
1741 Delao Manuel C ◎ 277-5082
1760 Blando Romulo B ◎ 278-0405
1761 Flumian Giovanni ◎ 279-8654
1767★Lalicata Thos ◎ 560-1890
1772 Vacant
1773 Donnelly John 279-1816
1778★Haselton Scott T 278-7815
1779★De Maria Lucy Mrs
1784 Cain Edw E ◎ 277-6140
1790 Pontecorvo Maydell L 278-9621

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GLIDDEN LA —FROM 1770 GLIDDEN CT WEST A CUL DE SAC

ZIP CODE 92111
6505 Mc Cracken Bess L ◎ 278-0908
6515 Russell Frank W ◎ 279-0629
6516★Carey Sue 565-8048
6525 Naiman Eileen H Mrs 560-4779
6526 Moss R P ◎ 560-7317
6535★Springer M K 268-0412
6536 No Return
6545 No Return
6546 Vacant
6555 No Return
6556 Nucci C Arth ◎ 277-8894
6565 Fiorentine James 278-8082
6566 Serna Steph P 279-2572
6575★Millay Patk

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GLIDDEN ST —FROM 1 WEST OF 1700 CORSICA ST EAST

ZIP CODE 92111
6309 Williams Elsa A Mrs ◎ 278-3607
6323 Horton Paul ◎ 278-8362
6337 Sampson
6351 Vattimo Mark J ◎
6365 Dickinson Wayne E ◎ 279-3681
6401★Stehley Jerome ◎ 569-0635
6415 Clegg Ann S ◎ 279-0741
6429 Vacant
6443 Fiello Bernard R ◎
6457 Castagnola Michl ◎
6471 Israel Chas L ◎ 277-2966
CORSICA ST INTERSECTS
6519 Wiler Geo M ◎ 277-4498
6524 Younge Leonard 268-8402
6527 Carlisle Kenneth 277-1511
6538 Sullivan John S ◎ 279-0846
6539 Hill Wm T ◎ 278-6222
6552 Barvick Edw J ◎ 571-2701
6563 Weingarten Geo ◎ 268-8179
6566★Fuller Terry L 277-8686
6577 Valdez Alfredo B ◎ 292-9859
GLIDDEN CT INTERSECTS
6603 Tenco Mario ◎
6615 Jette Muriel E 292-5201
6626 No Return
6629 Elmore Leonard K ◎ 277-0277
6640 Padilla Augustine
6643 Ogata Kasuke gdnr ◎ 278-9567
6657 Page Wm M ◎ 279-7361
Information Software Service Inc computer software-banking 569-1984
ALCALA KNOLLS DR INTERSECTS
6702 Bobek Louis ◎ 279-7811
6712 Villa Vista Apartments 279-4871
1★Sauer Patricia
2 Dykstra Darrell C 565-0384
3★Sindle Flora
4 Chapman Margt V 292-0157
5★Waibel Mark
6★Valdez Gladys A 279-4480
7★Gerard Robt
8★Umphres Roger W 278-0891
9★Schwartz Steven
10★Treptow Dave
11 Humes Delores
12★Selts Wm
6713 Apartments
1 Stickney John 571-8855
2 Vacant
3 Vacant
4★Laird David 278-9249
5★Marbrey Donald
6★Mack Paul H
7★Pasnak Julie
8 Coleman Dani M 277-9771
9★Gibbons Jeff
10★Tumm John
11★Graham Jeff
12★Hopins Leslie
6730 Apartments
1 Stuart Patricia A 279-8231
2★Mc Callum Rodney
3★Locklear Gene
4★Smith Nancy
5★Morales Antonio
6★Larkin Eileen
6731 Apartments
1 Medrano Mattie
2 Silver Paul J 560-0798
3★Robles Domingo
4★Shipley Reece Mae 569-0467
5 Petree Deanna
6 Folsom Carol L Mrs 560-7795
7 Vacant
8★Martinez Jennie
6742 Apartments
1★Deitering Michl 268-8392
2★West Rodney
3★Ramirez Michl
4★Taylor James E 279-6183
5★Mc Kee Thos
6★Stewart David
7 Dugan Kathleen M 292-0700
8★Clark James
9★Maldonado Suzanne M
10★Louie Dexter B 560-7802
11★Abdul-Jabil Mustapha 571-8511
12 Don Patricia
6753 Apartments
1★King Valerie
2★Theis Patk J 571-7637
3★Diaz Polito 569-0283
4 Campbell S Ila Mrs
5★Krueger Scott
6★Kennedy John
7★Gillen Michl
8 Harvey Norman 571-1748
9★Carlson Phyllis 571-0815
10★Riley Joy
11 Hochbrueckner Carol D 277-5709
12★Wulfson Julius 571-8867
13 Vacant
14★Brown Naomi
15★Roza Cynthia 571-7619
16 Fackrell Wm T 279-4297
6754 Apartments
1★Sosko David M 292-5438
2 Vacant
3★Farley Mike
4★Arias Geo
5★Donaldson Suzanne 279-6179
6★Tobin Thos P
6775 Apartments
1★O'Hara Nan
2★Wisong Eric 277-9634
3 Rorem Linda 560-6876
4★Mc Kernan Peter 571-5160
5★Perez Rickey
6 Walker Pearl J Mrs 560-1957
7★Lokits Todd 279-9201
8★Walbrun Thos 268-8842
9★Pino Jim J 279-7279
10 Goldman Harold 279-9174
11 Nold Allan J 292-0308
12 No Return
6782 Apartments
1★Hallahan Maureen 569-0818
2★Garza Eduardo 268-8610
3★Kearney Steven
4★Gage Ruth
5★Saremi Siamak 278-7035
6★Griffin Ralph 565-7825
7★Baur Howard
8★Howard Bonnie

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LINDA VISTA RD INTERSECTS
BURTON ST INTERSECTS
6821 Puentes Salvador S ◎ 292-8345
6822 Starkell Wm V 560-9200
6831 Naranjo Mariano ◎ 279-2091
6832 Tignor Fred L ◎ 277-6098
6842 Garcia Andres ◎ 278-5935
6849 Waddell Mary Mrs ◎ 279-2554
6852 Hinrichs Carl J ◎ 277-4391
6855 Free Will Missionary Baptist Church 278-4550
COOLIDGE ST INTERSECTS
6911 Lara Narciso E ◎ 277-1611
6921 Ortiz Dora Maria Mrs ◎
6922 Gonzalez Alfonso ◎ 277-6911
6931★Dvorak Michl R ◎
6932 Schwartz Albert C 277-4932
6941★Burst Geo
6942 Siska Beulah Mrs ◎
6951 Trujillo Ronald
6952 Trujillo John R 565-6767
6961 Serrano Wm ◎
6962 Hope Germain E ◎
6971 Ramero Alf A
6972 Poure Thomas 279-4179
6981 Wheeler D J
6982 Wilson Le Verne K ◎ 277-2890
6990 Vacant

RE COMPANY 633 UNIVERSITY AV. 117 NO. EL CAMINO REAL SAN DIEGO 291-1911 ENCINITAS 942-2244 - 741-1944
5801 FAIRMOUNT EXTENSION 469-1000 ESCONDIDO SAN DIE

INDIA ST—Contd
2367 Golden West Rent-A-Car 231-0525
2375 Vacant
KALMIA ST INTERSECTS
2400 City Dry Cleaners 234-6509
General Uniform Corp rental 234-6509
2414 Morper Oather
2414½ Vacant
2416 Romero Peter
2418 Vacant
2420★Miller Ella M 233-1885
2422 Vacant
2424 Bradley S L
2424½ Alatorre Antonio C 233-3919
2426★Moyo Elvia M 233-0204
2426½★Hernandez Alturo 239-5028
2428 Powell Lita D
2428½ Rodriguez Louis A Jr 239-2612
2430 Vacant
2430½★Castillo Alberto
2438 Mc Intosh Debra Mrs 235-8030
2440 Sanchez Carmen 239-4307
2442 Brown Garr
2442½ Francisco Sam 234-9958
2444 Tristan Victor V 233-6057
2444½ Vacant
2446 Errico Albert 232-2581
2452★De Wald Sarah A 234-7230
2454 Vacant
2456 Vacant
2458 Bear Douglas E
2466 Chimera Anthony ◎
LAUREL ST INTERSECTS
2504★Ledford Muriel A 230-1049
2508 Jones Ray D 235-0946
2518 Collier Gregory A
2520★Martinez Cruz
2528 Gomez Salome 233-4555
2530★Trejo Susana
2532 Vacant
2540 Renteria Ramira 234-2625
2544★Estrada Nambo
2548★Lopez Esteban
2552 Vacant
2554 Vacant
MAPLE ST INTERSECTS
NUTMEG ST INTERSECTS
OLIVE ST INTERSECTS
ZIP CODE 92103
2837 Lopez Felix
2839 No Return
2849 Boughan Gerald 299-9496
2865★Meyrose B
2867 Marvin Edw W 291-4653
2869 Burkhardt Joseph M 291-0544

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PALM ST INTERSECTS
2921★Savage S 692-0712
2923 Vacant
2923½ Troller Ed
2927 Apartments
1 Linden R A
2 Page A
3 Brockman Howard L
4 Johnannsen O L 291-2123
2971 Len Star Real Estate 692-3500
2973 Coast Business Services secretarial serv 295-3151
W QUINCE ST INTERSECTS
3009 Silva J M Mrs ◎ 296-6840
3033 Hammond Machinery & Supply Co Inc 298-6155
3051 No Return
3053 Camera Ready Graphics graphic design 299-0540
3055 Crane Loch & Associatea archt & planning 297-5950
Kane & Associates advertising 297-0208
REDWOOD ST INTERSECTS
3103 Compleet Rug & Upholstery Cleaners 296-0152
Raffee Compleet Carpet Cleaners 296-0153
Pfeifer's Complet Inc carpet & rug cleaners 290-0152
3129 Vacant
3141 Terramagra Michl R 291-7597
3153 Occupational Therapy Associates 291-8823
3153½ Vacant
3167 Oxford Agency ins agcy 420-1592
3175 A Different Drum cocktail lounge 296-6789
3175a Hillcrest Auto Sales 296-6789
SPRUCE ST INTERSECTS
3211 Import Tire Co dealers & repr 291-9666
Mc Kane's Rover Imports Inc land rover parts & serv 298-7371
3231 Mission Hills Auto Body 299-3998
3241 Maurice's Foreign & Domestic Auto Repair 298-3164
3265 Do-All San Diego Co. mach sup 291-4600
SASSAFRAS ST INTERSECTS
3325 Greengrass Murray Constn bldg contr 582-3164
3341★Bailey Rich W
3341a Quality Distributors Spa Covers swimming pools equip-sups 692-3025
3341½★Rodriguez Jesus 296-2322
3343★Young Robt T
3343½★Garcia Malaquias M
3345 Lightfoot Steven A 295-8540
3347★Walsh John A 298-0366
3351 Admiral Termite Inc 298-6305
Admiral Construction Co genl contr 298-1857
3351a Su-Mi-Ko Oriental Massage Parlor massage parlor 296-0569
3353 Rielly John D 297-0740
3355 Baldin Francis
3365 Razz's Aero Club tavern 574-9758
3367 Coronado Research & Development Co 297-1592
3443 Courtsports raquet ball courts 294-9970
Lohdefinck F J Massage Therapy massage parlor 299-1271
UPAS ST INTERSECTS
3503 Welch I Mae 295-1980
3505 Vacant
3507 Stevens Sonia 297-1058
3509 Esquer-Duarte Antonio
3511 Vacant
3519★Marks Robt
3519½★Bissell Olivia
3521★Stromwall Grace
3523 Mc Swain & Associates real est sls 297-1270
3535 Guymon Mel Chevron Service 296-6922
VINE ST INTERSECTS
3555 Amfac Drug Supply whol 298-7151
GLENWOOD DR INTERSECTS
3585 Vacant

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WALNUT AV INTERSECTS
3615 James Automotive Service 297-8090
3617 A T S Automatic Transmission Service 297-0251
3623 S & M Printing & Graphics coml prntr 298-2922
Martin George M Photography 297-7578
3645 J & S Attorney Service 298-9310
3647 Comco cabt mkrs 574-0343
Sanford Robertson Interiors furn-ret 574-0343
3649 American Pickle Co whol 291-2222
3659 Building
ROOMS
100 San Diego County Carpenters Group Ins 299-1826
104 S D County Carpenters Group Ins
200 Gottlieb & Company real eat 571-8800
201 Vacant
203 Farmers Insurance Group (Dist Ofc) 299-6773
203 Carlile Morton J Inc genl ins 299-6773
STREET CONTINUED
3667 Music Box tavern 295-3908
3667½★Coe Clyde C
3675 Haley's Pay Less Liquors
3683 Randolph L P 297-0703
3685★Randolph Lorna
3687 Seymour Cath Mrs 298-4054
3689 Dillon Helen Mrs
3695 El Indio Tortilla Shop tortilla mfrs 299-0333
3695½ Pesqueira Ralph R ◎ 299-0746
3697 Bernie's Corner beer & wines 298-9582
WINDER ST INTERSECTS
3701 Sunbow Gallery stained glass 298-8935
3711a Chameleon Records 295-3702
3711b Bernhardt's Books books ret 692-1176
3715 Canora's Sandwich Terrace restr 291-5938
3717 Marquis Public Theater The 298-7674
3719 Marquis Gallery Theater live theater 298-8111
3731 Marquis Public Theater Corp theater operators 298-7674
3731½ Jolin & Young importers 291-4033
3735 Ashe Walden Skin Care & Cosmetics 295-7302
3735½★Powers J W
3737 Doodle Burgers restr 295-5121
3741 Vacant
3743 Vacant
3745 Simons Paul Wm composer. & mus tchr
3745½★Busath Scott J 692-1251
3749 Vacant
3751★Simone J A 297-7055
3753 Sidney's Coffee House restr 295-9465
India Street Poets Theatre

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WASHINGTON ST INTERSECTS
ANDREWS ST INTERSECTS
3766 Vacant
3766½ Quade Philip W
3768★Jore M
3770 Peterson
3772★Tillotson M L 692-1914
3772½ Helsel Howard
3779 Hair West 291-6072
3780 Iversen Thor L ◎
3781★White Dana
3792 Burson Bayard T ◎ 295-7137

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INDIAN WAY —FROM 4400 CLAIREMONT AV WEST

ZIP CODE 92117
3659 Vacant
POCAHONTAS AV INTERSECTS
3660 Corley Arnold 275-2684
3666 Shearer Mary E ◎ 276-2615
3667★Fisher Thos J ◎ 270-1292
3672 Lucero Paul 483-0756
3675★Chasey R 270-9168
3678 No Return
3684 Luther Roger ◎
3689 Trevino Antonio ◎
3690 Coates Geo M ◎ 274-5174
POCAHONTAS INTERSECTS
3710 Carlson Robt H 273-7973
3711 Taylor John T ◎ 276-6857
3781 O'Malley Barbara S ◎ 270-5514
GILA AV INTERSECTS
3810 Klosterman Billie
3811 Velasques Genaro ◎
3880 Vacant
3881★Diep Tai 270-5323
3882 Virkler Betty J 274-3960
3883 Rodi Klaus H 270-8009
CLAIRMONT DR INTERSECTS

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INDIANA ST —FROM 1800 E UPAS ST NORTH

ZIP CODE 92103
3503 Cristin Marcel J ◎ 296-0841
3510 Indiana Apt
1 Merritt Leland C 298-6238
2 Moran R
3 Crosby Esther J 291-5602
4★Suterich Geo 296-4552
5 Charleaworth Elenore
6 Sani Walter
7 Bowen Thelma F Mrs 298-7410
3514 Beerman Paul ◎ 295-3901
3515 Tyler Susan 296-3204
3517★Walke Gina J Mrs 291-8834
3522★Ellis Sophia Mrs 692-9224
3524★Hollerman Dale
3528 No Return
3530 Pugh Anis
3532★Trestick Michl 296-4865
3537★Minter Daisy Mrs
3538★Ammon Henri
3544 Mack Eliz 296-9309
3545 Edson Mabel
3546 Fullington Lawrence V 295-8331
3547 Dunn Walter T 295-4997
3548 Scherer Carroll Wm Jr
3549 Frost Carl H Mrs
3551 Kendall Chas W 298-4533
3554 Apartmenta
A Mc Ardle Sally A 297-2642
B Ollie Henry
C★Tolliver Lenore Mrs
D Stimac Matt 298-6596
3554½★Hamm Lester J
3559 Apartments
1 Davidson Louise 296-1928
2★Schache Benj D Jr
3★Reeves Robt D 298-4574
4★Woska Willa D Mrs
5 Norris Thelma B Mrs 295-8021
6 Orton Bruce
7 Oroski M J 299-8837
8★Bird Robt
9★Pughsley James B Jr 296-0827
3602 Madge Anthony 296-4772
3604 Psomas Penelope Mrs 297-2349
3605 Cunningham Clarice
3606 Soyas Hector S 291-8736
3606a★Gettas M A 692-1608
3606b★Warner Evelyn Mrs
3606½★Hall David C
3607 Fowler Leslie ◎ 299-3607
3608 Rogers S 295-7079
3608½★Sedillo Juana M Mrs 299-4386
3609★Platt Gregory A 296-9569
3609½ Furrow Ronald D
3610 Koppel Karl 291-1526
3611 Klima Tony J ◎ 298-4034
3611½ George Ernest O 295-8374
3612 Hoff Tina R Mrs 295-4740
3612½ Manley P A
3613★Skowkenski Martin T 299-4164
3614 Hendrickson Geraldine Mrs
3614½ Whittier Suzanne C 299-6064
3616 Hoff Loren K ◎ 296-1515
3621 Apartments
1★Lounsberry Perry
2★Edwards Lucille Mrs
3 Tullmann Dennis M 298-0826
4★Mills Leroy R
5 Bowles Betty 295-0896
6 Doherty Harry 295-9553
7 Manley Kay Mrs
8★Lawson Trudi
9 Ragland Tom
3622 Mc Vay C P ◎ 295-5378
3628★Holman L D
3630 Ferrantelli Sal ◎ 297-1820
3633 Under Constn
3634★Marnett Paul J 298-1973
3636 Danilson Doris M Mrs 298-1255
3638 Hunemuller Wilbert
3640 Mayorga Malcolm E 298-4062
3642★Henry Gaylord L 692-0200
3644 Apartments
1★Patterson Viola E Mrs 291-0697
2 Alsup D L Mrs 296-2545
3 Miller
4 Allen Robt E 297-3651
5★Batson Rick

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CYPRESS AV INTERSECTS
3650 Stone Manor Apartments 296-3005
Chitry Charles E 291-5130
3652★Mason Paula R Mrs
3654 Van Sweringen Vanette 291-1689
3656 Hillis Lester M 295-9223
3662 Hellenic Cultural Society Of San Diego Inc 291-2030
3667★D Amico Rosa Mrs
3669 Hall Frances P Mrs ◎ 295-8063
3680 Crawford Richd G 299-7783
3681 Apartments
1 Sorie Leonard Jr 295-6838
2 Childs Marie L 299-5669
3 Murray Fred L Jr 291-9916
4★Minnott Daisy R Mrs
3683★Chevalier Mozelle Mrs
3683½★Garrison Neal
3685 Shermont Robt A 295-7556
3688★Bradwell Joel
3689 Furrow Emanuel W
3690 Smith Gordon E 294-9871
3692 Haggard Karen Ann 296-9825
3694 Pearson Helen C Mrs ◎ 297-1382
3695 Reedy Danl F ◎ 298-2375
3697 Schwartz Steven M ◎
3702 Stewart Dorothy
3704 Burgad Frank ◎ 295-5695
3706★Berry E L 298-0188
3707 Bugbee Eliz D ◎ 296-4667
3708 Riggs Mary H Mrs 296-4894
3710★Lapid Arnon 298-6549
3710a★Shatz Abraham 299-7559
3712 Lewis Arth E 297-0497
3714 No Return
3715 Kuhnel Geo H ◎ 297-3607
3716 Emerling Dennis 291-7685
3718★Belliveau Leo W 692-0631
3720★Bradley Estelle Mrs
3721 Peranski Velma N Mrs ◎ 298-3475
3729 Goldberg Sam M ◎
3738 Vacant

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INDIANAPOLIS AV —FROM 4750 LAUREL ST NORTHEAST

ZIP CODE 92105
2505 Dobranski Lawis ◎ 264-0869
2506★De La Cruz Del ◎ 264-8457
2511 Reile Raymond R ◎
2516 Apodoca Gil
2525 Dorrell John 262-7883
2526 Anzalone E
2529 Walker Wm H ◎ 262-6358
Papworth Arth E
2535 Greer H
2536 Kubitz F
2551 Jones Betty Mrs ◎ 264-4495
2581 Risdon Maria M
2591 Vacant

PACIFIC BEACH DR—Contd
101 Borsos Steph
102★Magill W 270-1284
103★Hom John J 272-8470
104★Mierci O
105★Barker R
106 Tibbets Michl D 272-4864
107★Sapero James J 270-4433
108★Tennyson Al 273-0355
109★Bazelon J 270-2704
110★Morgan D
111 Vacant
112★Lintner L
113 Engel Ralph 273-6326
114★Terney K
115 Hansen Ruth Mrs 272-9502
Pacific Photographers
116★Green David 272-9066
117★Lynn J M 270-7053
118 Stockton B 272-6372
119★Murray K
120★Newberry H 272-2823
121★Meloche L
122 Holton Steven F 272-9341
123★Stewart Robt 272-7895
124★Narramore D
126★Buck Thos 483-1018
127 Vacant
128★Le Blanc M 483-3314
129 Bryant J C 270-8789
130 Repetto Nancy P 273-6653
131 Henning Geo E Jr 270-0669
132★Rubinstein Bram M 270-9074
133★Boutros Fares 273-5397
134★Kemper C 483-4792
135 Vacant
136★Long James 483-3817
137★Polavick J
138 Baatz Ed 270-1815
139★Hickey John 272-4498
140★Langley D 274-0116
141 Carter B M 274-2550
142★Fleher B
143★Kirchner C 272-6467
144★Stofko Thos J 273-6132
145★Hakimipour Abolghassem 270-4385
146★Young Urich R 483-4577
147 Buchan John C 272-7946
148 Vacant
149★Frish S
150★Sitzer M 272-3177
201★Dishon R
202 Volpe Ann E 273-1545
203 Woerner K
204★Walsh M
205★Shuelke Mike 274-7163
206 Vacant
207★Umeda A
208 Hart Dennis 272-5346
209★Sodos Steven 274-8389
210★Johnston Bud 483-4766
211★Hassani Farideh R 274-3484
212★White N
213★Smith B
214★Chilstrom Glen A 270-7660
215★Cullino S
216 Severseen Margt M Mrs 272-1732
217 Brown Gregory 270-0075
218★Sabokbar Morteza 274-2202
219★Kraybill G
220★Baron L
221 Piccolo Anna M 270-6895
222 Vacant
223★Fleischman Pearl 272-8372
224 Vacant
225 Vacant
226★Roberts G
227 Grossman P 270-9510
228★Von Gerichten Mark 272-6733
229 Clapp M J
230 Zeiger Lorenzo 272-4795
231★Nagle L
232★Monnelly Paul 270-4057
233★Hennina G E
234★Dempsey Lynn 274-3820
235 No Return
236★Christman John F 275-0707
237 Hoyt Marilyn 270-4508
238★Gallagher Diana 483-0254
239★Linn Carl 270-3318
240★Hoffman J
241 Benesch J
242★Ravits John M 273-7472
243★Jean L
244★Whitney P
245★Mc Neal Kevin 274-5785
246 Vacant
247 Weigle Lewis A 274-2823
248★Braun C 483-4408
249 Raymond D
250 Stein M
315 Schelling J N 273-3377
316 Pierce Harold K 272-7459
317 Belford Nick 273-4696
318 Moss R
319★Moon C
320★Linberg C
321 Barrett Richd G 273-7149
322 Dean Warren
323 Vacant
324 Druley Douglas E 270-6787
325 Vacant
326★Middleton Robbie D 483-2376
327 Paul John 270-6051
328 Raife Phillip 270-6976
329 Reissig Philip J 272-0973
330 Moberg Peter 270-5022
331 Moeller Laraine
332 Davis Joan 270-3746
333★Bonavolant Joseph M 270-9968
334 Weiland Ronald 270-4368
335★Richardson M
336 Potter Geo 270-7558
2211 De Anza Campland recreational vehicles campgrnd 274-6260

904

PACIFIC HWY —FROM 900 HARBOR DR NORTH

ZIP CODE 92101
HARBOR DR INTERSECTS
MARKET ST INTERSECTS
WEST G INTERSECTS
WEST F INTERSECTS
WEST E INTERSECTS
BROADWAY ST INTERSECTS
1045 Western Carloading Co Inc forwarding agents 232-6631
1055 Vacant
1175 Vacant
1220 U S Naval Audit Serv Western Region (Audit Serv) 235-3672
U S N Western Div Naval Facilities eng command (constn ofc) 235-3841
U S N Western Div Naval Facilities Eng Command 235-3853
U S N Western Div Naval Facilities Eng Command 235-3881
U S N Manpower & Material Analysis Center 235-3181
Elaventh Naval District Credit Union 232-5574
WEST A INTERSECTS
1305 Harbor Travelodge 233-0398
Phillips Mavis
1375 County Of San Diego Civil Service (personnel dept) 236-2191
County Civil Service Commission
W ASH ST INTERSECTS
1405 Lloyd Mike Chevron self serv gas sta 236-0901
1495 Pearson Ford Service Station 237-9432
Pearson Ford Rent-A-Car 239-0120
W BEECH ST ENDS
1505 Civic Center Travelodge motel 239-9185
Chang C Y
1529 Mario's Restaurant (Annex)
1531 Steves Thos J 231-0141
1533 Mario's Restaurant 234-4934
1595 Jack-In-The-Box Drive-Thru restr 232-3608
W CEDAR ST ENDS
Civic Center (See County Administration Center)

825

1600 County Administration Center 236-2121
Lobby County Info Center 236-2853
Lobby County Administration News Stand 234-2633
Rooms
1 Vacant
3 County Auditor & Controller (Bond Div) 236-2201
207 County Assessor (Emp Payroll Div) 236-3105
8 County Revenue & Budget Managemnt 236-3867
14 County Assessor (Real Est Property Div) 236-3103
21 County Aud & Controller (Storerm) 236-2299
43 County General Servs (Bldg Services) 236-2836
45 County Assessor (Training Rm) 236-3587
46 County Tax Collector records stge
47 County Assessor (Admn Servs) 236-3761
48 County Electronic Data Processing 236-2071
49 Vacant
54 Civic Center Coffee Shop (A R A Servs) coin operated 236-2121
61 Aud & Controller (Edp Storerm)
65 County Auditor & Controller Systems Div edp sys 236-2041
66 County Auditor & Controller (Accts Payable) 236-2304
76 County Aud & Controller (Edp Document-Tech Sup) 236-2141
77 County Aud & Controller (e d p admn) 236-2018
92 County Aud & Controller (Store Rm) 236-2121
98 County Aud & Controller Data Processing Div (stock rm) 236-2121
101 Vacant
102 County Treas 236-3751
103 County Assessor 236-3652
103 County Assessor (Prop Ownership Exemptions & Maps) 236-3771
109 County Assessor-Business & Personal Property 236-3087
110 County Assessor (Administration) 236-3074
112 County Treas Retirement Div 236-2205
112 County Board Of Retirement 236-3743
152 County Tax Collr (Unsecured Property Section) 236-3161
162 County Tax Collr 236-3121
163 County Aud & Controller General Accounting Div 236-2314
164 County Aud & Controller (Aud Div) 236-2301
165 County Aud & Controller Administrative Service Div 236-2285
166 County Aud & Controller 236-3711
207 County Planning & Land USe Dept 236-2115
208 Vacant
209 County Admn Ofcr 236-2722
211 County Office Of Management & Budget 236-2001
251 County Dept Of Health Serv (Emp Asst Prog) 236-4051
252 County Integrated Planning Ofc (Sub Ofc) 236-2011
260 County Recorder 236-2695
273 County Dept Planning & Land USe (Trans Planning) 236-2114
296 County Chief Admn Ofc ofc mgmt-budget policy-mgmnt 236-4301
298 County-Ofc Of Inter-Governmental Affairs 236-3800
306 County Bd Of Supvrs Clk 236-2321
306 County-Assessor (Assement Appeals Bd) 236-2321
310 County Supvrs North Chamber
313 County Ofc Of Pub Information Serv 236-2858
335 County Bd Of Supvrs 236-2291
348 Vacant (Rms 348-354)
355 County Counsel 236-3651
358 County Bd & Comn Meeting Rm (South Chamber)
361 Press Room
375 County Citizens Serv Info 236-3864
County Ofc Of Program Evaluation (Div Of Omb) 236-4053
375 Regional Growth Management 236-4704
402 Clerk Of The Board Of Supervisor records div 236-4563
405 Vacant
411 Press Room (Auditorium)
452 County Local Agcy Formation Commission 236-2015
4th Fl Richard's Cafeteria 233-9605
5th Fl County Pub Wks Boiler & Air Condtng Rms
6thfl County Governmental Reference Library 236-2760
8th Fl Storage (8th-10th Fls)

STREET CONTINUED

904

1619 Rent-A-Car Cheap 232-2041
Jartran Truck Rental 238-1012
1655 Imperial Four Hundred Motel 232-6391
Temple Robt @ 232-6391
1700 County Dept Health Servs 236-2237
County Dept Health Servs (Alcohol & Drug Servs) 236-3068
County Dept Health Servs (Div Enviromental Hlth) 236-4717
County Dept Health Serv (San Div Health Insp) 236-2243
County Dept Of Health Serv (Health Educ) 236-2705
County Dept Health Serv Laby 236-2196
County Dept Mental Servs 236-2237
County Dept Of Health Serv (Physical Health) 236-2237
County Dept Health Servs (Bur Records Stat) 236-2296
County Dept Health Serv (Med Servs Div) 236-2198
County Dept Health Serv (Maternal Child)
County Dept Pub Health Bur tuberculosis disease control 236-2265
County Dept Health Servs (Venereal Disease Control 236-2264
County Dept Of Health Serv chronic disease control 236-2237
County Dept Health Serv (San Div) mosquito-rodent control 236-2237
County Dept Health Serv (Nursing Div) 236-2245
County Dept Health Servs (ENG) 236-2237
1747 Continental Western Car Rental 236-1600
A T S Transportation Serv 232-1063
W ELM ST ENDS
1825 Boll Weevil restr 234-2464
1919 Seven Plus One Motel 232-1077
Hemmings Fred
1943 Bayview Travelodge motel 232-7551
Moss Helen Mrs
W GRAPE ST INTERSECTS
2008 Rollins Shell Service 239-4251
2045 Body Beautiful Car Wash 232-8903
Chevron Service Station 232-8903
2070 Pacific Union 76 234-0812
W HAWTHORNE ST INTERSECTS
2137 Fat City restr 232-0286
China Camp chinese restr 232-1367
W IVY ST ENDS
2200 Solar All Faith Chapel
Solar Turbines Internatl (Int Harvester Group) gas turbine & aerospace mfg 233-8241
2233 Super City Office Equipment 239-2139
Arnold's Interiors (Whse) 232-6531
2263 Barnicle Service Station gas sta 239-7134
Rentabug San Diego car rental 239-9017
W JUNIPER ST ENDS
2305 Cal-American Rent-A-Car 239-8088
2353 Airport Travelodge 232-8931
Harris Philip D
2401 Aztec Rent-A-Car 232-6117
2401b Applied Consulting & Technical Servs Inc eng 233-0062
2405 Applied Consulting & Technical Servs Inc (Ofcs)
2407 Applied Consulting & Technical Servs Inc (Ofcs)
2431 Barbary Coast The cocktail lounge 233-7359
2499 American International Rent-A-Car Inc 234-8343
W LAUREL ST INTERSECTS

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W LAUREL ST INTERSECTS
2521 Stivers Shell Service 233-4120
2535 Budget Rent-A-Car 297-3317
Sears Rent A Car 234-4466
2585 Pacific Car Rental 239-2111
2775 Port Of San Diego (Pkg Lot)
2830 Palm Street Auto Park (Self Serv)
W PALM ST ENDS
2888 Boom Trenchard's Flare Path restr 291-5555
2904 Bracamonte Enterprises Inc restr oprs 298-7704
Jimsair Aviation Services Inc sls & serv 298-7704
Windsock The restr 291-2931
2975 Douglas John acct 295-4171
2980 Lindbergh Field (Old Terminal)
Dept Of Commerce (Natl Weather Serv) 297-2107
Fed Aviation Administration (Flight Serv Sta) 293-5285
3090 General Dynamics Corp-Elec Div (Plant)
3125 General Dynamics Corp Convair Division electronic div ofc
3165 San Diego Unified Port Dist 291-3900
W SASSAFRAS ST ENDS
3302 General Dynamics Corp Convair Aerospace Division lindbergh field plant 277-8900
VINE ST ENDS
3555 Turk's Independent Mercedes new auto sls & serv 299-7700
3565 Phillips Chatty A 295-0400
3567 Vacant
3569 Eads Ross 295-2873
ZIP CODE 92110
BEAN ST ENDS

2667 Camino Del Rio S., Suite 104
San Diego, CA
Telephone (714) 428-2277
SE HABLA ESPANOL
n Ysidro Blvd., San Ysidro, Calif. (92173)
CASTLE INSTANT MAINTENANCE, INC

W UPAS ST—Contd
817★Rehm Danl E
820 Karliner Joel S ◎ 296-4101
832 Farrow Wm T ◎ 295-1072
845 Razzeto Suzane M Mrs ◎
850 Jones Julie G Mrs ◎ 295-7994
GOLDFINCH ST INTERSECTS
HAWK ST INTERSECTS
FALCON ST INTERSECTS
KITE ST INTERSECTS
1307 Rundle Gerald G ◎ 298-3327
1315 Morrill Eug L
1350 Scafidi Joseph ◎
UNION ST INTERSECTS

9

STATE ST INTERSECTS
1506 White Garry M
1508★Clark Marjorie A
1510 Maun Barbara Mrs 291-1207
1512 Vacant
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS
KETTNER BLVD INTERSECTS
PACIFIC HWY INTERSECTS

70

UPLAND ST —FROM 1600 60TH ST EAST

ZIP CODE 92114
6023 No Return
6033 No Return
6038 Torres Ralph 264-5791
6040 Mac Laurin Michl ◎
6060 Owen Eliz L Mrs ◎

99

UPPER HILLSIDE DR (LA JOLLA) FROM 7300 ENCELIA DR EAST

ZIP CODE 92037

27

UPSHUR DR —FROM 3224 BARNETT AV NORTHWEST

ZIP CODE 92110
2602 Villanueva Ray
2604 Mallare Juanito T 223-4197
2608 Crouch Paul 224-5418
2612★Brown Earnest
2614 Banks Jackie D
2618★Leach Wm D 223-4293
2622 Thomas A D 223-1082
2624★Orton Don
2628 Buenaflor Lito C 225-9777
2701 Grance Stanley
2702 La Grone Mike
2704★Parks Bruce 224-2168
2705 Bailey Lett C
2707 Sites
2708★Mumfor Herbert H 223-5867
2711 Vacant
2712★Brown Ernest D 226-0395
2714 Bollin Thos E 224-5005
2717 Le Baron Rodney S
2718 Doak
2719 Montaya John F 224-4601
2721★Talavera Anselmo T
2722 Slaton Nina B 225-0103
2724★Connolly John R
2725★Coran Jerry
2727 No Return
2728 Brissey Ron C 224-1190
2731 Vacant
2732★Holmes Steph K 223-2828
2734★Mayo Romeo
2735 Vacant
2737 Collins Jack
2738 Zorn Delbert R
2741 Molles Pablo
2742 Hohnberger John H
2744 Laserna Oscar L
2745★Elopre T V 223-9614
2747★Murray M
2748 No Return
2751 Jusay Francisco
2752★Lampley David R 222-5140
2754 Ladiero Fransico I Jr 222-4844
2755 No Return
2757 Vacant
2758 Martinez Antonio
2761 Inman Rick A 224-4888
2762 No Return
2764 No Return
2765 Loudermilk Wm
2767 Ritnour Michl 222-7762
2768 No Return
2772★Corpuz Demetrio G
2774 Vacant
2778★Saluta Bernardo A
2782 Mayo Michl T
2784 Perez Mario
NORMAN SMITH DR ENDS
2788 Graham David L
2792★Dekle Bobby L 224-5176
2794 No Return
2798 Dantzler Thomas G 222-6844

119

UPSHUR ST —FROM 1050 SHAFTER ST WEST

ZIP CODE 92106
2828 Imperial House Apartments 222-1570
101 Cherrington Ralph E 222-7285
102★Rogers B Nicole 222-4098
103★Walker Sheridan J 222-4098
★Rogers Britt
104★Kaiser Pam
105★Cohen Andrea M 224-3916
107 Carlos Jos 225-9839
108 Standen Gilbert 224-5251
109 Baker Ray 224-6244
111★Nicholas Scott L 224-6935
112 Wood Forrest G 223-9303
113★Andreany Karl 223-4328
114 Henry Zelda
116 Greve Richd N 223-1224
118★Maruca Al
119★Harper Ann
120 Barrett Madaline W 223-4240
121 O'Brien Maurine 223-5854
122 Wilcox Dwight R 224-2504
123 Ward G E 222-4243
124 Meek Jack P 224-3823
125 Parkinson Tom 222-7223
126 Megatek Corp (Lounge)
201 Migdal Seymour 224-6855
202★True Phyllis F 224-3881
204 Vaughn Adele Mrs
205 Menkin Kathryn R 223-0461
207★Freeman Mona
208 Freeman Lois 224-0746
209 Clark W W
211 Kopp Gus W 222-7460
212★Szalwinski Laura
213 Desjarlais Armaude 226-8900
215 Schuele Christine L Mrs 224-6614
216 Hansen Rupert P 223-9749
218 Hansen Roland
219 Kennedy Laurie
220 Olson Lynda M 224-8190
221 Lynch Dennis
222★Ladd Lon H 223-5179
223★Williams Peggy
224 Levine Paul H 224-7787
225 Mc Mannus Charles W
226★Lizza Anthony 223-9717
A Feldt Richd
B★Saffaran Remmy

419

SCOTT ST INTERSECTS
2901★Rinsler Mark 224-1474
2901½ Mc Intyre David R
2903 Vacant
2903½ No Return
2905 Francisco John A
2911 No Return
2913 O'Brien Duane 222-9868
2913b No Return
2918 Vacant
2919 Portugese Historical Center non profit org 223-8893
2920★Cooper Robt
2921 No Return
2922 Morales Elios
2924★Veigel Cary
2924½ Kramp H
2926★Montoya Jackie 222-3795
2926½ No Return
2927 Debraga Jessie D ◎ 223-6709
2928★Hoch J I 223-4806
2932 Hampson Kathleen ◎
2934 La Maison gifts 223-2934
2936 Hickethier Robt S 222-3367
2938 No Return
2940 Lunch Ruth J Mrs 222-6091
ROSECRANS ST INTERSECTS
3001 Dean's Photo Service photo developing 223-8970
3003 Cinnamon Art Center For Hair Design 226-1866

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UPTON CT —FROM 2600 ULRIC ST WEST IN A SEMI-CIRCLE

ZIP CODE 92111
6801 Green Saml ◎ 277-4377
6802 Landry E Eug ◎ 277-4768
6811 Smith Richd L ◎ 277-3742
6812 Vacant
6821 Williamson Thos C ◎ 292-7371
6822 Verdin Manuel M ◎ 279-8724
6831★Tyerina Ruth
6832 No Return
ULRIC ST INTERSECTS

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UTAH ST —FROM 2850 UPAS ST NORTH

ZIP CODE 92104
3404 Dobson Marion M Mrs ◎ 295-8766
3411 Anderson Alden H ◎ 298-5921
3412 Matson Billie C Mrs ◎ 299-4048
3419 Goodale Lawrence E ◎ 299-2305
3419½ No Return
3422 Matson Earl J ◎ 299-3911
3429 Schwartz Milton J ◎
3430 Neyer Arth E ◎ 296-2816
3436★Linges Steph ◎ 296-4645
3437 Srigley Bertram C ◎ 291-2571
3441 Vickers Terry
3443 Landry W D 295-1254
3446 Oberg Gustav R ◎ 296-6781

416

MYRTLE AV INTERSECTS
3501 Burke Frank ◎
3502 Miles Winifred H Mrs ◎ 295-2020
3511 Shell N Jerdine ◎ 295-6571
3512 Hurd Donald E ◎ 297-1770
3519 Perkins Danl A ◎ 298-9634
3520 No Return
3526 Tuller Lula M Mrs ◎ 296-6573
3529 Henderson Paul C ◎ 296-1813
3534★Staples Scott 692-0245
3534½ Colwell E T
3536 No Return
3537 Adrian John G 295-9395
3543 Sundstrom Ellen A Mrs ◎ 295-8863
3544 Vacant
CAPP ST INTERSECTS
3552 Ohre Vera R Mrs 298-2249
3553 No Return
3562 Garman Willis U gdnr ◎ 295-2466
3565 Conn C Lorene Mrs ◎ 295-9260
3568★Wilson Margie
3568½★Wallich Richd A 692-9252
3569 Dixon Wayne L ◎ 291-4607
3576★Nelson L 298-5285
3576½★Snyder Bradley 299-0786
3577 Baker Dorothy M Mrs 295-4782
3579 Vacant
3580 Forsythe James F 295-2289
3583 Ballard C M 291-6889
3592 Edwards Mary F Mrs ◎
3593 Alderson Wm F ◎ 296-3245
DWIGHT ST INTERSECTS
3605★Rodriguez Dwight
3610 Mc Mullen John S ◎ 295-5750
3611 Harrah James M
3619★Cushman Steven ◎
3620 Howard Victor D ◎ 291-0887
3628★Blair Wm Jr 294-9693
3629 Johnson Rosa Lee lwyr ◎ 296-2845
3635 Brown E James ◎ 295-1755
3640 Stallcup Derald
3644 Perkins Don N ◎ 299-8838
3645 Villarreal Bernardo 297-6558
LANDIS ST INTERSECTS
3702 Graybill John 296-9822
3705 Sailors John 291-5493
3709 Hanson Gladys B Mrs ◎ 298-6417
3710 No Return
3720 No Return
3721 Linville Edw ◎ 295-5295
3726★Kendall David C 299-8485
3727 Warren Harry B ◎ 295-7592
3728★Walkey Rick
3737 Golden Age Manor (Annex) 298-2737
3747 Golden Age Manor rest home 298-2737
Briley Janet 298-3316
GUNN ST INTERSECTS
3753 Stephens Howard 298-9413
3761 Couchman Geo O ◎ 298-5512
3765 Miller Karl Jr ◎
3770 Jefferson Children's Center day care 298-6383
Jefferson Elementary School 296-0116
3775 Vance Eileen B Mrs 295-4365
3785 Vacant
3787 Vacant
3789 Wittenberg Lester L real est broker 296-3111
3795 Silver Gate Masonic Temple (Meeting Hall) 295-4434
Armanth Social Club 295-4434
Anchor Court No 94 (Order Of Amaranth) 295-4434
Corinthian Chapter No 358 (OES) 295-4434
Galilean Shrine No 30 (White Shrine Of Jerusalem) 295-4434
Galilean Shrine Social Club 295-4434
Harbor Lights Chapter No 600 (OES) 295-4434
San Diego Assembly No 129 (Rain Bow Girls) 295-4434
San Diego Chapter No 264 (O E S) 295-4434
Silver Gate Lodge No 296 (F & A M) 295-4434
Southern Star Chapter No 96 (O E S) 295-4434
NORTH PARK WAY BEGINS
3805 Stern Leo D ◎ 291-6609
3807 Stern Bettye Figure Salon 296-2207
3815 Antique Refinishers 298-0864
Clear Light House stained glass mfg 298-0864
3815½ Kanturek Hilde Mrs 299-0951

434

UNIVERSITY AV INTERSECTS
3927 North Park Lions Club 574-9832
Huffman Scott
OFFICE BUILDING
3930 Rooms
A Efren Company Real Estate 299-8700
A Cota Robert Realty 299-8700
B Indochinese Community Health & Education (class rooms)
E Collection Bureau Central collection agency 291-9984
F Indochinese Service Center soc serv organization 298-4634
H Royal Investigations & Patrol 299-6680
J Indochinese Community Health-Educ non-profit organ 296-1396
K Pacific Asian Preventive Program bilingual program 293-3437
STREET CONTINUED
3933 Storm Earl D 297-9493
3936 Chlulli Dorothy Mrs
3936½ Zenthoefer N 297-0608
3937 No Return
3938 Harper Beatrice C Mrs
3938½★Greenwood Ouida 295-8549
3940½★Nasseri Mohsen 692-0687
3941 Thomas Realtors 296-6343
3945 Sullenberger Horace ◎
3947 Vacant
3953 Scholz Arlotta M Mrs ◎ 295-1067
Rear Bradman Ralph E
3956 Anderson Freda J ◎ 298-2870
3959 Howard R C 297-4387
3960 Popov Hermann C ◎ 295-9967
3960a Wilson Melva Mrs
3961 Beale John F
3961½ Rabe Gloria Mrs
3963 Pagel Loretta E 298-0211
3967 Vacant
3970 Apartments
1★Plunkett Paul 692-1462
2 No Return
3★Gladstone D ◎ 295-1165
4 Ice Thelma Mrs 291-0949
5 Harrell Betty Mrs
6 Spencer
7 Goldstein Abe
8 Taylor Bertha Mrs
9★Amberg Ron D 297-5987
3973 Mayo A
3975 Robbins Hazel E Mrs 295-4476
3977 Shelmut Fred D 299-7094
3978 Apartments
1 Neal Dorothy C Mrs 296-4291
2 Sobarnia Mary J 299-9394
3 Lowenthal Arth 299-5072
4 Rietzke Adolph
5 Smith M E Mrs 295-5694
6 Freund Edw 298-5593
7 Perkins Hugh M
8 Orr Sarah B Mrs 299-4197
3979 Irwin Max S 295-8242
3981 No Return
3983 No Return
3984 Apartments
1★Minto Mary E 299-0991
2 Roe Wm A 295-4758
3★Cotton Sima 293-6847
4 May
5★Baldwin Donald A 295-0335
6 Lovelady R B
7 Washington Gladys M Mrs 296-3558
8 Hansen Grace I Mrs 296-1645
9 Hein Benj 299-4226
10 Hill Merrill L 296-0643
3985 Burnett Joseph D ◎ 296-6579
3993 Perez Charlene 297-2165
3994 Musgrove Esther H Mrs 299-1190
LINCOLN AV INTERSECTS
4004 Apartments
1 Wick Albert W 295-2096
2 Mueller
11 Shamblin Dorothy Mrs 289-4053
12 Jones Floyd H 298-4827
4019 Apartments
1 Serna Frank 284-4820
2 Sternberg Bertha Mrs 284-9902
3 Ablowich Miriam A Mrs 283-0277
4 Maurer Sigfred 280-1667
5 No Return
6 Lewin Fred F 284-0462

VILLANOVA AV—Contd
3209 Way Todd D ◎ 453-4919
3210 Jett Paul S ◎
3224 Keil Tenny J ◎ 453-7783
3225 Kopels Gerald E ◎ 453-3871
3237 Vacant
3238 Coiner Preston B ◎ 455-1921
3253★Sissons J P G
3254 Santillan Saml B ◎ 453-5321
3269 Machuzak Joseph ◎ 453-5296
3270 Estee Beverly L ◎ 453-1180
3285 Carlson Thos L
3286 Schwartz Melvin L 255-6271
3298 Bevis Barbara ◎ 452-0227
3299 Thiele Alan G ◎ 453-3651
3327 Agueda John S ◎ 453-2754
3328 Applestein Neil J ◎ 453-5839
3345 Manber Malcolm ◎ 453-1246
3346 Wall Robt Jr ◎
3363 Lee John ◎
3366 Toth Verna E Mrs ◎ 453-7845
3385 Drake Dennis F ◎ 452-9820
3386 Laturno Gary M ◎ 453-5723
3430 Vacant
3431 Kuttler M D Jr ◎
3436 Brooks Neal ◎ 452-1951
3437 Fitzsimmons Jerry W ◎ 453-5787
3442 Kinnan Kenneth W ◎ 452-1576
3443 Vaux Richd W ◎ 453-2086
3448 Ensch J C ◎ 452-8037
3449 Spong Fredk W ◎ 453-5141
3515 Vowinkel Russell C ◎ 453-2376
3516 Whitehead Carolyn L Mrs ◎ 453-4126
3527 Crahan Patk J ◎ 453-1317
3528 Ruettgers John J ◎ 453-5883
3544 Shapiro Philip A ◎ 452-0230
3545 Holm David R ◎ 453-7870
3564 Roitman Leo ◎ 453-2471
3565★Vaughn Florence B Mrs 455-1268
MERCER ST INTERSECTS
DENNISON ST INTERSECTS

643
VILLARRICA WAY —FROM 10700 PORTOBELO DR EAST

ZIP CODE 92124

194
VINCA WAY —FROM 930 61ST ST EAST THEN SOUTH

ZIP CODE 92114
1304★Yuvienco Honrado L
1305 Raquel Ricardo ◎
61ST ST INTERSECTS
1311 Siviley Rhamphet 263-5715
1312 Nafarrete Arturo
1319 Hunt Barbara Mrs 263-3517
1320 Taganes Frankpaul L ◎ 464-2795
1325 Santos E B 263-7592
1333 No Return
1334★Fields Richd 262-4756
1339 No Return
1347★Powell Michl ◎
1353 Fultz Dennis A ◎ 264-2380
1360 Atrero Wilfredo A ◎ 263-1844
1361★Afan Aristoleles D ◎ 263-9705
1369 Brown Mae ◎
1370★Matargo Rolands ◎
1379 Davis Clayton ◎
1380 Hingada Mario D 264-1768
1387★Waters Chuck
DIVISION ST INTERSECTS

93
VINCENTE WAY (LA JOLLA)—FROM 6400 ELECTRIC AV EAST

ZIP CODE 92037
404 No Return
405 Rudnick Philip ◎ 454-7459
411 Cohn Alda 454-1404
412 Vacant
419 Hansen Terry ◎ 454-7027
420 Brown Everette R ◎ 459-5638
427 Floyd Charles E 454-2982
428 Lanphier Thos G ◎ 454-0049
436 Vacant
DOWLING DR INTERSECTS
531 Lindberg Trish 454-9325
533★O'Conner Terry 459-5878

26
VINE CT —FROM ½ BLK WEST OF 750 S 29TH ST EAST

ZIP CODE 92113

9
VINE ST —FROM 3550 UNION ST WEST

ZIP CODE 92103
1405a Tyson David
1405b Josserand Vera D Mrs 297-0704
1405½ Rust Lucile Mrs 295-4907
1412 Turner Toni A 295-7818
Balistreri Antoinette
1417 Vinyard Fred A ◎ 296-1134
1420 No Return
1421 Griswold Frank ◎ 295-4388
1430 Day Robt P ◎ 295-4884
1438 South Ruby C Mrs 295-5040
1440 Mc Cardle Harriet E Mrs 295-6109
1442 Poole Wm D 291-0194
1449 Wells Charlotte R Mrs ◎ 295-6561
STATE ST INTERSECTS
1501 Wilson Wm
1511★Colldeweih Robt 299-3319
1512 Vacant
1515★Nuanez M
1516 Saville Loeta M Mrs ◎ 296-3090
1524 Carman Richd T 291-1155
1526★Robinson Robbie S 296-1383
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS

240
VINLEY PL —FROM 6200 DEL CERRO BLVD NORTH

ZIP CODE 92120
5725 Sterling Homer ◎ 583-0661
5738 Glazer Sidney ◎ 583-0975
5739 Passenheim Betty Mrs ◎ 582-9192
5750 Sundberg Richd H ◎ 287-2855
5755 Miles Charles
5762★Lenain L G 583-2642
5767 Eucces James ◎
5774★Gilmer G R 265-2070
5783 Bagby Harry F ◎ 582-1838
LAMBDA DR INTERSECTS

127
VIOLA ST —FROM 1296 MORENA BLVD EAST

ZIP CODE 92110
GERTRUDE ST BEGINS
1308 Twombly Robt N ◎ 276-1956
1315 Torres Paul ◎ 276-7553
1320 Kildare Douglas ◎ 276-0478
1325 Hafner Richd ◎ 276-2537
1344 Michalek Stanley J ◎ 276-6346
1345 Alberico Mary A Mrs ◎ 276-1614
LILLIAN ST INTERSECTS

84
VIOLET ST —FROM 1 BLK SOUTH OF 4152 SYCAMORE DR NORTH

ZIP CODE 92105
2502 Peabody Mary O Mrs ◎ 284-2940
2504 Williams Marianne
2507 Vacant
2510 Stevenson James M ◎ 283-5209
2511 Harvey Delmar J ◎ 280-7677
2518 Harrigan H Juana P Mrs ◎
2519 Witek Fredk J ◎ 283-8477
2524 Garner Jerry ◎
2525 Jackson Paul D ◎ 284-2422
2530 George Ruth G Mrs ◎
2535 Gibbons Edw L 284-0197
2536 Oliver Weldon C ◎ 281-0237
2537★Harris Edw
2540 Wilkerson Roy C ◎ 282-9300
SYCAMORE DR INTERSECTS
2544 Degallardo Maria ◎ 282-7731
2547 Pasquill Donald Jr ◎
2548 Molly's Childcare Center 281-2372
Liberatore Molly L Mrs ◎ 281-2372
PEPPER DR INTERSECTS
2550 Bishop Susan J 282-4159
2552★Wilbourn James 282-1123
2554 Choate Jeffrey L
2556 Choate Robt J ◎
PEPPER DR INTERSECTS
2560 Choate Jeanette C Mrs ◎ 284-4597
2564 Barajaa E C 280-4546
2568 Jacobs Marvin P ◎ 281-8009
2571 No Return
2572 Boyd Kenneth D 284-0577
2576 Lee Robt J ◎ 283-6705
2580 Bostwick S C 283-1436
2581 Beard A C 284-0864
2583 Mendez Angie M
2596 Azalea Recreation Center 284-9961
POPLAR ST BEGINS
2608 Precido Antonio F 281-7653
2614 Smith P A ◎ 281-6301
2622★Merrima Jan M 282-3928
2623 Wright James H ◎ 284-0427
2624 Jeuhls Aug 282-5808
2625 No Return
2629 Mc Govern Daryl J 283-4186
2629½★Orman G 282-3260
2631 No Return
2632 Von Goerlitz Eric ◎ 281-5200
2634 Tackaberry Mary C Mrs
2637★Nordwick Thos
2639 Simmons Larry D 280-8398
2640 De Letto Danl N 563-5461
2643★Babbit Doris M
2646 No Return
2648 Bates Montelle III 284-4873
2649 Donahue Goldeen Mrs ◎ 282-0870
2650 Howard Robt 281-8619
2651 Vacant
2652★Erickson Robt L 533-9656
2656 Tallaksen Robt W 281-3861
2661 Garcia Gloria ◎ 284-7483
MANZANITA DR INTERSECTS
POPPY PL ENDS

148
VIRGINIA AV —FROM 6500 BLK ACORN ST NORTH

ZIP CODE 92115
4567 Durman Dwayne A ◎
4568 Kern Joseph R ◎ 583-6760
4575 Savel Joseph S ◎ 582-2600
4576 Seidel Geo A ◎ 583-3939
4583 Zane Stanley D ◎ 286-2529
4584 Groccia John J ◎
4591★Doyle Matthew J 265-1954
4592★Bailey Harley S ◎ 286-6808
4611 Mendoza Judith T Mrs ◎
4612 Smith Paul K
4617 Butler Klyde F ◎ 582-8422
4618 Zito Realty 582-3670
Zito Joseph J ◎ 582-3670
4623 Loman Esther H Mrs ◎ 583-7153
4624 Little Gary D ◎ 286-0286
4629 Snavely Le Roy 582-3738
4630 Peale Marilyn S Mrs ◎ 583-3692
4635 Schaner Alex ◎ 582-7035
4641 Butler Frank O ◎ 582-7541

453
VIRGINIA WAY (LA JOLLA)—FROM 7600 GIRARD AV NORTHEAST

ZIP CODE 92037
TORREY PINES RD INTERSECTS
1027 Gietz Heinz Autohaus Inc auto dlr 454-7137
HERSCHEL AV INTERSECTS
1105 Barrett Murray J 459-5882
BLUEBIRD LA BEGINS
1120 Alkazin & Associates amway prods distr 454-7007
Alkazin Joseph J ◎ 454-7007
1121 Lumpkin Marie Mrs ◎ 454-2721
1127★Harris J P ◎ 459-7943
1138 Ward Jack O ◎
1142 Barca Zita V Mrs ◎ 454-7623
HIGH AV INTERSECTS
1155 Penry Willard W ◎ 454-4955
1156 Lindkvist Ann S Mrs ◎
1168 Fellows Wendy E Mrs ◎ 459-5589
1178 Vacant
1201★Furr Lola A Mrs ◎ 454-4062
1208 No Return
1211 Price Ernest H ◎ 459-1406
1214 Kyte Jack E ◎ 454-9478
1215 Farnsworth Paul A 459-2289
1221 Gallagher John J ◎ 454-1488
1224 Nicol Catherine E Realty 459-5073
Nicol Cath E Mrs ◎ 459-5073
1231 Avison Kath W Mrs ◎ 454-7891
1235 Freed Stan ◎ 459-0116
1236 Burke John S ◎
1245 Vacant
1246 Smith Francis M ◎ 459-5597
1252 Copley David C ◎
1257 Schaelchlin Juerg W ◎ 459-8409
1260 No Return
1263 Thurmond Ethline E ◎ 454-7008
1271 Vacant
1271½ Elam Diane 459-2874
1274 Sasse Lewis Rev ◎ 454-3620
1275 No Return
1285 Stewart Paula
1287 Stuart Paul S Jr ◎ 454-6971
1299 Andreasen Henning O ◎ 454-1351
IVANHOE AV BEGINS
1301 Judge Roger ◎ 459-5184
1304 Christensen Linda J ◎
1314★Meek Matthew E ◎ 459-9415
1320 Munds John 454-0696
1321 Herring Clarke F ◎ 459-1475
1324 Kellers Charles F ◎ 459-6093
1325 Jordan John A ◎
1328★Dunn Russell M 954-3670
1335 Willbanks Robt H ◎ 459-2136
1338 Vacant
1345 Marsden Winifred H Mrs ◎ 459-7824
1350 Brown Russell B
1351 Booth Doris G Mrs ◎ 454-4008
1356 Gardner John S ◎ 454-2962
1356a Cundiff Helen S Mrs ◎ 454-7337
1361 Longenecker Martha M Mrs ◎
1364 Helfgott Robt H ◎ 459-9396
EXCHANGE PL INTERSECTS
1400 Weirather Hal E ◎ 459-8871
1401 Amantea Michl 459-4523
1411 Whittemore Candis ◎
1412 Hosie Bernard P ◎ 459-6192
1414 Mac Intyre Neil R ◎ 454-5105
1419 De Bolt Wm L ◎ 459-8159
1436★Chambers Ada M 456-1425
1437 Mc Comb Guy R ◎ 459-8030
1440 Morris Robt ◎ 454-0379
1445 Rumsey Anne ◎ 454-4739
1453 Ferry Phyllis C ◎ 459-5927
1454 Wernham Geo C ◎ 459-5786
1461 Lee Geo R ◎ 454-1644
1475 Duntley S Quimby ◎ 454-1742
PROSPECT PL INTERSECTS
1520★Andersson Hudnall 454-1063
1523 Vacant
1524 No Return
1528 Largent Frank D ◎ 459-0317
1532 Butler Michl J Jr ◎ 459-7932
1533a Barnes David ◎ 454-1481
1533b Heifetz R Mrs 459-2160
1540 Johanson Johan G ◎ 454-2083
1556 Kellaway Peter W ◎ 454-7960
1563 Cady Harlow G ◎ 454-2371

574
VIRGO PL —FROM 8350 ARIES RD NORTH

ZIP CODE 92426
11010 Flynn Wayne
11018 Teeter James L ◎ 271-4564
11026★Duchock Chas J 578-6087
11034 Mc Cormick Michl D ◎ 271-4413
11042 Zeiss Robt A ◎ 271-4419
11050 Sakurauchi Hideo ◎ 271-7788
11058 Obel Lyn 271-5483
11066 Mc Morrough John D
11074 Hall Melvin L 578-6034
11082 Coalter Marshell ◎ 271-6958
11090 Roberts Larry K ◎ 271-7979
11096★Sitter Chas ◎ 566-5485

126
VIRGO RD E —FROM 5600 REDWOOD ST NORTH

ZIP CODE 92105
3203 Wookcock Joel 287-5120
3204 Baxter Fred C ◎ 583-0842
3212 Darton Jay T ◎ 583-4697
3215 Nelson Jeanne Mrs ◎ 286-2685
3220 Hynes Robert R ◎ 583-9565
3225 Vacant
3230 Nilsson Bengt B ◎ 582-1552
3235 Russell James
3240 Aguilar Manuel E ◎ 583-5375
3245★Traber Ralph ◎
3250 Jewell Michael D ◎ 287-0630
3255 Phrommayon Phisal ◎ 286-1208
3260 Hardy Charles P ◎ 286-9230
3263 George J Donald ◎ 286-3751
3269 Pickering James P ◎ 286-9185
3270 Zacarian Martin
3275 Martell Wm E ◎
3281 Simo Ralph G ◎ 583-0942

128
VIRGO RD W —FROM 5550 REDWOOD ST NORTH

ZIP CODE 92105
3104 Krakauer Max F ◎ 582-5960
3112 Warren Ayton J ◎ 583-0103
3117 Sibrel James C ◎ 287-2045
3122 Brackett Robt F ◎
3131★Brown Kevin
3132 Aguayo Claude D ◎
3142★Pino Carlos E ◎ 582-2521
3149 Knapp Herman B ◎ 583-5094
3150 Wilke Royal M ◎ 583-5102
3203 Paredes Richd Jr ◎ 583-9277
3204 Palmer James W ◎
3211★Branstetter Kent A ◎ 582-8024
3212★Ball Dale
3221 Moore Ronald B ◎
3222 No Return
3231 Jacobs Elmer F ◎ 583-2155
3232 Bershaw John L ◎ 583-8504
3241 No Return
3242 Jewell James E ◎ 583-9389
3250★Schneider Arth L ◎ 583-0318
3251 Fair Patricia Mrs ◎ 583-3062
3258 Wilker Charles H ◎ 286-9618
3261 Tullis Gary M 583-3099
3264 Robinson Richd E ◎ 582-6123
3270 Van Auker Rose A Mrs ◎ 582-6506
3276 Burke J Harold ◎ 583-0486

570
VISION DR —FROM DEAD END WEST OF 9640 EASTER WAY EAST

ZIP CODE 92121
4340 Barnard Arthur ◎ 455-1761

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

WALNUT AVE W 1980

WALLSEY DR—Contd
6848 Middleton James H ◎ 461-5462
6858 Arnold Donald L ◎
6859 Faulkner Robie ◎ 463-5269
6867 Brown Ralph G Jr ◎
6868★Pruitt Gary ◎ 697-0545
6880★Branard Philip ◎
6881 Sosa Frank A ◎
6890 Gibbs Sherman W ◎ 465-5354
6893★Barranger Jack J ◎ 697-6108
6901 La Vack Lloyd ◎
6902 Sauvajot John B ◎ 469-2790
6909 Jenkins John T ◎ 465-7376
6914 Young Clyde H ◎ 463-2667
6915 Brister Paul ◎ 464-1680
6921 Measel Martin L ◎ 466-4216
6922 Leggate Alex ◎
6929 Lazernik Eliz ◎
6930★Reid Wm H ◎ 466-4638
6935 No Return
6938 Van Der Maaten Dennis J ◎ 461-6988
6941★Lochlad Rick S
6946★Winkler Mary
6947★Reneau Harry H 466-9941

373
WALMAR LA —FROM 4180 PENDLETON ST EAST

ZIP CODE 92109
2300 No Return

106
WALNUT AV —FROM 3500 1ST AV EAST

ZIP CODE 92103
115 Apartments
A★Wilborn David
B Bentson Ruth S Mrs
C Fox P 297-4943
D★Wilborn Rebecca 299-4860
E★Bishop Bobbie
F Kranz Bernard
G★Markin Kim R
H★Barone J
140 Grosvenor House condominums
2a Scudder John C ◎ 295-9478
2b Sutter Zada A Mrs ◎ 297-0660
2c★Walden S Mrs ◎
2d★O'Callahan Irene ◎
2e Reiner Carol Mrs ◎ 291-6208
2f Venard Lloyd G 295-5303
2g Dumas Dorothy L Mrs ◎ 295-7512
3a Schweiger Milton B ◎ 297-0092
3c Kaufman Roberta 295-5505
3d Reed
3e Funk Bart ◎ 295-0590
3f Drennen T ◎
3g Felix Lou ◎
4a Connor Lawrence W ◎ 295-6835
4b★Biss Larry R ◎ 293-3030
4c Fitzgerald Lewis ◎ 298-1963
4d Newland Bert 295-0768
4e Isom Mae ◎ 295-2862
4f Soltys Virginia M ◎ 298-3762
4g Mc Clain Alice ◎ 295-3202
2D AV ENDS
205 Berger John A phys 295-2147
207 Stella Salvatore L phys 291-7730
211 Mc Dowell Richd D 299-9415
225 Kobusch Pamela 295-6956

406
3D AV INTERSECTS
305 Schiefer Wm E dentist 291-1181
Lauer John C dentist 291-1181
306 Walnut Professional Building
306 SUITES
21 Slonim Mark S phys 297-9181
23 Eye Surgical Medical Group Of San Diego Inc 291-6191
23 Home Optical Co sup sls 298-4200
23 Ravin Oscar G phys 291-6191
23 Rozansky Norman M phys 291-6191
23 Michelson Paul E phys 291-6191
24 Balboa Internal Medicine Med Group (Business Ofc) 299-0335
25 Tyler Michl J dentist 298-2893
26 Brockett Pavel & Hendrix dentists 299-3320
29 Hanson Eug C dentist 298-2291
31 San Diego County Dental Society prof orgn 291-4030
32 Lueck Bernard W dentist 299-3560
33 San Diego Podiatry Group 291-0777
33 Green Richd M podiatrist 291-0777
33 Kroepel Larry R podiatrist 291-0777
34 Liegel Henry C dentist 297-6720
36 Plastic & Anesthetic Surgical Center 297-4433
36 Moore Lawrence T phys 297-4433
36 Vicchone Thos R phys 297-4433
38 Balboa Internal Medicine Med Group Inc 299-2350
38 Channick J Michl phys 299-2350
38 Roland Arnold S phys 299-2350
38 Steinberg Steven M phys 299-2350
38 Villalobos Richd phys 299-2350
38 Lutz Michl D phys 299-2350
39 Carlson Robt D dentist 299-3200
315 Armstrong Charles B dentist 297-2954
Watson John A dentist 297-2836

506
4TH AV INTERSECTS
418 Beckman Frances G Mrs
420 Center For Creative Health 296-2178
Du Gre Paul phys
5TH AV INTERSECTS

106
WALNUT AV W —FROM 3500 1ST AV WEST

ZIP CODE 92103
101 Zigler Wendy S
103 Mc Guiney Margt M
105 Spriggs Ronald E
109 Sandu Marian 297-6627
111★Orainne Andre
117a★Cook Gregory 294-9038
117b★Cantu Anthony 295-5476
117c★Mc Clain Chas M
119 Apartments
1★Pries Robt J 291-4974
2 Stafford
3 Sanchez C
4★Walker Michell
5 Woodrow Susan
6★Salhony K
7★Woodward Gloria L
8 Gebauer Oscar
9 Vacant
FRONT ST INTERSECTS

413
FRONT ST INTERSECTS
205 Larson E H 295-7689
207 Franklin
211 Vacant
230 Apartments
A★Franklin Roland
B Demski Roman P 298-8473
C Armstrong Alden
D Wallis Frank E
ALBATROSS ST INTERSECTS
315 Young Wm P 298-5662
321 Riley Timothy B ◎ 296-1556
W WALNUT ENDS
OTSEGO DR INTERSECTS
605 Zink Melda S Mrs ◎
615 Kundra Tom J 298-9462

11
HAWK ST INTERSECTS
1004 No Return
1012 No Return
1021 Robinson Charles W 296-2892
1025 Jones Mary K Mrs ◎ 296-3396
1041 Enright Patk J ◎ 296-1672
IBIS ST INTERSECTS
1141 Edwards John F ◎ 298-2769
JACKDAW ST INTERSECTS
KITE ST INTERSECTS
1300 Rippo Anthony J
1302 Ocampo Ralph R 296-4339
1333 Schlappi Eliz R Mrs 295-1640

15
STATE ST INTERSECTS
LARK ST INTERSECTS
UNION ST INTERSECTS
1617 Moos K O 296-6995
1617½ Ferem Maureen P 298-0153
1621 Brown Clair W ◎ 298-7363
1623 Slavick Stanley Mrs 296-0249
1626a★Claesson Carol A
1626b Barker Nancy A
1627★Tragoutsis Signe 692-9941
1628 Coleman Richd R
1629 Eltz Dennis 291-3524
1631 Roome Fredk T 298-7673
FALCON ST INTERSECTS
COLUMBIA ST INTERSECTS
1703★Buckingham Thos
1703½★Harvey Janet L 295-5685
1709 Davis Harry M ◎ 295-9114
1711★Bernee C 297-8323
1717 Gregory Jon C 291-1593
1719 Leytham Robt J
KETTNER BLVD INTERSECTS
ZIP CODE 92101
1949 Vacant

174
WALSH WAY —FROM 5300 DROVER DR EAST

ZIP CODE 92115
5105 Nepi Wm ◎ 582-5976
5112 Blumer Sara Mrs ◎ 583-5263
5115 Reynolds Robt C ◎ 583-6940
5127 Prebonick Joseph ◎
5138 Drexler Robt B ◎ 582-8919
5139 Welch Reuben R Rev ◎ 583-7205
5151★Grawunder R M ◎ 583-1244
5152 Silverman Irving ◎ 286-1226
5163 Kallander Eliz C Mrs 583-1327
5164 De Vita Lewis & Son prod brokers 582-8645
De Vita Anthony J ◎ 582-8645
5173 Foster Geo H ◎ 583-2945
5174 Johnson Arvid T ◎ 583-3624
5183 Ellman Harry ◎
5184 Greenstein Herbert ◎ 286-1654

544
WALTER AV —FROM 6705 WINONA AV EAST

ZIP CODE 92120
4907 Peller Ruth S Mrs ◎ 287-3599
4908 Beyer Ronald D ◎ 286-1313
4919★Weaver Anne
4920 Gear Eli C ◎ 582-9019
4931 Buchy Paul Jr ◎ 583-0120
4932★Deneen Douglas 287-7839
4943 Walton John 582-7523
4944 Johnson Kennard H ◎ 582-1410
4955 Adams Leo W ◎ 583-1904
4956 Breese Paul M ◎ 583-0283
4967 Mars Russell W ◎ 583-8816
4968 Martin Frances Mrs ◎
4979 Constant George ◎ 583-9694
4980★Mc Donald Gordon
5007 Heuton Ronald P 287-7117
5008 Hatfield Kenneth M ◎ 582-2485
5019 Suchar Valentina Mrs ◎ 582-8761
5020 Vacant
5031 Loftus James H ◎ 286-0636
5032 Morris Lester M ◎ 582-5297
5043 No Return
5044 Burak Jack ◎ 582-4959
5055 Nygaard Evelyn Mrs ◎ 583-1685
5056 Adams James J ◎
5067 Christianson Orland V ◎
5068 Wylie Wm M ◎ 582-8884
5079 Wetzel Paul E ◎ 286-1949
5080★Hobbs Butch
51ST ST INTERSECTS

622
WALTON PL —FROM 4531 OHIO ST EAST

ZIP CODE 92116
3057 Agner John H ◎
3060 Asoro Giovanni
3061 No Return
3064 Aseere Lester 283-5152
3069 No Return
3070 Brockmeyer Myrtle A Mrs ◎ 281-9002
3072 Walton Place Court apts Vacant (3072-3076)
3072½★Neilsen Cedrick V 380-7305
3078 Thungsuk Anont
3080 Feryan Gladys W 284-9927
3082★Lo Seng 563-9631
3084★Marynowicz Edw
3086★Saldana Marie
3088 Treece Henry M 284-8630
3090★Osborne Monique

249
WANDA CT —FROM 6000 DELOR CT NORTHWEST

ZIP CODE 92120
6050 Green Charles B ◎ 284-1261
6053 Klein Larry R ◎ 282-0350
6056 No Return
6062 Rogers Forrest E ◎
6070 Schindler Ernest
6076 No Return
6082 Arnold James C ◎
6085★Behlman Ray D 283-5050
6088 Masters Robt C ◎ 284-7904
6095 Ortega James P ◎ 283-3329
6096 No Return
TWAIN AV INTERSECTS

207
WANDERMERE CT —FROM 6600 BLK WANDERMERE DR SOUTH

ZIP CODE 92120
6660 Chartier Wilfred G ◎ 460-5239
6667 Cox Frank C ◎ 461-5481
6670★Conroy Christopher
6675 Merind Fred ◎ 465-6304
6685 Nachant Fritz A ◎ 465-8506

207
WANDERMERE DR —FROM 6400 PASATIEMPO AV NORTHEAST

ZIP CODE 92120
6404 Hobel Frank E ◎ 583-9318
6405 Vacant
6431 No Return
6437 Vehar Mathew E ◎ 460-6004
6450 Vilott Harry D ◎ 583-7620
6453 No Return
6466 Adams Wm T ◎ 287-2495
6469 Joyal Eddie ◎
6482 Kimball James R ◎ 287-0125
6485★Boghairi Anoush ◎ 697-0510
6510 Kawahara Francis K ◎ 286-1865
6513 Furuoka S F ◎
6522 No Return
6525 Ratts Frank A
6534 Tisi Gennaro M ◎ 286-8164
6537 Vacant
6546 Lang J Eug ◎ 583-3167
6558 Ogilvie Joe G ◎ 287-9609
6572 Ellis Felix A ◎ 583-2775
6580 Zacks Hyman J
6588 Mole Thos H ◎
BELLE HAVEN DR INTERSECTS
6614 Nagai Ryusho ◎ 287-5377
6631 Togut Jack ◎
6632 Smith Lawrence K ◎
6649★Knetzer David
6663 Landefeld John D ◎ 460-9032
6671 James Skip Wall Covering-Unlimited Painting 698-0541
James Skip ◎
6683 Choukair Elias ◎ 464-2155
6695 Arthur Neil ◎
MIRA VISTA LA INTERSECTS
6702 Henry Patrick High School 286-7700
6711 Avvampato Charles ◎
6735 Buckby Richd A ◎ 461-0286
PARK RIDGE BLVD INTERSECTS
BONNIE VIEW DR INTERSECTS

241
ZIP CODE 92119
6965★Strachan Douglas ◎
6979 Abe Joe ◎ 462-9095
7005 Rothstein Eug L ◎ 465-3463
7021 Mitchell Steph C ◎ 465-3047
7030 Green Myron B Elem Sch 460-5755
7037 Holmes Joseph E
7053 Hornbeck Frederick W ◎ 463-5916
7069 Gargett Robt E ◎ 462-2014
7085 Mills H Vance ◎ 463-3328
GREEN GABLES AV INTERSECTS
7121 Croom Jary B 466-7591
SUNNY BRAE DR INTERSECTS
GOLFCREST DR INTERSECTS

91
WARBLER WAY (LA JOLLA)—FROM 1100 SKYLARK DR SOUTHWEST

ZIP CODE 92037
5550 Kennedy R Patk ◎ 459-2279
5551 Martin Fredk ◎ 459-3205
5560 Carpenter Stewart ◎ 459-6322
5561 Fiengo Louise M Mrs 454-3680
5570 Schlosser Wm F ◎ 459-2555
5571 Miller Morey 454-1522
5580 Bonn John J ◎ 459-5441
5581★Sing P

160
WARD RD —FROM 4600 CHEROKEE AV EAST

ZIP CODE 92116
3716 Erwin Charles B ◎
3717 Boyd Thos E 283-1180
3720 Jacobs Wm C
3728 Apartments
1 Mc Gregor M S 282-9418
2 Artale Angelo J ◎ 283-5160
3 Turner Pauline 280-6476
4★Fino Ramon 563-5474
5★Menzies Bruce
3735 Saporito T N
3737★Naley Sally J Mrs
3739 No Return
3741★Allen N L 281-1685
3743★Johnson Mark 284-4618
3744 La Granja Apartments
1★Kartsone G 283-0488
2★Griggs Ruben
3★Harrison Wm
4 Hammond Willia
5★Blake M
6★Duong N
7★Titus C 284-2542
8★Feil K
9★Barnes M
10★Jensen M
11★Scarbrough Bobby
12★Ledgerwood Paul M 282-3578

SAN DIEGO, CA (92123) MEMBER 3250 EL CAJON BLVD. AT FREEWAY "805" TEL. 280-5015

CALIFORNIA ST 1975

CALEDONIA DR—Contd
4247 Garza Ray ◎ 279-6053
4250 Calderon Jose R ◎ 279-4854
4261★Boyer Richd 279-7331
4262★Weatherby James D
4271 Redmon Henry L ◎ 278-9763
4272 Hall Billy B ◎ 278-8432
4281★Phillips Geo
4282 Badilla Eva H Mrs ◎
4293 Holman James J Jr ◎ 277-0896
4294★Lennon Lawrence T 560-0649
ARMOUR ST INTERSECTS

181
CALGARY AV —FROM 6700 EDMONTON AV SOUTHWEST

ZIP CODE 92122
3903★Fulk Judson J 452-9876
3913 Kuhn Robt E ◎ 453-7484
3920 Murray Raymond P Rev ◎ 453-2270
3923 Cefalu Dominic V ◎ 453-0426
3930 Blank Richd K ◎ 453-3570
3931 Swanstrom Carl R ◎ 453-7703
3939 Smythe Edw W ◎
CALGARY DR BEGINS
3940 Vacant
3947 No Return
3952★Tena Tom ◎ 453-0430
3955★Field Richd E ◎ 452-1343
3964 De Turi Nicholas M ◎
3969 Botz Richd J ◎ 453-5124
3976 Talner Lee B ◎ 453-6018
3977 Koepke Richd W ◎ 453-2305
3985 Wehner Larry P ◎ 453-6005
3986 Grim G John ◎ 453-1907
3996 Byrnes Henry F ◎ 453-5569
CALGARY CT BEGINS
4006 Keaton Irene F ◎ 453-1987
4018 Moy Fred T ◎
4025 Johnson Tracey C ◎ 453-5059
4030 Umbro Wm V ◎ 453-2408
4039 Gilhousen Klein S ◎ 453-4772
4042 Jones Warren D ◎
4053★Bridge Danl ◎
4054 Burgener Linda D Mrs ◎ 453-9643
4067 Brown M Hugh ◎ 453-9117
4068 Dube Marcel J ◎
4081★Mc Elven Junius ◎ 452-0460
4082 Thomas Homer H ◎ 452-0217
4095 Wise John W ◎ 453-5778
4096★Beebe Charles W 453-0156
RED DEER ST INTERSECTS
4105 Crowell Luther T ◎ 453-3787
4110 Porter Paul A Jr ◎ 453-4453
4113 Brown Roger W 453-8902
4118★Edens Stanley B ◎ 452-0216
4121 Sonniksen Ronald G ◎ 453-6576

181
CALGARY CT —FROM 4000 CALGARY AV SOUTH IN A CUL DE SAC

ZIP CODE 92122
6504 No Return
6505★Lawrance David E ◎ 452-1004
6514 Sherman Paul ◎
6515 Melcher Carl W ◎ 453-5184
6524★Jones Wm H ◎ 453-9433
6525 Peller Sheldon R ◎ 453-5484

181
CALGARY DR —FROM 3939 CALGARY AV WEST IN A CUL DE SAC

ZIP CODE 92122

25
CALHOUN ST —FROM 4050 HARNEY ST NORTHWEST

ZIP CODE 92110
MASON ST INTERSECTS
2734 La Casa Blanca Dining Room 295-7339
2754 Bazaar Del Mundo shopping center
Antelline's Fruit Bazaar dried fruits & confections 291-4843
Bazaar Del Mundo Inc coml leasing 296-3161
Candle Shop The
Casa De Pico Restaurant
Design Center Inc int dec 298-1141
Design Center The gift shop 296-3161
Estudio De Ceramica pottery mkrs & sls
Gallery The crafts paintings & sculpture
Geppetto's-a Child's Fantasy children's toys & clo 291-4606
Gifted Hand The gift shop 291-7982
Gusterman Silversmiths hand wrought jwlry
La Panaderia baked gds 291-7662
Libros books 299-1139
Paja straw baskets & products
Plant Man The nurserymn 299-2027
Whirling Logs Trading Post indian arts & crafts
Sign Of The Dove The restr 299-7124
TAYLOR ST INTERSECTS
WALLACE ST INTERSECTS

272
CALICO CIR ★FROM 8140 CALICO ST SOUTH A CUL DE SAC

ZIP CODE 92126
10420 Heyl Godfried 271-9439
10421★Johnson Oliver ◎ 566-8419
10426★Ford Craig M 271-8165
10429 Grear David W ◎ 271-5993
10432★Mornington Jack A ◎ 271-9081
10437 Porter Peter A ◎ 566-1511
10445 Clark David N ◎ 271-5614

272
CALICO ST —FROM DEAD END WEST OF 10460 MANILLA AV EAST

ZIP CODE 92126
7947 Allred Miles J ◎
7950 Jeffrey N V 566-1407
7955★Block Frank
7960 Serr Richd C ◎ 566-1815
7963 Beede Thos C 566-1543
7970★Mitter Deb K ◎ 271-0166
7971 Reimnitz Stewart N Rev ◎ 271-7088
7979★Wilson David G 566-6094
7980 Pearce James B ◎ 271-8341
7987 Malliet Richd E
7995 Thiess Ronald O 271-5287
MANILA AV BEGINS
8003★Hoffman Louis A ◎ 271-5509
8011 Jakl Bernard J ◎ 271-8613
8019 Garcia Joe 566-1909
AMANTHA AV INTERSECTS
8020★Uriell Patk H ◎ 271-5064
8029 Smith Oscar F ◎ 271-4005
8030★Peterson David
8039 Grants Painting & Wallpapering contr 566-6838
Grant J Thos ◎ 566-1226
8040 Rug Doctor Rent carpet cln 566-2002
★Peel Duane T 566-1592
8049 Lee John R 271-6265
8050 Parnell Atwood T III
8059★Aquino Miguel P ◎ 271-5012
8060 Burmeister Bill 271-6730
8069★Grieshaber Gene A ◎ 566-6769
8070 Malcangio Dominic 271-8628
8079 Newbeck Michl E ◎ 271-7497
8080 Ortega Reynaldo J ◎ 566-3239
8089 Barham Ronald M ◎ 271-6695
8090 Carrillio Pam Mrs
8106 Westbrook John L ◎
8107 Baird James F 566-1865
8112 Winter Gerard H ◎ 566-1185
8113 Castillo Manuel 271-1097
8118 Frazier Jerry M 566-1943
8119 Isagurre Rodolph R ◎ 566-1723
8124 Callister Craig D 271-0477
8125 Brinsmade James L ◎ 271-0800
8130 Dring John E Jr ◎ 566-1351
8131 Flower Wm S 271-1277
8136 Wagner R Kent 566-4094
8137 Vacant
CALICO CIR BEGINS
8142 Schaad Michl E ◎
8148★Boutilier Emory 566-6944
8149★Biddick C J 566-6847
8154 Scratcher Gary L ◎ 271-5417
8155 Thomas J M 271-8972
8160 Kennedy Thos W 271-7424
8161★Martin Robt J ◎ 566-3367
8166 La Camera John F ◎ 271-4804
8167 Millikan Randy J 566-1086
REAGAN RD INTERSECTS

568
CALIFA CT —FROM 8180 ROYAL GORGE DR NORTH

ZIP CODE 92120
8135 Zwiers Thos H ◎ 286-3937
8136 Hodgetts J Patk ◎ 583-2399
8148★Miner Robt S ◎ 287-6459
8149 Samoles Ralph W ◎ 287-4236
8160★Gillpatrick Hal
8161 Bullock Craig A ◎ 287-2441
8175 Froman David 582-7886
8176 Hundley Darrel E ◎
8189 Taylor Jimmie W ◎ 287-3138
8190 Davidson Jack D ◎ 287-2331

903
CALIFORNIA ST —FROM 880 W MARKET ST NORTH

ZIP CODE 92101

902
BROADWAY ST INTERSECTS

901
BEECH INTERSECTS
1501 C & R Transfer Co (Whse)
1560 San Diego Smart Shopper Newspaper adv newspaper publrs 232-4001
CEDAR INTERSECTS
1612 Vacant
1620 Aabco Inc (Whse)

1
DATE ST INTERSECTS
1824 Highland Plumbing & Heating contr 234-1122
1824½ Highland Plumbing & Heating (Whse)
1842★Asaro Vincent 233-7000
1930★Van Slyke Joan
1932★Posey Harves
1940 Wood Bonnie G 234-2526
GRAPE ST INTERSECTS
HAWTHORN ST INTERSECTS

5
IVY ST INTERSECTS
2272 Vacant
JUNIPER ST INTERSECTS
LAUREL ST INTERSECTS
2560 Owl Constructors rentals 232-6363
Owl Crane & Rigging rental 232-6363
MAPLE ST INTERSECTS
2801 Murphy Maurice C ◎ 295-3866
OLIVE ST INTERSECTS

9
PALM ST INTERSECTS
2929★Link Douglas 291-1392
2941 Solorzano Robt M ◎ 295-1978
W QUINCE ST INTERSECTS
3005★Minar Dean 291-7608
3015 Vacant
2018★Girard Barbara J Mrs 298-8918
3018★Johnson Diane 295-2369
REDWOOD ST INTERSECTS
SPRUCE ST INTERSECTS
SASSAFRAS ST INTERSECTS
THORN ST INTERSECTS
UPAS ST INTERSECTS
VINE ST INTERSECTS
3553 Treck Photographic Inc equip & sup 297-4851
3596 Bateman T O Co chem mfg 295-0041
Charcoal Distributors 295-0041

15
WALNUT AV INTERSECTS
3636 Lithotype 298-8305
3650 Architectural Engineering Products Co shingle mfrs & distrs 295-3131
Perma-Shake Mfg Co Inc shingle mfrs & distrs 295-3131
BEAN ST ENDS
CHALMERS ST INTERSECTS

21
ZIP CODE 92110
WASHINGTON ST INTERSECTS
3871 Mada's Dog-Gon Shoppe poodle grooming
SUTHERLAND ST ENDS
3873 Family Village The auto court 298-8000
★Janssens Edw C ◎ 298-8000
3911 Vacant
3919★Szajna Cheryl A 299-7777
3922★Kraft Robbi 296-4039
3922½ Vacant
3926 Viery Emily D Mrs ◎ 298-5977
3926½ Vacant
3929 Vacant
3931★Schaffer Gary 299-9954
3935 Anselm Edw B ◎ 296-3289
3938 Vacant
3942★Madick Carl 298-6986
3951 Vacant
3965★O'Higgins John J 295-3940
HENRY ST INTERSECTS

21
CALIFORNIA ST W —FROM HENRY ST WEST CONTINUATION OF CALIFORNIA ST

ZIP CODE 92110
1907 Huffman R Eug ◎ 295-1356
1917 Rickon Dorothy L Mrs ◎
1925 Melody John D ◎ 298-5377
1931 Hilgeman Roy A ◎ 295-7956
1948 Exarhos G Frank ◎ 296-1234
1955 Navarra Salvatore ◎ 298-1956
1958 Giacalone Joseph ◎ 296-6429
2005 Wotton Albert H ◎ 296-6700
2011★Kenny A B 298-3270
2017 Vacant
2025 Patterson Harold L ◎ 298-5670
2026 Anthony Geo K ◎ 297-2187
2031 Sepanik Edw T ◎ 295-7267
2037 Gibson Clarence E ◎ 295-6456
2044 Coons James C ◎
2045 Shaw Howard I Jr ◎
2049★Edwards John F 298-2769
2050 Slaten H Richd ◎ 291-7066
2051 Stewart L Alex ◎ 295-2060
2063★Richardson Lee 295-0429
2067 Taylor Harold 295-5707
2069 Gross Saml 298-1269
2070★Mogilner Geoffrey A 297-2161
2074 Milloway Thos C ◎ 295-4397
2075★Van Alstine Gregory C
2077★Baker John
2085 No Return
2086 Avalos Gary S 298-3553
2095★Chartres Martin E P 296-4651
2097 Lepper Orville O ◎ 296-1106
2098★Herrera Jerry
BANDINI ST INTERSECTS
2105 Merritt Muriel L Mrs ◎ 295-2649
2105½★Dier H A
2110 No Return
2111 Englehart Reba C Mrs ◎ 295-9347
2120 No Return
2121 Baird Kathryn C Mrs ◎ 295-9192
2127★Garrigues Ned W 299-2892
2137★Collier Earl 295-9148
2143 Jarvis Richd H ◎ 295-3581
2146 Chowning Thos J ◎ 296-0422
2149 Nussey Herbert V 297-2138
Pettis Burgess
2151 Shoven Arth B ◎ 295-7902
2152 Collier Harold M ◎ 296-1273
2161 Sherman Clarence H ◎ 296-3539
2164 Busalacchi Mario J ◎ 298-6457
2169 Anderson Robt M Jr ◎ 295-7231
2171 Vacant
2174 Monsees Ralph G ◎ 298-2976
2175a Allaire David G ◎ 298-9683
2175b★Smithson Milly E 299-0135
2186 Davis Robt L ◎
2191 Haggin Douglas E 271-4338

2
CALLE ABAJO —FROM VALLEY RI NORTH 1 WEST OF END OF REO DR

ZIP CODE 92139
3001 Twin Hills Youth Park 479-9711

2
CALLE AGUADULCE —FROM 6100 CUMBERLAND ST SOUTH

ZIP CODE 92114
2411 Rice Julia J Mrs ◎ 479-3743
2412 Barrios Gilbert ◎ 479-3948
2420 Hyatt Charles E ◎ 479-3853
2426 Kraft Herbert H ◎ 479-5267
2434 Russell Patk J ◎ 479-5195
2440 Cullen Howard D ◎ 479-3898
CALLE TOCON BEGINS
2441 Skinner Geo R ◎ 479-4202
2446★Ronald Everett C ◎
2451 Knopp Edw P ◎ 479-6049
2452 Colvin Charles F ◎ 479-2905
2457 Martin Ben ◎ 479-1269
2458 Davis Charles R ◎ 479-2041
2463 Brewer Vernon M ◎
2466 Potter James L ◎ 479-0613
2469 Cole Walter R Jr ◎ 479-2801
2472 Perks Thos W 479-9927
2478 Sala Peter C ◎ 479-5832
2484 Silva Geo P ◎
2490 Mills Kenneth ◎ 479-3304
2491 Gruber Hubert ◎ 479-2988
2504 Doughty Ellen V Mrs ◎ 479-2999
2505 Gregor Robt G ◎ 479-4999
2514 Munger Arth V ◎ 479-5996
2524 Mansell's Painting & Decorating contr 479-5531
Mansell Sydney J ◎ 479-4449
2529 Dolmage Vern L ◎ 479-1663
2534 Vacant
2535 Ater Steven J 475-1813
2544 Eskridge Arth W ◎ 479-5518
2545 Harig Cleo G Mrs ◎ 479-5246
2553 Guyer Paul A ◎ 479-1664
2554 Moreno Francisco ◎ 479-8774
2563 Gist Bertha Mrs ◎ 479-2071
2573 No Return

4
CALLE ALTA (LA JOLLA)—FROM CALLE VAQUERO SOUTH 1 EAST OF CALLE CAMILLE

ZIP CODE 92037
1517 Weiss Leon D 272-8466
1527 Kapich Davorin M ◎
1537 Nobil Myron K 273-5019

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

COLUMBIA ST 1975

COLUMBIA ST—Contd
2818★Lee Laura H 299-8861
2825 Bonham Harley L ◎ 295-5380
2827 Hervig Edwin L 298-9116
2830 Music Teachers Assn Of California proffesional orgn 296-4467
Fenwick E Bernice Mrs mus tchr 296-4467
2831★Kintz P
2833 Vacant
2835★Eleser J A
2837★Anderson Lyle J 295-7515
2840 Banda Maria Mrs ◎ 295-1285
2849 David Victor R ◎ 295-2642
2851★Vaughan David 299-5152
2859a Colla Lilla Mrs ◎ 295-6311
2859b Colla Salvatore S 295-9075
2864 Morrison Ethel T Mrs ◎ 295-7046
2869 Pickens Margt L Mrs ◎ 296-4225

9

PALM ST INTERSECTS
2901 Bay State Apartments
2903★Morgan James 295-9034
2905 Vacant
2907 Watleigh James
2909★Mills Richd D 296-4245
2911 Vacant
2913 Pereira Frank 295-1124
2915 Vacant
2917 Echlin Henry M 297-2061
2919 Lawrence J C 299-2056
2919a Vacant
2921★Holt Eliz 299-8849
2930★Ray Diane 296-2913
2940 Littlepage Russell S ◎ 295-2770
2950 Gardener Robt 299-0070
2952 Vacant
2954 Thomas Harry S ◎
2955a Mc Sparran Joseph L ◎ 295-1884
2955b★Felsenfeld Arnold 295-2264
2964 Norris Jack 295-3726
2965★Fleming Robt B
W QUINCE ST INTERSECTS
3002 Vacant
3005 Stuart Nany J 298-5134
3007 Vacant
3009 Michelson Norman W
3011★Hayes G T 299-1521
3013 De La Garza Rudolfo
3015 Widdle Jean
3017 Lennon Amina E 298-7606
3019 Vacant
3021★Knight Jerry M 291-6920
3023 Stuart Virginia L 298-0212
3025 Sykes James C pntr contr ◎ 295-7755
3027★Straube Vicki L 295-4502
3028★Hadaway Mark A 295-2258
3029★Rill Linda L 291-5758
3030★Irwin Alex 299-8589
3031 Vacant
3032 Young Gail M Mrs 298-4803
3033★Howlett Jill F 298-4803
3034★Pontelandolfo Joseph M ◎ 297-0815
3035★Duncan D 298-2900
3037 Vacant
3038 Basham Bruce 291-4171
3040 Vacant
3045 Mellusi James E ◎ 295-7571
3062★Singleton Louis J 291-9753
3064★Edward S Mrs 296-6476
3066 Cameron Georgia R Mrs 298-9494
3068 Salgado Thos
3217 Apartments
1★Powell Susan
2★O'Neil Maria E Mrs
3★Olson David
4★Isabel Will
5 Vacant
6★Maroun Marvin A 299-4993
7★Thomas Larry 291-7224
8 Vacant
9★Savage Lynn
10★Wade Kenneth S 291-7836
11★Roger Edwin E ◎ 298-9292
12★Randall Bert A 299-0702
13★Niederman Jerome 298-6438
14★Spurlock Susan T 298-8039
15★All Kenneth O 299-8568
REDWOOD ST INTERSECTS
3225 Cheek Reginald C ◎ 295-5335
3225a★Crim Michl C 295-8835
3225b★Christensen Adele 299-1765
3229 Young Dorothy M Mrs 295-4353
3241 Vacant
3242 Cheek Lida C Mrs ◎ 291-9704
3243 Lyon Harold C ◎ 295-4387
3250 Apartments
1 Wadley Jay L 291-2974
2 Stadge Robt 296-1184
3 Vacant
4 Hutcherson Wm E 291-6829
3260 Apartments
1★Best Russell S 298-4437
2★Armenta Irene M
3★Alex Roberta 296-1044
4 Eberhardt S W 296-2050
SASSAFRAS ST INTERSECTS
3310★Dalfio Denise
3319 Triplett J K 298-8775
3320 Adams Charles C 295-6806
3321 Stowers Robt H ◎ 299-3848
3330 Miller Cath M Mrs ◎ 295-7690
3331 Hall Artelia R Mrs ◎ 297-3041
3333 Rockwell Leona B Mrs 298-0857
3343 Binkert Richd L 296-2038
3344 Stephens Frances A Mrs ◎ 296-3404
3345★Turner Ted 295-6417
3347 Powell Cheves T
3354 Clark C L
3355★D'Alessio Henry 296-0779
3356 Morris Charlotte R 295-4456
3357 Ross Wm F 299-1166
3364 Van Buren Freeda M Mrs 295-4900
3366★Mauck Erie 296-0280
3368 Bruno Vincenzo ◎ 295-8294
THORN ST INTERSECTS
3425 Vacant
3427 Guilbault Joseph E Jr 291-4747
3429★Macomber Frank 298-0459
3431★Mc Donald C S 291-3195
3445 Essert Geo F ◎
3455 Crivello Vincent ◎ 295-4848
3465 Reed J Michl ◎
3465½ Vacant
3467 Burnett Frances R Mrs 296-0205
UPAS ST INTERSECTS
3504 Leggitt Don R ◎ 295-1625
3505★Llewellyn Ronald B 291-5569
3509 Linton Thos C 291-0715
3510 Edwards Gladys M Mrs ◎
3510½ Tadman Michl 295-2591
3512 Hoag Faith A Mrs 295-5433
3512½ Dittrich John
3513 Poschman Harry D 291-6036
3515★Olson Kerry 299-0204
3516 Rojas Cirilio G ◎ 295-7036
3517★Martinez Robt A 295-2077
3518★Kemper Clay 295-9604
3519 Holte Susan C 299-7028
3520 Brazil Robt
3521 Vacant
3523★Fleming S E 299-9106
3525★Alflerbach D D 295-4542
3528 Baker Robt W ◎ 296-3812
3531 Vacant
3535 Murphy D V 295-1156
3538 Crisci Guiseppe ◎ 295-2869
3540★Gee Deland 299-4751
3544a Vaught Robt J ◎ 299-0645
3544b Vacant

15

GLENWOOD ST INTERSECTS
3600 Humphreys Blythe D 296-1192
3602 Hansen A M 298-7359
3604★Dickerson Douglas 299-8674
3606★Smith Sydney 295-1218
3608★Johnson Wm 296-1879
3610★Sweeney Dennis
3612★Gammon Celeste
3614★Dougherty Linda 291-8375
3616★Scott Penelope 296-4078
3620 Schmidt Gladys J Mrs ◎ 298-1431
3621 Brown Lawrence H ◎ 295-9666
3622 Lucas Michl E 298-8623
3627 Vacant
3629 Vacant
3633 Apartments
A Brady John
B Vacant
C★Wilson Thos
D★Wallace James Jr 291-2209
E Vacant
F Gonzalez Ralph
3645★Selmanoff Sador
Rear Eckert Richd ◎ 291-0371
3647 Vacant
CHALMERS ST INTERSECTS
3652 Vacant
3655 Vacant
3661★Simmons Jack 298-1879
3662 Berger Elliott L ◎
3663★Goldman Paul ◎
3665 Gardner Ruby Mrs
3667★Repka Lee 299-3229
3669 Wik Michl 291-1066
3669½★Manes Michl M 297-1498
3670 No Return
3671 Ambler Robt B 291-4184
3678 Vacant
3680 Vacant
3680½ Vacant
3685★Erick Gail 295-1011
3686 Vacant
3687★Taylor Judith Mrs ◎
3688★Zigrang John T 299-8346
3691 Montgomery A 298-0372
3691½ Porterfield E C 298-5989
3693★Johnson Dale
3695 Vacant
WELBORN ST BEGINS
WINDER ST BEGINS
3707 Moreno Manuel R 291-8562
Rear Ehrsam Gary T 291-1726
3708★Sandison Theresa 297-0941
3710 Beamon Larry
3712★Michaels Jon 299-1577
3716 Perez Victor
3718★Finn Francine 298-1444
3719 Boles Owen 295-0550
3720★Jolin D 291-4033
3723 Crisci Vincent ◎ 295-3872
3730★Phillips Randy 295-7841
3731 George Danl J 299-7784
3736 Pierson Donald D 291-5844
3744 Humphrey M J 291-4847
3745 Buttemer Richd J ◎ 296-1647
3746 Vacant
3748★Brennan Herbert
ANDREWS ST INTERSECTS

84

COLUMBINE ST —FROM 2700 FAIRMOUNT AV NORTHWESTERLY

ZIP CODE 92105
2680 Vacant
2682 Schmiedel Jean Mrs 283-8352
2684 Woodward Gary 281-8645
2715 No Return
2716 Geisler Ada L Mrs ◎ 282-1011
2719 Pacheco Tony L ◎ 281-0255
2722★Bales Elmer L ◎ 284-5775
2723 Fisher Charles ◎ 284-4258
2727 Vacant
2729 Dooley James J ◎ 284-6744
2733★Mc Collister Nellie O 280-5705
2735 Cottrell Hubert 283-9924
OLIVE INTERSECTS
2803 Frost Robt C 284-7536
2805★Hillman Chris A 280-7459
2807★Floyd Gary 282-1155
2820★Nanez Cruz 281-5794
2825★Harkins Gregory D 280-1044
2828 Vacant
2829 Copher Riley 283-7585
2831★Ekstrom Kevin 284-0443
2835 Childers Geo ◎
2837★Roufa Delmer
2843 De Grenier Harvey O ◎ 282-5203
PEPPER DR ENDS
2903★Bertolino Frank R 281-1634
2905★Trovato Frank Jr 282-3948
2909 Errickson Patricia A Mrs ◎ 282-3450
2917 Jackson James E
2921 Johnston John W ◎ 282-5172
2926 Kernes Gladys Mrs 282-1496
2927 No Return
2927½★Parker Noel F
2930 Pool Excavations contr 281-8813
Kernes Frank J ◎ 280-4968
2933 Bibb Amy E Mrs ◎ 283-3525
2939 Mitchell Beatrix E Mrs ◎ 284-7013
QUINCE ST INTERSECTS
2954★Guire Michl 283-2901
POPLAR INTERSECTS
3014 Krum Marie Mrs ◎ 284-7805
3019 Vlach Ruby J Mrs ◎ 283-3429
3020★Aguirre Richd ◎ 283-0570
3021★Southwick Dortha 280-4590
3026 Chappell Geo C 280-1074
3029 Norman Guy R ◎ 283-8933
3032 No Return
3033 Adams Walter H ◎
3038 Huillet Fred G ◎ 281-9588
3041 Jones Margt V Mrs ◎ 284-7643
3042 Higgs Elsie L Mrs ◎
3044 Smithson Sylvania
MANZANITA DR INTERSECTS

272

COLUMBUS ST —FROM 10470 AMANTHA AV EAST

ZIP CODE 92126
8019 Strong Thos V 566-3357
8020 O Quinn Christopher D ◎ 566-2648
8029★Garen Clara M Mrs ◎ 566-0412
8030 Vacant
8039★Abel W E 271-0738
8040★Hertel Wilbur J ◎ 566-2541
8049 Rossiter Arth M ◎ 566-0495
8050 Kostic Frank J ◎ 271-6141
8059 Lawson Brent W 566-3317
8060 Guerin Stephan M ◎ 566-2679
8069 Mc Clinton Recie 271-4522
8070★Rebelo A Mrs 566-4454
8079 Rooks Irene Mrs ◎ 566-3749
8080 Dettmers Frank ◎ 566-3921
8089 Vacant
8090 Bond Robt D ◎ 566-2017
8109 Palumbo Paul 566-3769
8110 Romano Frank E 271-1391
8115 Polancic Geo S ◎ 271-0317
8116 Leslie Charles T 566-3706
8121 Milhausen Richard H ◎ 271-1017
8122 Wagner Donald A ◎ 566-4436
8127 Alvarez Rafael ◎ 271-7376
8128 Hollenbeck Gordon ◎ 488-5579
8133 Higgs Ronald L ◎ 566-1678
8134 Marshall Wm L ◎ 271-6822
8139 Sanidad Oscar D ◎ 271-6938
8140 Lawless John E 566-3238
8145 Jackson David J ◎ 566-1405
8146 Macospac Hector O ◎ 566-2457
8151 Bondoc Rolando Q 271-9053
8152 Malley Raymond E ◎ 566-2059
8157★Smith Ray C ◎
REAGAN RD INTERSECTS

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COLUSA ST —FROM 2 SOUTH OF 5600 GAINES ST NORTH

ZIP CODE 92110
YUMA ST INTERSECTS
FRAIRS RD BEGINS
1101 Mc Daniel Lucille D ◎ 296-6420
1111★Sloan Richd J 291-7433
1111½★Munson Richd A
1121 Falls Joe D ◎ 291-5851
1128 Highburger Lois 295-4756
1129 Fierro Leonard Jr ◎ 298-2555
1130★Geer Henry A Jr 299-9197
1135 Guerrero Vincent T
1145 Stookins James E Jr ◎ 297-2473
RILEY ST INTERSECTS
1205 Mission Valley Manor Apartments 276-7575
1★Rankin Curt
2 Vacant
3 Vacant
4 No Return
5★Mc Munn Richd 299-1336
6 Scherer Gary D 299-3309
7★Bradberry Allison 299-8940
8★Fisher D V
9★Woolery K
10★Buechler Merle R 296-1135
11★Burke K 291-4954
12★Fleagle Cynthia 295-3241
13★Ferguson Wayne 299-0856
14★Bologna Sue
15 Vacant
16★Bruyere Deborah
17 Vacant
18★Becker B 299-5442
19★Taylor Ann
20★Ide Arth 296-6567
21 Vacant
22★Schneider E
1236★Blackler David
1238 Winckler Wm H 291-5144
1240★Oduyemi Felix
1242 Ruddy Kevin J 291-0854
1244★Armstrong Ed
1245 Cain John ◎
1246 Downs Greg 295-8402
1251 O'Hollaran Joyce E
1253 No Return
1255 La Fredo Patk J 296-3502
1270★Rowley Wm
MILDRED ST INTERSECTS
1307 Apartments
1★Vasile Thos 295-2855
2★Soto T
3★Robinson Patricia 299-3673
4★Harwood J M 299-7107
5★Iverson Earnest
6★Ryan Ann R 296-4381
7★Romero James 298-1937
8 Vacant
9★Hewitt R F 298-2998
10★Sobers P J 295-7550
11 No Return
12★Moadel N

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COMBE WAY —FROM 6435 EDMONTON AV EAST

ZIP CODE 92122
4130 Martin Frank R Jr ◎ 453-7644
4138 Whyte Herbert E ◎ 453-6707
4145 Grinnell Don P ◎ 453-8778
4146 Gibbs E M Mrs 453-7456
4152 Thielen Earl V Jr ◎ 452-8499
4155 Penera Victoria A Mrs ◎ 453-6759
4160 Bauer Lawrence C ◎ 453-8974
4166 Chambers Jack R ◎ 453-2627
4171 Cunningham Michl W ◎ 453-3487
4172 Tully Dermott M ◎ 453-6391
4178★Thomas Rudy
4179 Larson Gerald G 453-3994
4184 Raines Robt B 453-7444
4185 Uhlir Richd V ◎ 453-6899
4190 Sharkoff Donald ◎ 453-7084
4191 Levine Saml ◎ 453-7256
4194 Schmeiser Victor E ◎ 453-7740
4198 Cunningham Jacob H ◎ 453-6418
4199 Murray James M ◎ 453-1225

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

GLENWOOD DR 1975

GLENROY ST—Contd
6827 Rohrer Harry W ◎ 582-9381
6833 Hinkley F Clare ◎ 583-5995
6839 Finney Ethel Mrs
6845 King James C ◎ 286-8210
6851 West James T ◎ 582-7246
6859 Jackson Roland B ◎ 583-0352
6860 Schultz Frank K ◎ 583-4471
6863 Hansen Alice M 583-0863
IRWIN AV INTERSECTS
6869 Mitchell Robt A ◎ 286-0940
6870 Flanagan Thos J business consultant ◎ 583-3580
6875★Bjornstad Jack 287-3247
6881 Fin's Well Inc contr-bldg-genl 583-6200
Findahl Carrol W ◎ 583-6200
LEWISON AV INTERSECTS
6885 Edwards Constance L Mrs ◎ 583-3744
6886 Buck Wm J ◎ 582-4772
6889 Cisterna Manuel ◎ 287-0183
6892 Coleman Joseph P ◎
6893 Headrick Brian S ◎ 582-4032
6897 Grim Benj R
6898 Olive Wm T ◎ 582-9065
PRINCESS VIEW DR INTERSECTS

582

6902 Hardin Wilbur G ◎ 582-4034
6903 Fernandez Richd E ◎ 583-6065
6908 Chapman Wm F ◎ 286-7476
6909 Hillis Robt F ◎
6914 Beckman Keith A ◎ 583-4925
6915 Walford John D ◎ 583-0656
6922 Strait Robt D ◎ 582-9142
6923 Morley David G ◎ 583-1376
6928 Peterson Earl W ◎ 583-2429
6929 Hoff Edwin J pntr ◎ 583-1585
6936 Brooks Marvin D ◎ 583-0681
6942 Dubay Carl F ◎ 287-1861
6945 Garff Steph N ◎ 583-0072
6948 Mabee Dorothy H Mrs ◎ 583-4574
6954 Roshong Donald V ◎ 582-9539
6955 Macias Joe R ◎ 286-0803
6960 Hasenauer Edw J ◎ 583-3067
6965 Lakin Wm H ◎ 582-9188
6966 Vacant
HILLSBORO INTERSECTS
6975 Worden Wallace J ◎ 582-8974
COTTAGE AV INTERSECTS
7001 Stewart Robt W ◎ 583-7148
7004 Gallik Andrew ◎
7012 Mac Innes Ian C ◎ 286-3330
7020 Ibarra Herbert ◎
7028 Denny Richd G ◎
7036 Vacant
7044 Benyr Walton R ◎ 582-9270
7052 Georggin Nicholas E ◎ 583-1017
DUNDEE AV BEGINS
7060 Sumnar James W ◎
7068 Vacant
7074 No Return
7082 Lawrence Earl V ◎ 562-9659
7090 Donavon Wm E ◎ 582-9135
ELGIN ST BEGINS
7106 Schilling Gordon L ◎ 582-9303
7116 Armantrout John W ◎ 583-0764
7126 Donaldson Robt J ◎ 582-7965
7136 Nash Elton E ◎ 582-7823
7146 Solsbak Robt H ◎ 582-1528
FORBES AV BEGINS
7156 Gagnon Rene J ◎ 583-5564
7166 Cyr Geo W ◎
7176★Stinsa Joyce P 287-2567
7186 Miller Richd ◎

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GLENWICK LA (LA JOLLA)—FROM 8660 DUNAWAY DR WEST THEN NORTH

ZIP CODE 92037
8656 Yang Ling ◎
8675 Schminke Paul ◎ 453-2474
8687 No Return
GLENWICK PL BEGINS
8695★Clark Sidney B 453-9439
8696 Brody Stuart 453-1934
8703 Chrispeels Maarten ◎ 453-1860
8704 Roberts Verl E ◎ 453-0112
8720 Harman Robt J ◎ 453-3212
8721 Rogers Florence J Mrs ◎ 453-5847
8735 Banks Peter M ◎ 453-3934
8736 Bennett Charles R ◎ 453-2968
8750 Templeton Florence M Mrs ◎ 453-2522
8751 D'Andrade Roy G ◎ 453-7739
8765 Becker Michl A ◎ 453-6682
BORDEAUX AV INTERSECTS

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GLENWICK PL (LA JOLLA)—FROM 8687 GLENWICK LA WEST

ZIP CODE 92037
2711 Arrhenius Gustaf O ◎ 453-2255
2712★Viterbi Andrew J ◎ 453-8198
2721 Bagley Marie L Mrs ◎ 453-0365
2722 Hillyard Steven A ◎ 453-6259
2731 Dennis Edw A ◎ 453-8741
2734 Preston Patricia A Mrs ◎ 453-4187

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GLENWOOD DR —FROM 3570 UNION ST WEST

ZIP CODE 92103
1504★White Patricia 291-1871
1505 Daly Helen A Mrs ◎ 295-7323
1507 Johnson David 291-7737
1509 Berg Richd P
1511 Vacant
1512 Huff Michl ◎ 299-4306
1512½ Vacant
1519 Button Melvin H ◎ 298-5129
1525 Bridge Blanche W Mrs ◎ 295-9957
1530 Mills D B
1531 Gfroerer Helen K ◎ 296-3629
1533 Van Hoose Steven G 299-1695
1535 Davis Merle E ◎ 295-5067
1537 Vacant
STATE ST INTERSECTS
1602★Bender John A ◎ 298-8639
1610 Hart Esther M Mrs ◎ 295-8170
1616★Bracket Robt 295-1983
1616½★Dryer Jessie Mrs
1620 Rector Jim V 291-2149
1624★Peachey Douglas 291-8893
1625 Vacant
1628 Arzaga Danl
1628½ Vacant
1630 Repine Claude E 295-7966
1630½★Parks Terry 295-2831
1632★Gerber Jan 299-3049
1634★Nemeth Ed 269-0710
1636★Chiapetta Karen 291-3961
1702 Vacant
1704 Kemp John 298-3068
1705 Havens James L 291-4267
1708★Overy Roy C 291-6613
1709 Elmore Geo S 296-5185
1710★Basko Steve 295-7517
1711 Horner Henry H 295-4861
1712 No Return
1715 Vacant
1716 Erwin Earl J 295-3359
1716½ Vacant

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GLIDDEN CT —FROM 6600 GLIDDEN ST NORTH

ZIP CODE 92111
1720 Branam Robt 565-9830
1721 Mc Kea Charles C ◎ 279-7428
1740 Ambroziak Edw ◎ 277-4641
1741 Delao Manuel C ◎ 277-5082
1760 Blando Romulo B ◎ 277-1865
1761 Flumian Giovanni 279-8654

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GLIDDEN ST —FROM 1 WEST OF 1700 CORSICA ST EAST

ZIP CODE 92111
6309 Williams Elsa A Mrs ◎ 278-3607
6323★Horton Paul ◎ 278-8362
6337 Rauche Arth J ◎ 277-7986
6351★Chartier Jim 279-6325
6365 Dickinson Wayne E ◎ 279-3681
6401 Silva Leonard R ◎ 279-5453
6415★Clegg David C 279-0741
6429 Norris Abbie Mrs
6443 Almy Mary L ◎ 277-5556
6457 Fickes Vernon S ◎ 277-9696
6471 Israel Charles L ◎ 277-2966
CORSICA ST INTERSECTS
6519 Wiler Geo M ◎ 277-4498
6524 Santa Cruz Joseph T ◎ 278-9630
6527★Sales Alex 560-1902
6538★Jorren James C ◎ 277-6545
6539 Crocker Andrew J ◎ 279-6941
6552 Vacant
6563★Ozols Juris ◎ 560-5764
6566 Redfield Lawrence R ◎ 277-5733
6577 Valdez Randall F ◎ 292-9859
GLIDDEN CT INTERSECTS
6603 Tengco Marino 565-7110
6615 Nolty Gerald W ◎ 292-5066
6626 Carswell Herschell R
6629★Leonard K ◎ 277-0277
6640 Vacant
6643 Ogata Kasuke ◎ 278-9567
6657 Page Wm M ◎ 279-7361
ALCALA KNOLLS DR INTERSECTS
6702 Bobek Louis ◎ 279-7611
6712 Villa Vista Apartments 279-4871
1 Swezey Colleen 292-0327
2 Vacant
3 Fifer Newton
4★Hart Leon
5 Vacant
6 Vacant
7 Link Dean 565-0344
8★Porter Louisa 560-9460
9 Sullivan Frances 279-8524
10★Findlay Margt Mrs 560-8294
11★Humes Delores
12★Contini Henry 278-2381
6713 Apartments
1 Moody Andrew J 565-1304
2★Loftin Jim 565-7746
3 Tate Wm 565-1840
4★Yelli Ralph A 565-7138
5 Currier Charles L 565-7743
6★Burnham Chris 560-6681
7 Haag Candee E 279-4063
8★Dingell Theresa Mrs 565-6711
9★Wehrmeister Arth J Jr 560-6737
10 Turman Mary W Mrs
11★Giamanco Joe 560-1122
12 Vacant
6730 Apartments
1 Vacant
2 Brooks G 278-5741
3 Mele Phillip C 565-2458
4 Vacant
5★Peddycord Robt K 279-7021
6★Hamilton Thos F 560-9527
6731 Apartments
1★Moore Hugh H 565-0312
2★Kanig Brian 277-2800
3★Sawyer John M 560-0731
4 Stanberry Michl R 560-0357
5★Blais Raymond C 278-1479
6★Brooks Jeanne 279-4197
7★Amundson Bob 560-9171
8★Thompson Katie 278-3362
6742 Apartments
1★Bethel Bill 279-0281
2★Capp Edw G 277-7756
3 Farren Bernice 277-3588
4 Morson Wm 565-2387
5 Vacant
6★Haskill Clair 279-4063
7★Cobb P J 560-9952
8 Hogan M E 279-4970
9 Vacant
10★Suppa Jerry M 560-5249
11★Gonzales David C 565-9266
12 Wright Stephanie A 277-6367
6753 Apartments
1★Rose Wm 565-2963
2★Ping John 560-0995
3★Leeper Kevin R 560-5648
4★Muned Jerrald
5 Huckaby Virginia Mrs 278-2132
6★Wright John N 565-7160
7★Robinette Betty Mrs 560-9700
8 White Robt G 279-3307
9 Vacant
10★Misiewicz Elaine 565-9849
11★Branthoover Leonard D 278-0250
12★Johnson Dave 565-6095
13★Hutchinson J Kenneth 277-6673
14★Giant A J 279-3889
15 Vacant
16 Truke Marvin 277-1352
6754 Apartments
1★Butler Clifton L III 560-8937
2★Gartner Harold R 565-0419
3 Gallagher Larry J 565-4036
4★Shanley Paul 279-8049
5 Kuhnly D B 292-0148
6★De Walde John 560-9323
6775 Apartments
1★Beizer Lance K 453-9447
2 Vacant
3★Roren L 560-6876
4★Statzer E 279-3672
5 Gildner Stephen P 278-7578
6 Morton C C 560-9908
7 Vacant
8 Walsh Thos M 292-9526
9 No Return
10 Olin Paul M 560-4717
11 Nold Allan J 292-0308
12 Davidson Wm L 560-9408
6782 Apartments
1 Mc Neece John H 279-6787
2 Salter Marc A 279-9238
3★Tyree Bill M 565-7690
4 Vacant
5 Vacant
6 Roy Richd 278-8578
7 Vacant
8 Vacant
6785 Villa Vista Apts (Ofc) 279-4871

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LINDA VISTA RD INTERSECTS
BURTON ST INTERSECTS
6821 Rossi Michl ◎
6822 Seales David M 560-1770
6831 Naranjo Mariano ◎ 279-2091
6832 Tignor Fred L ◎ 277-6098
6842 Garcia Andres ◎ 278-5935
6849 Waddell Robt L ◎ 279-2554
6852 Hinrichs Carl J ◎ 277-4391
6855 Free Will Missionary Baptist Church 278-4550
COOLIDGE ST INTERSECTS
6911 Lara Narciso E ◎ 277-1611
6911½★Licht Gary
6921 Ortiz Ralph ◎ 277-8680
6922 Gonzalez Alfonso ◎ 277-6911
6931★Wade Alan H 560-9681
6932 Schwartz Albert C ◎ 277-4932
6941 Williams James A ◎ 565-9197
8942 Siska Beulah Mrs ◎
6951★Krumwied D Bruce 279-6915
6952★Wade Edw ◎ 565-0812
6961 Serrno Wm ◎ 277-3089
6962 Hope Germain E ◎
6971 Vicencio Maria Mrs 292-4267
6972★Ford Claudette L 560-7714
6981 Vacant
6982 Wilson La Verne K ◎ 277-2890
6990★Brannan Dave
6990½★Bertagna Albert A
6991 Vacant
6992 Young Wanda Mrs ◎ 277-6861
6995 Campbell Delmer E ◎
6995½★Bole Lynnie

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GLORIA ST —FROM 4877 FRANKLIN AV SOUTH

ZIP CODE 92113
305 Carter John L ◎ 262-1349
307 Zazueta Marco A ◎ 264-4376
310 Gross John D ◎ 264-3755
314 Holmes Sandra E Mrs 264-8338
321 Vacant
322 Vacant
324 Pressley Wm ◎ 262-6834
325 Quince Vito ◎ 264-4251
326★Pressley Thos A
328 Vacant
332 Jones Ralph ◎ 264-9395
333 Vacant
340 Bennett Julia Mrs 262-6226
342 Williams Saml ◎ 264-0778
343★Jones Clem
344★Munoz Alice
346★Byrd Janet
348 Blankenship Johnnie W 262-0417
350 Waters Eug 264-2287
352 Kyle Robt L 264-8111
356 Gates Eric E
403 Johnson Mary Mrs 264-4772
406 Vacant
408 Liggins Evelyn E Mrs 264-9384
410 Smith Anna R Mrs
411 Davis Mary Mrs
412 No Return
412½ No Return
414★Washington Mae Mrs 262-4785
416 Green S L 262-8068
417 No Return
418 Vacant
419 Daugherty Ann Mrs
420 Vacant
420½★Green Joyce Mrs
423 Vacant
424 Martinez Maria Mrs
425 Vacant
427 Sturns Henry L 263-1542
429 Vacant
442 Apartments
1 Vacant
2 Blake Narvell 264-7183
3★Lee Jeanette 264-0899
4★Upshaw Gail 263-7920
5 Knox Michl 262-9154
6★Fraser Brenda E 264-1863
444 Vacant
OCEAN VIEW BLVD INTERSECTS

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1211 Byers Napoleon ◎
1220 King Florine Mrs ◎
1221 Vacant
1230 Carter Sylvester ◎ 264-1316
1231 Hicks Wm 262-2259

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GLORIA LAKE AV —FROM 6300 TWIN LAKE DR EAST

ZIP CODE 92119
7713 Gassaway Millard H ◎ 465-2986
7723 Colonelli Alf Jr ◎ 465-2825
7733 Munger Geo C 463-5673
7743 Ralls Robt B ◎
7753 Kingkade Frank E Jr ◎ 465-2002
7763 Bermosk Richd C ◎ 465-5125
7773 Daniels Richd P ◎
7783 Robinson Michl G 465-1384
7811 Gemeiner Charles A 286-0153
7821 Moore John R ◎ 461-3815
7831 Mc Nulty Francis J ◎ 460-8747
7841 Sadnick Glenn H ◎ 469-7761
7851 Du Bose Billy L ◎
7854 Bompensiero Lucy M Mrs 466-2292
7861 Kuntz Richd L ◎
7864 No Return
7871 Schneider A Mrs ◎ 462-6406
7874 Vacant
7881 Mayberry Reymond ◎ 465-0390
7884 Mizuno Kazumi ◎ 465-7590

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GOBAT AV —FROM 5800 MOTT ST EAST

ZIP CODE 92122
2604 Polizze Joseph J ◎
2616 Vacant
2625 Parks Terrence Jon ◎ 453-1241
2628 Wiesike Eliz L Mrs ◎ 453-3676
2636 Elcan Michl J 453-1587
2640 Theilacker Geo R
2645 Sivert Robt C ◎ 453-0849
2652 No Return
2657 Trembley John P ◎
2664 Vacant
2671 Gerber Russell
2676 Prince Elka M Mrs ◎ 453-4042
2681 No Return
2702 Coad Michl J ◎ 453-3848
2707 Vacant
2712 Colwell Joseph F ◎ 453-4024
2717 Taylor Merton A ◎ 453-0826
2722 No Return
2729 Lopez Jesse ◎ 453-9535
2732 Werner Wm C Jr ◎ 453-6745
2742 Paltz Walter J Jr 453-8716
2743 Turley Robt B ◎
2752★Lowenstein Carl D ◎ 453-1069
2753 Orcutt John A ◎ 453-3912
2762 O'Hanlon Thos W ◎ 453-3803
2763 Ryan James B ◎ 452-8154
2772 Snell Doris B ◎ 453-1103
2775 No Return
LAMAS ST INTERSECTS
2806 Huston Wm A ◎ 453-5364
2813 Davis Vicky C Mrs ◎ 453-8249
2816 Thomas Nancy Mrs ◎ 453-4086
2823 Forrester Robt ◎ 453-4839
2826 Falsetti G Nicholas ◎ 453-3909
2833 Laing John R ◎ 453-3996
2836★Hilliard Cary ◎
2843 Anderson Barry C ◎ 453-3586
2846 Vacant
2856 Vacant
2866 Schmidt Richd H ◎
HABER ST INTERSECTS
2901 Beleau Marshall H ◎ 452-8476
2906★Bernstein Robt L ◎ 452-1844
2909 Syvarth Richd J ◎
2914 Welch Paul W ◎ 453-4169
2917 Kleinbub Fred ◎ 453-5836
2922 Feldman Danl P ◎ 452-8586
2925 Wenderlich Stanley T ◎ 453-3861
2930 Steger Wilfred C ◎ 453-1605
2933 Hamel Albert A ◎ 453-5297
2936 Larsen Per O ◎ 453-3846
2942 Sutton Edw G ◎ 453-6562
LORD CECIL ST INTERSECTS
STRESEMANN ST INTERSECTS

INDIA ST 1975

INDIA ST—Contd
1 Vacant
2★Powell A Lee 291-5834
3★Warner Mary 299-7322
4★Johannsen Georgia L
2971 Persona-Matic Letter Service 291-4261
W QUINCE ST INTERSECTS
3009 Silva Ernest P ◎ 296-6840
3033 Hammond Machinery & Supply Co 298-6155
3051★Long Greg M 299-3926
3053 Vacant
REDWOOD ST INTERSECTS
3103 Compleet Rug & Upholstery Cleaners 296-0152
Raffee's Compleet Carpet 296-0153
3129 Porter Irene A Mrs ◎
3141★Schmettle Wm F 299-2257
3153 Pale Horse The antique dlr
3153½★Hakola David M 291-0495
3167 Econophotos Of San Diego custom photog 291-5128
3175 Swing The cocktail lounge 296-6789
SPRUCE ST INTERSECTS
3211 Import Tire Co dealers & repr 291-9666
Midtown Automotive auto repr 291-6882
Scotty's Foreign Car Service 291-6882
Martinet Gary Imports auto dlr 295-6950
3231 Auto Import Services 291-3315
3241 Vacant
3241½ Maurice's Foreign & Domestic Auto Repair 298-3164
3265 Do-All San Diego Co mach sup 291-4600
SASSAFRAS ST INTERSECTS
3341 Compitello Dennis J 299-3952
3341½★Wheeler Chuck 295-8801
3343★Chinn Robt D 291-2325
3343½ Vacant
3345 Crawford Cheryl
3347 Vacant
3351 Admiral Termite Inc 298-6305
Admiral Construction Co Inc genl contr 298-1857
Airport Massage massage parlor 296-9006
3351b★Morgan C 298-8176
3355 Vacant
3365 Aero Club tavern 297-3097
3367 Generators Unlimited 297-0258
THOR ST INTERSECTS
UPAS ST INTERSECTS
3503 No Return
3505★Ordonez Elirs 295-8269
3507 Boiselle Helen C Mrs 297-2178
3509 Astor Dave 296-2593
3511 Paragon Design Co graphic arts 291-7670
3519★Ferris Basil W 299-0586
3519½★Astor I M Mrs
3521★Jimenez Georina 299-1964
3523★Stevens Sonia 297-1291
3535 Guymon Mel Chevron Service 296-6922
WALNUT AV INTERSECTS
VINE ST INTERSECTS
3555 Amfac Drug Supply whol 298-7151
3585 Bob's Union Service 298-0820
A-A-1 Easy Rent-A-Car auto rentals 295-1247

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WALNUT AV INTERSECTS
3615 T & E Tool & Equipment sls & repr serv 298-6301
3617 Automatic Transmission Service 297-0251
Independent Garage Owners Of San Diego County business orgn 291-9594
3623 Vacant
3645 J & S Attorney Service process servers 291-8902
3659 Building
ROOMS
100 San Diego County Carpenters Group Ins 299-1826
200 Neville Color Copy photo copying 295-6305
202 A Advanced Mail Delivery Service 298-7176
STREET CONTINUED
3667 Music Box tavern 295-3908
3667¼ Vacant
3675 Haley's Pay Less Liquors
3683 Randolph L P 297-0703
3685 Vacant
3687 Seymour Cath Mrs 298-4054
3689 Dillon Helen Mrs 296-6783
3695 El Indio Tortilla Shop tortilla mfrs 299-0333
3695½ Pesqueira Ralph R ◎ 299-0746
3697 Bernie's Corner beer & wines 298-9582
WINDER ST INTERSECTS
3701 Triad Gallery art gallery 299-6543
3711 Secret Jewels The custom jwlry mfrs 291-0941
3715 Canora's Sandwich Terrace 291-5938
3719 North India Street Trading Co art objects & antiques 295-4657
Lund Louis
3731 Artist's Co-Operative Gallery art gallery 296-0200
Venture Graphics graphic arts 296-0200
India Street Art Colony 296-0200
3731½ Wear It Again Sam dress shop 299-0185
3735 East India Trading Company gift imports 295-1206
3735½★Baker Kenneth A
3737 Gondola Pizza House 295-8246
3739 Grace & Toni's Beauty Shop 295-4716
3741★Couwenberg Donald H 299-7395
3743★Christiano Dan
3745 Vacant
3745½ Vacant
3749 Vacant
3751★Powers J W 295-0579
3753 Good Earth The nurserymn 298-2823

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WASHINGTON ST INTERSECTS
ANDREWS ST INTERSECTS
3766★Naffziger Helen Mrs 298-4732
3768 Vacant
3770★Walker Greg
3772★Prater Jerry
3772½ Vacant
3779★Weiss Ruby Mrs
3780 Iverson Thor
3781★Paxton Taylor 291-3563
3792 Burson Bayard T ◎ 295-7137

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INDIAN WAY —FROM 4400 CLAIREMONT AV WEST

ZIP CODE 92117
3659 Wareman Thos H 276-7813
POCAHONTAS AV INTERSECTS
3660 Price Robt L 272-3903
3666 Shearer Bruce W ◎ 273-7844
3667 Fisher Thos J 272-4064
3672 Johnson James F ◎ 273-4531
3675★Tschidere Edw ◎ 272-9103
3678 Mosher Marlin O ◎
3684 Luther Roger C ◎ 272-9195
3689 Trevino Antonio ◎ 274-0142
3690 Coates Geo M ◎ 274-5174
GILA AV INTERSECTS
3710 Price Robt E ◎ 274-5350
3711★Casebier James C
3781 White Kenneth H ◎ 273-1847
3810 Martisak David A ◎ 270-0029
3811 Velasques Genaro 274-6844
3880★Flevry Robt ◎
3881 West Robt L
3882★Perez Karlene 270-5486
3883★Ebert Blaise 270-4817

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INDIANA ST —FROM 1800 E UPAS ST NORTH

ZIP CODE 92103
3503 Cristin Marcel J ◎ 296-0841
3510 New Indianan The apts 296-3301
1 Merritt Leland C 298-6238
2★Phyler T B
3 Crosby E J 291-5602
4 Joseph Hugh P
5 Taylor Helen M Mrs
6 Eccles Olive E Mrs 295-9827
7 Bowen Thelma F Mrs 298-7410
3514 Beerman Paul consulting eng ◎ 295-3901
3515★Murma W A Jr 291-4355
3517 Vacant
3522 Vacant
3524 Foster Helen E Mrs ◎ 295-1259
3528★Nonemaker James 299-2019
3530 Hayes Verna R Mrs ◎ 295-5497
3532 Nottingham Eliz I Mrs 296-6854
3537 Harmon Nancy A
3538 Sanford Charles O
3544 Callow Steven D 291-4328
3545 Edson Mabel B Mrs ◎
3546 Goebel Grace 295-2510
3547 Dunn Walter T 295-4997
3548★Carpenter Steve 295-7179
3549 Frost Carl H 295-7474
3551★Kendall Charles W 298-4533
3554 Apartments
A★Mc Ardle Sally
B★Plummer Cindy
C Vacant
D★Stimac Matt 298-6596
3554½ Rose Wm
3559 Apartments
1★Hodge C
2★Genske Randolph C 296-0268
3 Conklin Robt
4★Coleman Robt D 295-6658
5 Norris Thelma B Mrs 295-8021
6★Muheeb Betty Mrs
7★Anderson S I 295-8512
8★Alongi A J 295-6838
9 Kester Waldo Z 291-4686
3602 Dent Richd F 298-5194

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CYPRESS AV INTERSECTS
3604 Psomas Penelope Mrs 297-2349
3605 Vacant
3606 Sasaki Tatsuo 298-3283
3606a★Yashida Michiya
3606b★Nelson James 296-0250
3606½ No Return
3607 Fowler Leslie ◎ 299-3607
3608 Davidson Harlan C 291-5627
3608½★Flannery Thos L
3609★Dossey C Ray 298-7601
3609½ Furrow Lola M Mrs 291-7189
3610 Koppel Karl 291-1526
3611 Klima Tony J 298-4034
3611½ George Ernest O 295-8374
3612 Hoff Tina R Mrs 295-4740
3612½★Lipe Bill 298-2305
3613 No Return
3614 Hendrickson E F 291-5712
3614½ Liddell Scott K
3616 Hoff Loren K 296-1515
3621 Apartments
1★Kelley Roger D 291-4157
2 Walter Wm J 291-7090
3 Brulay Henry 295-4348
4 No Return
5 Vacant
6 Doherty Dorothy Mrs 295-9553
7★Hoffman Schoyler 299-6708
8 Hawks Joseph G 295-2586
9 Mc Namara David L 296-6055
3622 Mc Vay C P ◎ 295-5378
3627 No Return
3628 Quince Josephine E 298-0152
3630 Ludwig Albert F 291-2319
3633 Connell Howard H
3634★Donaldson Jerald L 299-8796
3636 Danilson Doris M Mrs ◎ 298-1255
3637 Barnett Darrell E 295-8677
3638★Miller Paul J 299-9257
3640 Mayorga M E 298-4062
3641 Fiore Vincent ◎ 295-9351
3642★Yarnell Linda K 298-7490
3644 Apartments
1★Lopez Justavo
2★Alsup Conway 296-2545
3 Dess W J 291-3683
4 Allen M J 297-3651
3650★Hillis Lester N 295-9223
3652★Kaler Emma S Mrs
3654 Van Sweringen Vanette 291-1689
3656★Dow L Dianne 295-1730
3667 Padilla Lorenzo M 299-2952
3669 Hall Frances P Mrs ◎ 295-8063
3680 Wrana Joseph W 298-3027
3681★Bitterman Jerry 296-3585
3683★Clark Alf C 295-9052
3683½★Dye Paul 298-9643
3685 Shermont Robt A 295-7556
3688★Richards James E
3689 Manriquez Roy A 297-1205
3690★Stevens Lloyd L landscape 298-4444
3692 Vacant
3694 Pearson Helen C Mrs ◎ 297-1382
3695 Reedy Danl F ◎ 298-2375
3697 Schwartz Steven M ◎
3702 Knight Etta M Mrs 298-0162
3704 Burgad Frank ◎ 295-5695
3706 Freely Ethel R Mrs 296-3880
3707 Lauter Eliz L Mrs ◎ 296-4667
3708 Riggs Mary H Mrs 296-4894
3710★Witter Marc E 299-8902
3712★Lewis Arth E 297-0497
3714 Beddingfield Lucille Mrs 291-0503
3715 Kuhnel Geo H ◎ 297-3607
3716★Lewis James D 291-6857
3718★Voorhees Richd 296-1677
3720 Wickman Marie D Mrs 291-1772
3721 Peranski Velma N Mrs ◎ 298-3475
3729 Goldberg Sam M ◎ 291-4923
3738 Jack's Garage auto repr 297-0382

200

INDIANAPOLIS AV —FROM 4750 LAUREL ST NORTHEAST

ZIP CODE 92105
2505 Dobranski Lewis ◎ 264-0869
2511 Riley Raymond

101

INDUSTRIAL CT —FROM 11777 SORRENTO VALLEY RD EAST

ZIP CODE 92121
3328 Vacant
3330 General Atomic (Records Storage)
3336 Rector's Roundtable Restaurant 453-6201
3336-a Curtis Associates glassblowers 453-5797
3337 Impulse Products Corp demolition equip research 453-2244
Sorrento Hydraulics demolition equip mfrs 453-1845
3344 Coast Properties Ltd real est development 453-4260
Foster J M Co Inc genl contr 453-8723
Genesee Vista Properties land developers 453-0020
Ocean Resources Inc consulting eng 459-2907
Cal Sorrento Developers 453-0020
Cush Tours travel agcy 453-9111
Fine Donald E real est 753-5067
3346 Vacant
3346a Great West Printing & Mailing prntrs 755-6556
American Commercial Service (Printing Div) 755-6556
Eze Strip Register litho strip matls 755-6556
Valley Type typesetting 755-6556
3346b H F H Systems Inc research 453-0410
Life Line Enterprises art goods 453-3271
3346½ Oddo-Cast Candles mfrs 453-3800

121

INEZ ST —FROM 1050 GAGE DR WEST

ZIP CODE 92106
3522 Bowdle Gertrude L Mrs ◎ 223-7757
3525 Ferreira Joe M ◎
3530 Tate Betty R Mrs ◎ 224-1829
3535 Ottenville Patricia S Mrs ◎ 223-3300
3543 Bahde Charles ◎ 222-9622
3545 Ledbetter Richd J ◎ 223-9962

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INGALLS ST —FROM 1 SOUTH OF 1300 DOUGLAS ST NORTH

ZIP CODE 92103
WASHINGTON PL INTERSECTS
4005 Meyer Claude V 295-9383
4011 Kovalcheck Steven W 297-0875
4019★Laperuta L 296-1013
4020 Phelps Eliz B Mrs ◎ 295-2893
4021★Gorsich David L 295-9601
4024 Cobb-Adams Diane 298-6893
4027 No Return
4028 Craven Virginia L Mrs ◎ 297-0887
Rear Orr Paul D
4033 Sotelo Anthony A ◎ 296-0211

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FORT STOCKTON DR INTERSECTS
4060★Burnem Rena
4061 Vacant
4062 Vacant
4068 Hagar Sidney 295-8120
4068½ Garing John 269-1559
4069 Camerer Martha L Mrs 296-0937
4070 Seitz Rebecca Mrs
4072 Howie Wm M
4074 Apartments
1 Nigg Randal J 291-1204
2 Vacant
3★Ridler Kenneth J 298-2276
4★Gallagher Donald 291-5924
5 Baker Christina A
6★Willey Robt 291-6117
4082 Shelton John H ◎
4087 Garrett Mary C ◎ 296-1278
W LEWIS ST INTERSECTS
4104 Mills Wm S ◎ 295-0951
4112 Mulligan Kath J ◎ 298-5396
4119★Packard Thos R 299-3094
4120 Ray Christopher Jack ◎ 298-3846
4121★Gonzales Jess
4128 Cunnion Anna T Mrs ◎ 298-1909
4129 Woodward James R ◎ 296-0627
4133 Snodgrass David W ◎ 295-7958
4140 Deming Robt C ◎ 297-3064
4141★Saucer Maruetta M ◎ 291-9061
4142★Meyer Eliz J Mrs 295-9576
4143 Sline Betty M Mrs
4145 Castator Roy A 291-5177
4147 Millan E Irene Mrs 291-2184
4151 Applegate Paul J ◎ 295-8216
W MONTECITO WAY INTERSECTS
4159★Barnd M M 298-4974
4159½ No Return
4162 No Return
4165 Ports Arth ◎
4167 Vacant
4169 Vacant
4171 Dunn Gladys M Mrs ◎ 298-6236
4185★Cesmat K T 296-1285

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INGELOW ST —FROM 2 SOUTH OF 1550 ROSECRANS ST NORTHWEST

ZIP CODE 92106
2912 Averil Apartments 222-2912
1★Donaldson Robt G
2★Roberts Kenneth R
3★Wright Wm F Jr 224-9620
4★Bryan Robt G
5 Hoffman Kenneth 225-9289
6 Walsh Averil T Mrs ◎ 222-2912
7★Thompson Floyd E
2913★Duff Larry L 224-9072
2915★Tafoya Penelope M 223-0526
2917★Reeve Geo H
2919★Thames Steph R
2920 Hall Fredk
2921 No Return
2927½ Lieberman David 224-6642
2929 Olson Charles
2931★Benkert Margt M
2933★Snow D 222-5042
2934 Lattin Leona J Mrs ◎ 223-6457
ROSECRANS ST INTERSECTS
3018 Vacant
3020 Brown Antonio ◎ 222-7431

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

KETTNER BLVD 1975

KERCH ST—Contd
6144 Vantran Ronald G ◎
6145★Stevenson Robt G 287-6374
6150 Jenkins Leland K ◎ 582-1934
6151 Moody Edw A ◎ 582-5679
6156 Selesko Gerald L ◎ 582-8610
6157 Weeks Virginia M Mrs ◎ 582-7113
6162 Scott Norvil Jr ◎ 582-6436
6163 Vacant
6168★Ceck Miles J ◎
6169 Hughes David E ◎ 582-6033
6174 O'Leary Francis G ◎ 582-6045
6175 Wendland Orville ◎ 286-1996
6180 Patterson Harry J ◎ 582-0896
6181★Frazier G ◎ 286-9345

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KEREMEOS WAY —FROM 11300 SQUAMISH RD EAST

ZIP CODE 92126
8806 Mahoney David W ◎ 271-7260
8807 Ward Bruce Q ◎ 271-5795
8815★Cole Margt E 566-6821
8818 Lincoln Carl E ◎ 271-6130
8823 Reaves Rufus G ◎ 566-3708
8830 Elamparo Antonio Y ◎ 271-1659
8831 Leneau R ◎ 271-4285
8839 Patterson Willie E 271-5778
8842★Gomez Mario M ◎
8847 Wales Robt M ◎ 271-7744
8854 Mc Neice Max ◎ 271-9099
8855 Travers Norma Mrs ◎ 271-9173
8863 Nichols David F ◎ 271-0958
8866★Coggins Michl H
8871★Gustafson Nils D ◎
8878 No Return
8879 Zelones V L ◎ 271-9203
8887★Benson Wm R 271-9148

191

KESLING CT —FROM 5000 BLK KESLING ST SOUTH

ZIP CODE 92117
4801 Franklin Edw R 279-3368
4802 Kelly Jon Q 277-6448
4811 Van Rickley Charles W ◎ 277-0498
4812 Sackett Ronald A
4822 Stemen Frank J ◎ 278-0756
4823 Woods Eddie ◎
4832 Brown James A ◎
4833★Edmison Joseph O
4842 Hughett Ronald D ◎ 277-5879
4843★Lewis Warren R 560-5421
4852 Clemens Christopher K ◎ 278-0207
4853 Perez Max F
4862 Mertel Franziska Mrs
4863 Bradbury Michl C ◎ 278-5642
4872 Mac Mootry Herman ◎ 292-5626
4882★Bruce John T

191

KESLING PL —FROM 5100 BLK KESLING ST SOUTH

ZIP CODE 92117
4802 Pinzini Joseph C ◎ 279-6641
4807 Heath Thos ◎
4812 Aylesworth Richd J ◎ 279-6380
4813 Smith James T ◎ 278-4467
4822 Gastauer Paul S ◎ 279-1720
4823 Penry Walter J Jr ◎ 277-8695

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KESLING ST —FROM 4880 LONGFORD ST EAST

ZIP CODE 92117
5014 Lucas Hodges C 279-7526
5026 Vanassee Roger J ◎ 277-5956
5038 Roles Isabel
5049 Wasilewski Michl L 565-1908
5050 Hembree Wm T ◎ 278-5918
5061 O'Donnell Edwin C ◎ 279-6049
5062 Hay Robt W ◎
5074 Hurst Robt L ◎ 277-8326
5086 Illig David R 292-1934
RUSHDEN AV INTERSECTS
5106★Sudo Siro ◎
5112 White Barbara D Mrs 278-0398
5118 Woo Sam ◎ 560-6480
5124 Hanlon Ralph W
5130 Brooks Leroy R 278-4184
5136 Anderson Geo B ◎

565

LIMERICK AV INTERSECTS
5205★Putman Harold
5219★Ridens Jean 278-4142
5233 Ideker Stan 278-0540
5247 Pedersen Jens ◎
5259★Ampran Alex
5260 No Return
5269 Christian Josephine Mrs ◎
5270 Picazo Joaquin V ◎ 277-5559
5277 Buelterman Arth C ◎
5278★Cooke Kevin 278-8210
5288 Isturis Fidel H ◎
5289★Castro David 279-6476
5302★Pena Henry L
5303 Stone Ken ◎ 277-3502
5312★Rogers Henry A
5315 Esch Carl E ◎
5322 Morse Larry M ◎ 279-3735
5332 Mc Auliffe Robt C ◎ 278-2829

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KESTON CT —FROM 7000 BEAGLE ST SOUTH

ZIP CODE 92111
3415 Garity Thos H 279-6260
3425 Forgey Augustine H ◎ 279-1376
3426 Corley Charles E ◎ 277-6337
3435 Davis Robt C ◎ 279-8469
3436 Wears Leo G ◎ 278-5180

903

KETTNER BLVD —FROM 700 W MARKET ST NORTH

ZIP CODE 92101
HARBOR DR INTERSECTS
MARKET ST INTERSECTS
629 J-Line prntrs 235-8860
Howarth Wm B coml artist 234-1286
639 Ed's Typesetting 234-7744
780 O'Sullivan Square Building 235-6423
Hobart Investment Co real est 235-6423
Bradley Properties real est developers 235-6423
Pine Realty 235-6423
Raymond Associates real est 235-6423
Rooms
A Hill-Smyk real est 234-8321
B Bart Corporation real est inv 235-6423
C Lewis Walter R landscape archt 235-6423
C Davidson John landscape archt 235-6423
D Purdy Warren F & Co management consultant 235-6423
E Keep & Tyree lwyrs 233-5415
STREET CONTINUED
Kitchell Joyce illustrator 233-1378
Ward Robt coml photog 239-5555
San Diego Reader newspaper 235-6176
Mac Donald Engineering elec 234-3221
G STREET INTERSECTS
F STREET INTERSECTS
855 Standard Brands Paint Co ret 232-3382
E STREET INTERSECTS

902

BROADWAY ST INTERSECTS
1005 Riff Raff tavern 239-1811
1020 Atchison Topeka & Santa Fe Railway railway frt 232-3193
1050 Amtrak railway passenger serv 239-9021
Santa Fe Snack Bar gifts 238-0244
C ST INTERSECTS
1190 Vacant
B ST INTERSECTS
1202 Bekins Moving & Storage Co 234-3141
1241 Bekins Moving & Storage Co (Parking Lot)
1256 Botanical Interiors plants 236-0179
1262 Designbank drafting 236-1916
1268 Marin John A lwyr 232-6431
Battaglia Anthony J lwyr 232-6431
1271 Becker Motors used cars 232-1341
WEST A ST INTERSECTS
1301 Allright Auto Park
1302 Vacant
1306 Dave's Display World novelties-ret 232-3097
1329 Sherwin Williams Co 239-3328
1355 Allright Auto Park

901

ASH ST INTERSECTS
1401 Honda Of San Diego motorcycles-auto new sls-serv 239-3801
1420 J T Motors used auto sls 239-0121
Rent-A-Car 239-0121
1424 Designed Facilities Leasing Co mobile ofc space rentals 233-1166
1440 Mission Garage auto towing 239-1325
Mission Garage Auto Repair 239-1324
1465 Aamco Transmissions repr 232-5134
BEECH ST INTERSECTS
1501 Allright Auto Park coin op
1502 Berkell Military Sales confectionery sups 239-5531
C & R Transfer Co 233-6466
Notch M A Corp exporters 239-8782
Continental Car Leasing 232-4935
1516 Compacts Only Rent A Car System 232-9117
1566 A A Rent-A-Car Inc 233-6685
Ryder Truck Rental 233-6686
CEDAR ST INTERSECTS
1601 Consolidated Leasing Corp auto truck & equip 239-2078
National Car Rentals 235-6274
1661 Contender Chase Boats boat dlrs 232-9549
1671★Bendos Sotis
1673 Common Cause committee org 235-6557

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DATE ST INTERSECTS
1730 Vacant
1731★Dentone John J 239-7929
1743★Stamps Virginia R Mrs
1745 Carlson Geo C 233-6042
1747 Carlson Co The heating equip 233-6042
1753 Asaro Giuseppe ◎ 233-0986
1765 Corona Donald 233-3882
1765½ Vacant
1767 Davis Roy J
1769 Tarantino Pietro ◎ 239-7923
1770 Pacific Tel & Teleg Co 239-4114
Pacific Tel & Teleg Co (Pbx Installation) 238-4401
1771★Giacalone Nora 233-4419
1781 D'Amato Frank 234-0415
FIR ST INTERSECTS
1902 San Diego Mtrs Imports Inc 234-3661
1903★White Kenneth H ◎ 235-5327
1907★Denny Michl H 238-0752
1915 Home Realty 233-6423
Superior Property Management Corp 233-6428
1929 Colombo Wine & Delicatessen wines 239-9926
1929½ Ortiz Adam
1954 San Diego Motor Imports Inc new & used cars 234-3661
Accent Insurance ins agcy 234-3661
W GRAPE ST INTERSECTS
2001 Amelco Electric contr 232-6355
Evaluation Research Corp eng consultants 234-3302
Hudson Frank Inc mech contrs 232-6691
2030 Miguelito's Restaurant 233-8563
2034 Wurts Contract Furnishers (Whse)
2036 Wurts Contract Furnish rs house furnishing 234-7976
2044 Waterfront The cocktail lounge 232-9656
2045 Shanks & Wright Inc electronic equip whol 239-0176
2055 Althof Hendrick 239-7875
2055½ Daum Joseph F
2056 Vacant
2062 Scott M A 235-9168
2064 Mulligan Harry O

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HAWTHORN ST INTERSECTS
2100 Thrifty Rent-A-Car 239-2281
2101 Tap-E-Co Products whol transmission parts 233-6215
2102 Thomey John G Service auto repr 239-3114
2119 Toigo's Auto Body & Paint 232-5592
2136 International Parts Distributors foreign cars 239-1319
2151 Pioneer Air Conditioning Co auto air conditioning 234-8721
2174 Sonart Incorporated tire center & auto leasing 232-3173
2175 Pioneer Radiator Inc repr 234-6741
W IVY ST INTERSECTS
2201 Vacant
2210 Vacant
2215 United States Battery Mfg Inc 234-4901
2227 Vacant
2228 Helix Wholesale Co whol bldg mtls 239-9393
Howard Projects publ periodicals 233-1791
Howard Paul T 233-1791
2229★Hathaway Ken
2241 Crivello Ninfa Mrs ◎ 232-8573
2251 Massa Steve Jr
2253 Tarantino John 239-7679
2266 Haulman Welding 239-0558
JUNIPER ST INTERSECTS
2308 Kent Allen Furniture 233-8122
2311 Photophile photograph stock shots 234-4431
2313 Rogandino Advertising & Marketing adv agcy 234-3685
2321 Castro Martino A
2327 Vacant
2345★Sanfilippo Luigi 239-2951
2347★Rallo Vito 235-0470
KALMIA ST INTERSECTS
2400 Vacant
2401 Profesaional Radial Tire dlrs & distrs 238-1015
2419 Romani Louise C Mrs ◎ 234-1033
2427 Keyser John D 234-1695
2429★Fausto Luis M 235-0690
2431★Jackson Jerlene
2433★Oliver Robt 232-1269
2435 Vacant
2435½★Gonzales Juventino 239-5540
2443 Sanfilippo Margt Mrs ◎ 239-8494
2453★Garcia Larry 239-0595
2455★Ribble Joseph
LAUREL INTERSECTS
2501 Club The cocktail lounge 239-4977
2515★Larios Lareene
2517★Espinoz Bonny
2519 Aguirre Francisco 234-5038
2521 Vacant
2525 Lamb Darce
2528 Solar Employees Federal Credit Union 234-6661
2555★Jackson Stanley
2557★Giacalone Frank ◎
2559 Litho Art Service Inc 238-1525
Litho Art Service Inc (plant)
MAPLE ST INTERSECTS
2601 Mc Namara Jack
2603★Young Brian
2605★Harris Bob N 295-9532
2607 Gurnsey Floyd M 296-1167
2609 Vacant
2611 Baumberger Byrona L Mrs 295-9783
2676 Vacant
2680 Blackman's Boat Service boat bldrs & repr 297-1059
Clark Custom Boats boat bldrs & repr 297-2795
Matson Michael Studio coml artist
NUTMEG ST INTERSECTS
2727 Culligan Water Conditioning Of San Diego Inc 291-0450
2730 Instant Printing Service 297-2281
Register Publishing Co program directories 297-2281
San Diego Tourist Guide publ 295-3785
2750 Neyenesch Printers Inc 297-2281
OLIVE ST INTERSECTS
2804 Kettner Radiator Shop repr 295-5171
2812 Puss 'n Boots tavern 296-9381

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PALM ST INTERSECTS
2916 No Return
2918 Mc Killip Robt
2920 Raines Wm A
2932 Vacant
2942 Ideas Incorporated Repair (Whse) 295-5638
2958 Grajeda Geo M 291-9018
2960★Lebeau Tom
2962★Wright Andrew
W QUINCE ST INTERSECTS
3002 Colombo Fidel ◎ 296-2980
3020 Tommy's Furniture Repair 295-8451
Heirwood Shutters 297-2678
3028 Bennett Joan B Mrs
3030 Scholder James G 295-1736
3032 National Maritime Union 298-5809
3042 Vermilya Dagmar Mrs 296-1624
3066 Trans Rent A Car Inc 297-0311
REDWOOD ST INTERSECTS
SASSAFRAS ST INTERSECTS
3334 Plastik-Arts fabricators 296-3415
3336 Bandanna Art Products art gds whol & mfrs 291-8758
3338 Fry Danny J 295-4441
3340★Ramos Ricardo L 298-8988
3342 Vacant
3344★Varrasso Amadeo 291-3855
3346 Gonzales Robt
3348 Sandoval Manuel R 291-4051
THORN ST INTERSECTS
3420 Coggeshall Albert W plmb & bldg sup 295-2149
3444 Vacant
UPAS ST INTERSECTS
VINE ST INTERSECTS

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UPAS ST INTERSECTS
3554 General Electric Co sls & serv 297-2975
3564 Lapidary Journal Inc book & magazine publs 297-4841
3574 Masterlist Inc controlled data 295-4166
3576 Vacant
3580 Commerce Publishing Co 298-1161
3590 Tolle Co The adv agcy 298-7101
Concept Graphics 298-1161

KETTNER BLVD 1975

KETTNER BLVD—Contd
San Diego Assn Of Advertising Agencies 298-7105

107
ZIP CODE 92110
ANDREWS ST INTERSECTS
3779 Miller Ted 296-2862
3785★Geary John 295-8250
3797 Lanning Margt L Mrs ◎ 296-2504
MC KEE ST INTERSECTS
3802★Himan Geo
3803 Oslar Walter R Jr ◎ 296-1840
3809 Pires Joaquin 296-4947
3821 Carroll Charles W ◎ 296-3000
3826 Komos Henry J ◎
3830★West Mark
3831★Miller Mary J 298-1776
3832★Malinowski Steve J
3833 Traylor Josephine L Mrs 291-0953
3838 Goodman Charles R
3839 Merritt John T Jr 298-2688
3841 Vacant
3843 Mellis Danl A
3844 Vacant
3845 Vacant
3847 Viorato Jose D ◎ 297-3604
3848★Platter Harold
PRINGLE ST INTERSECTS
3857 Ward Candace S 298-2539
3859 Vacant
3865★Mayhew Melvin 298-5334

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KEW TER —FROM 3400 NUTMEG ST SOUTH

ZIP CODE 92104
2603 Smith Manuel R ◎
2604 Garcia Sam J ◎
2609 Chadwell Charlene Mrs ◎
2610 Nave Stanley L ◎ 282-4071
2615 Gillingham Michl A ◎ 282-5588
2618 Burke Wm L ◎ 284-2783
2623 Neal Robt D ◎ 280-2816
2624★Mc Kenney Larry B 281-7343

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KICKAPOO CT —FROM 3500 HATTERAS AV NORTH

ZIP CODE 92117
4506 Jones Ernest D
4516 Messenger Eliz I Mrs ◎ 273-1021
4526 Beagle Karen M 272-2545
4527 Claar H L 273-6264
4536 O'Neal Noma V Mrs ◎ 274-6164
4537★Dickey Jerry L ◎ 272-1508
4546 Elchlepp Vera E Mrs 273-0474

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KILBOURNE DR (LA JOLLA)—FROM 8566 SUGARMAN DR NORTH

ZIP CODE 92037
8601 Lazerow Herbert I ◎ 453-2388
8602 Welp Otto G 453-9464
8611 Robb Jamea A ◎ 453-1514
8620 Vacant
8621 Kalla Joseph M Jr ◎ 453-0250
8631 Kohn Walter ◎ 453-5466
8641★Gray C W 452-8914
8650 Murray G Graham ◎ 453-2578
8651 Vacant
8660 Haner Charles F ◎ 452-0136
8661 Orloff Marshall J ◎ 453-2709

187
KILKEE ST —FROM 5100 CONRAD AV NORTH

ZIP CODE 92117
5001 Mathis Timothy R ◎ 292-1048
5002 Sirratt Dale E ◎
5009 Alvarado Eziquiel ◎ 279-8927
5010 Vacant
5017 Wells James R S ◎ 277-3389
5018 Brown Lepidia Mrs ◎
5025 Bailey Howard R ◎
5026★Russell Ray W 565-4050
5033 Heath Thos C ◎ 277-1082
5034 Vacant
5041 No Return
5042 Steele Lola M Mrs ◎ 277-4666
5049★Socie Thos L ◎ 565-9207
5050 Wilson Charles W ◎ 278-3781
5057 Wallace Carra A ◎ 277-7434
5058 Mitchell Jerald E ◎ 277-4935
5065 Hardy Charles H 277-8980
5066★Hauta Theo H 278-4820
5073 Weare Marguerite L Mrs 279-7678
5074 Rose Roland L ◎ 277-3254
5081 Poueu Rogo 279-2822
5082★Magnusen Karl O 278-1074
5088 Bernard Dewey M ◎ 279-0427
5089★Sanca John C 565-4180
5096 Pampel Mary Mrs ◎

659
KILT CT —FROM 4240 KIRKCALDY DR EAST IN A CIR

ZIP CODE 92111
7613★Ridgley Joe L 278-8264
7614 Eggert Geo F Jr ◎
7623 Succetti Michl A ◎ 278-5302
7624 Crowe Hubert L ◎ 278-1070
7634 Altona Johann ◎

605
KIM PL —FROM 9500 BLK RONDA AV NORTH

ZIP CODE 92123
2602 Crown Gertrude C Mrs ◎ 277-2127
2603 Holman James E ◎ 278-4892
2614★Cowart Walter E 560-7832
2615 Waters Wm
2626 Grebenstein Steph E 565-1796
2627 Pingry Gerald ◎ 565-0886
2639 Smith Lynn Mrs ◎

99
KING ARTHUR CT (LA JOLLA) FROM 6700 LA JOLLA SCENIC DR WEST

ZIP CODE 92037
2307 Metro Oil Products 459-8075
2321 Vacant
2335★Parkin Thoa R 454-8404
2336★Redmond Bruce N 459-9321
2349 Vacant
2353 Under Constn
2366 No Return
2390★Pulaski Edw 459-1967
2391★Schorn Victor G

191
KINGS WAY —FROM 4850 DIANE AV NORTH

ZIP CODE 92117
4805 Sloane Mary A Mrs 277-5706
4812 Frater Wayne K ◎ 277-5667
4815 Duranleau Andre E 279-4863
4822 Klotzsche Erich A ◎ 279-0033
4825 Beckes Ralph W ◎ 279-3065
4832★Harvey Edwin D ◎ 565-4166
4835 Harris Ellard W ◎ 277-8742
4842 Aguayo Alf J ◎ 277-5430
4852 Van Berlo Theo M ◎ 278-4035
4855 Atanasoff Steve ◎
4862★Kendrick Robt ◎
4872 Swope Anthony F 279-0748

201
KINGSLAND RD —FROM 2300 GREENWING DR EAST

ZIP CODE 92123
8407 Ackermann Andrew A ◎
8415 Dubreuil Roland ◎ 279-6261
8423 Golodner Pamela Mrs
8426 Clark Griffith T ◎
8431 Blase Colleen I Mrs ◎ 279-1668
8436 Chuckta Saml C ◎ 277-7802
8439 Cropsey Anne K Mrs ◎ 277-1106
8446 Peleti Tui S ◎ 279-4645
8447 Ritz John H ◎ 278-5368
8455 Norris Patk J ◎ 278-6665
8458 Doedderlein Robt J 278-9397
8470 Ward Beverly G Mrs ◎ 277-7687
8471 Sapiro Leon ◎ 277-6888

33
KINGSLEY ST —FROM 290 ROSECRANS ST NORTHWEST

ZIP CODE 92106
3003 Faulkner H R ◎ 222-8151
3021 Richardson Joseph L ◎ 222-2436
3022★Flud James A ◎
3029 Jehl Jos R Jr ◎ 224-4663
3030 Mc Cutcheon Elsie Mrs ◎ 222-7786
3035 Warren Williston L ◎ 223-8672
3036 Hernesath Ida E Mrs ◎ 223-8667
LOCUST ST INTERSECTS
3104 Ruth Philip N ◎ 222-8703
3105 Brown Earle V ◎
3111 Crosaman Kathryn M Mrs ◎ 223-8576
3114 Waterbury John A ◎ 223-7455
3121 Zanetti Ada J Mrs ◎ 223-0938
3122 Kennedy Martha A ◎ 223-8678
3130 Hofman Joseph H ◎ 222-4188
3131 Bartel Richd F ◎ 223-3734
3136 Schick Charles H ◎ 223-0042
3141 Gillespie James P ◎ 224-5492
EVERGREEN ST INTERSECTS
3212 Mc Keown Virginia C Mrs
3226 Heissel Ellen J Mrs ◎ 224-5597

31
CHATSWORTH BLVD INTERSECTS
3601★Gonzales Joseph ◎
3602 Jason Robt L ◎ 224-2356
3606 De Lira Ruben ◎ 223-6390
3607★Correia Manuel ◎ 223-3087
3610 White Robt C ◎ 223-1795
3611 Wheeler Lois Mrs ◎ 222-9826
3614 Breit Virgil C ◎ 223-0451
3615 Hamlin Danl A ◎ 222-1636
3618 Carvalho Ralph J ◎ 223-6375
3621★Guidi Jules ◎
3622 Goncalves Manuel C ◎ 222-6026
3625 Powell Wm C ◎ 224-5774
3626 Heryet Frank C ◎ 223-3733
3629 Weigand John W ◎ 222-8723
3630 Burman C Phillip ◎ 223-6301
3633 Izzarelli Ruth C Mrs ◎ 224-5006
3636 Saleebey Henry S ◎ 223-3935
3637 Nadeau Maurice T ◎ 224-1534
3641 Lambert Geo E ◎ 224-9119
3642 Vacant
3647 Gunnarson Rolf 223-0494
3648 Baer Dee 223-0393
3653 Vacant
3654★Ferguson Emery J 223-8311
3659 Thompson Paul J ◎ 223-1321
3660★Baker W J
JAMES ST INTERSECTS
3702 Palmer John T ◎ 224-4998
3708 Bruni Amadeo G ◎ 224-1330
3711 Boyle John D ◎ 222-9030
3714 Nichols Jacob ◎
3719★Atkins John W 222-7697
3720 Tucker Helen M ◎ 224-1309
3725 Johnson Douglas C ◎ 224-3841
3726 Moniz Joseph A ◎ 222-2936
3730 Severn Gordon E ◎ 222-6058
3731 Trechuelo Alice Mrs 222-5975
3737★Hines Walter 224-4213
3738 Conklin Charles E ◎ 224-4376
3743 Wright James ◎ 223-3442
3744★Butler Thos ◎ 223-3382
3748 Gray Scott C ◎
3749 Hall Ralph E ◎ 224-2557
3755 Lunsford Bill ◎ 222-7719
3756 Hardie Adele G Mrs ◎
3760 Radich Lawrence
3761 Thompson Robt D ◎ 223-0018
POINSETTIA DR INTERSECTS

377
KINGSTON CT —FROM 3371 OCEAN FRONT WALK EAST

ZIP CODE 92108
714★Moody Betty 488-2372
717 Vacant
717½ Vacant
718 Wahler Lon R 488-3701
719★Rothstein Kenneth
721 Rock Harold ◎ 488-6143
722★Thomas Geo
725a★Federman Jim
725b★Robertson Jon P 488-1600
725c★Boeche Leo 488-5441
726 Heberlein Edmund F ◎ 488-4505
MISSION BLVD INTERSECTS
801 Vacant
803★Warren Charles 488-3085
805 Vacant
807 Vincent Edmund W
809★Frith Paul 488-1253
810 Vacant
811 O'Brien John L ◎ 488-9675
812★Hall Kath 488-6245
814★Frohling James 488-2694
815 Granger David 488-4715
816★Treadwell Kevin 488-5914
818 Vacant
BAYSIDE LANE INTERSECTS
821★Lane Larry 488-2195
823★Cullen John P 488-5768
825 Mc Leod Gilbert ◎ 488-2752

237
KINGSWOOD ST —FROM 327 SUNSWEPT ST WEST

ZIP CODE 92114
306 Vacant
307 Kelly James ◎
316 No Return
321 Johnson C Donald ◎ 479-2286
326★Bradley James 479-3295
334 Mitchem Hampton ◎ 479-2389
337 Osburn David E ◎ 479-2883
344 Blas Manuel C ◎ 479-2613
353 Jorgenson Joshua E ◎
354★Abano Alfredo Jr ◎ 475-1799
364 Bute Rodney K ◎ 479-9933
365 Messick Kenneth L 479-1890
374 Waters Frank O ◎
377 Schreiber Michl J ◎ 479-7152
384 Vacant
BROOKHAVEN RD INTERSECTS
416 Rubalcaba Joseph R ◎ 479-4678
BIG OAK ST BEGINS
426★Tesoro Jesus ◎ 479-4922
436 P & G Travel Consultant travel arrangements 479-4858
Larson Philip A 479-4858
446 Contreras Joseph W ◎
456 Heath Geo ◎ 479-8366
GATEWOOD ST BEGINS
466★Webb Nobuka Mrs ◎
476 Gordon W James ◎ 479-4335
486 Smith Leon ◎
FARMDALE ST BEGINS
504 Brown Ron

659
KIRKCALDY DR —FROM 7630 OTHELLO AV NORTH

ZIP CODE 92111
4101★Torregrosa Erwin A 292-5906
4102 Egemo Carroll O ◎ 278-4659
4111 Turpin Robt M ◎ 278-8969
4112 Baldwin Aden E ◎ 277-8365
4119 Hanson Rodney D ◎ 279-2839
4122 Todd James M 278-6799
CALDY PL BEGINS
4135 Raisis Myrtle L Mrs ◎
4140 Maese Robt E ◎ 278-1898
4147★Covell Charles E 277-8406
4156 Lintner Gerald T ◎
4159 Loflen Phillip D ◎ 278-3843
4166 Stanford Calvin H
LOCH LOMOND ST BEGINS
4176★Kasselman Larry 278-2073
4185★Reynolds Rick 565-7579
4186 Cota Robt A ◎
4195 Kent Helen A Mrs 279-4928
4196 Geer David H ◎ 277-4176
MARLESTA DR ENDS
4201 Ulibarri Joe R ◎ 279-7763
4211 Bejarano Tony J ◎
4220★Donnellan James
4221 Ward Richd I ◎ 278-7097
4230 Newell Louis W ◎ 277-6554
4231 Dodd Allen A ◎ 278-5139
4240 Kaschak Louis A ◎
KILT CT BEGINS
4250 Donnellan Thos S ◎ 277-8714
4251 Stepka Joseph F ◎ 277-1039
4260 Paquin Howard ◎ 279-1832
4261★Vest Dale L 560-4327
4271 Foss Merle S ◎ 278-7958
4281 Delso Billy G ◎
ARMOUR ST BEGINS

211
KIRKWOOD PL (LA JOLLA)—FROM 5241 LA JOLLA HERMOSA AV EAST

ZIP CODE 92037
601 Bruner Marion Mrs 488-6392
602 Powrie Wm D 488-4297
603 No Return
604 Rodolf Nellie B Mrs 488-5156
605 Feldmann Allene J Mrs 488-8490
606 Bailey N W 488-3689
607★Thomas A Virginia
608 Schwehm Ray F 488-1979
609 Holles Everett R 459-9119
610 Vacant
611 Harrison John A 459-1660
612 Hunter Harry H 488-6068
613 Hassenplug Ruth C Mrs 488-5619
614 Trotter John K 488-8012
615 Brown David W 488-4667
616 Young Geo O 488-8972
617 Newcombe Fredk E 488-1349
619★Noah Faye Y Mrs 488-3831
621 Fleming Thos J Jr 488-3387
623 Vacant
625 Douglas Anne L Mrs 488-5870
627★Fleming Tom
629 Hales Wm M 488-9592
631 Edington Regina O Mrs 488-7022
632★Tacker Raymond A 488-6756
633 Hill A Louise Mrs 488-6737
634★Sibley Joseph F 488-1477
635 Hughes Louise E Mrs 488-3572

194
KIRTRIGHT ST —FROM 6200 ALDERLY ST SOUTHEAST

ZIP CODE 92114
518★Preston Virgil
530 Moore Donald O 264-9193
542 Adkins Barry E ◎ 262-3297
554 Rackley Robt L ◎ 262-8029
608 Lacey Alice M Mrs ◎
615 No Return
620 Andrews Charles J ◎ 262-8091
632 No Return
639 Roland Saml ◎ 263-2917
644 Jabali Geo 264-2259

KETTNER/VINE ST 1975

KERCH ST—Contd
6144 Vantran Ronald G ◎
6145★Stevenson Robt G 287-6374
6150 Jenkins Leland K ◎ 582-1934
6151 Moody Edw A ◎ 582-5679
6156 Selesko Gerald L ◎ 582-8610
6157 Weeks Virginia M Mrs ◎ 582-7113
6162 Scott Norvil Jr ◎ 582-6436
6163 Vacant
6168★Ceck Miles J ◎
6169 Hughes David E ◎ 582-6033
6174 O'Leary Francis G ◎ 582-6045
6175 Wendland Orville ◎ 286-1996
6180 Patterson Harry J ◎ 582-0896
6181★Frazier G ◎ 286-9345

275

KEREMEOS WAY —FROM 11300 SQUAMISH RD EAST

ZIP CODE 92126
8806 Mahoney David W ◎ 271-7260
8807 Ward Bruce Q ◎ 271-5795
8815★Cole Margt E 566-6821
8818 Lincoln Carl E ◎ 271-6130
8823 Reaves Rufus G ◎ 566-3708
8830 Elamparo Antonio Y ◎ 271-1659
8831 Leneau R ◎ 271-4285
8839 Patterson Willie E 271-5778
8842★Gomez Mario M ◎
8847 Wales Robt M ◎ 271-7744
8854 Mc Neice Max ◎ 271-9099
8855 Travers Norma Mrs ◎ 271-9173
8863 Nichols David F ◎ 271-0958
8866★Coggins Michl H
8871★Gustafson Nils D ◎
8878 No Return
8879 Zelones V L ◎ 271-9203
8887★Benson Wm R 271-9148

191

KESLING CT —FROM 5000 BLK KESLING ST SOUTH

ZIP CODE 92117
4801 Franklin Edw R 279-3368
4802 Kelly Jon Q 277-6448
4811 Van Rickley Charles W ◎ 277-0498
4812 Sackett Ronald A
4822 Stemen Frank J ◎ 278-0756
4823 Woods Eddie ◎
4832 Brown James A ◎
4833★Edmison Joseph O
4842 Hughett Ronald D ◎ 277-5879
4843★Lewis Warren R 560-5421
4852 Clemens Christopher K ◎ 278-0207
4853 Perez Max F
4862 Mertel Franziska Mrs
4863 Bradbury Michl C ◎ 278-5642
4872 Mac Mootry Herman ◎ 292-5626
4882★Bruce John T

191

KESLING PL —FROM 5100 BLK KESLING ST SOUTH

ZIP CODE 92117
4802 Pinzini Joseph C ◎ 279-6641
4807 Heath Thos ◎
4812 Aylesworth Richd J ◎ 279-6380
4813 Smith James T ◎ 278-4467
4822 Gastauer Paul S ◎ 279-1720
4823 Penry Walter J Jr ◎ 277-8695

191

KESLING ST —FROM 4880 LONGFORD ST EAST

ZIP CODE 92117
5014 Lucas Hodges C 279-7526
5026 Vanassee Roger J ◎ 277-5956
5038 Roles Isabel
5049 Wasilewski Michl L 565-1908
5050 Hembree Wm T ◎ 278-5918
5061 O'Donnell Edwin C ◎ 279-6049
5062 Hay Robt W ◎
5074 Hurst Robt L ◎ 277-8326
5086 Illig David R 292-1934
RUSHDEN AV INTERSECTS
5106★Sudo Siro ◎
5112 White Barbara D Mrs 278-0398
5118 Woo Sam ◎ 560-6480
5124 Hanlon Ralph W
5130 Brooks Leroy R 278-4184
5136 Anderson Geo B ◎

565

LIMERICK AV INTERSECTS
5205★Putman Harold
5219★Ridens Jean 278-4142
5233 Ideker Stan 278-0540
5247 Pedersen Jens ◎
5259★Ampran Alex
5260 No Return
5269 Christian Josephine Mrs ◎
5270 Picazo Joaquin V ◎ 277-5559
5277 Buelterman Arth C ◎
5278★Cooke Kevin 278-8210
5288 Isturis Fidel H ◎
5289★Castro David 279-6476
5302★Pena Henry L
5303 Stone Ken ◎ 277-3502
5312★Rogers Henry A
5315 Esch Carl E ◎
5322 Morse Larry M ◎ 279-3735
5332 Mc Auliffe Robt C ◎ 278-2829

569

KESTON CT —FROM 7000 BEAGLE ST SOUTH

ZIP CODE 92111
3415 Garity Thos H 279-6260
3425 Forgey Augustine H ◎ 279-1376
3426 Corley Charles E ◎ 277-6337
3435 Davis Robt C ◎ 279-8469
3436 Wears Leo G ◎ 278-5180

903

KETTNER BLVD —FROM 700 W MARKET ST NORTH

ZIP CODE 92101
HARBOR DR INTERSECTS
MARKET ST INTERSECTS
629 J-Line prntrs 235-8860
Howarth Wm B coml artist 234-1286
639 Ed's Typesetting 234-7744
780 O'Sullivan Square Building 235-6423
Hobart Investment Co real est 235-6423
Bradley Properties real est developers 235-6423
Pine Realty 235-6423
Raymond Associates real est 235-6423
Rooms
A Hill-Smyk real est 234-8321
B Bart Corporation real est inv 235-6423
C Lewis Walter R landscape archt 235-6423
C Davidson John landscape archt 235-6423
D Purdy Warren F & Co management consultant 235-6423
E Keep & Tyree lwyrs 233-5415
STREET CONTINUED
Kitchell Joyce illustrator 233-1378
Ward Robt coml photog 239-5555
San Diego Reader newspaper 235-6176
Mac Donald Engineering elec 234-3221
G STREET INTERSECTS
F STREET INTERSECTS
855 Standard Brands Paint Co ret 232-3382
E STREET INTERSECTS

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BROADWAY ST INTERSECTS
1005 Riff Raff tavern 239-1811
1020 Atchison Topeka & Santa Fe Railway railway frt 232-3193
1050 Amtrak railway passenger serv 239-9021
Santa Fe Snack Bar gifts 238-0244
C ST INTERSECTS
1190 Vacant
B ST INTERSECTS
1202 Bekins Moving & Storage Co 234-3141
1241 Bekins Moving & Storage Co (Parking Lot)
1256 Botanical Interiors plants 236-0179
1262 Designbank drafting 236-1916
1268 Marin John A lwyr 232-6431
Battaglia Anthony J lwyr 232-6431
1271 Becker Motors used cars 232-1341
WEST A ST INTERSECTS
1301 Allright Auto Park
1302 Vacant
1306 Dave's Display World novelties-ret 232-3097
1329 Sherwin Williams Co 239-3328
1355 Allright Auto Park

901

ASH ST INTERSECTS
1401 Honda Of San Diego motorcycles-auto new sls-serv 239-3801
1420 J T Motors used auto sls 239-0121
Rent-A-Car 239-0121
1424 Designed Facilities Leasing Co mobile ofc space rentals 233-1166
1440 Mission Garage auto towing 239-1325
Mission Garage Auto Repair 239-1324
1465 Aamco Transmissions repr 232-5134
BEECH ST INTERSECTS
1501 Allright Auto Park coin op
1502 Berkell Military Sales confectionery sups 239-5531
C & R Transfer Co 233-6466
Notch M A Corp exporters 239-8782
Continental Car Leasing 232-4935
1516 Compacts Only Rent A Car System 232-9117
1566 A A Rent-A-Car Inc 233-6685
Ryder Truck Rental 233-6686
CEDAR ST INTERSECTS
1601 Consolidated Leasing Corp auto truck & equip 239-2078
National Car Rentals 235-6274
1661 Contender Chase Boats boat dlrs 232-9549
1671★Bendos Sotis
1673 Common Cause committee org 235-6557

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DATE ST INTERSECTS
1730 Vacant
1731★Dentone John J 239-7929
1743★Stamps Virginia R Mrs
1745 Carlson Geo C 233-6042
1747 Carlson Co The heating equip 233-6042
1753 Asaro Giuseppe ◎ 233-0986
1765 Corona Donald 233-3882
1765½ Vacant
1767 Davis Roy J
1769 Tarantino Pietro ◎ 239-7923
1770 Pacific Tel & Teleg Co 239-4114
Pacific Tel & Teleg Co (Pbx Installation) 238-4401
1771★Giacalone Nora 233-4419
1781 D'Amato Frank 234-0415
FIR ST INTERSECTS
1902 San Diego Mtrs Imports Inc 234-3661
1903★White Kenneth H ◎ 235-5327
1907★Denny Michl H 238-0752
1915 Home Realty 233-6423
Superior Property Management Corp 233-6428
1929 Colombo Wine & Delicatessen wines 239-9926
1929½ Ortiz Adam
1954 San Diego Motor Imports Inc new & used cars 234-3661
Accent Insurance ins agcy 234-3661
W GRAPE ST INTERSECTS
2001 Amelco Electric contr 232-6355
Evaluation Research Corp eng consultants 234-3302
Hudson Frank Inc mech contrs 232-6691
2030 Miguelito's Restaurant 233-8563
2034 Wurts Contract Furnishers (Whse)
2036 Wurts Contract Furnish rs house furnishing 234-7976
2044 Waterfront The cocktail lounge 232-9656
2045 Shanks & Wright Inc electronic equip whol 239-0176
2055 Althof Hendrick 239-7875
2055½ Daum Joseph F
2056 Vacant
2062 Scott M A 235-9168
2064 Mulligan Harry O

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HAWTHORN ST INTERSECTS
2100 Thrifty Rent-A-Car 239-2281
2101 Tap-E-Co Products whol transmission parts 233-6215
2102 Thomey John G Service auto repr 239-3114
2119 Toigo's Auto Body & Paint 232-5592
2136 International Parts Distributors foreign cars 239-1319
2151 Pioneer Air Conditioning Co auto air conditioning 234-8721
2174 Sonart Incorporated tire center & auto leasing 232-3173
2175 Pioneer Radiator Inc repr 234-6741
W IVY ST INTERSECTS
2201 Vacant
2210 Vacant
2215 United States Battery Mfg Inc 234-4901
2227 Vacant
2228 Helix Wholesale Co whol bldg mtls 239-9393
Howard Projects publ periodicals 233-1791
Howard Paul T 233-1791
2229★Hathaway Ken
2241 Crivello Ninfa Mrs ◎ 232-8573
2251 Massa Steve Jr
2253 Tarantino John 239-7679
2266 Haulman Welding 239-0558
JUNIPER ST INTERSECTS
2308 Kent Allen Furniture 233-8122
2311 Photophile photograph stock shots 234-4431
2313 Rogandino Advertising & Marketing adv agcy 234-3685
2321 Castro Martino A
2327 Vacant
2345★Sanfilippo Luigi 239-2951
2347★Rallo Vito 235-0470
KALMIA ST INTERSECTS
2400 Vacant
2401 Profesaional Radial Tire dlrs & distrs 238-1015
2419 Romani Louise C Mrs ◎ 234-1033
2427 Keyser John D 234-1695
2429★Fausto Luis M 235-0690
2431★Jackson Jerlene
2433★Oliver Robt 232-1269
2435 Vacant
2435½★Gonzales Juventino 239-5540
2443 Sanfilippo Margt Mrs ◎ 239-8494
2453★Garcia Larry 239-0595
2455★Ribble Joseph
LAUREL INTERSECTS
2501 Club The cocktail lounge 239-4977
2515★Larios Lareene
2517★Espinoz Bonny
2519 Aguirre Francisco 234-5038
2521 Vacant
2525 Lamb Darce
2528 Solar Employees Federal Credit Union 234-6661
2555★Jackson Stanley
2557★Giacalone Frank ◎
2559 Litho Art Service Inc 238-1525
Litho Art Service Inc (plant)
MAPLE ST INTERSECTS
2601 Mc Namara Jack
2603★Young Brian
2605★Harris Bob N 295-9532
2607 Gurnsey Floyd M 296-1167
2609 Vacant
2611 Baumberger Byrona L Mrs 295-9783
2676 Vacant
2680 Blackman's Boat Service boat bldrs & repr 297-1059
Clark Custom Boats boat bldrs & repr 297-2795
Matson Michael Studio coml artist
NUTMEG ST INTERSECTS
2727 Culligan Water Conditioning Of San Diego Inc 291-0450
2730 Instant Printing Service 297-2281
Register Publishing Co program directories 297-2281
San Diego Tourist Guide publ 295-3785
2750 Neyenesch Printers Inc 297-2281
OLIVE ST INTERSECTS
2804 Kettner Radiator Shop repr 295-5171
2812 Puss 'n Boots tavern 296-9381

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PALM ST INTERSECTS
2916 No Return
2918 Mc Killip Robt
2920 Raines Wm A
2932 Vacant
2942 Ideas Incorporated Repair (Whse) 295-5638
2958 Grajeda Geo M 291-9018
2960★Lebeau Tom
2962★Wright Andrew
W QUINCE ST INTERSECTS
3002 Colombo Fidel ◎ 296-2980
3020 Tommy's Furniture Repair 295-8451
Heirwood Shutters 297-2678
3028 Bennett Joan B Mrs
3030 Scholder James G 295-1736
3032 National Maritime Union 298-5809
3042 Vermilya Dagmar Mrs 296-1624
3066 Trans Rent A Car Inc 297-0311
REDWOOD ST INTERSECTS
SASSAFRAS ST INTERSECTS
3334 Plastik-Arts fabricators 296-3415
3336 Bandanna Art Products art gds whol & mfrs 291-8758
3338 Fry Danny J 295-4441
3340★Ramos Ricardo L 298-8988
3342 Vacant
3344★Varrasso Amadeo 291-3855
3346 Gonzales Robt
3348 Sandoval Manuel R 291-4051
THORN ST INTERSECTS
3420 Coggeshall Albert W plmb & bldg sup 295-2149
3444 Vacant
UPAS ST INTERSECTS
VINE ST INTERSECTS

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UPAS ST INTERSECTS
3554 General Electric Co sls & serv 297-2975
3564 Lapidary Journal Inc book & magazine publs 297-4841
3574 Masterlist Inc controlled data 295-4166
3576 Vacant
3580 Commerce Publishing Co 298-1161
3590 Tolle Co The adv agcy 298-7101
Concept Graphics 298-1161

PACIFIC HWY 1975

PACIFIC HWY—Contd
Fed Aviation Administration (Flight Serv Sta) 293-5285
3090 General Dynamics Corp-Elec Div (Plant)
3125 General Dynamics Corp Convair Division (employees cafeteria)
3165 Port Of San Diego (Admn & Genl Ofcs) 291-3900
3225 Vinyard Overhead Doors Inc garage door mfrs 298-9951
W SASSAFRAS ST ENDS
3302 General Dynamics Corp Convair Aerospace Division lindbergh field plant 296-6611
W QUINCE ST ENDS
VINE ST ENDS
3555 Pacific Car Rental 239-2111
3565★Phillips Chatty A 295-0500
3569 Pacific Coast Automotive repr 299-7700
ZIP CODE 92110
BEAN ST ENDS
3705 Schoen Tools tools-whol 298-1061
SUTHERLAND ST ENDS
3877 South Seas Lounge Restaurant cocktail lounge 295-0721
B I D Associates restr oprs 295-0721
3881 Maintenance Warehouse bldg sup whol & ret 298-8331
3885 Don's Photo Service 295-9924
3895 Pacific Highway Pet Clinic 295-4231
NOELL ST ENDS
3911 Machinists Building
International Assn Machs Silvergate Dist Lodge 50 298-9301
Intl Assn Of Machinist Dist 50 (Organizing Hdqtrs) lab orgn 298-9306
ROOMS
100 Davies Robt Erik Hay income tax serv 291-6185
101 Vacant
102 San Diego Machinist Building Assn 298-9301
103 Vacant
105 Graphic Arts International Union Local No 40-B orgn labor 291-1886
106 Silvergate Club social 239-1485
106 I A M Retirement Club social
127 Hiro's Key Punch Serv data processing serv 223-3826
201 Vacant
202 American Postal Workers Union lab orgn 299-6630
203 Intl Assn Of Machinists Silvergate Dist 50 (Ofc)
206 Vacant
207 Lithographers & Photoengravers Intl Union Local 227 296-1556
STREET CONTINUED
3923 Little R W Co Inc sandblasting contrs 297-3705
ESTUDILLO BEGINS
3957 Whittiker's Furniture 297-3251
3967 Whittiker's Used Furniture 297-3251
WRIGHT ST ENDS
4005 Citizens Warehouse Trucking Co Inc 298-1588
4025 Ball Express trucking 298-4872
4031 Yale Enterprises coatings & sbrasives-whol 299-7710
4035 Chico's Blueprint Co 295-5510
Tar Stop Inc cigarette filter mfrs 296-4848
BANDINI ST BEGINS
4085 Sav-O-Matic Self Serv Gas 298-6060
Pacific Services clo cln 298-6060
Pacific Services Laundromat lndy-self serv 298-6060
4089 Pacific Services Barber Shop 296-0694
COUTS ST BEGINS
4101 Pacific Rest Motel 298-8364
★Smart Lester P 298-8364
4141 K G B A M & F M radio sta 297-2201
WITHERBY ST ENDS
BARNETT BEGINS
ENTERPRISE ST BEGINS
SPORTS ARENA BLVD BEGINS
ZIP CODE 92138
4250 Barnett Commercial Center bldg-ofc
101 Vacant
105 Satellite Office Service Inc prntrs 225-1261
108 I-Deal Services typesetting & graphic arts 224-3418
109 Breck Research technical research 224-3318
110 Vacant
112 Vacant
113 Vacant
115 Vacant
116 Vacant
119 Vacant
120 Palash J K & Associates carpet & drapes sls 222-0381
121 Vacant
124 Technical Support Associates Inc data processors 224-3609
125a Acacia Travel Inc travel agcy 225-1233
128 Granfield Security Systems burglar & fire alarm sys 225-9535
129 Angler's Bait & Tackle bait & fishing tackle ret 222-4013
130 P & T Construction Co genl contr 225-1465
131 Computer Machinery Corp 224-4128
201 Trans Rent-A-Car 297-3765
203 Vacant
207 Trend Western Technical Corp publications 224-3507
209 Retailers Commercial Agency credit reporting 224-3278
223b Gavilan College sch 222-0673
223d Vacant
225 Ocean Market Consultants Inc consulting eng 222-1135
226 Vacant
227 American Financial Of San Diego collection agcy 225-9344
228 Association Benefit Planning Corp life ins 223-8151
230 Medi-Trans Ltd med transcribing serv 225-1297
4297 USn Electronic Sys Engineering Center San Diego 225-4367
US Defense Contract Admn Servs (Dist S D) 225-4731
USn Sea Support Cntr Pac 225-3233
General Dynamics Corp (Convair Aerospace Div) (plant 2)
4306 Hans Foreign Car Serv auto repr 298-6575
4320 Walkers Bus & Truck Sales 298-5568
4325 U S Naval Ord Sys Support Ofc (Pacific Annex) 225-5571
4360 San Diego Pipe & Supply Co Inc (Br) 299-7171
4360 Duston Market Equipment 297-3771
Friedrich Refrigerators refrig-coml 297-3771
4370 Vacant
4380 Denny's Coffee Shop No 44 296-9438
4386 Acme Trailer Park 296-9674
Valleau A B 291-4370
KURTZ ST BEGINS
4420 Panel Lock Fence Co 295-8869
SMITH ST ENDS
4454 Blue Bell Motel 295-6444
★Sanders Shirley Mrs 295-6444
TEMPLE ST INTERSECTS
4560 Dohrmann Co hotel supa 297-3583
TAYLOR ST BEGINS
ROSECRANS ST INTERSECTS
4606 Complete Transportation Inc auto rentals 298-7163
Crock Texaco Service 298-7163
4610 Sambo's Restaurant 298-0354
4635 U S N Electronics Systems Command S W Div (Whse)
INTERSTATE 8 INTERSECTS
4764 State-Division Of Highways (Mtce Yard)
SAN DIEGO RIVER CROSSES
ANNA AV ENDS
4901 Western Fastener Co whol nuts & bolts 291-1024
4902 State Highway Patrol 296-6661
4903 Cypress Construction Co genl contrs 297-3214
Par Lathing Co contr 298-6603
Von Willer R W Inc plastering contr 298-6603
Pierce & Rahn Enterprises contr-plaster 298-6603
4909 Republic Van Lines Of San Diego Inc moving 298-9916
4941 A B C Tile Co ceramic tile contrs 297-3941
Coronado Stone Co Of San Diego cast stone mfrs & distr 298-6958
4941a Schwartz M M Co excav contrs 297-1751
4941b J W Electric Co contr 291-4380
4941e Astro Realty Supply Co & Astro Sign Co signs 298-3322
4955 Belmont Laundry 298-8736
INTERSTATE 5 INTERSECTS

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SAN DIEGO RIVER CROSSES

387

PACIFIC VIEW DR —FROM 4950 OCEAN BLVD NORTHEAST

ZIP CODE 92109
604 Hauseur Fred J ◎ 488-8578
610 Hauseur C Thos ◎
615 Cope Jesse D ◎ 488-3265
616★Beha Geo ◎
622 Wilson Charles A 272-3886
628★Crenshaw Thos E 488-5934
631 Buck Barbara T Mrs ◎ 488-5900
634 Barnhill Robt 270-2147
639 Browder Wm R 488-1046
640 Hill Joseph L ◎ 488-1905
645 Cardinal John ◎
646 Johnson Paul R ◎ 270-2453
651★Gonzales Donald P 270-0651
652 Knox Robt ◎ 488-1450
657 Ward David J ◎ 454-4613
658 Matthews Richd W Jr ◎ 488-6451
665★Cornelius R L 488-1751
666 Weinman Phyllis A Mrs ◎ 488-3639

373

PACIFICA DR —FROM 5500 SOLEDAD MOUNTAIN RD SOUTH

ZIP CODE 92109
4846 Miller Melvin D ◎ 274-0320
4856 Freeborn Guy H ◎ 272-9746
4866★Williams John A 273-3917
4876 Weaver D D ◎ 274-7996
4906 Davis James M ◎ 272-6237
4909 No Return
4910 Duerksen Wm ◎ 274-6547
4914 Lovell Jim ◎
4917★Kronberger Wm H Jr ◎ 276-7656
4918 No Return
4922 Gardner Grady V ◎ 272-3328
SAN AUSELMO ST INTERSECTS
4934★Dacus John H ◎ 272-9590
4935 Vacant
4938★Hewitt C L ◎ 273-1816
4939 Whited Leo J ◎ 273-5768
4942 Davis Lawrence L ◎ 273-5304
4943★Smith Sheila ◎
4945 Hoelzl John ◎ 273-5008
4946★Short Robt C
4949 Williams James R ◎ 273-5351
4950 Bartlett Ronald D 272-8020
4953 Speciall Joseph V ◎ 274-6446
4954 Lee James M ◎ 272-1567
4957 Branin Patk I ◎ 274-4957
4961 Zogg Gordon J ◎ 274-0816
4962 No Return
4965 Bennett Wm K clo mfr agt ◎ 273-6308
4969 Taylor John G ◎ 273-8707
4973 Snyder Ellsworth O ◎ 274-0256
4977 Wong David Y ◎ 274-6058
4980 Lennard Ron ◎ 274-7828
4981 Schildt Wm J ◎ 274-5533
4985 Sheppard J Scott ◎ 276-2344
4988 No Return
4989 Stocker Joseph P 274-1764
4993 Vacant
LORING ST INTERSECTS

73

5001★George Critz H 274-7310
5004 Graham Mary G Mrs ◎ 273-5440
5007 Smith Ray T Jr 272-5603
5008 Nies Geo K ◎ 273-8678
5013 Greenbaum Richd H ◎ 274-0304
5016 Harrington Lyman L ◎ 274-1011
5019 Burns Richd R ◎ 274-9287
5022 Duffield Robt J ◎ 274-1122
5025 Larson Alf L ◎ 274-6394
5030 Landa Victor R ◎ 274-5154
5031 Diller David H ◎ 274-1307
5036 No Return
5037 Larrabee John A ◎ 274-2416
5043 Eklund Jill B Mrs ◎ 274-3498
5044 Nerthling Edwin J ◎
5049 Varo Paul ◎ 272-1911
5052 Fowler Marquerite E Mrs ◎ 272-1683
5055 Beach Paul L ◎ 273-1100
5060★Thimes Carl B ◎ 272-3277
5063★Quick Blaine B 273-2539
5071 Remmers Jerry K ◎ 274-2841
5072 Boyle Rose D Mrs ◎ 274-4745
5079 Bangs Louis L ◎ 274-4672
5080 Metz Sheldon E ◎
5088 Blaylock Albert J ◎ 274-4740
5089 No Return
5096 Brink Boyan A ◎ 273-4610
5097 Jabinson Esther Mrs 273-9861
5102 Bernd Paul ◎ 273-0330
5105 Colopy Glenn J ◎ 274-2602
5108 Guidry Dolores M Mrs ◎
5111 Robison Robt F 273-8164
5116 De Land Roy O ◎
5117 Wales Robt D ◎ 274-4550
5123 Hicks Marlyn L ◎ 273-8913
5126 Brantz Emanuel E ◎
5129 Del Bene John V ◎ 274-7531
5132 Goodrich Murray H ◎ 273-1604
5135 Greenwald Harold ◎ 270-1818
5138 Vasques Horace A ◎ 273-1246
5141 Lukas Benj J ◎ 273-4386
5144 O'Neill James P ◎ 276-6220
5147 Shephard Max L ◎ 273-0991
5150 Mac Donald Joanne 274-2613
5153 Leib John E ◎
5156 Mazzone Walter F 274-9376
5159 Mc Clelland Roy H ◎ 273-6897
5162 Lucas John E ◎ 273-5450
5165 Kubias Fredric F ◎ 272-3564
5168 Hartman Saml F ◎ 274-4953
5171 Sebaugh Frank D III ◎ 276-4383
5174 Burchard Norman W ◎ 272-2463
5177 Silva John ◎ 274-8598
ROMNEY RD INTERSECTS
5205 Elliott Michl M ◎ 274-0012
5215 Pierce Eliot N ◎ 270-3678
5225 Dodson Edith E Mrs ◎ 272-5348
5228 Hughes Herbert G ◎ 273-0322
5235 Kimura James T ◎ 273-3848
5238 Schmitt James E ◎ 273-0454
5243 Paull Robt R ◎ 273-8372
5251 Davis Florence G Mrs ◎
5259★Hendricks Linda ◎ 272-5463
5268 Viles Voler L ◎
5271 Davis J Wm ◎ 270-3939
ALTO CERRO CIR INTERSECTS
5305 Cooper Robt H ◎ 273-1881
5315 Sattler John ◎ 276-8915
5325 Dahl Frank C ◎ 274-1465
5335 Tetzke Helmer T ◎
5340 Burnette Raymond E ◎ 272-1475
5345 Roe Craig W ◎ 273-6073
5355 Thomas Wm H ◎ 273-1388
5365 Yelenosky Robt J ◎ 274-6718
5370 Mecklenburg Richd K ◎ 273-6209
5375 Hale Danl W ◎ 273-9318
AVENIDA FIESTA INTERSECTS
5508 Evans Wm R ◎ 274-5508
5520★Muller Richard A ◎ 270-7488
5532 Kotarac John P ◎
5544 Vacant

471

PADUCAH DR —FROM 3400 CADDEN DR NORTH

ZIP CODE 92117
3811 Georgion Wm T ◎ 274-7013
3821 Werve Robt A ◎ 276-1687
3831 Trozzo Saml R ◎ 274-5964
3841 Parsons Edwin F Jr ◎ 274-4154
3861 Tapp Joseph R ◎
3861 Steinemann John H ◎ 274-1657
3888 Benedictine Convent Of Perpetual Adoration 274-1030
3905 Skordas Ralph ◎ 274-2059
3915 Rockwell Florence H Mrs ◎ 270-2387
3925 Dean Dodge H ◎ 274-4533
3935 Haskell John Jr ◎ 273-1514
3945 Searles Donald W ◎ 270-2976
3955 Jones Robt O ◎ 270-0548
3965★Smiechowski Thaddeus ◎
3975 No Return
3978 Walsh Michl J ◎ 274-3717
4010 Oxford Keith E
4015 Markarian Agavini Mrs
4035★Ecker Kenneth 273-6219
4040★Flynn Bernard F ◎ 273-7539
4050 Swenson Geo A ◎ 276-5095
4051 Scott Charles C ◎ 273-3131
4060 Wright Roy N ◎ 273-7646
4065 Adams Franklin E ◎ 273-1036
4070★Stecker Roy W ◎ 273-6629
4077★Jamieson Michl D ◎
4080 Vacant
4090 No Return
4091★Hepton Sharon S Mrs ◎ 272-1925

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PAGE ST —FROM 6100 THORN ST NORTH

ZIP CODE 92115
3404 Romero Henrietta D ◎ 582-6155
3410 Wearth Janelle S Mrs ◎ 583-4774
3411 Kissel David
3416 Watson Michl ◎
3417 Huntley Merle R ◎ 582-0778
3422 Steinwand Jack ◎ 582-2200
3423 Duffey Irving ◎ 582-8672
3428 Shrum Harry 582-2635
3429 No Return
3434 Yelvington Jack F ◎ 583-6207
3435 Henry Quentin R 583-1513
3440 Whitcomb Nancy A Mrs ◎
3441 Barbee Troy W ◎ 582-2538
3446 Haste Margt B Mrs ◎ 582-4925
3449 Maupin Charles C ◎ 583-4618

196

PAGEL PL —FROM 6600 BENSON AV SOUTH

ZIP CODE 92114
125 Corsello Frank P ◎ 264-1147
131 Farmer Robt ◎ 264-7423
141 Perata Edw

271

PAGODA WAY —FROM 10310 SAN RAMON DR EAST

ZIP CODE 92126
8535 No Return
8547 Allard Albert 271-1219
8554 Arbuckle Richd B ◎ 271-1291
8559 George Pynummootil A 271-0452
8568 Dickieson Marion S Mrs 271-6292
8571 Lund Floyd C ◎ 271-1850
8583 Reed Chris E ◎ 271-0672
8584 Searcy Robt L ◎ 271-1527
8595 Bogajczyk Chester F ◎ 566-1978
8596 Sargeant Russell ◎ 271-1172
8605 Myrick Thos R ◎ 271-1314
8606 De Vlieg Donald G ◎ 271-1566
8613 Mattox Wyatt H ◎ 271-7929
8620★Therrieu Robt ◎
8621 Rostrata Pedro A ◎
8629★Thomas Sarah Mrs 566-2828
8637★Betscher Allan L 566-4371
BARON DR INTERSECTS
8645 Cluff Dennis J ◎ 271-1542
8653★Reeder Mary E 566-9834
8661 No Return
8669★Ellis Dale C 271-1715
8677 Nicks Wm E 271-0204
8678★Spragg Ricky 566-7239
8685★Burt Donald ◎ 566-3175
8692 Lampel David ◎ 271-0729
8693★Trout Wm ◎
8706★Zinner Frank
8707 Frost John L Jr ◎ 271-8073
8718 Thomas Joseph W ◎ 271-1383
8719 Phillips Johnnie L 271-0338
8730 Coss Vernon L ◎
8733 Halperin Stanley ◎ 271-0517
8744 No Return
8747 Geniza Fermin C ◎ 271-1568
WESTONHILL DR INTERSECTS

371

8756 Downey James J Jr ◎ 271-1950
8757 Glaser Thos L 271-7766
8766★Belden Wm E 566-5876
8767 Dornberg James 566-0056
8776★Casimiro Tena ◎ 566-0459
8777 Mc Dowell John ◎
8786 Schrader Fernando ◎ 566-0118
8787 No Return
8796 Locke Robt P Jr ◎ 566-1937
8797 Mc Murray James E 566-0989
8805★Anderson Lee J ◎ 566-6426
8806 Beck Clyde T 566-0426
8815★Smith Raymond R Jr ◎ 566-0131
8816 No Return
8825 Roman Walt C ◎ 271-8388
8826 Jedd Joseph G ◎ 271-9094
8835 Valero Dante A ◎ 566-1988
8836★Camp Carlton ◎
8845★Chamberlain Ronald ◎ 566-5431
8846 Vacant
8855 De Vincenzo Ronald V ◎ 566-0816
8856★Watkins Saml 566-0279
8865 Watts W P Jr ◎ 566-0648
8866 Bower Wm E ◎

UPAS/COLUMBIA ST 1975

W UPAS ST—Contd
109★Magee Irene Mrs 298-4362
120★Struthers E M 298-5579
122★Price Richd 298-8594
124 Lawson Stanley E 296-0382
126 Ferguson Shirley
142 Hogan Rowena Mrs 291-3474
144 Allen W A 299-1188
146 Lawhon Sandra J Mrs ◎ 295-6308
148 No Return
GEORGIA ST INTERSECTS
FRONT ST INTERSECTS
ALBATROSS ST INTERSECTS
335 Watson Willard N ◎ 296-2355
336 Mandel Bernard H ◎
410 Jacoby Marjorie R Mrs ◎ 295-3534

11

REYNARD WAY INTERSECTS
702 Murphy Richd D 291-9519
705 No Return
716 Chiodo Joseph P ◎ 295-8285
719 Zolezzi John 296-4958
724 Vacant
726★Regner C F 297-2444
728 Ramsey James E
729 Wocet Wm ◎ 295-2484
730 Ramos Nona
732 Perlee Kathryn P Mrs 298-4918
741 Hanson James C ◎ 298-9281
753 Ahring Jane M 291-0668
807 Busalacchi Thos J ◎ 296-1445
810 Newman-Crawford Brian J ◎ 297-3195
817 Clampett Elise L
820 Karliner Joel S ◎ 296-4101
832 Farrow Wm ◎ 295-1072
845 Razzeto Suzane M Mrs ◎ 298-5626
850 Vacant
GOLDFINCH ST INTERSECTS
HAWK ST INTERSECTS
FALCON ST INTERSECTS

15

KITE ST INTERSECTS
1307 Rundle Gerald G ◎ 298-3327
1315 Morrill Eug L ◎
1350 Scafidi Joseph ◎

9

UNION ST INTERSECTS
STATE ST INTERSECTS
1506 White Garry M 295-4930
1508 Vacant
1510★Maum Michl A 291-1207
CUSLEW ST INTERSECTS
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS
INTERSTATE 5 INTERSECTS
KETTNER BLVD INTERSECTS
PACIFIC HWY INTERSECTS

70

UPLAND ST —FROM 1600 60TH ST EAST

ZIP CODE 92114
6038 Harris Arth
6060 Owen James H ◎

99

UPPER HILLSIDE DR (LA JOLLA) FROM 7300 ENCELIA DR EAST

ZIP CODE 92037

27

UPSHUR DR —FROM 3224 BARNETT AV NORTHWEST

ZIP CODE 92110
2602 Licudan Romeo F 224-2193
2604★Pisana Francisco 224-9751
2608★Manuel Conrado 224-2087
2612 Miller David K 225-8663
2614★Duncan Thos
2618 Clark Danl 225-1176
2622★Thomas A D 223-1082
2624 Vacant
2628★Mc Clure Patk
2701 Farrell Kenneth W 224-9285
2702★Mc Dowell Harvey 225-1661
2704★Thomas Wm
2705★Maus Edgar W 224-8749
2707★Pahuyo Bienvenido 224-0590
2708★Nafarrete Arturo 223-6104
2711 Vacant
2712★Parsons Louis 222-4963
2714★Kronquist Lars 222-5935
2717★Le Baron Rodney 225-9731
2718 Ruiz Reynaldo O 224-9657
2719★Saranglao Delfin F
2721★Belenzo Arturo 224-3814
2722 Vacant
2724★Nealy Andy
2725 Vacant
2727★Walkenhorst Dennis L 222-6565
2728★Supon Robt 224-2138
2731★Haney Tony 222-5469
2732★Arboletta Sabino 223-1234
2734★Brown Donald E 224-9519
2735 Tolentino Pablo D 222-1680
2737 Vacant
2738 Vacant
2741★Rano Jose 222-5434
2742 Bacani Dionisio 224-4636
2744★Noa Agalevaa 224-4047
2745★Abbatte Vincent 222-8702
2747 Vacant
2748★Castro Edw
2751 Deligencia Publio S 225-1970
2752★Kurmins John 222-7443
2754 Libed Rudolfo P 233-8852
2755★Perez Felipe G 224-9482
2757★Corpuz Sonny 224-8198
2758★Perpetua Salvador 222-1882
2761★Hood Norman L Jr 223-0719
2762 Basobas Trifono E 225-8185
2764★Daganjo Liberato
2765★Joiner Leon 223-7785
2767 Hubber Joseph T 222-4190
2768 Beaver Steven
2772★Baker Scott
2774 Billingsley Geo W
2778 Cooper Anthony 224-1557
2782 Vacant
2784★Perez Mario 222-1047
2788 Herr Herman O 222-7638
2792 Carrington Matthew A 224-7577
2794★Mendoza Aquilino 224-3940
2798★Drake Michl D 224-9155

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UPSHUR ST —FROM 1050 SHAFTER ST WEST

ZIP CODE 92106
2828 Imperial House Apartments
101★Keys S A 225-0270
102 Vacant
103 Vacant
104 Aurs Joseph
105★Pfeilmeier Richd F 224-4500
106★Guyton Frank
107★Motz Mary B Mrs 225-8881
108★Young Mike 222-9892
109★Baker Ray 224-6244
110★Young Nelson
111★Caird Richd E 223-6647
112★Grundstrom Stephanie 224-0867
113 Vacant
114★Love Paula
115★Anderson Jeanice
116 Greve Richd 223-1224
118 Vacant
119★Madarik Lois H 225-1548
120 Vacant
121★Shook Rebecca
122 Wilcox Dwight R 224-2504
123★Porter B 222-8277
124 Marsden Charles S 222-6892
125 Vacant
126 Robertson Roy J 222-4158
201 Vacant
202 Guthrie James V 224-7896
204★Romaine Joseph 222-7603
205 Vacant
206 Vacant
207★Fitzgerald Robt L 225-8491
208★Barrett M W Mrs 222-2249
209 Vacant
211 Vacant
212★Mattera Lawrence C 224-7340
213 Bouker J
214★Leon Agnus
215 Davis Ronald T 223-1146
216★Holley Norman
217★Preston Gloria
218 Vacant
219★Johnston Mona 222-5012
220★Rieff Margt A 224-6698
221 Royster H A Mrs
222★Munster Wm R 224-6870
223 Brockman Theresa Mrs 223-8892
224 Levine Paul H 224-7787
225 Luttbeg Leonard M
226★Hammer Alvin N 225-8304
A Blomfield Anthony C 223-0496
B Curtis Dale 224-9971

419

SCOTT ST INTERSECTS
2901★Pratt Otis
2901½ Price Larry W 224-2540
2903★Hodges Fred O 225-8329
2903½★Banner Danny
2905 Vacant
2911 Madaggan Scott 224-0217
2918 Bradley Richd C 222-8764
2919★Previe Arnold
2920★Anderson Gregory C 223-1090
2921 Soares Manuel M 225-1707
2922★Nelson Scott 223-2097
2924 No Return
2924¼ Edwards Geo A
2926★Woodbury R 225-9214
2926½ Clark Mike 225-0644
2927 Teixeira Mary R Mrs ◎ 222-4159
2928 Aho Gerald E 222-8287
2932 Hampson Kathleen ◎ 222-8903
2934 Flesner Lois E Mrs
2936 Vaughn Robt D
2938★Flesner Lois E 222-0851
2940 Vacant
ROSECRANS ST INTERSECTS
ARMADA TER INTERSECTS

61

UPTON CT —FROM 2600 ULRIC ST WEST IN A SEMI-CIRCLE

ZIP CODE 92111
6801 Green Saml ◎ 277-4377
6802 Landry E Eug ◎ 277-4768
6811 Smith Richd L ◎ 277-3742
6812 Vacant
6821 Williamson Thos C ◎ 292-7371
6822 Verdin Manuel M ◎ 279-8724
6831 No Return
6832★Pruitt Lee ◎ 279-5587
FULTON ST INTERSECTS

98

UTAH ST —FROM 2850 UPAS ST NORTH

ZIP CODE 92104
3404 Dobson Marion M Mrs 295-8766
3411 Anderson Alden H ◎ 298-5921
3412 Williams Evelyn B Mrs 298-7853
3419 Goodale Lawrence E ◎ 299-2305
3419½★Mc Carty Arlene 299-8119
3422 Matson E Jake ◎ 299-3911
3429★Rudolf D Richd 295-5326
3430 Neyer Arth E ◎ 296-2816
3436 Keyte Blanche A Mrs ◎ 296-4548
3437 Srigley Bertram C ◎ 291-2571
3441 Littleford Joshua H ◎ 295-1150
3443 Stewart Connie Mrs
3446 Douthit Joallen ◎ 295-4215

416

MYRTLE AV INTERSECTS
3501 Burke Frank ◎
3502 Miles Robt ◎ 295-2020
3511 Shell N Jerdine ◎ 295-6571
3512 Hurd Donald E ◎ 297-1770
3519 Perkins Danl A ◎ 298-9634
3520 Villarreal Bernardo 296-0575
3526 Tuller Lula M Mrs ◎ 298-6573
3529 Henderson Paul C ◎ 296-1813
3534★Sweeney James A 291-6326
3534½ Nadeau Thos 291-8856
3536 Estes Margt Mrs ◎ 295-4272
3537 Adrian John G 295-9395
3543 Sundstrom Ellen A Mrs ◎ 295-8863
3544 Bound Goldie J Mrs 298-1378
CAPP ST INTERSECTS
3552 Underwood Clarence E ◎ 296-2938
3553 Sumber Marvin ◎ 295-9168
3562 Garman Willis U gdnr ◎ 295-2466
3565 Conn Jack C ◎ 295-9260
3568 Vacant
3569★Dixon Wayne L ◎ 291-4607
3576★Graham James E 299-3399
3577 Kinney Elsie P Mrs ◎ 298-7386
3579 Baker Ed E 295-4782
3580 Forsythe James F 295-2289
3583 Prunier P L ◎
3592 Edwards Mary F Mrs
3593 Alderson Wm F ◎ 296-3245
DWIGHT ST INTERSECTS
3604 Elliott Bryce
3605 Marquez Agustin ◎ 296-3498
3610 Mc Mullen John S ◎ 295-5750
3611 Harrah James M ◎ 295-2946
3619 Kyle Agnes M Mrs ◎
3620 Howard Victor D ◎ 291-0887
3628 Edwards Wm P 298-0864
3629 Johnson Rosalee lwyr ◎ 296-2845
3635 Vacant
3640 Jones Jack D ◎ 291-7950
3644 Savoy Ernest J ◎ 296-0360
3645 No Return
LANDIS ST INTERSECTS
3702 Vacant
3705 Jennings Jean Mrs 297-0607
3709 Hanson Gladys B Mrs ◎ 298-6417
3710★Shurrill Nick J ◎
3720 No Return
3721 Linville Edw ◎ 295-5295
3726 Beat Putk R 298-2022
3727 Warren Harry B ◎ 295-7592
3728 Miller Valeria E 296-6069
3737 Rose Eug R ◎ 295-9371
3747 Golden Age Manor 298-2737
Scharf Florabelle Mrs
GUNN ST INTERSECTS
3753 Vacant
3761 Couchman Geo O ◎ 298-5612
Couchman Donna L
3765★Smithson Norman
3770 Jefferson Children's Center day nursery 298-6383
Jefferson School 296-0118
3775 Vance Eileen B Mrs 295-4365
3785 Peitzcker Michl G 295-6731
3787 Gulbrnowitsch Eugenia Mrs
3789 Wittenberg Lester L real est broker 296-3111
3795 Amaranth Social Club 295-4434
Anchor Court No 94 (Order Of Amaranth) 295-4434
Corinthian Chapter No 358 (OES) 295-4434
Darius Chapter No 143 (RAM) 291-5881
Galilean Shrine No 30 (White Shrine Of Jerusalem) 295-4434
Galilean Shrine Social Club 295-4434
Harmony Assembly No 165 Social Order Of Beaucent social club 295-4434
San Diego Chapter No 264 (O E S) 295-4434
Silver Gate Lodge No 296 (F & A M) 295-4434
Silver Gate Masonic Temple Corp business orgn 295-4434
Southern Star Chapter No 96 (OES) 295-4434
Harbor Lights Chapter No 600 (O E S) 295-4434
San Diego Council No 23 291-5881
NORTH PARK WAY BEGINS
3805 Stern Leo D ◎
3807 Stern Bettye Figure Salon 296-2207
3815 Lyon Radio TV & Utah Electric Co radio & telev repr 295-6350

434

UNIVERSITY AV INTERSECTS
3927 North Park Club House 296-9832
Harmon L C 298-9062
3930 Collection Bureau Central 291-9984
3933 Ryan Cath 295-9626
3935 Crawford Edwin P
3936★Jacobs Helen L Mrs
3936½ Mendenhall Lorene Mrs 298-7062
3937 Vacant
3938 Antzak Teresa E Mrs 296-0369
3938½ Murphy Mary E Mrs 291-2883
3940½ Ristau Edw L 296-2675
3941 Vacant
3945 No Return
3947★Turner Bruce 291-0929
3950 Callstrom Bert
3953 Scholz Arlotta M Mrs ◎
Rear Bradman Ralph E
3956 Anderson Freda J ◎ 298-2870
3959 Holcomb Ernest 299-0997
3960 Popov Hermann ◎ 295-9967
3960a★Wilson Melva Mrs
3961 Beale John F 291-5278
3961½ Mills Margie L Mrs 295-5952
3963 Pagel Loretta E 298-0211
3967 Masset Rita J 299-0912
3970 Apartments
1 Olson Milton A 291-3594
2 Leroy F E
3 Kitteringham Hazel J ◎ 295-2475
4★Madine Thos P
5 Harrell Betty Mrs
6 No Return
7★Rogers Arlaine D
8 Robbins Walter C 298-5829
9★Travis Gary D
3973 Lucas Arth L Jr 298-0265
3975 Mc Allister Marvin G 298-2156
3977 Rush Maud R Mrs 297-2195
3978 Apartments
1 Vacant
2★Sobarnia Mary J 299-8304
3 Haden Matilda Mrs 295-7229
4 Bleecker Meta L Mrs 295-2742
5 Smith M E Mrs 295-5694
6 No Return
7 Perkinson Freda R Mrs 298-3373
8★Orr Sarah B Mrs 298-4197
3979 Murphy James R 291-7057
3981 Martin N P 298-7937
3983 No Return
3984 Apartments
1 Verner Zula Mrs
2 Roe Wm A 295-4758
3 Clegg Mary E Mrs 295-7015
4 Vacant
5★Satten Hester P Mrs
6★Freund Edw 298-5593
7★Washington Gladys M Mrs 296-3558
8 Hansen Grace I Mrs 298-1645
9 Hein Benj 299-4226
10 Hill Merrill L 296-0643
3985 Burnett Joseph D ◎ 296-6579
3993 Vacant
3994 Musgrove Esther H Mrs 299-1190
LINCOLN AV INTERSECTS
4004 Apartments
1 Wick Albert W 295-2096
2 Krabill John C 296-4197
11 Shamblin Dorothy Mrs 289-4053
12 No Return
4019 Apartments
1 Serna Frank 284-4820
2 Sternberg Bertha Mrs 284-9902
3 Ablowich Miriam A Mrs 283-0277
4 Vacant
5 Nathanson Anna Mrs
6 Lewin Fred F 284-0462
7★Castillo Francisco J 281-5275
8★Albus Leo E 283-9524
9 Huston Gladys Mrs 283-5372
10★Willenberg Raymond F 282-1759
11 Shenas Coconeo Mrs 284-7128
12 Schwartz Harry 283-0777
12½ Bolten Bethel L
14★Brownstein Michl
15 Vacant
16★Collins Larry A 283-6631
17★Eldredge Rhonda A 281-7896
18★Braun Edw 280-2364
19★Benthien Barbara
20 Phillips Mollie 281-5231
21 Rifkin Henry 284-3577
22 Kaplan Morris 284-3752
4020 Arcadian The apts
1 Vacant
2★Sage D G Mrs
3 Jones Nell Mrs 297-0677
4 Vacant
5 Vacant
6 Marx Elias 298-6216
7 O'Leary Mary C Mrs 297-2487
8 Zumwalt Robt O
9 Vacant
10 Smith Eva T Mrs 291-1435
11 Gaboni Pete
12★Jones Floyd H 298-4827
13 Lyttle Edna M Mrs 295-3255
14 Neary Lucille M 298-0921
15 Neifing Peter 296-6958
16 Page John Jr 298-6201
17 Fischer Marguerite C 291-5156
18 Vacant
19★Rose David E 295-6245
20★Klein Lena 299-7057
4026 Bruster Maria G Mrs 296-0542
4027 Apartments
1 Mc Elhiney Jewell M Mrs 282-6170
2 Dubow Ben H 281-9491
3★Tollison Naomi
4 Fleck Edw T 280-4485
5 Lewer James L 282-3290
6 Hamilton Erva M Mrs 284-4887
7 Vacant
8 Burson Alan H 284-8007
4028★Moore Raymond I ◎ 298-8733
4030 Mariscal Salvador R 296-4154
4032 No Return
4035 Apartments
1 Goldman Max 282-8031
2 No Return
3 Rohr Mattie D Mrs 284-8551
4★O'Connor Ellen E 283-6787
5 Rosette Morgan B 282-8516

VILLA LA JOLLA DR (LA J)—Contd
8521-g★Bolam Steven J 453-7858
8521-h Lever J E 453-6127
8525 Apartments
8525-a★Hines Sandra L 452-9893
8525-b Abrass Arlene 453-9258
8525-c Blomberg B
8525-d Bender D
8525-e★Smith M
8525-f★Hodder Arth J III 453-6553
8525-g★Effinger Ginger R 453-5183
8525-h Shore Herbert B 453-0254
8525-i★Leadlay K
8525-j★Harris Arth V 453-1869
8525-k Garrels Jim 453-6542
8525-l Vacant
8529 Apartments
8529-a Vacant
8529b Townsend Toinette S 452-1464
8529c★Smith Robt 453-0866
8529d Vacant
8529e Shelley John M 453-8615
8529-f Vacant
8529-g★Nelson K P 452-8025
8529h★Stanger Peter F
8529i★Huppert Danl D 453-1637
8529j Baber Mark 452-8526
8529k Ripoll Pedro 452-1607
8529l Vacant
8533 Apartments
A Vacant
B★Sudik Edw J 453-9679
C Vacant
D★Becker Leroy H 453-5221
E★Mena Luis 453-9661
F★Dikel Saml S 453-4414
G★Borders Steph 453-8657
H★Manning Gerald S 452-8171
8537 Apartments
8537-a★Cannis Jeffrey T 452-8053
8537b★Bratt James M 452-8061
8537c★Mc Candless G
8537d★Hoffman Joan S 452-1556
8537e★Schwartz Brad L 453-7587
8537-f★Acord C D 452-9252
8537-g Vacant
8537-h★Hinderstein Michl W 453-5857
8541 Apartments
8541-a★Horst Barbara A 453-4969
8541-b Fridovich M
8541-c★Fountain Beth 453-3092
8541-d Toor Jaswant S 453-0662
8541-e★Yellowhorse Shirley 455-1150
8541-f Vacant
8541-g★Tinker Fred A 452-8041
8541-h★Russo Peter M 453-8233
8545 Apartments
8545-a★Frigon Ron 553-7579
8545-b Vacant
8545-c Smith John H 453-0733
8545-d★Satz L 455-1687
8545-e★Ejima Sceiki 453-9423
8545-f★Cusumano A
8545-g★Muccillo Vincent III 454-5591
8545-h Vacant
8551 Apartments
8551-a Vacant
8551-b Vacant
8551-c Trojanowski Anthony E 453-3999
8551-d★Delistraty D
8551-e★Olivia Joseph 452-8162
8551-f Vacant
8551-g★Buck Robt B 452-9326
8551-h Vacant
8561 Apartments
8561-a★Jaynes Gary 455-1436
8561-b Grove L
8561-c★Spertell Robt B 453-9084
8561-d★Simmons J 453-9048
8561-e★Azam Faroog 452-9176
8561-f Vacant
8561-g★Fahle Paul E 452-1469
8561-h★Greg Diana 452-0722
8561-i★Mc Govern John J 452-9160
8561-j Oxley Sue S Mrs 453-3218
8561-k Peterson Jeanne L
8561-l Vacant
8571 Apartments
8571-a★Weand V A 453-1426
8571-b Janke Robt J 452-1574
8571-c★Handloser Havelin R 453-7022
8571-d★Clynes M
8571-e★Schmidt Donald A 453-6002
8571-f Hoesterey Kim 452-0936
8571-g★Eckert Thos E 452-9791
8571-h★Browning D G 452-9682
8571-i Vacant
8571-j★Husson Frank Jr 455-1438
8571-k Grinberg Mike M 453-7401
8571-l★Fillius R W
8581 Apartments
8581-a Rand Carl W 452-0177
8581-b Antonio Franklin P 453-8679
8581-c Radonski Gerald P 453-5429
8581-d★Greene Georgia M Mrs 452-8497
8581-e★Berkley E 453-2467
8581-f Welsh Raymond M 452-8637
8581-g Vacant
8581-h Vacant
8581-i★Bowersox K
8581-j Vacant
8581-k Curtice L Lee
8581-l★Weber B
8581-m★Burke Wm T Jr 453-4558
8581-n Weeks John A 453-5904
8581-o★Osterud Bjarne 453-7668
8581-p★Stegner D
VIA MALLORCA ENDS
HOLIDAY CT BEGINS
LA JOLLA VILLAGE DR INTERSECTS
8939 Crocker National Bank (Torrey Pines Br) 453-4483
Centre City Travel Service (Torrey Pines Br) 453-6080

92
VILLAGE PL —FROM ZOO DR EAST 1 NORTH OF EL PRADO

651
VILLAGE GLEN DR —FROM 3327 GLENCOLUM DR EAST

ZIP CODE 92123
9080 S D City Recreation & Parks Dept (S M Rec Cntr) 278-4022
RUFFIN RD INTERSECTS

169
VILLANOVA AV —FROM 6569 DENNISON ST NORTHWEST

ZIP CODE 92122
3209 Way Todd D ◎ 453-4919
3210 Jett Paul S ◎ 453-2287
3224 Keil Tenny J ◎ 453-7783
3225 Kopels Gerald E ◎ 453-3871
3237 Stickels David R ◎ 452-1154
3238 Latorre Anthony V ◎ 453-0946
3253 Gifford James R ◎ 453-9596
3254 Santillan Saml B ◎ 453-5321
3269 Machuzak Joseph ◎ 453-5296
3270 Estee Beverly L ◎ 453-1180
3285 Carlson Thos L ◎ 453-8068
3286 Paa David F ◎ 453-6134
3298 Stanger Nick J ◎ 453-3590
3299 La Grange Mark C ◎ 453-4208
3327 Agueda John S ◎ 453-2754
3328 Applestein Neil J ◎ 453-5839
3345★Locko Serge S ◎ 452-1042
3346 Christensen Maylon F ◎ 453-1487
3363★Lee John ◎
3366 Toth Louis A ◎ 453-7845
3385 Watkins Dudley C ◎ 453-5747
3386 Wilson Glenn E ◎ 453-5406
3430★Colletti Vincent M ◎
3431 Kuttler M D Jr 453-5458
3436★Brooks N ◎ 452-1951
3437 Fitzsimmons Jerry W ◎ 453-5787
3442 Schroeder Rex I ◎ 453-4048
3443 Vaux Richd W 453-2086
3448 Vacant
3449 Spong Fredk W ◎ 453-5141
3515 Vowinkel Russell C ◎ 453-2376
3516 Whitehead Carolyn L Mrs 453-4126
3527 Crahan Patk J ◎ 453-1317
3528 Ruettgers John J ◎ 453-5883
3544 Shapiro Philip A ◎ 452-0230
3545 Rettig Charles L ◎ 453-0041
3564 Gary Ron D ◎
MERCER ST INTERSECTS
DENNISON ST INTERSECTS

93
VINCENTE WAY (LA JOLLA)—FROM 6400 ELECTRIC AV EAST

ZIP CODE 92037
404★Smith Bradley H 459-5320
405 Rudnick Philip ◎ 454-7459
411★Cohn Alda 454-1404
412 Buehlman Wm L ◎ 454-1215
419 Hansen Terry ◎ 454-7027
420 Brown Everette R ◎ 459-5638
427 Floyd Charles E ◎ 454-2982
428 Lanphier Elsa A Mrs ◎ 454-0049
436★Johnson James D
DOWLING DR INTERSECTS
531 Gobar Neal J 459-7567
533 Hendel John M 459-0119

26
VINE CT —FROM ½ BLK WEST OF 750 S 29TH ST EAST

ZIP CODE 92113

9
VINE ST —FROM 3550 UNION ST WEST

ZIP CODE 92103
1405 Josserand Vera D 297-0704
1405½ Vacant
1412 Vacant
1417 Vinyard Fred A ◎ 296-1134
1420★Walther Peter C 299-4319
1421 Wilkinson Monita H Mrs ◎
1430 Day Robt P ◎ 295-4884
1438 South Ruby C Mrs 295-5040
1440 Mc Cardle Harriet E Mrs 295-6109
1442★Poole Wm 291-0194
1449 Wells Charlotte R Mrs ◎ 295-6561
STATE ST INTERSECTS
1501 Vacant
1511★Polizoti Lel 297-1433
1515 Pierce Danl W archt ◎ 291-9163
1516 Saville Loeta M Mrs ◎ 296-3090
1524★Ludwall James S 295-0600
COLUMBIA ST INTERSECTS
INDIA ST INTERSECTS

240
VINLEY PL —FROM 6200 DEL CERRO BLVD NORTH

ZIP CODE 92120
5725 Threlkeld Dale ◎ 583-4015
5738 Glazer Sydney ◎ 583-0975
5739 Vacant
5750 Lamb Warren E
5755 Gossman Jacob A ◎ 583-4823
5762★Parmigiani Salvadore A 287-6563
5767★Wright Timothy ◎ 287-9275
5774★Flesner Diane Mrs ◎
5783 Bagby Harry F ◎ 582-1838
LAMBDA DR INTERSECTS

127
VIOLA ST —FROM 1296 MORENA BLVD EAST

ZIP CODE 92110
GERTRUDE ST INTERSECTS
1308 Twombly Robt N ◎ 276-1956
1315 Gallo Helena J Mrs ◎ 276-7553
1320 Kildare Barney W ◎ 276-0478
1325 Hafner Wm W ◎ 276-2537
1344 Michalek Stanley J ◎ 276-6346
1345 Aberico Mary A Mrs ◎ 276-1614

202
VIOLET ST —FROM 1 BLK SOUTH OF 4152 SYCAMORE DR NORTH

ZIP CODE 92105
2502 Peabody Edwin E ◎ 284-2940
2504 Ruczewski Rob S 282-9190
2507★Harvey Eva N Mrs ◎ 284-0594
2510 Stevenson James M ◎ 283-5209
2511 Harvey Delmar J ◎ 280-7677
2518 Harrigan Fredk E ◎
2519 Witek Fredk J ◎ 283-8477
2524★Roesch Thos ◎ 284-5826
2525 Sullivan Peggy M Mrs ◎ 281-2065
2530 George Robt V ◎
2535 Hyde Marta Mrs 283-4130
2536 Oliver Weldon C ◎ 281-0237
2537★Andrew David 281-0813
2540 Wilkerson Roy C ◎ 282-9300
SYCAMORE DR INTERSECTS
2544 Holzapfel James R 280-8395
2547 Pernicano Geo J ◎
2548 Molly's Childcare Center 281-2372
Liberatore Molly L Mrs ◎ 281-2372
PEPPER DR INTERSECTS
2554 Rose Charles
2556 Choate Robt J ◎ 284-6202
PEPPER DR INTERSECTS
2560 Choate Jeanette C Mrs ◎ 284-4597
2564★Paine Joseph ◎ 282-3745
2568 Jacobs Marvin P ◎ 281-8009
2571★Snyder Olga M 283-2531
2572★Riley John M 284-0577
2576★Thompson Clark ◎ 284-6080
2580 Mayberry Leroy H ◎ 283-4272
2581★Tepe Sway
2583 Mc Grath Thos 282-8703
POPLAR ST BEGINS

84
2608 No Return
2614 Van Buren Grace W Mrs ◎ 284-8606
2622 Vacant
2623 Wright James H ◎ 284-0427
2624 Robey Freda Mrs 282-5808
2625 Vacant
2629★Amesworth James ◎
2629½ Vacant
2631★Ivie Maggie Mrs 280-5609
2632 Andresen Theo M ◎ 281-1475
2634 Vacant
2637★Beam Orville A 280-3360
2639★Otis Gerald 282-9668
2640★Breslin Erma Mrs 284-6093
2643 Vacant
2646 Mc Clellan Gerald F 282-5527
2648★Cattrell Gary 284-6440
2649★Donahue Goldeen Mrs ◎ 282-0870
2650 Vacant
2651 Vacant
2652 Vacant
2656★Mc Kenzie Raymond
2661★Comvery Geo M ◎ 261-1386
MANZANITA DR INTERSECTS
POPPY PL ENDS

148
VIRGINIA AV —FROM 6500 BLK ACORN ST NORTH

ZIP CODE 92115
4567 Durman Dwayne A ◎
4568 Kern Joseph R ◎ 583-6760
4575 Savel Joseph S ◎ 582-2600
4576 Seidel Geo A ◎ 583-3939
4583 Zane Stanley D ◎ 286-2529
4584★Rodriquez Christopher J 287-5507
4591 Bolin Wm G 583-1976
4592★Singer Paul A ◎ 287-8246
4611 Mendoza Judith T Mrs
4612★Smith Paul K
4617 Butler Klyde F ◎ 582-8422
4618 Zito Joseph J ◎ 582-3670
4623 Loman Esther H Mrs ◎ 583-7153
4624 Little Gary D ◎ 286-0286
4629 Snavely Le Roy 582-3738
4630 Peale Marilyn S Mrs ◎ 583-3692
4635 Schaner Alex ◎ 582-7035
4641 Butler Frank O ◎ 582-7541

153
VIRGINIA WAY (LA JOLLA)—FROM 7600 GIRARD AV NORTHEAST

451
ZIP CODE 92037
TORREY PINES RD INTERSECTS
1027 Gietz Heinz Autohaus Inc auto dlr 454-7137
HERSCHEL AV INTERSECTS
1105★Barrett Murray J
BLUE BIRD LA INTERSECTS
1120 Alkazin Joseph J ◎ 454-7007
1121 Vacant
1127 No Return
1138 Ward Jack O ◎ 454-1738
1142 Barca Zita V Mrs ◎ 454-7623
1155 Penry Willard W ◎ 454-4955
1156★Lindkvist Ann S Mrs ◎
1168 Fellows Wendy E Mrs ◎ 454-7581
1178★Crain Myron J 454-8918
HIGH AV INTERSECTS
1201 Furr Lola A Mrs ◎ 454-4062
1208 Powers Jesse W ◎ 459-4664
1211 Price Ernest H ◎ 459-1406
1214★Kyte Jack 454-9478
1221 Gallagher John J Jr ◎ 454-1488
1224 Nicol Duncan D ◎ 459-5073
1231 Avison Kath W Mrs ◎ 454-7891
1235 Logan Roy G 454-0848
1236 Burke John S ◎
1245★Shannahan Wm 459-7123
1246 Smith Francis M ◎ 459-5597
1252 Snell Raymond F ◎ 459-9601
1257 Vacant
1260 Vacant
1263 Thurmond Ethline ◎ 454-7008
1271 Monk John M 459-7802
1271a★Gentry Constance E Mrs 459-6276
1274 Hill Mary F Mrs ◎ 459-6187
1275 Vacant
1287 Johnson Richd T 454-5267
1299 Andreasen Henning O ◎ 454-1351
IVANHOE AV INTERSECTS
1301★Luckie Geo 454-6802
1304 Stehr Wolfgang E ◎ 459-8056
1314 Deese Mary R Mrs ◎ 454-6049
1320 No Return
1321★Herring Clarke F ◎ 459-1475
1324 Kellers Charles F ◎ 459-6093
1325 Jordan John A ◎ 459-5080
1328 Stepanek Mark 459-4941
1338 Brown Rosemary E Mrs 459-5475
1345 Marsden Winifred Mrs ◎ 459-7824
1350 Donaldson Elise ◎ 454-2897
Mitchell Kathleen I Mrs 459-5908
1351 Booth Richd F ◎ 454-4008
1356 Gardner John S ◎ 454-2962
1356a Brandt Millie Mrs
1361 Longenecker Martha M Mrs ◎
1364 Helfgott Robt H 459-9396
EXCHANGE PL INTERSECTS
1400 Weirather Hal E ◎ 459-8871
1401 Mulloney Brian 454-2596
1411 Sicher Frederic A ◎ 459-1368
1414 Mac Intyre Neil R ◎ 454-5105
1419 De Bolt Wm L ◎ 459-8159

WALNUT AVE W 1975

WAITE DR—Contd
6808 Norton Martin R ◎ 287-0106
6814 Church Wm G ◎
6820 Pavillard Otis L ◎ 582-3843
6826 Hansen Robt D ◎
SUFFOLK ST INTERSECTS
6832 Mayfield Eug ◎ 583-0472
6838★Munoz Danl S ◎ 287-8327
6839 Yuhas John F ◎ 582-8528
6844 Farmer Geo W ◎ 582-4642
6847 Whitmore Richd L ◎ 582-7430
6855 Fuson Albert J ◎ 583-0040
6863 Williams Eug C ◎ 582-3090
6871 Schaffer John A ◎ 287-0255

203
WALKER CT —FROM 2890 LARKIN PL EAST

ZIP CODE 92123
9052 Winters John M ◎ 277-0672
9064 Clevsey Perry ◎
9076 Massie Giles R 279-6936
9088★Lovell Nancy J
WALKER DR INTERSECTS

203
WALKER DR —FROM 9100 DOLLY PL NORTH

ZIP CODE 92123
LARKIN PL INTERSECTS
2709 No Return
2717★Fuss Robt ◎ 565-9939
2725 Vandeveld Thos J ◎ 279-5463
2733 Farina Nick 565-0847
2734 Eidson Robt L ◎ 278-4778
2743 Fitzpatrick Richd J ◎ 278-0813
2750 Williams Geo ◎ 278-7096
2753 Lynes Jackson C ◎ 278-4386
2762 Smith Norvell R ◎
2763★Smith Robt
2772 Fox Sandra Mrs 278-6486
2773★Waldrop Herbert ◎ 565-9611
2783 Morante Frances V Mrs ◎ 278-5676
2784 Brands Bernard R ◎ 279-3551
2793 Bush Roscoe R ◎ 278-5109
2794 Manning Richd L ◎ 565-9347
2801★Fortin Mark S 565-9427
2802 Medley Robt E 277-2532
2811 Ryser Vernon C ◎ 277-4936
2812★Derouen James ◎
2821 Chmielewski Edw A ◎ 278-5810
2822 Oehler Charles S ◎ 278-5689
2831★Mc Crocklin Andrew 278-7528
2832 Nalwalker Peter ◎
2841★Bradley M
2842 Gilley David R ◎ 279-7366
2851 Ferris Glenn H ◎ 278-0276
2852 Shuffler Harley B ◎ 277-7605
2861★Klemm Wayne ◎ 560-1128
2862★Kraemer Thos
2871 Buijnorouski Henry
2872★Larkin John
2881 No Return
2891 Kaplan Theo ◎ 278-5018
WALKER CT INTERSECTS

546
WALKDEN LA —FROM 8750 VERLANE DR NORTH

ZIP CODE 92119
8705 Mc Carthy Eug C ◎ 465-0943
8710 Hubbs Howard L 460-0209
8711 Stewart Lisie E 463-5625
8717 Corbin Floyd E ◎ 460-4154
8718 Perez Manuel ◎ 463-8732

153
WALL ST (LA JOLLA)—FROM 7900 GIRARD AV EAST

ZIP CODE 92037
1006 City Pub Library (La Jolla Br) 459-5174
1008 Athenaeum Music & Arts Library 454-5872
1026 La Jolla Mortgage Fund mtge investments 459-4044
Southland Investment Corp mtge loans 454-4044
Washington Lands Inc real est development 459-4046
1030 King Solomon's Oriental Rugs rug sls & est liquidation 459-4443
1032 Vacant
1035 Walker-Scott Co dept store 459-3321
1041 La Jolla Variety Store 459-5336
1044 Security Pacific National Bank (La Jolla Br) 459-4311
1051 Ginder's La Jolla Sporting Goods 459-3359
HERSCHEL AV INTERSECTS
1100 Freedom Foundation At Valley Forge patriotic org 454-7674
La Jolla Federal Savings & Loan Assn 454-0744
1101 Anchor Realty Inc 459-3244
1107 Diet Foods 454-4556
1109 Coffee Cup The restr 454-2819
1111 Collector's Cottage Antiques
1113 Mat Gallery art 459-8447
1115 Nitty Gritty Greenery indoor plants & pots 454-2219
1117 Shepperd Building
ROOMS
1 Vacant
2 Harrison John A dentist 459-1660
3 Beardsley John M genl mdse 454-7615
4 Margolin F M psychologist 454-1818
5 Gregson Realty (Br) 454-0387
1119 Wall Street Barber Shop 459-6909
1121 Poor Daffodil Shoppe needlepoint sups 459-1011
1122 La Jolla Book Shoppe 454-2197
1123 Quigley & Associates home interior remodeling 454-2264
Quigley Bruce real est 454-2284
1125 Shearson Hayden Stone Inc stock broker 454-4264
1127 Spirit Shops liquor & wines 454-8282
1128 La Jolla Music 459-3375
1129 Carrie's Old Time Flower & Etc Shop florists 454-2766
1131 Allen Willis M Co real est 459-4033
1140 U S Postal Serv (La Jolla) 454-7139

188
WALLACE CT —FROM 3950 LOGAN AV SOUTH

ZIP CODE 92113
912 Ochoa Maria 262-7952
916 Ortiz Rachael 263-4521
920 Gallardo Dominador ◎ 264-1592
927 Boswell Eug ◎ 262-5436
930 Duran Hospicio ◎ 264-7632
931 Chacon Modesta Mrs ◎ 264-2053
941★Avery Linda Mrs 264-2228
NATIONAL AV INTERSECTS

23
WALLACE ST —FROM 2800 CONGRESS ST NORTHEAST

ZIP CODE 92110
3976 Navarro Amado 291-7641

25
SAN DIEGO AV INTERSECTS
4016 Hamburguesa restr 295-0584
CALHOUN ST INTERSECTS
4136 Presidio Hills Golf Course 295-9476
JUAN ST INTERSECTS

546
WALLSEY DR —FROM 8700 WALKDEN LA NORTHEAST

ZIP CODE 92119
6803 No Return
6804 Line David G ◎
6814 Mc Cubbin Thos F ◎ 461-1321
6815★Henderson Milton C 469-8285
6823 Hughes V R ◎ 466-4305
6824 Gulledge Vernon L ◎ 461-2007
6836 Boucher David G ◎ 463-3961
6847 Valiquet Jacque J ◎ 463-9135
6848 No Return
6858 Arnold Donald L ◎
6859 Atkins Michl D ◎ 461-6569
6867 Brown Ralph G Jr ◎
6868★Clune John O ◎ 461-5758
6880 Kovacic Geo D ◎
6881 Sosa Frank A ◎
6890 Gibbs W Sherman ◎ 465-5354
6893 Brown Edw J ◎ 466-2573
6901 La Vack Lloyd ◎
6902 Sauvajot John B ◎ 469-2790
6909 Jenkins John T ◎ 465-7376
6914 Young Clyde H ◎ 463-2667
6915 Falej Gladys Mrs ◎ 465-5082
6921 Measel Martin ◎ 466-4216
6922 Miller Harry W ◎ 469-0821
6929★Lazernik Eliz 462-7013
6930 No Return
6935★Sherrell Eleanor ◎ 466-1585
6938 Lavin Dora Mrs
6941 Mucha Thos ◎ 469-7938
6946 No Return
6947 Aldrich Arth G ◎ 466-4470

106
WALNUT AV —FROM 3500 1ST AV EAST

ZIP CODE 92103
115 Apartments
A Farries Anna M Mrs 291-5857
B Bentson Ruth S Mrs
C★Soloff Geo 291-6167
D★Jester J 291-9790
E Nottingham Earl R
F★Richards Chris 291-7128
G★Cathell Frank 297-0973
H★Bernstein Sarah C Mrs 291-7638
119★Weeks Mickey J
134★Ewing Michl 296-3451
140 Grosvenor House apts 298-1303
2a★Scudder John C 295-9478
2b Sutter Zada A Mrs ◎ 297-0660
2c Flanagan Wm J 298-1303
2d★Whelan Frank H 295-3576
2e★Brenner Sophie G Mrs 297-2769
2f★Teacher Isadore 291-7175
2g Dumas Dorothy L Mrs ◎ 295-7512
3a★Leach Margt J Mrs
★Williamson Jack C
3c★Carter Herman 295-4310
3d★Morrow Vincent
3e Schweiger Milton B ◎ 297-0092
3f★Stewart J Potter 298-5404
3g★Felix Douglas
4a★Connor Louise W Mrs 295-6835
4b★Todus Louis A 298-8772
4c Hott Robt D 297-1318
4d Newland Hubert T 295-0768
4e★Steiner Peter R 298-1847
4f★Revels Margt D Mrs 299-5530
4g★Olafson Richd P
2D AV ENDS
205 Berger John A phys 295-2147
207 Stella Salvatore L phys 291-7730
211★Mc Dowell Richd D 299-9415
225★Davis Hermione Mrs

406
3D AV INTERSECTS
305 Schiefer Wm E dentist 291-1181
Lauer John C dentist 291-1181
306 Walnut Professional Building
306 SUITES
25 Tyler Michl J dentist 298-2893
26 Brockett Pavel & Hendrix dentists 299-3320
31 San Diego County Dental Society prof orgn 291-4030
32 Lueck Bernard W dentist 299-3560
36 Plastic & Aesthetic Surgical Center 297-4433
36 Moore Lawrence T phys 297-4433
36 Pickering Paul P phys 297-4433
36 Vicchone Thos K phys 297-4433
315 Armstrong Charles B dentist 297-2954
Watson John A dentist 297-2836

506
4TH AV INTERSECTS
418 Beckman Theo C
420 Biofeedback Training Center testing laby 296-2171
5TH AV INTERSECTS

106
WALNUT AV W —FROM 3500 1ST AV WEST

ZIP CODE 92103
101 Sakata B 299-5320
103★Carpora James 299-2078
105★Mc Kinney Susan L
109★Ankner Constance F 295-5730
111★Averman John E 295-4935
117a O'Neill Steven ◎
117b★Pullum Michl
117c★Tucker James
119 Apartments
1★Mc Clain Charles M 291-6248
2★Manayo M
3★Czartorski Rosalie
4 Vacant
5 Vacant
6 Kovar Anne E
7 Vacant
8 Gebauer Oscar
130 Williams Ronald J 291-5537
134★Ewing Michl
FRONT ST INTERSECTS

413
205 Kline Alice B Mrs 298-8417
211★Schwartz L R Mrs 297-0580
230 Apartments
A Hudgins Irene 295-7291
B★Demski Roman P 298-8473
C No Return
D★Wallis Frank E 298-9072
W WALNUT AV ENDS
ALBATROSS ST INTERSECTS
315 Vacant
321 Webb John 295-6215
OTSEGO DR INTERSECTS
605 Zink Melda S Mrs ◎
615 Kundra Tom J 298-9180

11
HAWK ST INTERSECTS
1004 Tuohy Robt E ◎ 295-0363
1012 Farnsworth Charles C ◎ 295-7944
1021 Robinson Charles W 296-2892
1025 Jones Mary K Mrs ◎ 296-3396
1041 Enright Patk J ◎ 296-1672
IBIS ST INTERSECTS
1141 Austin Phil ◎

15
JACKDAW ST INTERSECTS
1300★Rippo Anthony J
KITE ST INTERSECTS
KURTZ ST INTERSECTS
1302 Ocampo Ralph R 296-4339
1333 Schlappi Eliz R 295-1640
STATE ST INTERSECTS
LARK ST INTERSECTS
UNION ST INTERSECTS
1608 Vacant
1617★Mills Paula F 291-9435
1617½ Nelms Paul E 298-3743
1621 Brown Clair W ◎
1623 Vacant
1624 Haertig Laura
1626 Lafournaise Bettie 298-3221
1627★Jepsen Bill 296-1741
1629★Eltz Dennis 291-3524
1631 Roome Fred T 298-7673
FALCON ST INTERSECTS
COLUMBIA ST INTERSECTS
1703 Hayes Melvin B 291-5129
1703½ Conti Ron
1709 Davis Harry M ◎ 295-9114
1711★Nod Gary 295-9350
1717 Gregory Jon C 291-1593
1719★Davis Florence 299-8165
KETTNER BLVD INTERSECTS
ZIP CODE 92101
1949 Arts & Crafts Press coml prntrs 297-0261

174
WALSH WAY —FROM 5300 DROVER DR EAST

ZIP CODE 92115
5105 Nepi Wm ◎ 582-5976
5112 Blumer Sara Mrs ◎ 583-5263
5115 Reynolds Robt C ◎ 583-6940
5127★Prebonick Joseph ◎
5138 Drexler Robt B ◎ 582-8919
5139 Welch Reuben R Rev ◎ 583-7205
5151 Grawunder Ralph M ◎ 583-1244
5152 Silverman Irving ◎ 286-1226
5163 Kallander Eliz C Mrs 583-1327
5164 De Vita Lewis & Son prod brokers 582-8645
De Vita Anthony J ◎ 582-8645
5173 Foster Geo H ◎ 583-2945
5174 Johnson Arvid T ◎ 583-3624
5183 Ellman Harry ◎
5184 Greenstein Herbert ◎ 286-1654

544
WALTER AV —FROM 6705 WINONA AV EAST

ZIP CODE 92120
4907 No Return
4908 Turner Patricia R Mrs ◎ 583-7727
4919★Ludwig Robt W 583-5652
4920 Gear Eli C ◎ 582-9019
4931 Buchy Paul Jr ◎ 583-0120
4932 Zidlick Rudolph J ◎ 582-8376
4943 Easterly Steve 582-7523
4944 Johnson Kennard H ◎ 582-1410
4955 Adams Leo W ◎ 583-1904
4956 Breese Paul M ◎ 583-0283
4967 Mars Russell W 583-8816
4968 Martin Frances Mrs ◎
4979 Constant Geo ◎ 583-9694
4980 Vacant
5007 No Return
5008 No Return
5019 Suchar Michl ◎ 582-8761
5020★Stevenson Stewart 287-0935
5031 Loftus James H ◎ 286-0636
5032 Morris Lester M ◎ 582-5297
5043 No Return
5044 Burak Jack 582-4959
5055 Nygaard Evelyn Mrs ◎ 583-1685
5056 Adams James J ◎ 582-4258
5067 Christianson Orland V ◎
5068★Wolfe Donald A 286-0776
5079 Wetzel Paul E ◎ 286-1949
5080 Christensen Dwain L ◎ 583-5146
51ST ST INTERSECTS

622
WALTON PL —FR◎M 4531 OHIO ST EAST

ZIP CODE 92116
3057 Agner John H ◎
3060 No Return

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

CALIFORNIA ST 1966

CALHOUN ST--CONT'D
2754 CASA DE PICO MOTOR HOTEL
MOTEL 295-7160
CARDWELL FRANK K •
---TAYLOR INTERSECTS
---WALLACE INTERSECTS

903
CALIFORNIA ST -FROM 880 W MARKET
NORTH

902
---BRDADWAY ST INTERSECTS

901
---BEECH INTERSECTS
1501 C & R TRANSFER CO (WHSE)
---CEDAR INTERSECTS
1612 GARRETT LILLIAN MRS
1620 AABCO INC (WHSE)

1
---DATE ST INTERSECTS
1824 FETTY WM B ROOFING CO (WHSE)
239-8274
1930 RAIMIRES JOHN 234-1932
1932 BOLOGNA PIETRO • 232-1984
1940 WOOD BONNIE G 234-2526
---GRAPE ST INTERSECTS
---HAWTHORN ST INTERSECTS

5
---IVY ST INTERSECTS
---JUNIPER ST INTERSECTS
---KALMIA ST INTERSECTS
---LAUREL ST INTERSECTS
2272 SALMON JOAQUIN 234-5210
2280 GOODMAN CHARLES R
2560 BELYEA TRUCK CO TRUCKING
239-2133
---MAPLE ST INTERSECTS
2801 MURPHY MAURICE C • 295-3866

9
---PALM ST INTERSECTS
2921 FONTAIN CHARLES
2929 DELANEY PATK J 298-9672
2941 VACANT
2970 VALDEZ MANUEL M
---QUINCE ST INTERSECTS
3005 MARTINEZ TOM A
3015 VACANT
---REDWOOD ST INTERSECTS
---SPRUCE ST INTERSECTS
---SASSAFRAS ST INTERSECTS
---THORN ST INTERSECTS
3553 EASTMAN KODAK STORES INC
EQUIP & SUP 297-4851
3596 BATEMAN T O CO CHEM MFG
295-0041
CHARCOAL DISTRIBUTORS
295-0041
---UPAS ST INTERSECTS
---VINE ST INTERSECTS

15
---WALNUT AV INTERSECTS
3630 VACANT
3633 APARTMENTS
1 VACANT (APTS 1-8)
9 LETT JOE H 298-4386
3636 LITHOTYPE 298-4550
3645 VACANT
3650 ANNING-JOHNSON CO ACOUSTICAL
CONTRS 297-1638
---BEAN ST ENDS
---CHALMERS ST INTERSECTS
---WINDER ST INTERSECTS

21
---WASHINGTON ST INTERSECTS
---MC KEE ST INTERSECTS
---PRINGLE ST BEGINS
3871 CEE CEE'S MARKET GRO
298-7835
3873 FAMILY VILLAGE THE AUTO
COURT 296-6737
PATTEN BOB F 296-6737
PARKS HERMAN
---SUTHERLAND ST ENDS
---LA JOLLA ST BEGINS
3911 MC MULLEN CUIVIER M •
295-4830
3919 HAUGEN EDWIN N • 298-2464
3922 WILSON ERVIN • 296-6052
3926 VIERZ EMILY D MRS 298-5977
3926½ KIRKLAND MARIE
3929 APPLE HELEN 298-5279
3931 BANE JOHN R
3935 PINE ANGELINE E MRS •
296-3289
3938 PARKER MARY MRS 296-2645
3951 PASSMORE BEVERLY MRS •
---HENRY ST INTERSECTS

21
CALIFORNIA ST W -FROM HENRY WEST
TO WHITHERBY CONTINUATION OF
CALIFORNIA

1907 HUFFMAN R EUG • 295-1356
1917 RICKON FRED J • 296-4779
1925 ASCHBRENNER GENE F •
295-8985
1931 HILGEMAN ROY A • 295-7956
1948 HALL RICHD S • 297-1451
1958 GIACALONE JOSEPH • 296-6429
2005 WOTTON ALBERT H •
2011 VACANT
KENNY AGNES MRS • 298-3270
2017 BURKHARDT JAMES A • 298-7096
2025 PATTERSON HAROLD L •
298-5670
2026 ANTHONY G K • 297-2187
ANTHONY GEO K • 297-2187
2031 SATTER NEIL S • 295-7267
2037 GIBSON CLARENCE E • 295-6456
2044 ALEXANDER MILDRED ORGAN
METHDDS INC MUS TCHR
298-5355
CDONS JAMES C 298-5355
2045 SHAW HOWARD I JR • 295-4445
2049 VACANT
2050 SLATEN H RICHD • 298-1283
2051 BEETLESTONE ROBT H •
295-1458
2061 GAINES PAUL • 298-3245
2067 TAYLOR HAROLD J 295-5707
2069 GROSS SAML 298-1269
2070 VACANT
2074 MUIR WM D • 298-1447
2075 INLOW CLARENCE W 298-2013
2077 VACANT
2085 VACANT
2095 CHARTRES-MARTIN LOUISE MRS
296-4651
2097 LEPPER ORVILLE O • 296-1106
2098 AVALOS GARY 298-7556
---BANDINI ST INTERSECTS
2105 WILKE ALTA MRS •
2111 ENGLEHART REBA C MRS •
295-9347
2120 DAVEE CLYDE D • 296-2452
2121 BAIRD KATHRYN C MRS •
295-9192
2127 ERICKSON GAYLORD S •
298-5108
2137 MARVIN NEAL K 296-4288
2143 PHILLIPS MAUDE M MRS •
295-3581
2146 CHOWNING THOS J • 296-0422
2149 NUSSEY HERBERT V
PETTIS BURGESS
2151 SHOVEN HAZEL B MRS •
2152 COLLIER HOMER M • 296-2173
COLLIER HAROLD M • 296-2173
2164 BUSALACCHI MARIO J •
298-6457
2169 WESSELL NANCY E MRS •
295-4419
2171 GILL FRED S JR 295-9742
2174 MONSEES RALPH G • 298-2976
2175 WILLCOXON JAMES T JR •
295-2539
2186 DAVIS ROBT L 296-6486
2191 STEWART EDMUND T • 295-0956
3926 VIERY EMILY D MRS • 298-5977
3942 MIETCHEN FRED H • 295-7094
3965 VACANT

252
CALLA AV (PO IMPERIAL BEACH)-FROM
17TH W 1 N OF CEDAR (FOR
OCCUPANTS SEE SUBURBAN
DIRECTORY)

180
CALLE ABAJO -FROM VALLEY RD NORTH
1 WEST OF END OF REO DR

180
CALLE AGUADULCE -FROM 6100
CUMBERLAND SOUTH 5 EAST OF REO
DR

2411 RICE JULIA J MRS • 479-3743
2412 BARRIOS GILBERT • 479-3948
2420 HYATT CHARLES E • 479-3853
2426 KRAFT HERBERT H • 479-5267
2434 RUSSELL PATK J • 479-5195
2440 CULLEN HOWARD D • 479-3898
---CALLE TACON BEGINS
2441 LAHEY WM F • 479-0465
2446 MACK HAROLD E JR • 474-1364
2451 HICKS LAWRENCE E •
2452 SCOTT HAROLD A • 479-3595
2457 SHEPARD ERNEST G • 479-5348
2458 DAVIS CHARLES R • 474-2980
2463 BREWER VERNON M • 474-2529

2466 OLDHAM LARRY M • 479-1887
2469 COLE WALTER R JR • 479-2801
2478 SALA PETER C • 479-3947
2484 GANZER RAYMOND W •
2490 MILLS KENNETH • 479-3304
2491 KRAL FRANKLIN • 479-2998
2504 DOUGHTY ELLEN V MRS •
479-2999
2505 NEWTON FLOYD • 479-2996
2514 BLACKWELL HOBSON D •
479-5996
2529 DOLMAGE VERN L • 474-1823
2534 MILLS HAROLD A • 479-3457
2535 PONCAVAGE WM A •
2544 ESKRIDGE ARTH W • 477-7491
2545 HARIG EDWIN L • 479-5246
2553 GUYER PAUL A • 474-1878
2554 CREAMER HAROLD C 479-2697
2563 NO RETURN
2573 VACANT

180
CALLE ARRIBA -FROM MORNINGSIDE DR
1 SOUTH OF RANCHO HILLS DR

5881 VACANT

73
CALLE BREVE (PACIFIC BEACH)-FROM
BALBOA AV NORTH 1 WEST OF PICO

180
CALLE CASAS BONITAS -FROM
MORNINGSIDE EAST 1 SOUTH OF
PANCHO HILLS DR

5705 DEMENT LAURENCE E • 474-3038
5722 BIRAMONTES FELIX A •
474-6260
5732 HUMBERSTON KENNETH A •
5742 NO RETURN
5745 SHOUSE WM K 474-5902
5752 BLANKENSHIP DONALD R •
477-7769
5762 DRURY WM H • 474-1891
5772 ERPENBECK EUG • 477-6706
5782 JOHNSTON ANDREW L • 474-5462
5812 EARP LEROY D •
5820 SULLIVAN WALTER R • 477-0527
5840 VACANT
5860 RODRIGUEZ GONZALO H •
474-2437
5879 THOMPSON LEWIS L • 477-2337
5885 STUART JULIA G MRS •
474-4371

236
CALLE CHANATE -FROM 2100 CALLE
CANADA EAST 1 BLK 1 SOUTH OF
ALLEGHANY

2216 ASHLEY WM R • 479-2427
2241 FOLMER CARROLL W • 479-0501
2204 VACANT
2401 NALE CECILIO P 479-3810
2408 PATRICK ROBT H
2409 HICKEY JOHN L 479-0295
2416 PENN ELMER E • 479-5550
2417 SPIOTTI JOSEPH • 479-2204
2424 DIXON CARMEN C • 479-4650
2425 VACANT
2432 PALMER TED L • 479-4750
2433 VACANT
2440 ELSNER NAT P • 479-0264
2441 HUGGARD DOUGLAS J • 479-5054

2450 KYZER CARLISLE P •
2451 CHILDS FLOYD W •
2458 BOWLIN GEO W • 479-4800
2459 HOEY JAMES A JR • 479-0362
2467 BERLING BRUCE H • 479-5900
2468 BELL ROBT N • 479-5468
2475 KINCAID JAMES E • 479-3286
2478 BEUERLEIN FREDK F • 479-3059
2483 BROWN REX D 479-4285
2491 KOENIG GREGOR H • 479-0806

101
CALLE CHIQUITA (LA JOLLA)-FROM
AVENIDA DE LAS ONDAS EAST 1
NORTH OF CALLE CORTA

2316 MC REYNOLDS ANDREW W •
454-5385
2326 BENNETT LARRY O • 459-5994
2337 JARECKI RUSSELL C • 459-1221

155
CALLE CLARA (LA JOLLA)-FROM EL

PASEO GRANDE EAST 1 NORTH OF
AVENIDA LA PLAYA

COLUMBIA ST 1966

COLUMBIA ST--CONTD
APARTMENTS--CONTD
K PFLIGER ROBT
L STUARD BARBARA
M STONE HOWARD
N VACANT
2565 HEBEL ROLLIN E ● 239-6921
2567 HEBEL HARRIS
2569 LANE JOHN E
---MAPLE ST INTERSECTS
2601 VACANT
2603 VACANT
2619 MALLOW THOS W ●
2621 PETERS BERNICE H ● 296-3642
2629 ROGERS MARIE MRS
2629½ HOLMAN EDW
2639 HUSBAND REGINALD F ● 295-7963
2643 SMITH LEONARD C 298-8460
2653 CRAM RALPH
2655 BOYER DUANE M 295-4678
2657 VACANT
2669 NEILL LOUISE MRS ● 297-2752
---NUTMEG ST INTERSECTS
2703 WALTERS JOHN
2705 CONAWAY JOHN D ● 298-2467
2715 STANLEY ETHEL MRS ● 295-3018
2727 O'CONNOR ARNOLD ●
2729 PIERCE LELAND S JR 296-3405
2732 IRDING MICHL T 298-5235
2737 ZIZZO VINCENT J 295-0559
2739 WHITE JAMES E
2741 ZIZZO MARY MRS ● 295-1196
2744 MIDDLEBROOK R PHILIP ● 295-5084
2753 WILL CLARK D ● 297-2679
REAR VACANT
2756 JONES ELSIE D MRS ● 295-1894
2758 MATH GENEVIEVE MRS 296-4296
2768 VACANT
2773 NO RETURN
2801 MELODY JOHN D 298-5377
2803 VACANT
2805 FULLER DALE R 295-4566
2807 CHARLTON MARY A MRS 298-5762
---OLIVE ST INTERSECTS
2811 DEGENHART GEO J ● 298-9178
2816 PHILLIPS RICHD
2818 GROSS ARCHIE 296-2017
2825 BONHAM HARLEY L ● 295-5380
2827 PIERELLI PATK 298-6445
2830 FENWICK E BERNICE MUSIC TCHR 296-4467
FENWICK ELMER E ● 296-4467
2831 VACANT
2833 DELLENEY ANGELA MRS
2835 BELLA WM L
2837 VACANT
2840 BANDA RAFAEL F ● 295-5786
2849 WULTZ SAM 296-0327
2851 VACANT
2859 COLLA LILLA MRS ● 295-6311
2864 MORRISON ROY F ● 295-7046
2869 PICKENS THEO JR ● 296-4225

9

---PALM ST INTERSECTS
2901 BAY STATE APARTMENTS VACANT
2903 CROLICK GEO R 295-8854
2905 VACANT
2907 SAMS MARTHA 298-7646
2909 VACANT
2911 VACANT
PUTHER PETER
2913 WILLIAMS JOYCE S MRS
2915 BERNHEISEL KAREN P
2917 ECHLIN HENRY M 297-2061
2919 KIDDER HARLAN D ● 297-1360
2921 KINGERY CELINE F MRS 296-3384
2929 VACANT
2930 PIERCE BEATRICE D MRS ● 298-3136
2940 LITTLEPAGE RUSSELL S 295-2770
2950 BARNES MARJORIE MRS
2952 MANOOGIAN Q 291-0278
2954 WALLENDORFF HAROLD J ● 295-2294
2955 CARROLL BRUCE W
JULIEN JOHN D 295-1884
2955B MURPHY PATRICIA 295-6137
2964 NORRIS PEARL D MRS ● 295-3726
2965 WILLIAMS AMANDA D MRS 295-1866
---QUINCE ST INTERSECTS
3002 SANDERS JAMES L
JUMPER ELSIE MRS
3005 FURRY MARGT MRS 295-3281
3007 THOMPSON HARRY
3009 NO RETURN
3011 COLLINS MERRY M MRS 298-8007
3013 TAYLOR HELEN MRS 296-0533
3015 DARISAY MARION 295-2376
3017 JENKINS THELMA MRS 295-0522
3018 VACANT
3019 HAVLEY PATRICIA A
3021 VAN DUESEN VESTA MRS
3023 O'HEIR EDWIN
3025 FARMER ROB R ● 295-4288
3027 SALDANO ARMAND
3028 ELLIOTT IONE MRS 296-6733
3029 VACANT
3030 NO RETURN
3031 PFLEEGER MARY E MRS 296-2466
3032 LONG LAWRENCE E 295-2348
3033 YOUNG NANCY
3034 MILLER CARL C ● 295-3494
3035 GIBBS ROBT A 298-1789
3037 MC CLAIN WM JR
3038 LORING CAROLYN ● 297-2726
3040 CLEAVER CHARLES D 295-3807
3045 MELLUSI JAMES E ● 295-7571
3062 WORDEN JOSEPH D
3064 VACANT
3066 CAMERON GEORGIA R MRS 298-9494
3068 VACANT
3225 CHEEK REGINALD
WALCOTT JOE
REAR VACANT
REAR BAKEMILLER MICHL
REAR VACANT
---REDWOOD ST INTERSECTS
3229 STUART ROBT
3242 HUNTLEY MARJORIE T MRS ● 298-6015
3243 LYON HAROLD C ●
3250 APARTMENTS
1 SHELTON PATRICIA A MRS
2 LOCKE JOHNNIE D
3 LINDEN RUSSELL E 295-5656
4 WARD OWEN J
3260 APARTMENTS
1 VACANT
2 ASHER HAROLD W
3 ZAGER ZELDA
4 EDNEY POLLY MRS
---SASSAFRAS ST INTERSECTS
3310 LAMM DWAYNE
3319 QUINCI VINCENT ● 298-6384
3320 ADAMS CHARLES C ● 295-6806
3321 PIRO PASQUAL P 297-1216
3330 MILLER RALPH G ● 295-7690
3331 JACKSON CAROL C
3333 HALL ROBT K 297-3041
3343 HOBBS HAZEL MRS ● 295-6661
3344 GUYTON OMER ● 295-5551
STEPHENS ELMER R 295-1963
3345 DE HART HELEN MRS 298-4495
3347 DE MONNER FRANZ
3354 VACANT
3355 VACANT
3356 HUNDHOUSEN GENE H
3357 LANGJAHR MARY MRS 295-8204
3360 BAKER WM JR
3364 VAN BUREN RITA MRS 295-4900
3366 O'CONNELL FLORENCE MRS 295-8378
3368 BRUNO VINCENZO ● 295-8294
3372 VACANT
---THORN ST INTERSECTS
3429 FERRIS ALF G 298-2754
3431 ELMSTROM GEO O
3445 CANALE MYRA O MRS ●
3455 CRIVELLO VINCENT ● 295-4848
3465 BECKER GARY C 298-4276
3465½ VACANT
3467 TECK ZITA MRS ● 296-2601
---UPAS ST INTERSECTS
3504 HORTON M B ● 296-0386
3505 PINASCO MARIE C MRS 297-1424
3509 HALCON SALVADOR
3510 EDWARDS GLADYS M MRS
3510½ ROJAS ISRAEL
3512 HOAG FAITH A MRS 295-5433
3512½ WECKERLY TERRY V 295-6996
3513 FOGARTY MARGT MRS 298-8074
3515 MC CAULEY JOSEPH D 295-7219
3516 ROJAS CIRILIO G ● 295-7036
3517 VACANT
3518 WIEDE VIRGINIA F
3519 VACANT
3520 VACANT
3521 BAKER ROBT W 296-3812
3523 VACANT
MC WILLIAMS WM H
3525 PALMER FLORENCE B MRS 295-8740
3528 PETHYBRIDGE MAT W 296-1570
3531 VACANT
3535 VACANT
3538 CRISCI JOSEPH ● 295-2869
3540 HARBER GILL
3544 APARTMENTS
1 KIRKPATRICK NORMAN C ● 297-3011
2 BURNHAM HOWARD M 298-6764
3 ALBRIGHT JOHN C 296-4564
4 VACANT (APTS 4-5)

15

---GLENWOOD ST INTERSECTS
3602 HANSEN A M 298-7359
3604 FRABOTTA JOHN A
3606 VACANT
3608 VACANT
3610 RIDZON JAMES R
3612 CARPENTER JACK A
3614 FRANKLIN BRIAN R
3615 CUNNINGHAM BARBARA A 291-3449
3616 GLADIN LEO L 298-0426
3620 BROWN JOE C ● 295-5417
3621 BROWN LAWRENCE H ● 295-9666
3622 CONKLIN JOHN
3627 ROWLEY CHARLES G ● 298-7405
3629 VACANT
3633 APARTMENTS
A PRIEBE KEN R 295-2740
B ROARK GARY T
C KELLY RAYMOND
D VACANT
E VACANT
F VACANT
3645 SIKORSKI EDNA M MRS 295-8351
---CHALMERS ST INTERSECTS
3652 WILLIAMS MONA E MRS 298-5358
3655 MADDOX JOSEPH A 298-6453
3661 GOLDMANN JOHN G ●
3662 TRAYLOR JO L MRS
3663 LITTLE ASTRID MRS MUS TCHR ● 296-0343
3665 HOOPER TOMMY W
3667 VACANT
3669 VACANT
3669½ VACANT
3670 PIRES JOAQUIN M ● 296-4947
3671 FRITCH JOSEPH A 298-5407
3677 NO RETURN
3678 VACANT
3680 MOREY JOHN ●
3680½ VACANT
3686 EVANS ELIZ A MRS ● 295-3892
3687 NILES EUGENIA B ●
3688 VACANT
3691 NO RETURN
3691½ VACANT
3693 BRANDON JACK 295-4091
3695 VACANT
---WELBORN ST BEGINS
---WINDER ST BEGINS
3707 WORTHEN LILLIAN J MRS ● 295-1502
PARMLEY LAWRENCE D 295-9236
3708 GARZA JOHN P
3710 NEISH GILBERT L
3712 VACANT
3716 LA PAN ERNEST R
3718 VACANT
3719 BOLES W OWEN 295-0550
3720 MULHERIN GEO W
3723 CRISCI VINCENT ● 295-3872
3730 RETTIE ADDIE R
3731 NUNEZ ALBERT B
3736 VACANT
3744 GEARY SALLY C MRS 298-9732
3745 BUTTEMER RICHD J ● 296-1647
3746 JAMENEZ JESSE B
3748 EDDY CHARLES D
---ANDREWS ST INTERSECTS

84

COLUMBINE ST -FROM 2700 FAIRMOUNT AV NORTHEAST

2680 ENNIS LUCIAN W
2682 VACANT
2684 POKORNEY EVERETT F 284-8439
2715 VACANT
2716 GEISLER ADA L MRS ● 281-0881
2722 BRANDSEN CARL W ● 284-1394
2723 BATES ROGER H ● 282-7994

GLENWOOD DR 1966

Lowrimore Village (Escondido) . . . 740-1433 a family of jewelers
273-4300

GLENROY ST--CONTD
6827 ROHRER HARRY W ● 582-9381
6833 HINKLEY F CLARE ● 583-5995
6839 DUBOIS ETHEL MRS
6845 KELPIN MARVIN E 286-0550
6851 WEST JAMES T ● 582-7246
6859 JACKSON ROLAND B ● 583-0352
6860 SCHULZ FRANK K ● 583-4471
6863 HANSEN CARLYLE C ● 583-0863
6869 CLEER LESTER J ● 583-8619
6870 FLANAGAN THOS J BUSINESS CONSULTANT ● 583-3580
6875 GREGORY WM I ● 583-1042
6881 FINDALL CARROLL GENL CONTR ● 583-6200
6885 EDWARDS JOHN R ● 583-3744
6886 BUCK WM J ● 582-4772
6889 SOSNA LOUIS M ● 583-5231
6892 PACKER LOUIS ● 582-0138
6893 PACK HARRY M 582-4508
6897 GRIM BENJ R ● 582-9141
6898 OLIVE WM T ● 582-9065
---IRWIN AV INTERSECTS
6902 HARDIN WILBUR G ● 582-4034
6903 VACANT
6908 ROBERTSON WILBUR R ● 582-8399
6909 HILLIS ROBT F ● 582-9058
6914 BECKMAN KEITH ● 583-4925
6915 WALFORD JOHN D ● 583-0656
6922 STRAIT ROBT D ● 582-9142
6923 MORLEY DAVID G ● 583-1376
6928 PETERSON EARL W 583-2429
6929 HOFF EDWIN J PNTR ● 583-1585
6936 BROOKS MARVIN D ● 583-0681
6942 ZOFFKA GEO L ● 583-5916
6945 GARFF STEPH N ● 583-0072
6948 MABEE HELEN MRS ● 583-4574
6954 ROSHONG DONALD V 582-9539
6955 DIETZ ERNEST W ● 583-7959
6960 HASENAUER EDW J ● 583-3067
6965 LAKIN WM H ● 582-9188
6966 BILBICKI PETER A ●
6975 STEVENS WAYNE E 583-2861
7001 VACANT
7004 GALLIK ANDREW ● 583-0258
7012 MACINNESS IAN C ● 286-3330
7020 IBARRA HERBERT ● 582-9296
7028 HICKS W KENNETH ● 583-0773
7036 REVELL E WAYNE ● 583-0816
7044 BENYR WALTON R ● 582-9270
7052 GEORGGIN NICHOLAS ● 583-1107
7060 SUMNAR JAMES W ●
7068 ANDERSON GENE ● 583-6325
---DUNDEE AV BEGINS
7074 DELGADILLO MARGT E MRS ● 582-9609
7082 LAWRENCE EARL V ● 582-9659
---ELGIN ST BEGINS
7090 DONAVON WM ● 582-9135
7106 SCHILLING GORDON ● 582-9303
7116 ARMANTROUT JOHN W ● 582-0764
7126 FARRINGTON CHARLES E ● 582-9424
7136 NASH ELTON E ● 582-7823
7146 SOLSBAK ROBT H ● 582-1528
---FORBES AV BEGINS
7156 GAGNON RENE J ● 583-5564
7166 CYR GEO W ●
7176 VACANT
7186 MILLER RICHD V ●

95
GLEN VIEW LA (LA JOLLA)-FROM 7221 LA JOLLA BLVD EAST

711 KLING STANLEY A 454-6503
721 VANARD EFFIE MRS
728 HOWARD FRED R ● 459-5432
733 JOHNSON DOROTHY MRS
JOHNSON DORIS M MRS 454-7108
738 MOSES EDW ●
743 VACANT

101
GLENWICK LA (LA JOLLA)-FROM BORDEAUX AV WEST 1 NORTH OF DUNWAY DR

8675 SCHMINKE PAUL ● 453-2474
8695 HYATT THOS M ● 453-3951
8696 NO RETURN
8704 VACANT
8720 HARMAN ROBT J ● 453-3212
8721 KUEHL JOHN C ● 453-2133
8735 VACANT
8736 BENNETT CHARLES R ● 453-2968
8750 TEMPLETON FLORENCE M MRS ● 453-2522
8751 WEBB BYRON B JR ● 453-2283
8765 OAKEY JACK M ● 453-4432

101
GLENWICK PL (LA JOLLA)-FROM GLENWICK LA NORTH 1 WEST OF BORDEAUX AV

2711 ARRHENIUS GUSTAF O ● 453-2255
2721 BAGLEY MARIE L MRS ● 453-0365
2722 BRIDGMAN CHARLES F ● 453-1969
2731 BURKS DOROTHY 453-0387
2734 PRESTON JOHN C ● 453-4187

15
GLENWOOD DR -FROM 3570 UNION WEST

1504 WALTON JEAN B MRS ● 296-1826
1505 DALY HELEN A MRS ● 295-7323
1507 VACANT
1511 VACANT
1512 SPEAR WM ● 296-3583
1519 BUTTON MELVIN H ● 298-5129
1525 BRIDGES EDW I 295-9957
1530 AINSWORTH STANLEY T 295-7828
1531 THEBERGE GASTON 296-4904
1533 BRASS PETER T 295-4496
1535 DAVIS MERLE E ● 295-5067
1537 PORTER LILY P MRS ●
---STATE ST INTERSECTS
1602 EPPENBERGER MABEL MRS ● 298-8639
1610 HART CORNELIUS H ● 295-8170
1616 MILLER DAVID L
1620 VACANT
1624 MC HENRY KENNETH E 295-2558
1626 LITTLE STELLA M MRS
1628 SCRUGGS MANUEL O
1628½ WILLIS JANICE
1630 VACANT
1630½ VACANT
1632 MC KASSON JAMES A
1633 VACANT
1634 GARDNER LEVI T
1636 SWEET RANDALL
1704 VACANT
1705 HAVENS JAMES C
1706 VACANT
1708 VACANT
1709 ELMORE GEO S 798-5185
1711 HORNER HENRY H
1712 VACANT
1715 VACANT
1716 ERWIN EARL J
1716½ VACANT
1720 VACANT
1720½ VACANT
1722 BARLOW DONALD E
1722½ WHARTON CHARLES B
1724 ANDREWS EZELL
1724½ VACANT
1730 GIAMMARINARO JASPER 295-7733
1732 BRIGANTE JAMES
1734 VACANT
1736 VACANT
1738 VACANT
1740 TERRAMAGRA JAMES J ● 297-2759

57
GLIDDEN ST -FROM LINDA VISTA RD EAST 1 SOUTH OF KRAMER

6401 NO RETURN
6415 VACANT
6429 VACANT
6443 NO RETURN
6457 VACANT
6471 LINDSAY CLAUDE T INC REAL EST SUB DIVIDER 277-5565
ACRO REALTY 277-4850
6821 DARELIUS HAROLD V ● 277-0103
6822 BENNETT KARL E ● 277-5237
6831 VACANT
6832 TIGNOR FRED L ● 277-6098
6842 HOWSER JOHN L ● 277-2605
6849 WADDELL ROBT L ● 279-2554
6852 HINRICHS CARL J ● 277-4391
6855 FREE WILL MISSIONARY BAPTIST CHURCH 278-4550
---COOLIDGE ST INTERSECTS
6911 MARCH ELNORA V ● 277-1611
6911½ LICHT RONALD P 277-8088
NO RETURN
6921 BECKHAM LOIS L ●
6922 GONZALEZ ALFONSO ● 277-5515
6931 GOODWIN RAYMOND I 277-8108
6932 SCHWARTZ ALBERT C ● 277-4932
6941 KABAT RICHD W 277-4987
6942 SISKA STANLEY ●
6951 VACANT
6952 LOIURIO LAWRENCE G 277-8246
6961 CRABE EARLE M 278-5680
6962 BLADES GUY W 279-1006
6971 VACANT
6972 TITTLE REESE D ● 277-3929
6981 HENSON WM L 277-8189
6982 WILSON LA VERNE K ● 277-2890
6990 BERTAGNA ALBERT A ● 277-8775
6991 LATHROP PHILLIP E
6992 VACANT
6995 RUSH DON E

58
GLORIA ST -FROM FRANKLIN AV SOUTH BET S 48TH AND S 49TH

305 CARTER JOHN L ● 262-1349
307 VACANT
310 GROSS JOHN D GENL CONTR ● 264-3755
GROSS ROSE P MRS
314 VACANT
321 PATTERSON ANDREW C 263-1839
322 JOHNSON OPHEIL MRS
324 PRESSLEY WM ●
325 QUINCE VITO ● 264-4251
326 VACANT
328 ROBERSON BENNIE
332 JONES RALPH ● 264-9395
332½ FOSTER ALF
333 VACANT
342 WILLIAMS SAML ● 264-0778
342½ BENNETT JULIE 262-6226
343 WATERS TUCKER 262-5620
344 BRADFORD ETTA MRS
346 JONES NANNIE P MRS 264-2329
348 BROWN OCIE
350 VACANT
352 JACKSON DOROTHY J MRS 262-0627
403 JOHNSON JAMES 264-5620
406 WARD GLORIA P
408 NO RETURN
410 NORMAN JOANN MRS 262-6360
411 FULFORD DAVID 262-8486
412 BERRY FREDDIE E MRS
412½ RAYMOND MIKE F
414 THIBODEAUX LEE 264-1290
416 SMITH GRACE B MRS
418 FLANNIGAN ROBT 262-0216
420 ROBERTSON GEO H 262-0283
420½ NEAL RENEE MRS
423 VACANT
424 ROMERO ANTHONY R ● 264-9045
425 ROBINSON WALTER 263-1642
427 VACANT
429 SPICER LENNIE W 264-2865
444 LEWIS WM B
---OCEAN VIEW BLVD INTERSECTS
1211 VACANT
1220 NO RETURN
1221 ROBINSON JULE L ●
1230 CARTER SYLVESTER ● 264-1316
1231 RYAN WANDA E

246
GLORIA LAKE AV -FROM LAKE ADLON DR SOUTH 3 WEST OF COWLES MOUNTAIN BLVD

7713 MILLER DONALD R ● 463-3402
7723 FLEMING ROBT J 466-1120
7733 HATCH BOBBY L
7743 VACANT
7753 KINGKADE FRANCIS E JR ● 465-2002
7763 BERNOSK RICHD C ● 465-5125
7773 WOODRUFF FREDK P ● 463-1232
7783 PASTMAN NORMAN D ● 466-1994
7811 GE MEINER CHARLES A ● 469-3294
7821 GORDON LAWRENCE L ● 469-8894
7831 POWELL WARREN S ● 465-0584
7841 SADNICK GLENN H ● 469-7761
7851 DU BOSE BILLY L ● 465-7581
7861 KUNTZ RICHD L ●

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

INDIA ST 1966

INDIA ST--CONTD
1753 ROMA INN TAVERN 233-0857
1802 SALDANA JULIAN F 234-1087
1804 BALISTRERI JOHN B 239-8283
1806 BALISTRERI ANTONIO 239-4765
1808 BALISTRERI PETER 233-6736
1823 DE SANTI TINA MRS ● 232-5780
1823½ STRAUSS RAMON
1827 VACANT
1837 ADAMO NICK ● 232-5545
1839 VACANT
1844 WASHING MACHINE PARTS CO
PARTS RET 232-7871
1845 AIRKEM SALES & SERVICE
DEODORANTS WHOL & DISTR
232-9242
TAITT GEO B CO MARINE SUPS
232-9242
1847 TER-BEAR AVIATION CO
AIRCRAFT PARTS 233-6129
---FIR ST INTERSECTS
1910 STASCH PHILIP S 234-8990
1917 CAMPBELL ADVERTISING AGCY
239-5179
NELSON PHOTO SUPPLIES
234-6761
1920 ALSCO LINEN SERVICE LNDRY
234-7291
DUT-TEX SERVICE JAN SUP
RENTAL 234-7291
1943 BALISTERRI FRANK 239-5424
1949 SARDINA THOS ● 234-4254
1953 TY'S PRINTING & BLUEPRINTING
SERVICE 234-8787
1961 INDIA STREET TORTILLA SHOP
239-9731
1971 C'EST SI BON CAFE RESTR
239-1530
---GRAPE ST INTERSECTS
2015 VACANT
2016 BRITISH MOTOR SALES BODY
SHOP AUTO BODY REPR
232-2723
2027 MUSCIO JOSEPH 239-3676
2029 CHIMERA MARTINO 233-8715
2030 VINCE'S BARBER SHOP 239-0966
2031 GARGANO PIETRO 234-1397
2032 APARTMENTS
1 MENDEZ RENAN R
2 L'HEUREUX WM A
3 GUTIERREZ THEO R 232-0250
4 HARRELL E A
2033 D'ACQUISTO PHYLLIS MRS ●
239-8808
2034 MILTRONIC CO ELECTRONIC
EQUIP DISTRS 233-6385
2038 BAINS JOHN A 234-2914
2043 VACANT
2045 BUSALACCHI FLIPPO 239-5601
2046 VACANT
2048 VACANT
2060 MILO OF CALIFORNIA INC
ELECTRONIC EQUIP 232-8951
2061 LEONARDO'S CAFE ITALIA RESTR
234-4893
SAN DIEGO IMPORTING CO FOODS
239-5367

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---HAWTHORN INTERSECTS
2101 BRICENO JOHN V 233-0889
2102 HAWTHORN SERVICE GAS STA
232-3404
2104 MILLAR'S AUTOMOTIVE SERVICE
AUTO REP 232-3404
2107 VACANT
2111 BATTAGLIA JACK 233-6503
2115 ZIZZO BART
2119 MENDIGORIN SAL V JR
2130 VACANT
2131 VOA FAASA
2131A VACANT
2132 ROSARIO GIACALONE MRS
2134 MOTISI ANNA MRS 239-3302
2138 D'AMATO FRANK 234-0415
2138½ VACANT
2140 GRASSA NICCOLE
2140½ SPURLOCK BRYAN L
2142 VACANT
2142½ BIONDO RITA MRS
2144 SCIUTO SAM 232-1635
2144½ INGRANDE DEANNA MRS
2148 BROWN CHARLOTTE MRS 233-0297
2157 MOORSTEEN MANUFACTURING CO
FURN 234-9151
---IVY INTERSECTS
2202 GARCIA PETER O 232-0472
2206 ASARO MARY MRS ●
2215 VACANT
2220 BRITO ABEL ● 232-6076
2230 ASARO ANTONIO A ● 233-1150
2236 MIKE'S SHOE REPAIR 233-3847
2240 GANGITANO MICHL ● 233-3840
2270 TAYLOR'S AUTOMOTIVE SERVICE
234-9090
---W JUNIPER INTERSECTS
2304 CANEPA MARY MRS 232-5566
2305 RUBBER SPECIALTIES CO HDW
239-5857
WESTERN FASTENER CO RETAIL &
WHSE BOLTS & NUTS 239-8148
2306 ZOLEZZI GIOVANNI 239-5006
2307 RICE W J CO PRINTING SUPS
239-0224
2314 VACANT
2315 EMERY AIR FREIGHT FORWARDER
232-3191
SHAKER EXPRESS DELIVERY DEL
SERV 232-9129
2316 CRESCI GAETANO ● 232-5570
2317 VACANT
2326 CRESCI JOHN ● 233-1505
2328 PIRANIO PETE ● 233-3958
2329 EATON JOSEPH C 232-7247
2345 VACANT
2347 VACANT
2352 VACANT
2355 HIGGINS JOHN P AUTO REPR
233-3373
LUTZ CARL L OUTBOARD MTRS
233-3373
2361 AVIATION LUBRICANTS CO INC
239-5155
CUCKLER BLDGS STEEL BLDG DLR
239-5115
2367 VACANT
---KAMIA INTERSECTS
2400 CITY DRY CLNS 234-6509
2404 MC LEAN CO THE REAL EST
234-8444
2418 AGUIRRE TRINIDAD MRS
232-0373
2420 MORPER SHIP PICTURES PHOTOG
232-0373
MORPER OATHER S 232-0373
2422 VACANT
2424 GIACOLONE GENE MRS
2424½ QUITMEYER HARLEY
2426 CALE RONALD P
2426½ SCHMIDT JOSEPH
2428 HAIMAN ERNEST W
2428½ WHEELER RUTH MRS
2430 BARRETT BENJ
2430½ GRAHAM JOHN
2438 ASARO ANN MRS 234-3022
2440 AAREN P W
2442 YOATS EILEEN MRS
2442½ WINTERS STEVE
2444 SAND GERALD 239-5396
2446 SARDO SAML ● 233-3976
2454 VACANT
2456 VACANT
2458 CASTRO MARTINO 232-3289
2466 FALCONE UMBERTO 232-9229
---LAUREL INTERSECTS
2504 VACANT
2508 GHIO ANNA C MRS 239-7970
2518 GRIFFIN ANN V MRS 233-7950
2520 VACANT
2528 LOZANO ROLAND D
2530 POKORNY ELSIE J MRS 239-5223
2532 CASTAGNOLA CELESTINA
233-8371
2540 SMITH ALEX R
2544 CANEPA JOHN 239-1592
2548 LIUZZI NATALE ● 232-8280
2552 VACANT
2554 RAYMOND JOSEPH W
---MAPLE INTERSECTS
---NUTMEG INTERSECTS
---OLIVE INTERSECTS
2801 VACANT
2805 ALLEN BEATRICE MRS 297-2706
2815 WATSON RICHD E
2837 SMITH GARY H 296-4851
2839 VACANT
2849 VALDEZ HILARIO 295-7379
2867 VACANT
2869 KINGS CHARLES E

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---PALM ST INTERSECTS
2903 GRINDL SOPHIE J MRS ●
296-1810
2907 BOHANNON EDW G 298-5138
2909 VACANT
2921 VACANT
2923 ROGERS JERRY A
---QUINCE ST INTERSECTS
3009 SILVA ERNEST P ● 296-6840
3033 HAMMOND MACHINERY & SUPPLY
CO 298-6155
3051 VACANT
3053 PHIPPS ALICE L MRS ●
297-2062
---REDWOOD ST INTERSECTS
3103 COMPLEET RUG & UPHOLSTERY
CLEANERS 296-0152
RAFFEE'S CARPETS CLNS
296-0353
3129 PORTER HENRY R ●
3141 VACANT
3153 PUGH HAWTHORNE 298-4301
3167 MURPHY SIGN SERVICE 296-6918
3171 B-BAR-S CHUCK WAGON CATERING
SERV 298-7045
3175 SWING THE COCKTAIL LOUNGE
296-6789
---SPRUCE ST INTERSECTS
3211 PARSONS G S CO WELDING EQUIP
298-8801
3225 VACANT
3231 PARSONS MEDICAL GAS INC
OXYGEN 296-6339
3241 HALF WAY HOUSE MAINTENANCE
297-1573
3243 DRRAH ROBT H 297-4961
3245 VACANT
3265 DO-ALL SAN DIEGO CO MACH SUP
295-2145
3365 AERO CLUB TAVERN 297-3097
---SASSAFRAS ST INTERSECTS
3341 BENNETT ARDELLA MRS
3341½ FISHER RUBY H MRS
3343 VACANT
3343½ JACKSON WM T
3345 JOHNSON KENNETH L
3347 VACANT
3353 PETTERSON JOSEPH J
3355 APPELMAN PAUL G 295-4361
3365 NO RETURN
3367 WALCO SUPPLY CO GENL MDSE
297-4541
---THOR ST INTERSECTS
---UPAS ST INTERSECTS
3503 WELCH WALTER E 295-1980
3505 JACKSON HARRY G REAL EST
296-4411
3507 POUND PAUL F 298-4582
3509 VACANT
3511 VACANT
3519 BRADY HAZEL R MRS ● 298-9790
3519½ VACANT
3521 CATLEDGE HARVEY M 298-5574
3523 VACANT
3525 WILLIAMS MARY S
3527 FISHER ROBT T
3529 CLIFFORD WM E ● 296-4529
3533 VACANT
3535 REAGEN ANTHONY F
3537A GASTELUM EVA MRS
3537B MAYNARD LAURA A
3537C BARTON FRANK JR
3537D VACANT
3541 WONDERGEM GILLIS
3543 CUNNINGHAM JOHN E 297-1917
3545 MYSIOR ILANA 297-2792
3547 VACANT
3547½ VACANT
3549 VACANT
---VINE ST INTERSECTS
3555 PHARMA MED CO INC
PHARMACEUTICAL SUP 298-7151

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---WALNUT AV INTERSECTS
3601 BETTER BUILT TRANSMISSION
SPECIALTIES CO 297-0295
3617 AUTOMATIC TRANSMISSION
SERVICE 297-0251
3623 AUTOMATIC TRANSMISSION
MACHINE & SUPPLY 297-1601
3633 APARTMENTS
4 PERRY ALF M 298-4401
5 RHODES MITCHELL L
6 VACANT
7 GRIFFITH GRACE P MRS
298-6319
8 VACANT
9 VACANT
3645 FUM-O-VAC CO FURN CLN
298-6151
SAN DIEGO EXTERMINATING CO
298-6151
3661 APARTMENTS
1 VACANT (APTS 1-4)
5 HELSEL HOWARD

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

KETTNER BLVD 1966

KETTNER BLVD--CONTD
---HARBOR DR INTERSECTS
569 VACANT
629 HOWARTH WM B COML ARTIST
234-1286
DISPLAY & DESIGN CO DISPLAY &
SIGN MFRS 234-4412
639 BRUCE JAMES TYPESETTING
234-7744
---G STREET INTERSECTS
---F STREET INTERSECTS
855 STANDARD BRANDS PAINT CO
232-3882
---E STREET INTERSECTS

902
---BROADWAY ST INTERSECTS
1005 PUMP ROOM TAVERN 234-9538
1007 SHIP'S SERVICE JEWELRY &
NAVAL OUTFITTERS
1050 ATCHISON TOPEKA & SANTA FE
RAILWAY CO (TICKET OFC)
233-8211
HARVEY FRED NEWS STAND
233-8211
---WEST C ST INTERSECTS
1110 ATCHISON TOPEKA & SANTA FE
RY CO (BAGGAGE ROOM)
233-0945
1190 R E A EXPRESS 233-7231
---B ST INTERSECTS
1202 BEKINS VAN & STORAGE CO
MOVING VAN 234-3141
1241 GRANITIZE AUTO PRODUCTS AUTO
POLISHING 232-3336
1254 THOMEY SERVICE AUTO REPRS
232-9830
1262 SERVICE CARBURETOR CO AUTO
REPR 232-2322
1268 VACANT
1271 BOWN ASH MOTORS USED CARS
232-1341
---WEST A ST INTERSECTS
1302 TRACK CAFE
1306 JIMMIE'S HOME & AUTO GLASS
GLASS DLRS 232-6315
1329 VACANT
1372 MARTIN PLYMOUTH CHRYSLER
AUTO DLRS 232-3186
1375 MARTIN PLYMOUTH CHRYSLER
USED CARS

901
---ASH ST INTERSECTS
1401 VACANT
1420 VACANT
1450 VACANT
1465 VACANT
---BEECH ST INTERSECTS
1502 BART SALES CO MFRS AGTS
233-7987
C & R TRANSFER CO TRUCKING
233-6466
GLASS ROBT M CO MFRS AGTS
233-7987
STEINAU-GLASER CO MFRS AGTS
239-8276
1516 HERCULES OIL CO DLRS
233-7161
1545 VACANT
---CEDAR ST INTERSECTS
1601 CITY CAR & TRUCK RENTAL CO
239-6171
1661 JAMES AUTO PARK 234-0857
1671 FRANKLIN MARY V MRS
1673 CASTAGNOLA DILLIA L MRS •
232-1406
---DATE ST INTERSECTS

1
---DATE ST INTERSECTS
1702 VACANT
1730 OPPORTUNITY ENTERPRISES INC
GENL MDSE 232-5015
1731 CASTELLO VITO 233-8571
SARDO FRANK 239-2800
1743 ALVAREZ MARIA MRS
1745 CARLSON GEO C 233-6042
1747 BAKER-CARLSON CORP PLASTIC
FLOORING 232-5558
CARLSON CO THE HEATING EQUIP
233-6042
1753 ASARO JOE • 233-0986
1765 TUTINO TONY 233-6195
1765½ TUTINO STEVE
1767 DAVIS ROY J
1769 TARANTINO PIETRO • 239-7923
1770 PACIFIC TEL & TELEG CO
239-1173
1771 TATE RUTH R MRS
1781 CARNIGLIA ADELINA MRS •
232-2682
---FIR ST INTERSECTS
1902 BRITISH MOTOR SALES CO AUTOS
234-8426
1903 CARNIGLIA AGOSTINO •
239-0545
1907 SOTTILE SALVATORE 239-5634
1915 HARDY CHARLES W • 234-4566
1929 COLOMBO WINERY 239-9926
1929½ LOPEZ JOE C
1954 SAN DIEGO MOTOR IMPORTS INC
NEW & USED CARS 234-3661
1971 KELLEY FRENCH CLEANERS &
LAUNDRY 233-3351
KELLEY'S DRAPERY CLEANERS
CLNS 233-3362
2001 AMERICAN CONTRACTING ELEC
CONTR 232-6355
2030 MIGUELITO'S CAFE RESTR
233-8563
2034 WURTS CONTRACT FURNISHERS
(WHSE)
2036 WURTS CONTRACT FURNISHERS
HOUSE FURNISHING 234-7976
2044 WATERFRONT THE COCKTAIL
LOUNGE 234-4777
2045 SHANKS & WRIGHT INC
ELECTRONIC EQUIP 239-0176
2055 ALTHOF HENDRIK 239-7875
2055½ ANDERSON NORA G MRS
234-5017
2056 EDEN HELMER • 232-5603
2057 KEISER HENRY
2062 MYERS CHARLES M 232-1397
2064 MULLIGAN HARRY O

5
---HAWTHORN INTERSECTS
2100 VALLEY MOTORCYCLE SLS
INC-HONDA OF SAN DIEGO
239-3801
2101 TRANSMISSION KING SLS AND
INSTALLATION 233-6215
2119 TOIGO'S AUTO BODY & PAINT
232-5592
2125 MIZE MOTORS 239-5792
2136 BENTON C H INC PAINT & DISTR
MFRS 234-9105
2151 PIONEER RADIATOR WKS REPR
234-6722
2175 STANDARD BRANDS INC WHOL GRO
233-8824
---W IVY INTERSECTS
2201 FREIGHT OUTLET APPLIANCE
STORES (WHSE)
2210 FOAM RUBBER SUPPLY CO UPHOL
233-0748
2215 U S BATTERY MFG CO 234-4901
2227 JUAREZ FRANK G
2228 HELIX WHOLESALE CO WHOL BLDG
MTLS 239-9394
2229 CARINI JOSEPH 239-7887
2241 CRIVELLO FRANK •
2251 MASSA STEVE S 234-5522
2253 VACANT
2266 HAULMAN WELDING WORKS
239-0558
---JUNIPER INTERSECTS
2308 SAN DIEGO MACARONI MFG CO
INC 239-8614
2311 BLUE RIBBON AUTO SUPPLY
232-5174
2311A W T C AIR FREIGHT (BR OFC)
239-5124
2321 ZOLEZZI JOSEPHINE MRS •
232-9069
2327 TREVISANI BENADITA MRS
232-5945
2345 LOCOCO MARY
2347 BALISTRERI GIOVANNI •
233-3054
---KALMIA INTERSECTS
2400 DRYER'S FURNITURE CO
233-6421
2401 LAMPRIDES LEO WHOL DRAPERY
MFR 233-6421
2419 ROMANI LOUISE C • 239-6821
2427 GIBBS ALICE M MRS 239-5521
2429 GALLAGHER FRANK J
2431 VACANT
2433 MARIANO DEOGRACIAS 239-8755
2435 GALDILLO GUILLERMO
2435½ VACANT
2443 SANFILIPPO ANTONIO •
239-8494
2453 VACANT
2455 VACANT
---LAUREL INTERSECTS
2501 CLUB THE COCKTAIL LOUNGE
239-9929
2515 VACANT
2517 BREWER TRAVIS
2519 AMMONS CLARENCE W 233-8746
2521 WARD HOWARD I
2525 ZIMMERMAN MARJORIE MRS
2528 SOLAR EMPLOYEES FEDERAL
CREDIT UNION 234-6661
2548 VACANT
2555 GIACALONE FRANK • 239-3285
2557 VACANT
2559 VACANT
2561 VACANT
---MAPLE INTERSECTS
2601 MC NAMARA JOHN
2603 HOBBS BONNIE MRS
2605 VACANT
2607 GURNSEY FLOYD M 296-1167
2609 SCHRYOCK BUREN R
2611 NO RETURN
2676 CAPITOL ELECTRIC CO (STGE)
2680 CAPITOL ELECTRIC CO CONTRS
295-3168
---NUTMEG INTERSECTS
2727 CULLIGAN WATER CONDITIONING
OF SAN DIEGO INC 297-3377
2730 I P S PRNTRS 298-6464
REGISTER PUBLISHING CO
PROGRAM DIRECTORIES
298-6464
2750 NEYENESCH PRINTERS INC
297-2281
---OLIVE INTERSECTS
2804 KETTNER RADIATOR SHOP REPRS
295-6917
2812 PUSS 'N BOOTS TAVERN
296-9381

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---PALM ST INTERSECTS
2911 NEILSON ROBT P
2916 HACKER RALPH H
2918 MACK ANDREW R 298-0309
2920 VACANT
2958 LEESMAN GUY J • 295-6637
2960 VACANT
2962 VACANT
---QUINCE ST INTERSECTS
3002 COLOMBO FIDEL • 296-2980
3020 TOMMY'S FURNITURE REPAIR
295-8451
3028 VACANT
3030 SCHOLDER JAMES G • 295-1736
3032 VACANT
3034 VACANT
3038 MORRISSEY WM J 297-3610
3040 VACANT
3042 VERMILYA JAMES W 296-1624
3044 VACANT
3046 WATSON JAMES D
3048 VACANT
---REDWOOD ST INTERSECTS
---SASSAFRAS ST INTERSECTS
---THORN ST INTERSECTS
3334 PLASTIK-ARTS 296-3415
3338 SANDOVAL MANUEL R
3340 VACANT (3340-3346)
3348 NO RETURN
3370 VACANT
REAR VACANT
3370A VACANT
---THORN ST INTERSECTS
3420 COGGESHALL ALBERT W PLMB SUP
295-2149
3444 TERRIE GLEN J
3452 VACANT
3456 VACANT
3554 NELSON-THOMAS & CO OFC
FURNISHINGS 297-0344
3564 LAPIDARY JOURNAL INC BOOK &
MAGAZINE PUBLS 297-4841
3574 VACANT
3590 BUTLER PAPER CO WHOL
298-2224
TOLLE CO THE ADV AGCY
298-7101

15
---WINDER ST INTERSECTS

107
---ANDREWS ST INTERSECTS
3765 LARSEN GORDON
3767 FITZGERALD RICHD H
3779 MC COWN HAZEL B MRS •
295-8306
3785 RAMOS ROBT 296-3868

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

PACIFIC HWY 1966

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PACIFIC HWY--CONTD
CIVIC CENTER--CONTD
COUNTY AIR POLLUTION CONTROL & INDUSTRIAL HYGIENE 239-7711
COUNTY ALCOHOL REHABILITATION CLINIC 239-7711
COUNTY BUR OF ENVIRONMENTAL SANITATION 239-7711
COUNTY BUR OF MILK CONTROL & VET SERVICES 239-7711
COUNTY BUR OF PUB HEALTH EDUC
COUNTY BUR OF PUB HEALTH LABY 239-7711
COUNTY DEPT OF PUB HEALTH BUSINESS MANAGEMENT OFC 239-7711
COUNTY DEPT PUB HEALTH BUR OF RECORDS & STATISTICS
COUNTY DEPT PUB HEALTH DIV OF SANITATION 239-7711
COUNTY DEPT OF PUB HEALTH MED SERVS DIV 239-7711
COUNTY DEPT MATERNAL CHILD HEALTH 239-7711
COUNTY DEPT PUB HEALTH BUR OF DISEASE CONTROL 239-7711
COUNTY DEPT PUB HEALTH CIV SERV EXAMS 239-7711
COUNTY DEPT DIV SANIT MOSQUITO & RODENT CONTROL 239-7711
COUNTY DIV OF PUB HEALTH NURSING 239-7711
COUNTY PUB HEALTH ANALYST 239-7711
COUNTY PUB HEALTH ENG 239-7711
COUNTY DEPT PUB HEALTH PRIMARY HEALTH CENTER 239-7711
COUNTY OFRS SAFETY COMMITTEE
COUNTY SUGGESTIONS AWARDS COMMIT.EE
COUNTY TRAFFIC COMMITTEE

ROOMS
1 COUNTY AUD & CONTROLLER SYS DIV 239-7711
3 COUNTY TREAS-RETIREMENT DIV OF EMPLOYERS INS 239-7711
14 COUNTY ASSESSOR REAL PROPERTY DIV 239-7711
21 COUNTY PURCH CENTRAL DUPLICATING 239-7711
22 COUNTY DEPT OF PUB WORKS MAIL CENTER
44 COUNTY TAX COLLR UNSECURED PERSONAL PROPERTY DIV 239-7711
53 COUNTY AUD & CONTROLLER MICROFILM FILMS 239-7711
54 CIVIC CENTER COFFEE SHOP RESTR 239-4800
56 VACANT (RM 56-72)
70 COUNTY WELFARE DEPT OFC SUP UNIT 239-7711
77 COUNTY AUD & CONTROLLER BUDGET & CLAIMS DIV 239-7711
92 COUNTY AUD & CONTROLLER (STOCK RM) 239-7711
98 COUNTY AUD & CONTROLLER, DATA PROCESSING DIV 239-7711
101 COUNTY TAX COLLR 234-8813
102 COUNTY TREAS 239-7711
103 COUNTY ASSESSOR 234-8813
152 COUNTY AUD & CONTROLLER TAX REDEMPTION SECTION
153 VACANT
163 COUNTY AUD & CONTROLLER COORDINATOR E D P SERV 239-7711
165 COUNTY AUD & CONTROLLER GENL ACCOUNTING DIV 239-7711
166 COUNTY AUD & CONTROLLER 239-7711
200 COUNTY PUB WKS BLDGS & GROUNDS 239-7711
205 COUNTY PARKS & RECREATION DEPT 239-7711
COUNTY BLDG INSPECTION DEPT 239-7711
207 COUNTY PLANNING DEPT 239-7711
208 COUNTY SAFETY OFCR 239-7711
208 COUNTY SUGGESTION AWARDS COORDINATOR 239-7711
208 COUNTY TRAINING DIR 239-7711
209 COUNTY DEPT OF PUB WKS (CENTRAL TRANSCRIBING UNIT)
209A COUNTY C A O CONFERNCE RM
214 COUNTY ADMN OFCR 239-7711
252 COUNTY DEPT OF PUB WELFARE (ADMN MANAGEMENT) 234-8871
298 COUNTY DEPT OF PUB WELFARE 234-8871
302 COUNTY COUNSEL 239-7711
306 COUNTY BD OF SUPVRS CLK 239-7711
310 COUNTY SUPVRS CHAMBER 239-7711
335 COUNTY BD OF SUPVRS 239-7711
352 COUNTY COUNSEL (SUB OFC)
355 COUNTY ASSESSOR (ADVANCED PLANNING STAFF GROUP)
358 COUNTY BOARD & COMMN MEETING ROOM
357 COUNTY CAMP COMN 239-7711
361 PRESS ROOM
384 COUNTY COUNSEL (SUB OFC) 239-7711
403 COUNTY CIV SERV COMN 239-7711
406 COUNTY CIV SERV COMN PERSONNEL DIV 239-7711
407 COUNTY CIV SERV COMN TRAINING DIR 239-7711
451 VACANT (451-459)
5THFL COUNTY PUB WKS BOILER & AIR CONDITION RMS
602 COUNTY GOVT REFERENCE LIBRARY 239-7511
7THFL COUNTY AUD & CONTROLLER POST AUDITS DIV 239-7711
8THFL VACANT
9THFL VACANT
10THFL VACANT
STREET CONTINUED
1601 SHAW BROS SHELL SERVICE GAS STA 239-5254
1655 IMPERIAL FOUR HUNDRED MOTEL 232-6391
LYNN LAWRENCE
1745 CAL-DIESEL SERVICE CO REPR 232-0602
1747 FREIGHT OUTLET WAREHOUSE MDSE 232-7571
---DALE ST INTERSECTS
1825 OSCAR'S DRIVE-IN RESTAURANT 239-1129
1943 BAYVIEW TRAVELODGE MOTEL 232-7551
OWSTON FLOYD
---GRAPE ST INTERSECTS
2008 BOYER SHELL SERVICE GAS STA 239-4251
2045 KELLER'S CAR WASH 239-2524
KELLER'S SERVE YOURSELF STATIONS GAS STA 239-4779
KELLER'S SNACK BAR RESTR
2070 PACIFIC UNION SERVICE GAS STA 234-0416
---HAWTHORNE ST INTERSECTS
2137 MIYAKO SUKI YAKI CAFE 233-7168
TOP'S MOTEL 239-7274
BURKETT STANLEY
TOP'S RESTAURANT RESTR 233-7168
---IVY ST INTERSECTS
2200 SOLAR ALL FAITH CHAPEL
SOLAR-A DIVISION OF INTERNATIONAL HARVESTER AIRCRAFT MFG 233-8241
2233 UNION FURNITURE STORE 232-6531
2263 WILL'S RICHFIELD SERVICE GAS STA 239-3222
---JUNIPER ST INTERSECTS
2305 SEASIDE SERVICE GAS STA 239-6839
2353 AIRPORT TRAVELODGE MOTEL 232-8931
THIELEN PHIL J
2401 AMBROSE BUILDING OFC BLDG
COACHMAN THE INC AUTO RENTAL 232-6629
2405 AMBROSE CO THE TUNA-FISHING 232-1324
2407 SOUTHWEST ADMINISTRATORS INS 233-0171
2431 BARBARY COAST THE COCKTAIL LOUNGE 233-7359
---W LAUREL ST INTERSECTS

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---WASHINGTON ST FREEWAY
---CROSSES
2521 GARRETT'S UNION SERVICE GAS STA 234-5771
2535 ANTHONY'S FISH GROTTO RESTR 232-5103
2665 LEWIS SUPER SERVICE GAS STA 296-4112
2775 HERTZ CORP THE (STORAGE LOT)
---NUTMEG INTERSECTS
2830 STANDARD STATIONS INC GAS STA 296-9313
2975 BUDGET RENT-A-CAR OF SAN DIEGO CAR RENTAL 297-3851
2980 SAN DIEGO INTERNATIONAL AIRPORT 291-3900
AMERICAN AIRLINES INC 232-7673
AVIS RENT-A-CAR SYSTEM AUTO RENTALS 295-3111
BONANZA AIRLINES INC 296-0333
CATALINA-VEGAS AIRLINES 298-8819
CONSOLIDATED LEASING CORP AUTO LEASING 297-1828
DELTA AIR LINES 297-3735
EXECUTIVE AIR SERVICE AIRLINES PILOT TRAINING 296-3966
HERTZ CORP THE CAR RENTALS 297-4424
LINDBERGH FIELD 233-0181
MERCURY INTERNATIONAL TRAVELSURANCE AGENCY TRAVEL INS 298-9724
NATIONAL AIRLINES INC 298-3651
NATIONAL CAR RENTALS 297-1828
PACIFIC AIR LINES 297-4151
PACIFIC SOUTHWEST AIRLINES AIRLINE CO 298-1482
SAN DIEGO UNIFIED PORT DISTRICT LINDBERGH FIELD MUNICIPAL AIRPORT 291-3900
SKY CHEFS INC RESTR 296-6241
SWIFT AIR SERVICE CHARTERS & RENTALS 298-1444
UNITED AIR LINES 291-2260
FEDERAL AVIATION AGCY AIR TRAFFIC FLIGHT SERV STA 296-3181
U S WEATHER BUREAU 293-5063
WESTERN AIRLINES 291-2131
WESTERN UNION TELEGRAPH CO TELEGRAPH 297-1828
3125 PROPHET CO THE CAFETERIA CY5-8974
3165 PORT OF SAN DIEGO
3600 VINYARD OVERHEAD DOORS INC (SHOP) 298-9951
3605 JET CHEMICAL CO 488-3550
SWALM ENTERPRISES CONCESSIONS & RIDERS 488-3550
---BEAN BEGINS
---WASHINGTON INTERSECTS
---CLAYTON INTERSECTS
---SUTHERLAND INTERSECTS
3877 SOUTH SEAS CAFE 295-1606
3885 DON'S PHOTO SERVICE PHOTOG 295-9924
PASCHAL GEO W REAL EST 295-9924
3895 PACIFIC HIGHWAY VETERINARY HOSPITAL ANIMAL HOSP 295-4231
3911 MACHINISTS BUILDING
INTERNATIONAL ASSN MACHS SILVERGATE DIST LODGE 50 LABOR ORG 298-9301
SAN DIEGO MACHINIST BUILDING ASSN 298-9301
102 VACANT
103 VACANT
106 SILVERGATE CLUB SOCIAL 296-2750
201 VACANT
205 D C DENVER CHICAGO TRUCKING CO 298-1575
207 VOLT TECHNICAL CORP TECH PUBLICATION 297-2811
---NOELL INTERSECTS
3923 LITTLE R W CO INC SANDBLASTING CONTRS 297-3705
---ESTUDILLO BEGINS
3955 WHITTIKER'S FURNITURE 297-3251
3967 WHITCO AUCTION SALES 297-3251
WHITTIKER RENTS TRUCK TRAILER EQUIP FURN 297-3251
WHITTIKER'S USED FURNITURE 297-3251
---WRIGHT INTERSECTS
4005 VACANT

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

UPAS/COLUMBIA ST 1966

UPAS ST--CONTD
2114 BERRYMAN A CARMACK ●
296-1156
2124 OECHEL GLORIA D MRS ●
295-6231
2132 SCHNELL CHARLOTTE A MRS
295-2608
2140 BOYER HARRY H ● 298-7305
---MISSISSIPPI ST INTERSECTS
2212 WORTMAN LILLIAN D MRS ●
296-0228
2222 BRIGHT DORIS M MRS ●
295-8686
2228 DAVIES CHARLES W ● 295-8611
---LOUISIANA AV INTERSECTS
2306 BROWN ROBT A 295-8904
2318 PHIPPS WALTER A ● 295-8194
2328 MC INTOSH JOHN A ● 295-9445
---TEXAS ST INTERSECTS
2420 REYBURN LEWIS F ● 295-5307
2426 ZAWORSKI A E ● 296-1557
2436 VACANT
---ARIZONA ST INTERSECTS
2516 HALLQUIST TOREITHA M MRS ●
295-1969
2518 CAPERTON VIRGINIA V MRS ●
296-4258
2530 STOKLOSA RICHD G ● 298-1339
2566 KELLAR JAMES W ● 298-0325
---ARNOLD ST INTERSECTS
---VILLA TER INTERSECTS
2602 THOMPSON PATRICIA A MRS
296-2960
2612 DAVIS VERNON E ● 295-2844
2616 VACANT
2618 DE KNIKKER BERT 296-2979
2620 GRANT ROBT ● 296-3307
2628 AYCOCK JESSE M ● 298-0240
---PERSHING AV INTERSECTS
2704 BENNETT GERTRUDE M MRS ●
298-3346
2718 MATSON EILEEN B MRS ●
295-1219
2728 BELDEN CHARLES L ● 296-2275
2738 SUGGS JAMES S ● 296-0934

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---28TH ST INTERSECTS
---UTAH ST INTERSECTS
---GRANADA ST INTERSECTS
2812 VACANT
2828 ROY ROBT
2828½ VACANT
2830 LAWRENCE WALTER H ●
2832 SULLIVAN DOROTHY A MRS ●
295-7987
2853 VRADENBURGH HAROLD
2873 BURGESS RUTH S MRS
2875 PHILLIPS BESSIE M MRS ●
295-6293
---29TH ST INTERSECTS
2905 DAVIES JAMES H ● 295-8790
2911 CRESSWELL CLEMENTINE MRS ●
298-5219
2917 PENDELTON NELLIE M MRS ●
295-2989
2923 VACANT
2925 CLARENCE'S BARBER SHOP
298-5782
BOISEN CLARENCE G ● 298-5782
---DALE ST INTERSECTS
2959 JACK IN-THE-BOX DRIVE-THRU
RESTR 298-1577
2965 CURB LAUNDRY SELF SERV
298-4061
2975 WAIKAIKI TAVERN 296-9312
2979 EDWARDS CAROLYN E MRS REAL
EST 297-2000
TRUESDALE MARY R MRS REAL
EST 297-2000
---30TH ST INTERSECTS
3025 SMITH J EDDIE 281-3919
3028 FOUR CORNERS TAVERN 296-9125
---RAY ST INTERSECTS
3035 SWEDS ALBERT 281-4678
3036 JONES & SON TEXACO SERVICE
GAS STA 284-6580
3040 SKELLEY TOM SERVICE STATION
AUTO REPR 281-1901
---GRIM AV INTERSECTS
3065 TAYLOR PAULINE B MRS ●
281-2060
3074 GRILLONE JOHN 284-6502
3075 DOWNES THOS J ●
---31ST ST INTERSECTS
3108 MESTIS MANUEL
3114 LANGER JAMES W
3115 STEPANOVICH ANDREW R
283-8056
3127 MC GEAN CHARLES E
3128 BURGE JAMES E
3130 EAKINS JOHN J ●
---HERMAN AV INTERSECTS
3162 CARTER CHARLES 283-2877
3174 WILSON MALCOLM A ● 283-8877
3177 LOVE MALCOLM N 283-2757

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---32D ST INTERSECTS
3215 MC LOUGHLIN CHARLOTTE MRS ●
281-7659
3218 WERNER PETER C
3224 BARRY ROBT L ● 284-5058
---BANCROFT ST INTERSECTS
3231 CURTIS GARY W
3254 ANDERSON WM K JR 284-7508
3271 PHILIP OLGA M MRS 284-1656
3274 ROHR CARL E ● 283-8468
---33D ST INTERSECTS
3305 HOM HUGH ● 281-6127
3316 JEFFERDS MARGT T MRS ●
282-0602
3317 NASH ALICE S ● 284-7213
3322 LANE JAMES J 281-8662
3324 GREENLAW EDITH B MRS ●
281-8662
3325 CUNNINGHAM BARRETT L ●
281-4447
3344 TSCHIRGI F HORACE ● 284-2389
---FELTON ST INTERSECTS
3364 AYALA CRUZ L ● 281-2159
3376 PREIBISIUS BRONICE A MRS ●
284-0285
3380 ALFORD EDW J ●
3386 ANDRADE CRISPIN E ● 282-2000

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UPAS ST W -FROM 3400 1ST AV WEST

102 O'SHEA DANL P
104 DA SILVA ADRAIN JR
106 HILLIER DAVID E 295-2230
107 GRIJALVA HELEN M MRS 298-4001
108 RODWILL WM
109 HANSON KATH MRS 298-2393
120 BELVILLE FRANK R 298-2831
122 SEIDEL BERNICE A MRS
124 HUGHES WM W 298-1940
126 LINDEMANN ROSELEN M MRS
298-8491
142 BRESSLER JERMONE W 298-2104
144 STEWART VIRGINIA H MRS
298-7883
146 HORNE DON M 298-0701
148 RAY JOSEPH
---FRONT ST INTERSECTS
---ALBATROSS ST INTERSECTS
335 REEMELIN GERTRUDE F MRS ●
295-1254
336 FINGERMAN ERNEST V ● 298-7992
410 JACOBY ALF W JR ● 295-3534

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---REYNARD WAY INTERSECTS
702 NO RETURN
705 JOHNSON ROSELEAF MRS ●
298-5820
716 CHIODO JOSEPH ●
719 SHWANDT WM H JR 295-1952
724 VACANT (724-26)
728 VACANT
729 FIELD HOLLIS C ● 298-2835
730 FERON JULIA 298-1226
732 PERLEE KATHRYN P MRS 298-4918
741 LEAVITT DANL D ● 296-1839
753 KOPELMAN HERBERT ● 295-9610
807 BUSALACCHI THOS J ● 296-1445
810 DELAVAL JUDY H MRS ● 296-1489
817 VACANT
820 SMITH AGNES O MRS ● 295-2592
832 FARROW WM ● 295-1072
845 RAZZETO CHARLES ● 298-5626
850 VACANT
---GOLDFINCH ST INTERSECTS
---HAWK ST INTERSECTS
1040 RAMOS EUGENIO 295-5552
---FALCON ST INTERSECTS

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---KITE ST INTERSECTS
1307 RUNDLE GERALD G ● 298-3327
1315 GRIFFIN FREDK G ● 295-1317

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---UNION ST INTERSECTS
1506 VACANT
1508 MILLER RONALD C 297-3176
---COLUMBIA ST INTERSECTS
---INDIA ST INTERSECTS

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UPLAND ST -FROM 1600 60TH EAST

6038 VACANT
6060 RUTHERFORD HARRY A ●
264-9110
6062 VACANT

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UPSHUR DR -FROM 3224 BARNETT AV
NORTHWEST

2602 MILLS FRANK 224-4117
2604 MERCER EUG
2608 FISHER DON C 223-1102
2612 FEISTEL RONALD 223-7988
2614 CUNNINGHAM DAYTON B 222-5841
2618 BLAKEMAN DAVID L
2622 CONNER FRED W
2624 HERMAN REINHOLD E
2628 MORRISSEY JOHN J
---BLAKELY DR INTERSECTS
2701 NO RETURN
2702 SCHOENAUER JOHN C 222-0705
2704 SCHERNAYDER JULES 222-2492
2705 JIMERSON ASA 224-5637
2707 HARDY KEN R
2708 NOLEN JOHN S 223-8331
2711 CISSELL JAMES L
2712 TRAMMELL MAYNARD J
2714 LITTLE WM G 224-1134
2717 NEWBERN WM H 224-2267
2718 HAMM ALBERT J
2719 ELLIS RON W
2721 MAC IVER COLIN R 222-2654
2722 FOSTER WM M 223-7234
2724 VACANT
2725 THERRIEN ROBT E
2727 RILEY RICHD
2728 BALDRIDGE HERMAN P
2731 GUDDE FREDK W 222-2235
2732 KERR ROBT J 222-8742
2734 OFOIA SOLI 222-9574
2735 LONG ESAU 222-1313
2737 MURPHY CHARLES 222-5498
2738 SCHAEFFER WM J
2741 GUTHRIE GEO R
2742 GATES ROBT D
2743 CLEATON DARRELL 222-7830
2744 BRADBURN DOYLE E 224-5980
2745 FERGUSON NORVAL E 223-8035
2747 WILMARTH RICHD A 222-2820
2748 HENSEN ELWYN C 222-7479
2751 COLLINS HENRY E 224-4339
2752 VACANT
2754 JENNINGS ANTHONY JR 222-4326
2755 BAYRON MARTIN P 224-2537
2757 EDMONDSON JAMES R 222-4603
2758 HIMES BERNARD
2761 TAYLOR JAMES L
2762 MARTIAN ELBERT S 223-3841
2764 ESTRADA ANDRES 224-5120
2765 CABALLERO MARCELO C 222-5874
2767 DAVIS HUGH L 222-4519
2768 BRITTON JAMES
2772 ROBERSON WM W
2774 FORMENTO JOSE L 222-1650
2778 CLARK KENNETH L 222-0903
2782 VALERIANO ROMEO M 222-3091
2784 RIVERS EDW C 222-0276
2788 VACANT
2792 WILSON WILLIE C
2794 MAJAM ROSBEN R 223-7343
2798 BUTLER RAYMOND L

119

UPSHUR ST -FROM 1050 SHAFTER WEST
2 EAST OF ROSECRANS

2828 IMPERIAL HOUSE APTS 224-1606
101 HEINRICH MONIKA
102 VACANT (APTS 102-103)
104 DOROUGH PATRICIA
105 JACKSON ROBT
106 HOFFMAN D ALBERT
107 SEUFERER RONALD K
222-4924
108 COPPS HENRY C 223-8622
109 GOLDEN KENNETH A 224-2228
111 REED WM
112 KELLEY JOHN S 224-1207

VINE ST 1966

VINCENTE WAY (LA J)--CONTD
405 RUDNICK PHILIP ● 454-7459
411 BENDER REBECCA S MRS ● 459-2467
412 BUEHLMAN WM L ● 454-1215
419 MC GOWAN LEWIS A JR ● 454-7027
420 BROWN EVERETTE R ● 459-5638
427 FLOYD CHARLES E ●
428 LANPHIER THOS G ● 454-0049
436 SPIEGELBERG HANS L 459-2041
---DOWLING DR INTERSECTS
531 MASON MARY F MRS ● 454-6913

26
VINE CT -FROM ½ BLK WEST OF 750 S 29TH

9
VINE ST -FROM 3550 UNION WEST

1405 BROWNING EARLINE D 295-5244
1405½ MOORE MAE K MRS 295-9563
1412 BALISTRERI ANTOINETTE MRS ● 298-5103
REAR NO RETURN
1417 VINYARD FRED A ● 296-1134
1420 HERMES WM H ● 295-1394
1421 JENKINS JOHN W ● 296-4756
1430 DAY ROBT P ● 295-4884
1438 SKELTON JACK R 298-4230
1440 FREEMAN R GENE 298-8435
1442 VACANT
1449 WELLS CHARLOTTE R MRS ● 295-6561
---STATE ST INTERSECTS
1501 ALEXANDER JOHN ● 295-9545
1511 YOUNG VERA E MRS 295-4892
1515 MUEHLEISEN VESTA C MRS ● 295-4325
1516 SA VILLE LEOTA M MRS ● 296-3090
1524 TEXEIRA LARRY ●
---COLUMBIA ST INTERSECTS
1621 HUGHES FRANCIS L 296-3493
1623 JERMARK LARRY W 291-3074
1627 JORDAN JERRY W
1629 VACANT
---INDIA ST INTERSECTS

240
VINLEY PL -FROM 6200 DEL CERRO BLVD NORTH

5725 ATTARD GEO ● 583-2619
5738 BLAIR CARL A JR ● 583-1842
5739 NO RETURN
5750 MILLER ROBT W ● 583-2216
5755 GOSSMAN JACOB A ● 583-4823
5762 KREISLER ROBT I ● 582-0405
5767 PHILLIPS LEROY M ● 582-9473
5774 CHRISTENSEN GERALD L ● 583-6645
5783 BAGBY HARRY F ● 582-1838
---LAMBDA DR INTERSECTS

127
VIOLA ST -FROM 2200 MORENA BLVD EAST

1204 HICKS GENEVA L MRS 276-6884
1206 WHITE WM W 276-6156
1212 QUICK CORA A 276-3587
1214 VACANT
1216 CHOVAN DAN
---GERTRUDE ST INTERSECTS
1308 TWOMBLY ROBT N ● 276-1956
1315 GALLO JOHN ● 276-1690
1320 KILDARE BARNEY W ● 276-0478
1325 HAFNER WM W ● 276-2537
1344 SMITH LAWRENCE G 276-2301
1345 ALBERICO ANTHONY F ● 276-1614

202
VIOLET ST -FROM 1 BLK SOUTH OF SYCAMORE DR NORTH

2502 PEABODY EDWIN E ● 284-2940
2504 SWANN PATRICIA L 282-7313
2507 DUGAL EVA MRS ● 284-0594
2510 STEVENSON JAMES M ● 283-5209
2511 HARVEY DELMAR J ● 283-4329
2518 HARRIGAN FREDK ●
2519 WITEK FREDK J ● 283-8477
2524 LORENTSON ALEX ● 284-0766
2525 SULLIVAN JOHN ● 281-2065
2530 GEORGE RUTH G MRS ●
2535 NO RETURN
2536 OLIVER WELDON C ● 281-0237
2537 SCHWARTZ DOROTHY MRS ●
2540 WILKERSON ROY C ● 282-9300
---SYCAMORE DR INTERSECTS
2544 BARCLAY PAUL 283-5256
2547 PERNICANO GEO J ●
2548 MOLLY'S CHILDCARE CENTER 281-2372
LIBERATORE MOLLY L MRS ● 281-2372
2560 CHOATE JEANETTE C MRS ● 284-4597
2564 KING JOHN M ● 281-7006
2568 CRAMER ROBT L 281-9174
2571 VAN GOGH HARRY B 282-8769
2572 WALL THOS C ● 282-8853
2576 BRAINARD PERCY C ● 283-8496
2580 MAYBERRY LEROY H ● 283-8137
2581 MAC NEILL HILTON W 284-0203
2583 FOSTER STEVEN F 281-8426

84
---PEPPER DR INTERSECTS
2608 STROMBERG GENEVIEVE C MRS 284-5335
2614 VAN BUREN HARRY C ● 284-8606
2622 CHAVEZ MODESTA 281-2861
2623 WRIGHT JAMES H ● 284-0427
2624 ROBEY FREDA MRS 282-5808
2625 BROWN NORALEE MRS
2629 VACANT
2631 THOMPSON CHARLES D 283-5614
2632 FLAGER NORMAN 283-8318
2634 VACANT
2637 CASINO ROBT J 282-0076
2639 COLE H L
2640 INESON ALAN G 283-4564
2643 CARPENTER ERNEST W ● 281-6014
2646 MARCOTT ALBERT F 284-9186
2648 MACKEY EDGAR C 284-6903
2649 MC CLELLAN GERALD F 282-5527
2650 CARY ROBT L
REAR MOSER WM 283-4072
---POPPY PL ENDS
---MANZANITA DR INTERSECTS
2651 CONANT CATH T MRS 284-7963
2652 NO RETURN
2656 VACANT
2661 MITCHELL GUY W ● 281-1386

148
VIRGINIA AV -FROM STANLEY AV SOUTH EAST OF SEMINOLE DR

4567 MAY JACK W ● 583-1719
---ACORN ST INTERSECTS
4568 GARCIA ROBT J ● 583-8739
4575 SAVEL JOSEPH S ● 582-2600
4576 SEIDEL GEO A ● 583-3939
4583 VACANT
4584 JOHNSON STEPH 583-9419
4591 SKELTON BYRON M ● 583-7419
4592 MAGEE LILLIE MRS ● 583-3711
4611 TRIPP CHARLES E ● 582-7705
4612 HOLMES FRED E ● 582-4014
4617 SCHREMPF FREDK A ELECTN ● 582-8422
4618 ZITO JOSEPH J ● 582-3670
4623 LOMAN ESTHER H MRS ● 583-7153
4624 NEAL BERNIE J 583-1425
4629 RINDER WM 582-1932
4630 PEALE WM R ● 583-3692
4635 SCHANER ALEX T ● 582-7035
4641 BUTLER FRANK O ● 582-7541

264
VIRGINIA AV (SAN YSIDRO)-FROM SAN YSIDRO BLVD S 1 W OF CHICAGO AV (FOR OCCUPANTS SEE SUBURBAN DIRECTORY)

153
VIRGINIA WAY (LA JOLLA)-FROM 7600 GIRARD AV NE N OF PEARL

---HERSCHEL AV INTERSECTS
---TORREY PINES RD INTERSECTS
1027 COLLINS EDWIN-FORD AUTC DLRS 454-0456
1105 SCRIMGEOUER K GRAY 454-4904
1120 EMBERY HARRY A ● 454-3075
1121 BRAHTZ CHARLOTTE P MRS ● 459-5718
1127 KARSTONS CONSTANCE
1138 FLORA ELIZA U MRS 454-1661
1142 BARCA ZITA V MRS ● 454-7623
1155 PENRY WILLARD W ● 454-4955
1156 BROWN ROLLIN R 459-5475
1168 FELLOWS WENDY E MRS ● 454-7581
1178 SALTONSTALL BEATRICE MRS 459-2404
---HIGH AV INTERSECTS
1201 FURR WADE H ● 454-4062
SMITH ELEANOR 459-4905
1208 CHAPLAN GERALD W 454-7521
1211 IRVINE WILLARD W ● 454-7542
1214 SCHMIDGALL RUDOLF ●
1221 VACANT
1224 NICOL DUNCAN D ● 459-5073
1231 WATSON E MORGAN ● 454-7891
1235 SKIDMORE JAMES G ● 454-0848
1236 RIGLEY ORIN H JR ● 459-4424
1245 TAVARES CECELIA M ● 454-7255
1246 SMITH FRANCIS M ● 459-5597
1252 OFFERMAN CHARLES B ● 459-6230
1257 STEESE EVELYN D MRS ● 454-3365
1260 BAKER EDWIN M ● 459-5833
1263 THURMOND ETHLIN E ● 454-7008
1271 CLEMENT JAMES M ● 459-3766
1274 WARD RITA M MRS
1275 O'LAUGHLIN HELEN ● 454-6608
1285 VACANT
1287 JOHANSON ESTHER R MRS ● 459-5233
1299 SIMONDS ANN F MRS ● 454-6884
---IVANHOE AV INTERSECTS
1301 LUTKINS LA RUE 454-1932
1304 DOOLITTLE RUSSELL F 459-6743
1314 DEESE MARY R MRS ● 454-6049
1321 GREENE LENORE ● 454-5218
1324 RUSSELL RUTH H MRS 454-6602
1325 RATHELL SAM T ● 454-1844
1328 VACANT
1338 MALES W HORACE ● 454-4106
1345 BURCH W T ● 459-5052
1350 DONALDSON ELISE ● 454-2697
1351 BOOTH RICHD F ● 454-4068
1356 GARDNER JOHN S ● 454-2962
1361 LONGENECKER JOHN I ● 454-0646
1364 PHILLIPS JAMES R ● 454-2560

99
---EXCHANGE PL INTERSECTS
1400 TORREY PHILLIP H ● 454-5591
1401 VACANT
1411 NO RETURN
SMEDLEY WILL P 454-5319
1412 THROUP LORENA E MRS ● 454-4724
1414 MAC INTYRE NEIL R ● 454-5105
1419 CRAWFORD CLARENCE H ● 454-6386
1436 PUCHNER JOHN R ● 459-6193
1437 SCHUMAN ALICE E MRS ● 454-6500
1440 GEORGE VIRGINIA E ● 454-6452
1445 NEW ETHEL B MRS ● 459-5906
1453 FERRY JOSEPHINE C MRS ● 459-5927
1454 WERNHAM GEO T ● 459-5786
REAR WERNHAM FLORENCE C ● 459-3786
1461 LEE GEO R ● 454-1644
1475 DUNTLEY S QUIMBY ● 454-1742
1522 BLAKE JOSEPH H 454-0212
1523 HOWARD JOHN R ● 459-5652
1533 VACANT
1540 JOHANSON J GOTTFRID ● 454-2083
1556 LUNN GEO R ● 459-5793
1563 CADY HARLOW G ● 454-2371

128
VIRGO RD E -FROM 5600 REDWOOD NORTH 1 EAST OF W VIRGO RD

3203 GOLDATE ANDREW J ● 583-1291
3204 BAXTER FRED C ● 583-0842
3212 DARTON JAY T 583-2078
3215 BIRD JOSEPH F 583-3517

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

WALNUT AVE W 1966

153
WALL ST (LA JOLLA)-FROM 7900 GIRARD AV EAST 11 SOUTH OF PROSPECT

1006 CITY PUB LIBRARY-LA JOLLA BR 459-5174
1008 ATHENAEUM MUSIC & ARTS LIBRARY 454-5872
1020 PARTRIDGE RESTAURANT THE 459-9965
1030 FAY'S CANDY COVE 454-6522
1032 LA JOLLA MORTGAGE FUND MTGE INVESTMENT 459-4044
1035 WALKER SCOTT CO (YOUTH CENTER) DEPT STORE 459-3321
1041 LA JOLLA VARIETY STORE 459-5336
1044 SECURITY FIRST NATIONAL BANK (LA JOLLA BR) 459-4311
1051 LA JOLLA SPORTING GOODS 459-3359
---HERSCHEL AV INTERSECTS
1100 LA JOLLA FEDERAL SAVINGS & LOAN ASSN 454-0744
1101 CHASES ALEX M CO REAL EST 454-7194
1107 HEALTH & DIET FOODS 454-4556
1111 COFFEE CUP THE RESTR 454-2819
1115 STEPHEN-HASSARD QUINTIN M DENTIST 454-2021
1117 SHEPPHERD,BUILDING
BEARDSLY JOHN M MDSE BROKER 454-7615
HARRISON JOHN A DENTIST 454-1248
LA JOLLA CREDIT ASSOCIATION 459-4146
LONGSTRETH ENTERPRISES AUTHORS
MARGIEN GEO M BLDG DESIGNER 454-4275
1119 WALL STREET BARBER SHOP 459-6909
1121 WINETEER LESTER N REAL EST 454-0105
1122 EVANS BOOK STORE 454-2197
1123 WALL STREET CLEANERS & LAUNDRY 454-5765
1124 WALL STREET HAIRDRESSERS 454-4004
1125 SHEARSON HAMILL & CO INC STOCK BROKER 454-4264
1127 HAYDEN STONE INC STOCK BROKERS 459-3415
1128 LA JOLLA MUSIC 454-5927
1131 ALLEN WILLIS M CO REAL EST 454-0721
ALLOURIDGE CORP THE REAL EST 454-0721
1140 U S P O (LA JOLLA) 454-7139

188
WALLACE CT -FROM NATIONAL AV NORTH 3 EAST OF 39TH

912 WALKER JOHN A • 264-1983
916 HERNANDEZ FILOMENO A • 264-7128
920 GALLARDO DOMINADOR •
927 GINOS JOHN G • 264-5872
930 DURAN HOSPICIO • 264-1452
931 CHACON MODESTA MRS • 264-1352
941 HARVEY MAXINE • 263-1150
---NATIONAL AV INTERSECTS

23
WALLACE ST -FROM 2800 DAVIS NORTHEAST

3953 MOELLMER KARL A 295-1385
3976 SWALLOW CHERYL MRS
3980 MORALES SALVADOR

25
---SAN DIEGO AV INTERSECTS
---CALHOUN INTERSECTS
---JUAN INTERSECTS
4016 WITTENBERG LESTER L REAL EST 296-3111
4136 ABREGO'S GOLF SCHOOL & CLINIC 295-9476
PRESIDIO HILLS GOLF COURSE

295-9476

106
WALNUT AV -FROM 3500 1ST AV EAST

115 APARTMENTS
1 HOLLINGSWORTH PERRY E
2 ATKINS HENRY
3 BENTON RUTH S MRS 296-3328
DENT LORENE MRS
6 VACANT
7 VACANT
140 BASHAM MARION C • 295-9911
---2D AV ENDS
205 REEVES JAMES E PHYS 295-2147
207 VACANT
211 WESTON MELVIN L 298-8090
221 VACANT
225 RUTH E WAYNE 295-4595
---3D AV INTERSECTS
305 SCHIEFER WM E DENTIST 298-1181
306 VACANT
315 ARMSTRONG CHARLES B DENTIST 297-2954
WATSON JOHN A DENTIST 297-2836
328 VACANT

206
---4TH AV INTERSECTS
418 VACANT
420 BELFORD WM W PHYS 295-2129
---5TH AV INTERSECTS

106
WALNUT AV W -FROM 3500 1ST AV WEST

101 WILLIAMS DELORES
103 LEA WM O 297-1708
105 BUCHAN JOHN C 298-4509
109 VACANT
111 VACANT
117 SDILLART ANNA •
119 APARTMENTS
1 VACANT
2 VACANT
3 GRANNIS FRANK H • 296-6771
4 AABY MABEL J MRS 295-7236
5 FUGETT JAMES C 295-2401
6 KOVAR ANNE E MRS
7 VACANT
8 PORTRAS KENNETH E 295-7928
130 MOORE LAWRENCE A
134 GARREMANS GARY L 296-4588
---FRONT ST INTERSECTS
205 HANKINS ELTON E 298-8095
211 STUBBS RICHD L • 295-4060
230 MAUK BUELL E
246 VACANT

13
---ALBATROSS ST INTERSECTS
315 KENDALL CORA E MRS • 295-2330
321 MC VEY MARGT M • 295-1665
---CURLEW ST INTERSECTS
605 ZINK EMMITT B • 295-3222
---GOLDFINCH ST INTERSECTS

11
---HAWK ST INTERSECTS
1004 TUOHY ROBT E • 295-0363
1012 FARNSWORTH CHARLES C • 295-7944
1021 ROBINSON CHARLES W 296-2892
1025 JONES NEWELL N • 296-3396
1041 ENRIGHT PATK J • 296-1672
1141 MORGAN FRANK J • 298-4463
---IBIS ST INTERSECTS

15
---JACKDAW ST INTERSECTS
1300 WEST FRANCIS E • 296-1784
---LARK ST INTERSECTS
---UNION ST INTERSECTS
1608 BRIGGS CHRISTINE W C MRS • 295-1945
1617 NO RETURN
1621 BROWN CLAIR W •
1623 VACANT
1629 PARK WM J
1631 ROOME FRED
1703 MYERS MAURINE MRS • 296-6438
1703½ KASSLER ROBT R 298-2603
1709 DAVIS HARRY M • 295-9114
1711 MC CRACKEN WM J 298-6347
1717 MILLIGAN JAMES A 298-2158
1719 DAVIS CLINTON D REV 296-3081

1949 ARTS & CRAFTS PRESS COML PRNTRS 297-0261

174
WALSH WAY -FROM SAXON EAST 1 SOUTH OF REMINGTON RD

5105 NEPI WM • JU2-5976
5112 BLUMER BENJ • JU3-5263
5115 REYNOLDS ROBT C 583-6940
5127 MINTZ THEO J BLDG CONTR • 582-2209
5138 DREXLER ROBT B • 582-8919
5139 GERSTLER SIDNEY •
5151 GRAWUNDER RALPH M • JU3-1244
5152 SALVATO LOUIS V • 583-3596
5163 KALLANDER ROBT J 583-1327
5164 DE VITA LEWIS & SON PRODUCE BROKERS 582-8645
DE VITA ANTHONY J • 582-8645
5173 FOSTER GEO H • 583-2945
5174 JOHNSON ARVID T • 583-3624
5183 ELLMAN HARRY • 583-0734
5184 SWEENEY MICHL J • 286-0838

244
WALTER AV -FROM 6705 WINONA AV EAST 1 SOUTH OF GREENBRIER AV

4907 VACANT
4908 COLEMAN EMMETT I • 583-0589
4919 WEAVER HARRISON W •
4920 FEAR ELI C • 582-9019
4931 BUCHY PAUL JR • 583-0120
4932 ZIDLICK RUDOLPH •
4943 HOPKINS FRED C •
4944 JOHNSON KENNARD H • 582-1410
4955 ADAMS LEO W • 583-1904
4956 BREESE PAUL M • 583-0283
4967 NO RETURN •
4968 MARTIN JOHN M • 582-2998
4979 CONSTANT GEO • 583-9694
4980 DRIUSSI JESSE J • 582-6184
5007 WESTMAN JAMES E • 583-1318
5008 ROGERS JAMES R • 582-0584
5019 SUCHAR MICHL • 582-8761
5020 VACANT
5031 GORHAM CLARENCE W • 582-1183
5032 MORRIS LESTER M • 582-5297
5043 DANIELSON EPHRAIM R • 582-7815
5044 BURAK JACK • 582-4959
5055 NYGAARD HAL • 583-1685
5056 JEFFRIES L W 583-0921
5067 HARRISON ROBT C • 582-9463
5068 GABIOUD HELEN A MRS • 582-7643
5079 ESTES RONALD • 286-1280
5080 OSBORN JOHN E • 582-5785
---50TH ST INTERSECTS

222
WALTON PL -FROM OHIO EAST BET MONROE AV AND MADISON AV

3057 AGNER JOHN H •
3060 GRIZZLE ROY
3061 SALTER JOHN A 284-7887
3064 RAPER WALTER K 281-9059
3069 MILLER ROBT O •
3070 BROCKMEYER MYRTLE A MRS • 281-9002
3072 WALTON PLACE COURT APTS 284-4148
BERGER FRANK C 281-9256
3074 ROLAND JOHN E
3076 HENDERSON ERNIE L • 284-4148
3078 PRESTON PAUL D
3080 GUZZO JAMES
3082 BRANCH HILDA MRS 284-0565
3084 EINERTSON LA VERNE O 284-8175
3086 PERSKE VERSA P MRS 283-8755
3088 TREECE HENRY M
3090 BAXTER ROSE MRS

242
WANDA CT -FROM DEAD END NORTH 1 EAST OF DECENA DR

6050 LISENBEE JAMES B • 584-7991
6053 KENNEDY EDW J JR • 283-6930
6056 THOMSON HENRY H • 284-1306
6062 ROGERS FORREST E • 284-5849
6070 SCHINDLER ERNEST 284-7949

CALIFORNIA ST 1961

25
CALHOUN—From 4050 Harney northwest
2660 Casa De Bandini Hotel CY6-9792
rear Cardwell Jas H CY6-9792
Mason intersects
2732 Fousek Gertrude Mrs ® CY5-0564
2734 LaCasa Blanca Dining Room restr CY5-7339
2754 Casa DePico Motor Hotel CY5-7160
Cardwell Frank K ®
Wallace intersects
Taylor intersects

1B3
CALIFORNIA—From 880 W Market north
1B2
Broadway intersects
1B1
Beech intersects
1501 C & R Transfer Co (whse)
Cedar intersects
1612 Garrett Lillian Mrs
1620 Aabco Inc (whse)
1620½ Rodriquez Arquello
1632 Gilbert Phil ® BE3-5622
1
Date intersects
1824 Fogerty Oil Co (whse)
1842 Piraino Anna Mrs
1930 Guadalupe Refugio
1932 Bologna Pietro ® BE2-1984
1940 Battaglia Joe
Grape intersects
Hawthorne intersects
5
Ivy intersects
2244 Vacant
2250 Salmon Tarquino H BE3-5035
2250½ Aquirre Bernarda Mrs
2272 Salmon Joaquin ®
2280 No return
Juniper intersects
Kalmia intersects
Laurel intersects
2560 Belyea Truck Co BE9-2133
Maple intersects
2801 Murphy Maurice C ® CY5-3866
9
Palm intersects
2921 Walker Saml P ® CY5-9517
2929 Vacant
2941 Stimits Arth E CY5-0454
2968 Vacant
2970 Knauf Carl H CY8-3010
Quince intersects
3005 Folk Robt L CY8-6340
3015 Vacant
Redwood intersects
Spruce intersects
Sassafrass intersects
Thorn intersects
3596 Bateman T O Co chem CY5-5183
Charcoal Distrs Inc CY5-5186
Upas intersects
Vine intersects
15
Walnut av intersects
3607 Vacant
3619 Rebeles Magdelena Mrs CY5-7707
3625 Vacant
3630 Ideal Laundry CY8-1101
3633A-1 **Bachelor Apts** JU2-2757
1 Simms Leon
2 Withers Jack
3 Blum J W
4 Lett John B
5 Wade Alf D
6 Lett Joe H ® CY8-4386
7 Robles John
8 Chafin Semuel A
9 McKee Mike
Street continued
3645 Hiatt Leroy R ® CY5-4570
3669 Crower Equip hot rod mfrs CY8-2708
Eddy & Molitor Helicopter Serv CY8-5664
Johnson Metal Works CY6-2496
Standard Truck Line CY8-8245
Infusino Albert F CY5-5642
Bean ends
Chalmers intersects
Winder intersects
3705 Price & Horton Inc sht mtl CY6-1160
3707 Vacant
3709 Vacant
3711 Celaya Frank B CY5-6389
3717 Massaro Jas A CY5-7700
3719 Rhodes Mitchell L CY5-2859
3719½ Vietri Jos J CY5-5776
3721 Carne Madeline S Mrs
3723 Vacant
3725 Dillon Lester P CY6-1897
3727 Vacant
3729 Nelson Clarence O CY8-9264
3730 All-In One Serv Center gas sta CY8-6287
3731 Seymour Henry C CY8-4054
21
W Washington intersects
3751 Five Points Motel CY6-9276
3777 Marine Room tavern CY6-9563
3779 SD Sporting Gds CY7-1412
Smith J B
3781 Vacant
3785 Five Points Cut Rate Store sundries CY7-1129
3787 Melfi Andrew M
3789 Vacant
3789½ Runner Russell E
3791 Five Points Barber Shop CY6-2609
3793 Lucky Star Cafe restr CY8-3041
3795 Five Point Food Market CY6-9264
McKee intersects
3801 Five Points Delicatessen CY5-7545
3805 SD Motor Inn CY6-9457
3809 Vacant
3810 George's Liquor Store CY8-2434
3811 Taylor Earl F CY8-1948
3817 Dennis Geo M CY8-5639
3819 Copelane Orville A CY8-0131
3821 Warren Edna M Mrs CY8-7602
3827 Gray John
3831 Theriot E Abram CY5-6575
3832 Maguire Edw
3833 Ward Chas
3834 Brittle James N
3835 Gonzalez Ramon jr
3836 Dudley Jack R CY5-1773
3838 Lowrie Vi M Mrs
3841 Maverick's Club tavern
3844 Dotts Esther J Mrs ® CY5-3384
3844½ Pullar Rodney A CY6-4697
3846 Legal Reserve Life Ins Co CY7-1041
3849 Vacant
Pringle begins
3856 Bailey Equip Co Inc CY5-5141
3870 California Motor Lodge CY6-9278
3871 Cee Cee's Mkt CY8-7835
3873 Family Village The auto court CY6-6737
Sutherland ends
LaJolla begins
3911 McMullen Cuivier M ® CY5-4830
3919 Haugen Edwin N ® CY8-2464
3922 Wilson Erven E ® CY6-6052
3922½ Eastep Gilbert
3926 Viery Emily D Mrs ® CY8-5977
3926½ Arhens Richd G CY8-2790
3929 Rawlings Orben E CY7-1722
3931 Walton Carroll H CY6-3222
3935 Pine Angeline E Mrs CY6-3289
3938 VanDer Werf Hendrik CY7-1576
3942 Mietchen Fred H ® CY5-1256
3951 Passmore Jacques ® CY8-3062
3965 Palmer Edith D CY8-2427
Henry intersects

21
CALIFORNIA, WEST—From Henry west to Witherby, continuation of California
1907 Huffman Robt E ® CY5-1356
1917 Rickon Fred J ® CY6-4779
1925 Aschbrenner Gene F ® CY5-8985
1931 Hilgeman Roy A ® CY5-7956
1948 Hall Richd S ® CY7-1451
1958 Giacalone Joseph ® CY6-6429
2005 Wotton Albert H ® CY6-1125
rear Wilson Lea
2011 Kenny Agnes Mrs ® CY8-3270
2017 Burkhardt Jas A ® CY8-7096
2025 Patterson Harold L ® CY8-5670
2026 Potter Peter ® CY5-0548
2031 Somanetics Inc eng CY5-7267
Satter Neil S ® CY5-7267
2037 Gibson Clarence E ® CY5-6456
2044 Jarvis Grace B Mrs ® CY5-3582
2045 Shaw Howard I jr ® CY5-4445
2049 Hart Mildred Mrs CY8-7404
2050 Slaten Harold R ® CY8-1283
2051 Beetlestone Robt H ® CY5-1458
2061 Gaines Paul ® CY8-3245
2067 Taylor Harold J CY5-5707
2069 Gross Saml CY8-1269
2070 Shea Jas A CY5-4296
2074 Muir Wm D ® CY8-1447
2075 Frates Nancy
2077 Vacant
2083 Schwartz Alvin
2085 Weaver Harold C CY7-2342
2086 Maier Aug W CY7-2317
2095 Hogan Chas T CY5-7024
2097 Bevan Anthony F ® CY5-2904
2098 Costello H O
Bandini intersects
2105 Wilke Herman P ® CY5-2649
2111 Englehart J Reba Mrs ® CY5-9347
2120 Davee Clyde O ® CY6-2452
2121 Baird Andrew N ® CY5-9192
2127 Kesler Robt D ® CY8-2982
2137 Holloway Jas G ® CY8-3501
2143 Phillips Maude M Mrs CY5-3581
2146 Chowning Thos J ® CY6-0422
2149 Vacant
2149½ Vacant
2151 Shoven Hazel B Mrs ® CY5-7138
2152 Collier Harold M ® CY6-2173
2164 Busalacchi Mario J ® CY8-6457
2169 Wessell Nancy E Mrs ® CY5-4419
2171 Hallmore Shirley Y Mrs CY6-2868
2174 Monsees Ralph G ® CY8-2976
2175 Willcoxon James T jr ® CY5-2539
2186 Davis Robt L ® CY6-6486
2191 Stewart Edmund T ® CY5-0956

252
CALLA (PO Imperial Beach)—From 17th west, 1 north of Cedar
1800 McDougal Lillian Mrs
1801 Vacant
1803 Vacant
1804 Fowler Chas E ®
1805 Bryant Betty J GA4-3819
1806 Pitts James P GA4-9358
1807 Vacant
1808 Hammar Jonathan A
1809 No return
1810 Vacant
1811 Wilkinson Glen P ®
1812 White Walter
1814 Vacant
1816 Vacant
1818 Vacant
1820 Vacant

180
CALLE ABAJO—From Valley rd north, 1 west of end of Reo dr

180
CALLE AGUADULCE—From 6100 Cumberland south, 5 east of Reo dr
2411 Rice Julia J ® GR7-1763
2412 Barrios Gilbert ® GR7-2352
2420 Hyatt Chas E ® GR7-1976
2426 Vacant
2434 Russell Patk J ® GR7-6678
2440 Cullen Howard D ® GR7-2282
Calle Tacon begins
2441 Lahey Wm F ® GR7-8639
2446 Mack Harold E jr ® GR4-1364
2451 Hicks Lawrence E ® GR7-3942
2452 Scott Harold A ® GR7-1307
2457 Hoffman Irvin E ®
2458 Davis Chas R ® GR4-2980
2463 Brewer Vernon M ® GR4-2529
2466 Oldham Larry ® GR7-2935
2469 Cole Walter R jr ® GR4-6227
2478 Sala Pater C ® GR7-2347
2484 Ganzer Raymond W ® GR7-1911
2490 Mills Kenneth ® GR7-0741
2491 Kral Franklin ® GR7-0332
2504 Doughty Ellen V Mrs ® GR7-0428
2505 Newton Floyd GR7-0416
2514 Houser Earl E ® GR7-9186
2529 Dolmage Vern L ® GR4-1823
2534 Mills Harold A ® GR7-0922
2535 Goins Thelbert N ® GR7-2694
2544 Eskridge Arth W ® GR7-7491
2545 Harig Edwin L ® GR7-6766
2553 Guyer Paul A ®
2554 Elridge Richd E GR4-1773
2563 Gustin Frank W ® GR4-1877
2573 Smalley Robt A ® GR4-1033

180
CALLE ARRIBA—From Morningside dr, 1 south of Rancho Hills dr

73
CALLE BREVE (Pacific Beach)—From Balboa av north, 1 west of Pico
4600 Bayview Terrace Nursery BR3-5335

151
CALLE CAMPANA—From 2300 Reed av north

236
CALLE CANADA—From 6250 Alleghany south, 6 east of Rio dr

180
CALLE CASAS BONITAS—From Morningside east, 1 south of Rancho Hills dr
5705 Higgins John GR7-5365
5722 Under Constn
5742 Sumner Clint G ®
5745 Martin Joseph R ® GR7-5894
5752 Blankenship Donald R ® GR7-7769
5762 Vacant
5772 Erpenbeck Eug F ® GR7-6706
5782 Johnston Andrew L ® GR4-5462
5860 Rodriguez Gonzalo H ® GR4-2437
5879 Vacant
5885 Stuart Julia G Mrs ® GR4-4371

236
CALLE CHANATE—From 2100 Calle Canada east 1 block, 1 south of Alleghany
2401 Wilson Kenneth H ® GR1-2101
2408 Vacant

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

COLUMBIA ST 1961

1446 5th AVE. Plumbing and Heating Since 1902 TEL. BELMONT 3-1168

COLUMBIA—Contd

1812 Bolchini Roberta P Mrs ® BE2-1993
1819 Crivello Anthony T BE3-3460
1824 Tarantino Peter © BE2-5321
1830 DePhilippis Madeline E Mrs ® BE9-5207
1833 DeMaria Dominick © BE9-2425
1836 Corrao Andrew ®
1839 Spano Jos
1840 DeSanti Antonio
1843 Tarantino Sebastian BE9-4597
rear Orlando Fred BE4-4842

Fir intersects

1907 **Apartments**
1 Santos Manuel G BE2-8897
2 Vacant
3 Quaschnick Lloyd
4 Vacant

Street continued

1915 Ruiz Manuel
1918 Vacant
1919 Romero Rachel R Mrs BE2-8491
1920 Guiseppe Crisci
1922 Balistreri Peter
1924 Oddo James
1926 Silva Manuel R BE3-5982
1928 Balestrieri Marietta Mrs ® BE9-6228
1929 Brunetto Pasquale ® BE9-3382
1931 Brunetto Steve BE9-8429
1933 Corona Donald BE4-1678
1941 Marchese Saml ® BE9-3003
1943 Grosso Gaetano
1945 Vacant
1953 Bilardelli Armando T ® BE3-0548
1959 LaGioia Grace Mrs ® BE4-1552
1965 Brunetto Clara Mrs ® BE9-5517
1970 Jackson & Blanc htg contr BE4-4621

Grape intersects

2011 Moore Harriett J Mrs BE4-4255
2015 Paradowski John W BE2-2837
2019 Hendricks Farrell L BE2-9623
2021 Vacant
2031 D'Acquisto Antonio BE3-3952
2033 Corrao Grace Mrs ® BE9-6973
2034 Cobet Paul C ® BE2-2586
2041 Marker Lorna H Mrs BE2-8427
2043 VanPelt Andrew ® BE9-7488
2043½ Johnson Bobby H
2044 **Columbia Apartments** BE4-9585
(A) Reeves Ollie M
(B) Vacant
(C) Miranda John R
(D) Vacant
(E) Hall Willie
(F) Vacant
(G) Nash Robt W
(H) Johnson Wm R BE9-9585
rear Vacant
2051 Lococo Jos BE9-2817
2053 Nishimura Jos A
2053½ Sutton Roy L
2054 DiCola Josephine Mrs BE9-4763
2064 Valenti Joe BE4-5743
2066 Corona Donald BE3-3882
2071 Bruno Vincenzo ® BE9-7010

5

Hawthorn intersects

2104 Sardo Salvatore ® BE2-5900
rear Wilson James
2118 Navarra Sam ® BE2-0580
2121 Zizzo Frances Mrs BE3-0494
2130 Alioto Anthony J ®
2136 Bregante Anthony E ® BE3-3645
2146 Bregante Cath Mrs © BE3-3645
2154 Sardina Jos J ® BE9-4354
2168 Tocco Leo

Ivy intersects

2210 Vacant
2230 Adamo Antonio ® BE9-4031
2260 Foster & Kleiser Div of Metromedia Inc adv BE3-6347

Juniper intersects

Kalmia intersects

Laurel intersects

2519 Kostynu Louis A ® BE2-5731
2519½ Anderson Grover
Patton Robt E
2525 Giacalone Jos ® BE2-1776
2525½ Martin Chas F BE2-9212
2565 Hebel Rollin E ® BE9-7077
2567 Dawe Peter BE3-0639
2569 Lane John E BE3-0579

Maple intersects

2601 Pruitt Daltha B Mrs CY6-0800
2603 Lamb Winona Mrs CY8-5638
2619 Kenyon Arth ® CY5-3011
2621 No Return
2629 Adams John H
2629½ Awrey Glenn F CY7-1991
2629 1/4 No Return
2639 Husband Reginald F ® CY5-7963
2643 Smith Leanord C CY8-4263
2653 Vacant
2655 Boyer Duane M CY5-4678
2657 Ellsworth Saml W CY5-2484
2669 Neill Louise Mrs ® CY7-2753

Nutmen intersects

2703 Vacant
2705 Conaway John D ® CY8-2467
2715 Stanley Ethel Mrs ® CY5-5018
2727 O'Connor Arnold ®
2729 Vacant
2732 Middlebrook Caroline ® CY6-4192
2737 Gilroy James T CY5-2635
2739 Martin Earl L
2741 Zizzo Mary Mrs ® CY5-1096
2744 Middlebrook R Philip ® CY5-5084
2753 Barr Mary L Mrs CY8-1892
rear Traggardh Rachel M Mrs ® CY6-3407
2756 Jones Elsie D Mrs ® CY5-1894
2758 Battles Larry G
2768 Barganier James R
2773 Rose Jas D ® CY5-9643
2801 Melody John D CY8-5377
2803 Smiley Chas M CY6-0998
2805 Jorgensen Tom R CY8-1266
2807 Solberg Edw R CY5-8887

Olive intersects

2811 Vacant
2816 Barbieux Nancy CY5-4615
2818 Gross Archie CY6-2017
2825 Bonham Harley L ® CY5-5380
2827 Pierelli Patk A CY8-6445
2830 Fenwick Bernice Mus Studio CY6-4467
Fenwick Elmer E ® CY6-4467
2831 Vacant
2833 Vacant
2835 Vacant
2837 Farewell Linn O CY5-1683
2840 Banda Rafael F ® CY5-5786
2849 Wultz Sam CY6-0327
2851 Vacant
2859 Colla Lilla Mrs ® CY5-6311
2859b Cearly Phillip
2864 Morrison Roy F ® CY5-7046
2889 Pickens Theo ® CY6-4225

9

Palm intersects

2901 Harris Donald
2903 Pence Wayne jr
2905 Addington Gail
2907 Raff Mildred Mrs
2909 Norris Thelma B Mrs CY8-1233
2911 Honnicutt Donald
2913 Wallace Alf R CY6-2602
2915 Kinzel Gilbert A
2917 Hopkins Judith
2919 Kidder Harland ® CY7-1360
2921 Peters Donald G CY6-3466
2930 Pierce Wm ® CY8-3136
2940 Littlepage Russell S CY5-2770
2950 Vacant
2952 Hartman Roman J CY8-7357
2954 Perry Arth W CY8-1926
2955 Hillhouse Wanda S CY5-1438
2955A Julien Anna R Mrs ® CY5-1884
2955b Taylor Wm
2964 Norris Jas R ® CY5-3726
2965 Williams Amanda Mrs CY5-1866

Quince intersects

3002 Jumper Frank F ® CY8-1510
3005 Moore Robt CY7-2135
3007 Cook Lisle E CY8-1024
3009 Schriebich Grace Mrs
3011 Vacant
3013 Bennett Bertha Mrs CY8-1028
3015 Ryan Gloria
3017 Heller Wesley CY8-3800
3018 Aron Pearl M Mrs ®
rear Vacant
3019 D'Arogon Bernard CY7-2673
3021 Carr Allen
3023 Hronopoulos Nick G CY8-8600
3025 Farmer Rob R CY5-4288
3027 Saldano Armand
3028 Elliott Frank CY6-6733
3029 Foster Robt N CY8-8424
3030 Vacant
3031 Lewis Donald L
3032 Higgins Ron R
3033 Pfleeger Mary E Mrs CY6-2466
3034 Laurence Richd L
3035 Vacant
3037 Grobmeier Alvin H
3038 Loring Carolyn ®
3040 Cleaver Chas D CY5-3807
3045 Mellusi Jas E ® CY5-7571
3062 Peters Bernice H Mrs ® CY6-3642
3064 Vacant
3066 Cameron Georgia P Mrs CY8-9494
3068 Ramsey Oscar W CY5-1723
3225 Cheek Regnald C ® CY5-5335

Redwood intersects

3229 Vacant
3242 Huntley Marjorie T Mrs ® CY8-6015
3243 Knebel John W ® CY5-3314
3250 **Apartments**
1 Cooper Helen G
2 Haake James W CY8-7601
3 Vacant
4 Vacant

Street continued

3260 **Apartments**
1 Milligan Corrine Y CY7-1087
2 Adams M Bruce CY8-7568
3 Vacant
4 Vacant

Sassafras intersects

3310 Vanlerberghe Peter P CY7-1344
3319 Quinci Vincent ® CY8-6384
3320 Adam Chas C ® CY5-6806
3321 Eden Dean
3330 Miller Ralph G ® CY5-7690
3331 Cano Bruno CY7-1334
3333 Nixon Paul jr CY8-7487
3343 Hobb Hazel Mrs ® CY5-6661
3344 Guyton Omer ® CY5-5551
3345 Shaw Douglas I CY8-4563
3347 Vacant
3354 Guidding Homer
3355 Schwank Frances Mrs ® CY6-3404
3356 Braxton Steve I CY5-7271
3357 Wiedlund Theo C CY5-3752
3364 Theobald Clarence W CY5-8383
3366 McDonald Norman M CY5-8378
3368 Vacant
3370 Bruna Vincent ® CY5-8294
3372 Haarman Carl F CY7-1746

Thorn intersects

3429 Bledsoe Huntington P Hon CY8-5264
3431 Faber Clarence L ® CY5-0394
3445 Canale Myra O Mrs ®
3455 Crivello Vincent ® CY5-4848
3465 Fountain Leonard D CY6-0254
3465½ Bergant Geo G CY6-3505
3467 Teck Zita Mrs ® CY6-2601

Upas intersects

3504 Wallendorff Harold J ® CY5-2294
3505 Pinasco Marie C Mrs CY7-2414
3509 Austin Richd D CY8-8959
3510 Jensen Robt
3510½ Strickland James G
3512 Hoag Faith A Mrs CY5-5433
3512½ Vacant
3513 Vacant
3515 Rogers Clarence M CY8-4530
3516 Rojas Cirilio G ® CY5-7036
3517 No Return
3518 Vacant
3519 Vacant
3520 Vacant
3521 Vacant
3523 Acosta Roman O
3525 Pitts J B CY5-7345
3528 Vacant
3531 Tate Gleason J CY8-6049
3535 Vacant
3538 Crisci Jos ® CY5-2869
3540 Hicks Leon B CY6-4454
3544 **Apartments**
1 Kirkpatrick Norman ® CY7-3011
2 Boyce Margt
3 Ivey Phil
4 Vacant
5 Howard Dan

16

Glenwood intersects

3602 Mindte Robt T CY5-5413
3604 Toothacre Rod M CY5-2024
3608 Metzer Dovonne Mrs
3614 Vacant
3615 Felgen Michl J
3616 Vacant
3621 Brown Lawrence H ® CY5-9666
3622 Shepard Dan
3627 Rowley Chas G ® CY8-7406
3629 Vacant
3633 **Apartments**
(A) Putuff Wm
(B) Vacant
(C) Vacant

GLENWOOD DR 1961

371

GLENROY—Contd
6751 Hammond Edw J © JU3-0244
6759 McKenzie Edw B © JU3-6896
6760 Shanks Paul D © JU3-2810
6767 Morrin Geo W © JU2-7258
6775 Loomis David M © JU3-6081
6776 Hanneberg Edwin R © JU3-1031
6785 Nelson Robt L © JU3-0294
6795 Taylor Edgar L © JU2-6083
Greenbrier av intersects
6801 Turman Wm C
6807 Manry Mendall A © JU3-1165
6811 Verryp Simon © JU2-7732
6815 Galvas John J © JU2-7883
6821 Bowen Robt L © JU3-1427
6827 Rohrer Harry W © JU2-9381
6833 Walker Ray © JU3-6877
6839 Dubois Ethel Mrs
6845 Noeller Norman H © JU3-4924
6851 Hernandez Philip © JU3-0866
6859 Jackson Roland B © JU3-0352
6860 Willingham Dean Mrs © JU3-0827
6863 Hansen Carlyle C © JU3-0863
6869 Vierkant Elmer H © JU3-1484
6870 Flanagan's Business Serv acct JU3-3580
Flanagan Thos J © JU3-3580
6875 Gregory Wm I © JU3-1042
6881 Findahl Carrol © JU3-6200
6885 VanDeWalker Constance © JU3-3744
6886 Buck Wm J © JU2-4772
6889 Nestor Burton H © JU2-0642
6892 Packer Louis © JU2-0138
6893 Pack Harry M JU2-4508
6897 Grim Benj R © JU2-9141
6898 Olive Wm T © JU2-9065
Irwin intersects
6902 Hardin Wilbur G © JU2-4034
6903 Swift Walter T © JU3-1381
6908 Radecki John T © JU3-3777
6909 Hillis Robt F © JU2-9058
6914 Gellerman Ernest E © JU2-9281
6915 Walford John D © JU3-0656
6922 Strait Robt D © JU2-9142
6923 Morley David G © JU3-1376
6928 Nemechek Leland S jr © JU3-3850
6929 Hoff Edwin J © JU3-1585
6936 Brooks Marvin D © JU3-0681
6942 Vacant
6945 Garff Steph N © JU3-0072
6948 Hodgson Dorothy C Mrs © JU2-8604
6954 Roshong Donald V JU2-9539
6955 Dietz Ernest W © JU3-7959
6960 Medlin Lee V © JU3-1383
6965 Lakin Wm H © JU2-9188
6966 Bilicki Peter A © JU2-2010
6975 Stevens Wayne E © JU3-2861
7001 Hickey Richd N © JU3-0110
7004 Gallik Andrew © JU3-0258
7012 Elsensohn H E © JU3-0355
7020 Ibarra Herbert © JU2-9296
7028 Hicks W Kenneth © JU3-0773
7036 Revell E W © JU3-0816
7044 Benyr Walton R © JU2-9270
7052 Lockman Kenneth G © JU2-4029
7060 Summer Jas W ©
7068 Anderson Gene © JU3-6325
Dundee av begins
7074 Delgadillo Margt E Mrs © JU2-9609
7082 Lawrence Earl © JU2-9659
Elgin begins
7090 Donavon Wm © JU2-9135
7106 Schilling Gordon © JU2-9303
7116 Armantrout John W © JU3-0764
7126 Farrington Chas E © JU2-9424
7136 Nash Elton E © JU2-7823
7146 Herz Gerald R © JU2-9510
Forbes av begins
7156 Gagnon Rene J © JU3-5564
7166 Tormey Gerald F © JU2-6867
7176 Benninger Orville © JU2-9570
7186 Miller Winnifred M Mrs © JU3-6197

95
GLEN VIEW LANE (LaJolla)—From 7221 LaJolla blvd east
711 Barton Frank C jr GL9-1622
728 Howard Fred R © GL4-3432
733 Wasterlain Ruth U Mrs GL4-0976
738 Hause Emma I Mrs © GL4-2857
743 Putman Alice W Mrs GL4-5046

101
GLENWICK LANE—From Bordeaux av west, 1 north of Dunway dr
8675 Schminke Paul © GL9-5228
8696 Radia Frank J GL4-7768
8704 Chapple Henry A © GL9-5835
8720 Harman Robt J © GL4-7754
8735 Vacant
8736 Lenz Willard T © GL9-1706
8750 Templeton Harry C © GL9-2222
8765 Geddes Marjorie G Mrs ©

101
GLENWICK PL—From Glenwick la north, 1 west of Bordeaux av
2711 Arrkenius Gustof O © GL4-1156
2721 Bagley Marie L Mrs © GL4-4423
2722 Moore Kenneth W © GL4-0536
2731 Burks Marie L Mrs © GL4-4836
2734 Preston John C © GL4-7547

15
GLENWOOD DR—From 3570 Union west
1504 Walton Jean B Mrs © CY6-1826
1505 Daly Helen A Mrs © CY5-7323
1507 Martin R G
1509 Vacant
1511 Brown James F © CY7-2701
1512 Spear Wm © CY6-3583
1519 Button Melvin H © CY8-5129
1525 Bridges Edw I CY5-9957
1530 Ellis Douglas D CY7-2186
1531 Shaw Donald E CY8-3326
1533 Vacant
1535 Vacant
1537 Vacant
State intersects
1602 Brevik Leonard R
1610 Hart Cornelius H © CY5-8170
1616 Wittich Wesley E © CY6-2310
1616½ Cooke Myron
1620 McHenry Kenneth E CY5-2558
1624 Vacant
1626 Vacant
1628 Vacant
1628½ Easter Viola V Mrs CY8-0147
1630 Vacant
1630½ Nassar Christian CY6-1796
1632 Rabe Wanda E CY6-3554
1634 Vacant
1636 Waddell Robt J CY8-3634
1704 Pierce Elanor Mrs CY6-6416
1705 Mahiwa Fredk M
1706 Heriford Richd D
1708 Sklut Milton
1709 Elmore Geo S CY8-5185
1711 Lotta Vito E CY7-2046
1712 Welch Vincent C CY8-7928
1715 Stammers Edwin R CY8-9635
1716 Erwin Earl J
1716½ Howe Jordan J
1720 Vacant
1722 Vacant
1722½ Vacant
1724 Mitchell Earl D
1724½ Speer Donald
1730 Giammarinaro Jasper CY5-7733
1732 Brigante James
7134 Hubbard John E CY8-4455
1736 Dinarila Salvadore
1738 Gardner Edna Mrs CY8-9105
1740 Terramagra Jas J © CY7-2759

57
GLIDDEN—From Linda Vista rd east, 1 south of Kramer
6821 Darelius Harold V © BR7-0103
6822 Bennett Karl E © BR7-5237
6831 Graves Edw E Rev
6832 Tignor Fred L © BR7-6096
6842 Howser John L © BR7-2605
6847 Killebrew Darl B BR7-1764
6849 Killebrew Ray D © BR7-4206
6852 Hinrichs Carl J © BR7-4391
6855 Christian Science Society & Reading Rm BR7-6857
Coolidge intersects
6911 March Elnora V Mrs © BR7-1611
6921 Beckham John H © BR7-1781
6922 Gonzales Alfonso G © BR7-5515
6931 Vacant
6932 Schwartz Albert C © BR7-4932
6941 Harju Archie A
6942 Siska Stanley ©
6951 Vacant
6952 Abrams Wm © BR7-0822
6961 Ahrens Richd J BR7-4775
6962 Hope Germain E © BR7-3736
6971 Purdy Cyril J Mrs BR7-2092
6972 Tittle Reese D © BR7-3929
6981 Lansford Robt A BR7-4416
6982 Wilson LaVerne K © BR7-2890
6990 Bertagna Albert A © BR7-8775
6991 Masten Wayne G ©
6992 Winder Warren E © BR8-0332
6995 Campbell Delmer E © BR8-1525

58
GLORIA—From Franklin av south bet S 48th and S 49th
305 Carter John L CO2-1134
307 Washington Dink CO2-2517
321 Lopez Jose L © CO2-7852
322 Picou Theo O
324 Perkins Foresten
325 Quince Vito © CO4-4251
326 Vacant
328 Vacant
332 Jones Ralph © CO4-9395
332½ Foster Alf
333 Verdugo Larry CO2-8409
342 Vacant
343 Borquez Robt R
344 Bouldin Alvin
346 Vacant
348 Vacant
350 Vacant
352 Vacant
403 Stephens Wm M © CO2-1406
406 Horne Donald T CO2-0119
408 Coleman Leonard
410 Vacant
411 Vacant
412 Leavy Joseph W
412½ Norris Robt H
414 Silva Gloria Mrs CO4-6394
416 Mendoza A Albert J
418 Thomas Walter E
420 Ward Arth T
420½ Taylor Alfred J
423 Vacant
424 Romero Anthony R © CO4-9045
425 Brodus Helene
427 Vacant
429 Vacant
444 Lomax Arth W CO4-5007
Ocean View blvd intersects
1211 Jackson Mary L Mrs © CO4-8813
1220 Lopez Adam © CO2-5340
1221 Robinson Joe L ©
1230 Carter Sylvester © CO4-1316
1231 Brown Gerald R © CO2-7053

147
GOBAT AV—From Soderblom av west, 1 north of Lange av
2604 Polizze Joseph J ©
2616 Vacant
2624 No Return
2625 Jackson Noel A © BL8-3866
2628 Vacant
2635 Vacant
2640 Barkley Paul C © GL9-3816
2645 Vacant
2652 Vacant
2657 Vacant
2664 Trease Ralph M © GL9-4051
2671 Vacant
2676 Prince Elka M Mrs © GL9-4042
2681 Pitman Richd M © GL9-3767
2702 Coad Michl J © GL9-3848
2712 Colwell Joseph F © GL9-4024
2717 Vacant
2722 Vacant
2732 Wright Jack F
2733 Vacant
2742 Balcke Ursulla R Mrs © GL9-3797
2743 Vacant
2753 Vacant
2762 O'Hanlon Thos W © GL9-3803
2763 Vacant
2772 Vacant
2775 Burks Robt C © GL9-3876
Burks N J Real Estate Brokers CO4-1921
2806 Vacant
2813 Ray Billy D © GL9-4015
2816 Thomas Chas O © GL9-4086
2823 Vacant
2826 Haunfelder Willard X © GL9-3802
2833 Vacant
2836 Deavours Oscar J © GL9-4014
2843 Sanford Blaine A © GL9-4064
2846 Smith Craig R ©
2856 Vacant
2866 Schmidt Richd H ©
2901 Leathers Virgil W © GL9-3877
2906 Vacant
2909 Hammond Stanley E © GL9-3844
2914 Vacant

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

INDIA ST 1961

243 SPRECKELS BLDG. EST. 1886 TEL. BELMONT 3-8177 "SERVES YOU"

INDIA—Contd

2420 Morper Ship Pictures photog BE2-0373
2422 Vacant
2424 Giacolene Gene Mrs
2424½ Torricelli Joe
2426 Olvio Benidito
2426½ Winternik Ben BE3-3682
2428 Rose Carmen Mrs
2428½ Leadiner Kath Mrs
2430 Gonya Paul BE4-4270
2430½ Ward Owen
2438 Renton Robt W
2440 Krevitz Robt N BE2-9078
2442 Richi Rucardo
2442½ Vacant
2444 Longini Salvatore BE9-4280
2446 Sardo Saml ® BE3-3976
2452 Koser Saml BE4-4236
2454 Vacant
2456 Vacant
2458 Marchesi Salvatore ® BE9-3433
2466 Garcia Bonny

Laurel intersects

2504 Fox Oscar
2508 Ghio Anna C Mrs BE3-5985
2518 Bluck Jas P
2520 West John
2528 Vacant
2530 Pokorny Elsie J Mrs BE9-5223
2532 Castagnola Celestina BE3-8371
2540 Vacant
2544 Canepa John BE9-1592
2548 Liuzzi Natale ® BE2-8280
2552 Ward Ernest C
2554 Vacant

Maple intersects

Nutmeg intersects

Olive intersects

2801 Ballowe Keiko Mrs
2805 Whidden Yoshiko Mrs CY5-3707
2815 Watson Richd E
2837 Brown Melvin J
2839 Salodos Ledesma
2849 Vacant
2867 Hubbs Douglas E ® CY8-6350
2869 King Chas C CY6-6446

9

Palm intersects

2902 Vacant
2903 Jacobson Selmer A CY5-2753
2905 Vacant
2905½ Zimmerman Robt R
2907 Bohannon Edw G CY8-3196
2909 Vacant
2915 Vacant
2920 Vacant
2921 Vacant
2923 Vacant
2927 Robbins Russell L ® CY8-2671
2932 Guerrero Benj CY5-1351
2932½ Vacant
2934 Vacant
2936 Vacant
2940 Leung Fong
2940½ Vacant
2942 Vacant
2944 Vacant
2945 Crow Godfrey
Sales Lila H Mrs CY7-1436
Stagg Clara Mrs CY5-8165
rear Hurtado Lila S Mrs CY7-1436
2952 Georgeon Rudy L CY8-6420
2966 Brumit Jewell ®
2966½ Brumit John CY5-7759
2971 West Coast York Co CY6-3131

Quince intersects

3009 Silva Mary Mrs © CY6-6840
3033 Hammond Machinery & Sup Co CY8-6155
3040 Vacant
3042a Vacant
3044 Vacant
3044a Corkern Ethel Mrs CY8-6787
3044½ Vacant
3046 Vacant
3048 Vacant
3053 Vacant
3054 Vacant
3056 Vacant
3058 Vacant
3060 Vacant
3064 Koch Dennis W jr CY5-1447
3066 Vacant
3068 Leaonardo Dan J CY8-1986
3070 Gillotte Michl S CY5-9850
3072 Martinez Joe
3074 Peterson Peter
3076 Aske Gary
3078 King John B
3080 Vacant
3082 Lemos Donald M
3084 Chiodo Fred
3086 Fechner Carl R P
3088 Vacant
3090 Vacant

Redwood intersects

3103 Compleet Interior Clns rug clng CY6-0152
3114 Vacant
3116 Mueba Gonzalo C CY6-1906
3124 Vacant
3129 Porter Henry R ®
3131 Porter's Gro
3140 No Return
3141 Carr Maurice E
3153 Pugh Hawthorne CY8-4301
3167 B Bar S Chuck Wagon & Diner restr CY8-7088

Spruce intersects

3211 Parsons G S Co welding equip CY8-8801
Parsons Med Gases Inc CY6-6339
R & D Tool & Sup Co industrial sups CY7-2978
3231 Bay City Elec Wks CY8-6193
3232 Coml Sls Co restr equip CY7-2956
3241 Vacant
3243 Vacant
3245 Vacant
3252 Bruce Vincent C CY6-1524
3254 Robinson Amon
3256 Valdillez Ralph
3258 Montalvo Leo
3260 Vacant
3265 Vacant

Sassafras intersects

3300 Airmena Hotel CY8-3578
3341 Billing Jas
3341½ Vacant
3343 Vacant
3343½ Vacant
3345 Scogna Gasper J CY5-5840
3347 Milligan David H
3353 Vacant
3355 Gardner Steph
3365 Aero Club tavern CY6-6471
3367 Vacant

Thor intersects

3468 **El Francisco Apartments** CY6-9424
(A) Berg Wm
(B) Leitner Elmer
(C) Garcia Earasmo
(D) Haney Alice Mrs
(E) Spencer Paul
(F) Siller Guillermo H
(G) Piez Robt
(H) Gutierrez Louis
1 Vacant
2 Boon Eug
3 Whitt Geo
4 Horn Geo

Upas intersects

3503 Welch Walter E CY5-1980
3505 Bell Lynn E CY5-7702
3507 Pound Paul F CY8-4582
3509 Stevens Mary Mrs CY6-2593
3511 Royal Typewriter Co CY6-6226
3512 Mason Christina G Mrs CY5-8883
3514 Vacant
3519 Brady Hazel R Mrs ® CY8-9790
3519½ Bozaian Berj
3521 Catledge Harvey M CY8-5574
3523 Vacant
3525 Nunn Ralph
3526 **Apartments**
1 Vacant
2 Billick Mary E CY5-9892
3 Hayden Lawrence J
4 Palmer Florence Mrs
5 Vacant
6 Vacant

Street continued

3527 Brandenburg Dudley CY6-2864
3529 Clifford Wm E ® CY6-4529
3533 No Return
3535 Guyanen John J
3536 Vacant
3537 Vacant
3537a Vacant
3537b Smith Ron
3537c Christianson B
3537d Livingston Geo
3538 Vacant
3540 Brown Joel E
3541 Serafin Richd W
3543 Groves John
3544 Vacant
3545 Cook Kenneth L CY5-5078
3546 Vacant
3547 Vacant
3547 1/4 Vacant
3547½ Byrd John R
3549 Stephenson Thos

Vine intersects

3555 Pharma-Med Co Inc CY8-7156

15

Walnut av intersects

3616 Green Albert F CY5-2607
3617 Automatic Transmission Serv auto repr CY8-8397
3623 Automatic Transmission Mach & Sup CY7-1601
3630 **Apartments**
(A) Gubben Wm A
(B) Vacant
(C) Vacant
(D) Vacant
3633 **Apartments**
4 Perry Allen
5 Vacant
6 Griffith Grace Mrs CY8-6319
7 Vacant
8 Vacant
9 Daves Chester A

Street continued

3634 Soto Joaquin L CY5-3366
3636 Vacant
3638 Vacant
3640 Werntz Lyle E CY8-9731
3642 Prentice Berry C
3645 Fum-O-Vac Co furn clns CY8-6151
SanDiego Exterminating Co CY8-6151
3652 **Normandy Apts**
1 Carter I S
2 Garcia Elias G
3 Pace Dan
4 Melendez Oscar
5 Kenny C A
6 Neaves Jos A
7 Backus W C
8 Cook W J
9 Barnett L L
10 Barger John E

Street continued

3657 Hal's Signal Serv gas sta
3660 Daugherty Billie J CY5-0551
3661 **India Auto Court** CY8-3855
Johns Elmer H CY8-3855
3662 May Harold CY5-8416
3664 Banes Maurice H CY5-2700
3666 Hendricks Lee CY5-0217
3667 El Pancho Cafe restr CY6-9515
rear Williams Harold G CY6-0611
3668 Willard Jas A
3670 Capron Arth B
3672 Hilton Leonard E
3674 Johnson J D
3675 Haley's Payless Liquors CY6-9771
3676a Endsley Jay
3676b Simmons J H
3676½ Schlundt F G
3678 Vacant
3680 Vacant
3682 Vacant
3683 York B W
3684 Christanson Martha Mrs
3685 Pesqueira Ralph R jr CY7-1758
3687 Lund Dale CY5-9397
3688 McLine Wm CY5-1261
3689 Vacant
3690 Barr Irma Mrs
3692 Vacant
3695 El Indio Shop mexican food CY6-9555
3697 Corkscrew The delicatessen CY5-5789
Pheby Cyril E CY5-5789
3698 Wittner Rudi F CY7-3005
3701 Knapp Harry T jr CY5-3958

Winder intersects

3702 Palomar Golf Park CY6-9334
Palomar Sandwich Shop restr
3711 Incontro Carlos A CY8-9018
3719 Williams E J CY5-5878
3731 Larsen Louise A ® CY8-5090
3735 O'Dell Ida F Mrs CY8-7381
3735½ Calloway Pearl Mrs
3737 Gondola Italian Restr CY8-5144
3739 Art of Beauty beauty shop CY8-5208
3741 Childress Norman T
3743 Davison Phillip
3745 Gallegos Ramiro jr CY8-8065
3745½ Lacey G H
3749 Jones Edw C CY8-1826
3751 Privee Donald D

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

KETTNER BLVD 1961

PACKING SHIPPING VAN & STORAGE CO. 2949 GARNET TEL. BROADWAY 3-2111

KETTNER BLVD—Contd
2064 Schilling Clayton F BE2-0562
2071 Sullins Beatrice E Mrs ®
BE3-8660

5

Hawthorn intersects
2100 Vacant
2101 Transmission King auto sups
BE3-6215
2119 DeFalco Food Giant Mkt BE2-1603
2136 Benton C H Inc paint mfrs
BE4-9105
2151 Pioneer Radiator Wks repr
CY6-6186
2175 Standard Brands Inc whol gro
BE3-8824

W Ivy intersects
2201 Loveday Athletic Sup Co stge
2210 Foam Rubber Sup Co BE3-0748
2215 US Battery Mfg Co BE4-4901
2217 Vacant
2227 Vacant
rear Vacant
2228 Helix Whol Bldg Sup BE9-9394
Caswell Sam
2229 Brlistren Jim BE3-3858
2241 Crivello Frank ® BE2-8077
2251 Massa Steve S BE4-5522
2253 Vacant
2266 Haulman Welding Wks BE9-0558

Juniper intersects
2308 SD Macaroni Mfg Co Inc BE9-8614
2311 Barber Colman Co temp control
system BE2-3043
2321 Zolezzi Josephine Mrs ® BE2-9069
2327 Trevisani Benadita Mrs BE2-5945
2345 Balisteri Antone BE9-5206
2347 Balistreri John G ® BE3-3054

Kalmia intersects
2400 Dryer's Furn Co BE3-6421
2401 Dryers Furn Co (contract ofc)
Walls & Assocs drapery mfrs
BE4-2951
2419 Castagnola John ® BE9-6821
2427 Busalacchi Phil BE3-3598
2429 Thrasher Marion Mrs
2431 Brown Curtis E
2433 Hawes Donna Mrs
2435 Vacant
2435½ Penland Mable I
2443 Sanfilippo Tony ® BE9-8494
2453 Seguro Walter
2455 Pena Raymond BE9-4728

Laurel intersects
2501 Club The tavern BE9-9929
2503 Alpha Stationers BE2-3590
2505 Lorillard P CO inc cigarettes
mfrs BE4-5651
2515 Oliveira John BE4-2052
2517 Crawford Harold
2519 Spitzer Gwen Mrs
2521 Vacant
2525 Vacant
2548 Hoover Co The vacuum clns
BE9-4183
2550 Superior Roofing BE9-0269
2555 Giacalone Frank ®
2557 Baker Gladys R Mrs BE2-8894

Maple intersects
2601 McNamara Ida Mrs
2603 Dryer Jerry R
2605 Vacant
2607 Gurnsey Floyd CY6-1167
2609 Buck Geo jr
2611 Birch Edw F
2641 Culligan Water Conditioning of
San Diego Inc CY7-3377
2655 Smith Joel D
2657 Vacant
2676 Capitol Elec Co stge
2680 Capitol Elec Co contrs CY5-3168

Nutmeg intersects
2730 Register Publishing Co CY8-6464
2750 Neyenesch Pntrs & Litho CY7-2281

Olive intersects
2804 Kettner Radiator Shop CY5-6917
2812 Vacant

9

Palm intersects
2903 Rouke & Sharp Litho CY8-2135
2916 Lowe Richd G
2917 E&M Stagecraft theatrical sups
CY8-3705
2918 Sullivan B G
2920 Vacant
2921 Fonten Chas ® CY5-9517
2931 Southwestern Wood Products ch furn
CY8-7857

2940 Vacant
2941 Stimitz Gene CY5-0454
2942 Aporaca Jose CY7-3052
2953 Osuna Jesus CY5-8592
2958 Leesman Guy J ® CY5-6637
2960 Hopkins Willie E
2962 Whitten Ruth L Mrs

Quince intersects
3001 Vacant
3002 Colombo Fidel ® CY6-2980
3003 Anson Wm O CY8-4499
3009 Vacant
3011 Vacant
3013 Mohrmann Robt A CY7-3172
3017 Vacant
3017½ Vacant
3019 Sypert Ora A
3020 Tommy's Furn Repr CY5-8451
3028 Bennett Joan B CY8-7645
3030 Scholder Jas G CY5-1736
3031 Key Transport funeral dir sups
CY7-3383
Allen Larry
3032 Hall Robt W CY8-9285
3033 Vacant
3034 Pemberton Wm D CY8-6276
3038 Morrissey Wm J CY7-3610
3040 Juarez Frank
3041 Aufort Wm
3042 Vacant
3043 Vermilya Jas W CY6-1624
3044 Martinas Raymond
3045 Miller Richd W
3046 Galvin Donna

Redwood intersects
3048 Vacant
3105 Robinson Leslie O
3109 McJimsey Argie F
3111 Lugo Ramon B
3113 Smith Jas H
3125 Melching Wagner F ®
CY5-8374
3136 Vacant
3140 Ace Land & Mtge Co CY5-5850
3142 Vacant
3143 Quality Garage auto repr
CY5-1605
3144 Vacant
3146 Vacant
3148 Vacant
3148½ Vacant
3153 Bash C John
3161 Balagana Walter
3163 No Return
3165 Vacant
3167 Vacant

Spruce intersects
3205 Vacant
3207 **Apartments**
1 Sherwood Chester L
2 Vacant
3 Vacant
4 Noyes Clorinda Mrs
5 Hatch Allen B CY8-7686

Street continued
3231 Vacant
3237 Snow Frank J CY8-5290
3239 Vacant
3241 Wilson Eug O
3243 Randall Frank H
3251 Gleasan A
3253 Killion Robt E
3255 Beam John A
3257 Sabell Melvin R

Sassafras intersects

Thorn intersects
3334 Plastik-Arts CY6-3415
3338 Priest Raiford CY8-9757
3340 Vacant
3342 Martinez Edw R
3344 Vacant
3346 Holland Jerry A
3348 Sandoval Manuel R
3370 Soares Uzeba Mrs ® CY5-1285
rear Piers Chas L
3370a Vacant

Thorn intersects
3420 Coggeshall Albert W plmb sups
CY5-2149
3433 Vacant
3441 Nelson Eug M ® CY8-2992
3444 Bustos Bill M
3452 Edmonds Robt R
3453 Vacant
3455 Vacant
3455½ Vacant
3456 No Return
3465 Weese Jas M
3467 Vacant

3469 Johnson Harry
3471 Winp Edgar A
3473 Vacant

Upas intersects
3501 Padilla Luis H
3503 Ellsworth Raoul W
3505 Vacant
3507 Horner Henry
3509 No Return
3511 Vacant
3513 Gwirola Pedro L
3515 Bob's Portable Steam Clng CY8-3713
CY5-4321
Jeff's Garage auto repr CY8-3819
3517 Scites Lou H CY7-3405
3519 No Return
3521 Stevens N H
3523 Vacant
3527 Vacant
3529 Vacant
3531 Martin Billy J
3533 Vacant
3535-41½ **Capello Apartments**
3535 Johnson Wana Mrs
3535½ Forbes Bryon E
3537 Robinson Wm O
3537½ McCoy Richd E
3539 Dunnam Terry
3539½ Carini Francesco CY5-2606
3541 Meeker Claudy E
3541½ York Troy V

15

Vine intersects
3553 Butler Paper Co CY6-6556
Plastering & Lathing Institute of
SD County CY8-1556
Tolle Co The adv agcy CY8-7101
3555 Arts & Crafts Press prntg
CY8-7111
3575 Fire Dept Sta CY6-0579

Walnut av intersects
3603 Vacant
3605 Vacant
3607 No Return
3609 Vacant
3611 Mary & Fred's Cafe restr CY6-9570
3611a Vacant
3611b Vacant
3619 Vacant
3631 Vacant
3637 McMorrow Carrie Mrs ® CY5-3455

Chalmers intersects
3655 SD Tastee Freeze ice cream dlrs
CY5-2695
3657 Servmaster of SD Inc carpet clns
CY7-3209
3659 Bay City Sls womens clo
3663 Quality Lubrication Serv CY5-1605
Chase Robt C
Link Robt M
rear Collins Mary H Mrs ® CY5-4943
3663½ Vacant
3365 Evasick Pump & Injector Serv fuel
CY6-4578
rear Phillips Margt Mrs
3667½ Godfrey Kenneth W
3669 Vacant
3675 Vacant
3677 Stewart Nina Mrs CY8-6081
3679 Vacant
3681 Vacant
3684 DoAll SD Co tools CY5-2145
3694 Cleaves Co industrial sups
CY8-7223
Portage Hdw Products hinge mfrs
CY5-5477
3695 Vacant

Winder intersects
3702 Vacant
3702½ Vacant
3704 Lamb Bernard D acct CY5-3175
3706 Vacant
3708 Vacant
3710 Vacant
3726 Navarro Katie CY5-6407
3728 Koefoed Peter L CY5-8796
3730 Vacant
3732 Vacant
3734 Walker Ray Sht Mtl Shop CY6-0883
3744 Vacant
3747 Palomar Lndry & Dry Clns
CY5-5181

17

Andrews intersects
3765 Vacant
3767 Duff Robt R CY5-5326
3776 Hanson Wm G CY5-6244
3776½ Schroeder Elsie A

Belmont 2-2141

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

PACIFIC HWY 1961

OZARK S—Contd
130 Vacant
132 Bennett John CO2-1940
134 Brown Clifford CO2-9639
136 Boyd Nita Mrs
138 Downs Virginia L Mrs CO4-6895
140 Hines Wm CO2-8904
142 Bostwick Earl G CO2-5293
144 Garcia Danl
146 Fincham Ann L Mrs CO2-8163
Holly dr begins
202 Baehr Allen D ® CO2-2177
204 Smith Wm G CO2-6789
206 Vacant
208 Vacant
210 Marugg Martin jr CO2-8070
214 Maienknecht Stanley B CO2-6733
216 Vacant
218 Painter Forrest A Mrs CO2-2841
220 Vacant
224 Singer Alan K ®
231 Castro Frank CO4-2469
231½ Ludovici Jos ® CO4-6316
235 Richards Lloyd D CO4-2609
237 Castro Frank M CO4-5044
238 Stonebreaker Geo M CO4-5732
240 Thatcher Otis J ® CO4-8663
243 Tabler Gladys R Mrs ® CO4-2855
251 Ojeda Wm S CO4-8847
251½ Soto Eulalio F ® CO4-3056
302 Vacant
304 Vacant
305 Smutny Bertha M ® CO4-7034
306 Wilson Stanley F CO2-7785
309 Smutny Louis ® CO4-2443
312 Doyle Mark A ®
314 Stines Arth A CO4-3723
316 Hawkins Ella Mrs CO4-1268
317 Vacant
327 Marshall Albert ® CO4-1653
344 Marks John R CO4-5382
405 White Francis S ® CO4-4790
411 Rankin Hope V Mrs
424 Padilla Lucrecia Mrs CO4-4968
429 Maciejewski Frank C ® CO4-6865
436 Goss Geo A ®
Ocean View blvd intersects
1150 Johnson Donald ®
1151 Cahoon Dean E ® CO4-7591
1224 Morris Bennie L ® CO4-6847
1225 Gaither Harold ® CO2-8028

1B-4

PACIFIC HIGHWAY—From 900 W Market north, 2 west of Kettner blvd
ft Harbor House restr BE3-6116
SD-Coronado Ferry Landing BE9-8161
525 Municipal Court Dept 5 Criminal Div BE9-7711
West G intersects
West F intersects
West E intersects
Broadway intersects
cor All Day Parking Inc auto parking
600 Elmer's Serv gas sta BE4-9600
1055 Republic Carloading & Distr Co Inc BE4-3453
S D Transport & Whse Co BE4-3453
1175 Judson Frt Forwarders BE2-5178
Napier Robt C Trucking ® BE4-2274
National Carloading Corp BE2-5178
1220 US Southwest Div of Yards & Docks BE2-3871
West A intersects
1305 Harbor Travelodge motel BE3-0398
Steorts Larry E
1375 County Dept of Public Welfare BE9-7561
Ash intersects
1405 Standard Stas Inc gas sta BE2-9392
1495 Cox Robt Flying A Serv gas sta BE9-4342
Beech intersects
1505 Civic Center Travelodge motel ® BE9-5188
1533 Calabrese's Civic Center Cafe restr
1569 Quiggle Dick Repr & Serv gas sta BE4-5040
Texaco Products Distr BE4-7626
Cedar intersects

1B-4A

1600 City & County Administration Building (Civic Center)
Primary Health Center BE9-7711
Dept of Pub Health BE9-7711
Dept of Pub Health Div of Sanitation BE9-7711
Dept of Pub Health Business Management Ofc BE9-7711
Dept of Pub Health Civil Serv Phys Exam BE9-7711
lobby James Mabel F Mrs notary pub
Civic Center News Stand
City Information Center
Rooms:
1 County Auditor Post Audits Div BE9-7561
3 County Dept of Pub Welfare Central Duplicating BE9-7711
21 County Bldg Insp
44 County Planning Dept BE9-7711
48 County Auditor (Tax Acctg Div) BE9-7561
52 County Central Records Serv BE9-7711
54 City Hall Coffee Shop restr BE9-4800
60 City Ofc Servs BE9-7511
62 City Utilities Dept Commercial Div BE9-7511
70 City Print Shop BE9-7511
74 City Parking Meter Section BE9-7511
77 County Aud (Budget & Claims Div) BE9-7711
90 City Retirement Ofc BE9-7511
98 County Aud (Data Processing Div) BE9-7711
102 County Treas BE9-7711
103 County Assessor BE4-8813
110 County Tax Collr BE4-8813
152 Tax Collector (Delinquent Div) BE9-7711
153 City Utilities Dept BE9-7511
157 City Property Div BE9-7511
160 City Aud & Comptroller BE9-7511
161 City Purch Agt BE9-7511
162 City Treasurer BE9-7511
163 City Planning Dept BE9-7511
166 County Aud BE9-7711
201 City County Camp Comn BE9-7711
202 County Safety Ofcr BE9-7711
204 County Parks & Recreation Dept BE9-7561
206 County Recorder BE9-7561
209 Vacant
214 County Admn Ofc Civic Center BE9-7711
252 City Administrative Management BE9-7511
260 City Utilities Dept Dir BE9-7511
City Ofc of Operations BE9-7511
266 City Street Supt BE9-7511
268 City Eng BE9-7511
270 City Prosecutor BE9-7511
271 City Atty BE9-7511
273 City Industrial Development Comn BE9-7511
City Urban Renewal BE9-7511
298 City Manager BE9-7511
302 Dist Atty County Counsel BE9-7711
306 Bd of Supvrs Clk BE9-7711
335 County Bd of Supvrs BE9-7711
352 City Councilmen BE9-7511
356 City Clerk BE9-7511
384 City Pub Library (Governmental Reference Br) BE9-7511
403 County Civil Serv Comn BE9-7711
406 County Civil Serv Comn (Personnel Div) BE9-7711
407 County Civ Serv Comn Training Dir BE9-7711
453 City Civil Service Comn BE9-7511
459 City Tel Exch BE9-7511
502 County Dept of Bldgs & Grounds BE9-7511
600 Grand Jury Chambers BE9-7561
704 County Planning Dept Current Plan Div BE9-7711
802 City Mayor BE9-7511
Street continued

1B-4

1601 Shaw Bros Shell Serv gas sta ® BE9-5254
1655 Imperial 400 Motel BE2-6391
1745 Cal-Diesel Serv Co ® repr BE2-0602
1747 Frt Outlet Whse whol sls BE2-7571
Date intersects
1825 Oscar's Drive-In Restaurant BE9-4631
1943 Bayview Travelodge motel BE2-7551
Meyer Ernest BE2-7551
Grape intersects
2008 Shaw Bros Shell Serv gas sta BE3-8720
2027 Eddie's Union Serv gas sta BE3-1416
2045 Keller's Serv Yourself Stations gas sta BE9-2524
Keller's Car Wash BE9-2524
Hawthorne intersects
2137 Miyako Sukiyaki Cafe restr BE9-8745
Top's Motel BE9-7274
Top's Restr BE9-8745
Ivy intersects
2200 Solar Aircraft Co BE3-8241
Solar All Faith Chapel
2233 Union Furn Store BE2-6531
2263 Ihrig Richfield Serv gas sta BE9-3222
Juniper intersects
2305 Klinefelter Seaside Serv gas sta BE9-6839
Seaside Distr Co of SD gas whol BE9-6839
2353 Airport Travelodge motel BE2-8931
2401 Accurate Letter Serv BE3-1158
Cummings Corp of Chicago bus machs BE3-1159
Diebold Inc ofc equip BE9-5093
2405 Ambrose Co The fishing BE2-1324
2407 Southwest Admn Inc Teamsters Security Fund ins BE3-0171
2431 One-O-One Chuck Wagon restr BE9-5051
W Laurel intersects

1B-6

2521 Garrett's Union Serv BE4-5771
2535 Anthony's Fish Grotto restr BE2-5103
2665 Lewis Super Serv CY6-4112
2775 Hertz Corp The (parking lot)
Nutmeg intersects
2830 Standard Stas Inc CY6-9313
2905 Newton's gas sta CY6-1953
2980 Linbergh Field BE3-0181
American Airlines Inc BE2-7673
Avis Rent-A-Car Sys BE5-3111
Bonanza Air Lines Inc CY6-6144
Cal Rent Car CY7-1828
Delta Air Lines CY7-3735
Exec Air Serv pilot training sch CY6-3966
Hertz Corp The car renting CY7-442A
Muni Airport Lindberg Field BE3-0181
Mercury Internatl Travlsurance ins CY8-9724
Mercury Internatl Underwriters ins CY7-1828
Pac Southwest Airlines CY8-4611
Sky Chefs Inc restr CY6-6241
Swift Air Serv CY8-1444
United Air Lines BE4-7171
US Fed Aviation Agcy Airport Traffic Control Tower CY7-8410
US Fed Aviation Agcy Air Traffic Flight Serv Sta CY6-3181
US Weather Bur CY6-3191
Western Air Lines Inc CY8-8861
Western Union Telegraph Co CY6-2633
3125 Prophet Co The restr CY5-8974
3165 Vacant
3302 Genl Dynamics-Convair fcty & plant
3395 Convair Recreation Assn Club House CY6-6611
3605 Jet Chem Co Mfg CY8-9104
Bean begins
Washington intersects
Clayton intersects
Sutherland intersects
3877 South Seas Cafe CY5-1606
3879-85 Volt Technical Corp wk shop
3895 Pac Highway Vet Hosp CY5-4231
3911 Machinists Building
International Assn of Mach Union Silvergate Dist Lodge No 50 CY8-9301
Silvergate News Publishing CY8-9301
Rooms:
102 Volt Technical Corp publication CY7-2811
104 CKF-M genl contrs CY7-1681
Contracting & Matl Co genl contrs CY7-1681
Foster-Marsch Corp genl contrs CY7-1681
Kenny Constn Co of Illinois genl contr CY7-1681
203 Radio Sta KDEO CY8-8371
210-11 IAM Federal Credit Union CY8-2919
Noell intersects
3923 Little R W Co sandblasting contrs CY8-3754
3927 Zona's Doughnut Shop restr CY6-5405
Estudillo begins
3955-57 Whittiker's furn CY7-3251
3967 Whittiker's Used Furn CY6-4173
Wright intersects
4005 Al's Auto Eat CY6-4851
Randini intersects
4025 Wright Refrigeration Inc CY6-6336
4031 Artistic Drapery Mfg Co CY7-4288
4035 Mann C G Co Inc alum sls CY7-3541
4081 Acoustic Engs Inc contr CY7-1867
Chemisphere Inc chem mfr CY5-6131
Clairemont Tile Co Inc contr CY7-1867
United Tile & Terrazzo Inc contr CY7-1867
Western Tile Co Inc contr CY7-1867
4085 Martinez Salvador shoe repr
Pac Services clns CY8-6060
4089 Pac Services Barber Shop CY7-2106
4091 Pac Services Coffee Shop restr CY6-6300
Couts intersects
4101 Pac Rest Motel CY8-8364
4141 KGB Inc radio sta CY7-2201
Witherby intersects
4297 Convair (Div Genl Dynamics) plant No 2 CY8-3971
Prophet Co The restr CY5-8974
4306 Stephenson's Chevron gas sta CY6-9516
4350 Acme Pipe Co CY6-2143
4360 Duston Mkt Equip CY7-3771

UPAS/COLUMBIA 1961

RACING CASH POOL

UPAS—Contd

2328 McIntosh John A ® CY5-9445
Texas intersects
2420 Reyburn Lewis F ® CY5-5307
2426 Sawyer Nelson S ® CY8-2694
2436 Evans Walter B ® CY6-9987
Arizona intersects
2516 Hallquist Carl S ® CY5-1969
2518 Caperton Virginia V Mrs ® CY6-4258
2530 Stoklosa Richd G ® CY8-1339
2566 Kellar Jas W ® CY8-0325
Arnold intersects
Villa Terrace intersects
2602 Brown Neva C Mrs ® CY6-0504
2612 Davis Vernon E ® CY5-2844
2616 Vacant
2618 DeKnikker Bert CY6-2979
2620 Grant Robt ® CY6-3307
2628 Aycock Jesse M ® CY8-0240
Pershing av intersects
2704 Bennett Gertrude M Mrs ® CY8-3346
2718 Matson Eileen B Mrs ® CY5-1219
2728 Belden Chas L ® CY6-2275
2738 May Della M Mrs CY8-6369
98
28th intersects
Utah intersects
Granada intersects
2812 Barnaby Frank W CY8-3447
2828 Bingham Larry R CY5-8303
2828½ Vacant
2830 Kansas City Life Ins Co CY5-9824
Rice Herbert W CY5-9824
2832 Sullivan John F ® CY5-7987
2853 Vacant
2873 Benham Jas W CY5-2979
2875 Phillips Bessie M Mrs ® CY5-6293
29th intersects
2905 Davies Jas H ® CY5-8790
2911 Cresswell Clementine Mrs ® CY8-5219
2917 Pendleton Nellie M Mrs ® CY5-2989
2922 Sandy's Cancellation Shoe Store (whse) CY7-5889
2923 Specialized Radio & TV Serv repr CY5-0260
2925 Clarence's Barber Shop CY8-5782
Boisen Clarence B ®
Dale intersects
2959 Vacant
2965 Curb Lndry ® CY8-4061
2969 Upas Food Mkt gro CY5-7656
2975 Waikaiki Tavern CY6-9312
2977 Upas Hdw CY6-0352
2979 Vacant
30th intersects
3025 Bridges Janet L Mrs ® AT1-7054
3026 Neal Bill Photographer CY7-3296
Neal Bill
3028 Four Corners Tavern CY6-9104
Ray intersects
3035 Lisenbery Robt M AT3-4871
3036 Watson Texaco Serv gas sta AT4-6580
3040 Skelley Tom Serv Sta auto repr AT1-1901
Grim av intersects
3065 Taylor Pauline B Mrs ® AT1-2060
3074 Lawrence Axel R ® AT1-3760
3075 Vacant
31st intersects
3108 Vacant
3114 Morgan Tom
3115 Stepanovich Andrew R AT2-6056
3127 Faust Amelia E Mrs ® AT4-7091
3128 DePauw Paul C
3130 Vacant
Herman av intersects
3162 Vacant
3162½ Vacant
3174 Wilson Malcolm A ® AT2-6877
3177 Weidmann Paul AT2-7079
118
32d intersects
3215 McLoughlin Charlotte Mrs ® AT1-7655
3218 Bentling Peter C AT3-4012
3224 Barry Robt L ® AT4-5058
3231 Castro Esther F Mrs
Bancroft intersects
3254 Reed Robt N AT2-8012
3271 Philip Fraser D AT4-2747
3274 Vacant
33d intersects
3305 Hom H ® AT1-6127
3316 Jefferds Margt T Mrs ® AT2-0602
3317 Nash Alice S ® AT4-7213
3322 Funchess Mary S Mrs ® AT1-1623
3324 Pond Robt F ® AT4-2508
3325 Cunningham Barrett L ® AT1-4447
3344 Tschirgi F Horace ® AT4-2389
Felton intersects
3364 Ayala Cruz L ® AT1-2159
3376 Preibisius Louis J ® AT4-0285
3380 Alford Edw J ®
3386 Andrade Crispin E ® AT2-2000
7

UPAS WEST—From 3400 1st av west
102 Conklin Laura T Mrs CY5-9644
104 Thomas Arth H CY8-8689
106 Lawson Robt
107 Grijalva Helen M
108 Gehring Norman J CY6-3756
109 Jinnett Jerry
120 Belville Frank R CY8-2831
122 Meklensek Henry R CY5-9119
124 McKewen Carole CY5-4816
126 Freeman Carl CY5-2548
142 MacNish Miles H CY8-2687
144 Hennessy Donna M CY7-2384
146 Vacant
148 Cook Clarence E CY6-0301
Front intersects
Albatross intersects
335 Reemelin Louis F ® CY5-1254
336 Fingerman Ernest V ® CY8-7992
410 Wimmer John D ® CY6-4827
11
Reynard way intersects
702 Gould Leslie H ®
705 Johnson Roseleaf Mrs ® CY8-5820
716 Chiodo Jos ® CY5-0447
719 Shultz Hal CY5-0273
724 Vacant
726 Long Virginia A BE2-6951
728 Nay Don L CY5-3520
729 Field Hollis C ® CY8-2835
730 Vacant
732 O'Dell Thos E CY5-0190
741 VanKeuren Amelia S Mrs ® CY5-4230
753 Kopelman Herbert ® CY5-9610
807 Busalacchi Thos J ® CY6-1445
810 Delaval Judy M Mrs ® CY6-1489
817 Engelhorn Bruce K ® CY5-8222
820 Kinnie Lawrence O ® CY5-2592
832 Farrow Wm ® CY5-1072
845 Razzeto Chas ® CY8-5626
850 Foreman Marshall L jr CY5-7380
Goldfinch intersects
Hawk intersects
1040 Brown Ruth E Mrs ® CY8-8569
Falcon intersects
15
Kite intersects
1307 Rundle Gerald G ® CY8-3327
1315 Griffin Fredk G ® CY5-1317
9
Union intersects
1506 Rose Fred
1508 Vacant
1510 Irving Michl CY8-5235
1512 Vogel Roy E CY6-4472
Columbia intersects
India intersects
70

UPLAND—From 1600 60th east
6038 Vacant
6060 Wimberly Clarence P ® CO4-6332
119

UPSHUR—From 1050 Shafter west, 2 east of Rosecrans
2828 Imperial Hse Apts. AC4-1606
101 Vacant
102-03 Psario Robt S AC2-4616
104 Post Donald M AC4-1845
105 Jones Burton
106 Vacant
107 Elder Jas C AC3-0886
108 Flynn Helen W Mrs AC3-0886
109 Vacant
110 Vacant
111 Vacant
112 Rochester Mary Mrs
113 Sanders Robt
114 Vacant
115 Vacant
116 Livingston Ruth Mrs
117 Vacant
118 Vacant
119 Vacant
120 Childs Agnes E AC4-3092
121 Cohn Donald L AC2-3638
122 Smith Walter M
123 Vacant
124 Vacant
125 Vacant
126 Simard Jos
201-04 Vacant
205 Kopel Al
206 Vacant
207 Johnson Jessica Mrs AC2-8176
209-10 Wornham Thos
211 Vacant
215 Tillisch Ingelborg
216 Miller Philip E
218 Brownstein Aleck H AC4-1635
219-22 Vacant
223 Smith David McK AC2-8778
224 Kendrick Evelyn
225 Kunzelman Chas
226 Marchand Nancy L
penthse Dayton Andrew AC3-7562
2901 Vacant
2901½ Prado Louise M AC4-2695
2903 Moore Chas
2903½ No Return
2905 Morrison Chas C AC2-3749
2911 Kirksley Eual AC3-7022
2918 Choy Dai Mon AC3-8666
2919 Devlin Frances M Mrs
2920 Owensby Wm T AC4-1935
2921 Luz Jos AC4-1324
2922 Barron Laura J Mrs
2924 Vacant
2924½ Roberts Richd A
2926 Vacant
2926½ Vacant
2927 Teixeira Mary R Mrs ® AC2-4159
2928 Jessie Donna M AC4-2527
2932 Ponds Thos A jr AC2-7562
2933 Point Loma Fix-It mtce serv AC2-2088
2934 Kipp Helen P Mrs AC2-5622
2936 Mendes John
2938 Gal Alex
2940 Andrade Manuel ®
Rosecrans intersects
3000 Tearle & Emerson naval archts AC2-4022
3014 Faran Fred R AC2-6954
3016 Vacant
3018 Chamberlin Maude M Mrs AC2-4235
3020 Vacant
3022 Sneddon John A AC2-7663
3024 Hall Jas
3026 Vacant
Armada ter intersects
27

UPSHUR DRIVE—From 3224 Barnett av northwest
2602 Williams Geo
2604 Trotter Robt L AC4-1888
2606 Vacant
2608 Walker Glennon D AC3-0045
2612 Moore Leonard
2614 Ferris Andrew C AC3-8542
2616 Vacant
2618 Vacant
2622 Vacant
2624 Simmons Allan F AC2-5493
2628 Lane Louis E
Blakely dr intersects
2701 Vacant
2702 Pierce Wayne A
2704 Streeter Elmer L
2705 Smith Geo A
2706 Under Constn
2707 Vacant
2708 Guzman Edw P
2711 Blunt Lloyd R
2712 Holt Jas C AC2-2126
2714 Nigma Lloyd W AC3-6154
2716 Under Constn
2717 Aliz Francisco G AC4-2388
2718 Barrett Benj S AC3-8373
2719 Oberg Dale B AC2-2890
2721 Michelson Danl L
2722 Vacant
2724 Secory Albert W
2725 Dean Robt J AC2-5569
2726 Vacant
2727 Tolan Geo
2728 Vacant
2731 Julun Elton W
2732 Covington Leslie L AC2-4886
2734 Garcia Santiago AC2-0648
2735 Jefferson Billie jr AC2-7543
2737 Vacant
2738 Wright Theo M AC4-1874
2741 Anderson Bernard P AC4-2343
2742 Smith Donald E AC2-1473

1220 THOUSAND OAKS BLVD., LANSING

VINE ST 1961

VILLA TER—Contd
3682-88½ Wickiceys The apts
3683 Tibbetts Harold L ⊙ CY6-6707
3684 Vacant
3686 Vacant
3688 Vacant
3688½ Brisby Eug J ⊙
3693 Bailey Lela E ⊙ CY5-8967
3694 Ward Beatrice Mrs CY5-6628
Landis intersects
3704 Lansaw Virgil C ⊙ CY5-0943
3710 Stock Wm J ⊙ CY5-5362
3714 Vacant
3715 Welin Valborg M Mrs ⊙ CY6-6792
3719 Perez Nino Y CY5-4380
3720 Malonson Chas E ⊙ CY5-8227
3725 Moody Glenn A ⊙ CY8-4710
3730 Van Dort Tom ⊙ CY5-8526
3731 Kafer Marie M Mrs CY8-4588
3731½ Mott Chas A Rev CY5-8348
3733 Baker Wm S
3733½ Kenney Michl N CY8-9261
3734 Godwin-Austin Jack D CY5-9581
3735 Baldwin Jacob G jr CY5-7136
3735½ Yoshia Matsuka
3736 Vacant
3736½ Hewitt Thos M
3737 Vacant
3737½ Donovan Frank L
3738 Stahlfeld Anna P Mrs ⊙ CY6-0287
3738½ Vacant
3745 Brigham Jack H ⊙ CY5-4774
3745½ Treese Wm L
3746 Rush Edw T ⊙ CY8-5083
3748 Regozzi Ralph
3750 Berger Diana K CY6-0557
3751 Newton Earl R ⊙ CY8-5521
3752 Lucke Louis E ⊙ CY5-7007
3761 Murphy Edw J CY8-2259
3762 Puterbaugh Geo R ⊙ CY5-7108
3762½ Squillace Dante
3764 Vacant
3766 Rie Walter S
3767 Gault Walter W ⊙
3768 Vacant
3770 Danforth Edgar E
3772 Vacant
3775 MacDonald Raymond E CY8-2897
3776 Jordan Henry E ⊙
3777 Bethel Victor E CY8-3133
3783 Freeberg Louise B Mrs ⊙ CY8-5378
3784 Switzer Carrie L Mrs ⊙ CY5-4781
3785 Fitzgerald Edwin L CY6-2705
3788 Brown John F CY5-0455
3794 Perkins Roy E ⊙ CY6-1874
Wightman intersects
3803 Dyer Lucille V Mrs CY5-9435
3806 McDermott Thos J ⊙ CY6-4679
3808 Hopton Bessie Mrs CY5-6941
3809 Perkins Billy G
3810 Donnelly Dorothy CY5-2591
3810½ Weber Ethel Mrs CY8-9625
3811 Hennigan Stanley
3812 Vacant
3813 Young James R
3814 Smith Palmer C ⊙ CY5-7304
3815 Corning David S CY6-0365
3817 Harris Florence M Mrs
3819 Edwards Dorothy G Mrs CY5-8363
3820 Byrne Lenore C Mrs CY5-9468
3822 Howe Helen M CY5-5713
3829 Metcalf Mary Mrs CY8-8534
3830 Hamlin John W CY6-3442
3830½ Smith Grace Mrs ⊙ CY6-2329
University av intersects

92
VILLAGE PLACE—From Zoo dr east, 1 north of ElPrado

93
VINCENTE WAY (LaJolla)—From LaJolla blvd east, 2 south of Palomar
404 Bradley Berta Y Mrs ⊙ GL4-6425
405 Rudnick Philip ⊙ GL4-7459
411 Booth Fredk A ⊙ GL4-4547
412 Buehlman Wm L ⊙ GL4-1215
419 McGowan Lewis A jr ⊙ GL4-7027
420 Brown Everette R ⊙ GL9-5638
427 Floyd Chas E ⊙ GL4-2982
428 Lanphier Thos G ⊙ GL4-0049
436 Vacant
Dowling dr intersects
531 Mason Mary F Mrs ⊙ GL4-6913

9
VINE—From 3550 Union west
1405 Cline Douglas CY5-2242
1405½ Moore Mae K Mrs CY5-9563
1412 Balistreri Steve ⊙ CY8-5103
1417 Vinyard Fred A ⊙ CY6-1134
1420 Hermes Wm H ⊙ CY5-1394
1421 Jenkins John W ⊙ CY6-4756
1430 Day Robt P ⊙ CY5-4884
1438 Millis John C CY8-3056
1440 Johnson Huntley F CY6-4771
1442 Lowe Billy E CY5-5030
1449 Wells Charlotte R Mrs ⊙ CY5-6561
State intersects
1501 Alexander John ⊙ EX5-9545
1511 Young Vera E Mrs
1515 Muehleisen Vesta C Mrs ⊙ CY5-4325
1516 SaVille Loeta M Mrs ⊙ CY6-3090
1524 Texeira Larry ⊙
Columbia intersects
1621 No Return
1623 Martin Carl G
1629 Morton James K
India intersects

26
VINE COURT—From ½ block west of 750 S 29th east

240
VINLEY PLACE—From 6200 Del Cerro blvd north
5725 Vacant
5738 Shilson Jas S ⊙ JU3-1787
5739 Sanders Robt W ⊙ JU2-9518
5750 Miller Robt W ⊙ JU3-2216
5755 Overway Eug ⊙ JU2-4559
5762 Liebel Donald A ⊙ JU3-3267
5767 Phillips Leroy M ⊙ JU2-9473
5774 Anderson Bruce W ⊙ JU3-3359
5783 Sharp Clarence F ⊙ JU3-1328
Lambda intersects

127
VIOLA—From 2200 Morena blvd east
1204 Vacant
1206 Morrow Edw
1208 Vacant
1212 Quick Cora Mrs BR6-3587
1214 Medina Ernest BR6-0939
1216 Shepherd Cora A Mrs BR6-3783
Gertrude intersects
1308 Twombly Robt N ⊙ BR6-1956
1315 Gallo Helena F Mrs ⊙ BR6-1690
1320 Kildare Barney W ⊙ BR6-0478
1325 Hafner Wm W ⊙ BR6-2537
1344 Hukari Harvey H ⊙ BR6-1186
1345 Alberico Anthony F ⊙ BR6-1614

202
VIOLET—From 1 block south of Sycamore dr north
2502 Peabody Edwin E ⊙ AT4-2940
2504 Blakesley Marjorie R
2507 Dugal Eva N Mrs ⊙ AT4-0594
2510 Hochwender Eleanor K Mrs ⊙ AT2-8266
2511 Stevens H AT3-4581
rear Dugal Arth M ⊙ AT3-3087
2518 Evans T Byron ⊙ AT1-9665
2519 Witek Fredk J ⊙ AT2-6477
2524 Lorentson Alex ⊙ AT4-0766
2525 Sullivan John ⊙ AT1-2065
2530 George Ruth G Mrs ⊙ AT1-8355
2535 Johnson Robt L AT1-8718
2536 Oliver Weldon C ⊙ AT1-0237
2537 Schwartz Harry A ⊙ AT2-2868
2540 Wilkerson Roy C ⊙ AT2-9300
Sycamore dr intersects
2544 Arevalo Fred ⊙ AT1-8639
2547 Pernicano Geo J ⊙
2548 Liberatore Molly L Mrs ⊙ AT1-2377
2560 Choate Jeanette C Mrs ⊙ AT4-4597
2564 King John M ⊙ AT1-7006
2568 Jacobs Marvin P ⊙ AT1-4695
2571 Adams Geo J
2572 Wall Thos C ⊙ AT2-8853
2576 Brainard Percy C ⊙ AT2-6496
2581 Spears Jack O AT3-4067
2583 Shasteen Thos O ⊙ AT1-4846
Pepper dr intersects

84
2608 Stromberg Genevieve C Mrs ⊙ AT4-5335
2614 VanBuren Harry C ⊙ AT4-8606
2622 Gonzales Pam Mrs AT3-5215
2623 Wright Jas H ⊙ AT4-0427
2624 Juhls Aug H ⊙ AT1-1095
2625 Vacant
2529 DeKrey Chas R AT1-6888
2631 Picketi Walter H ⊙ AT1-3085
2632 King Jas E ⊙ AT1-4895
2634 Fleetwood Le Trice
2635 Crabtree Raymond
2637 Krugle Chas AT4-2816
2639 Vacant
2640 Ineson Alan G AT3-4564
2643 Carpenter Ernest W ⊙ AT1-6014
2646 Hilchey Wm A AT3-3486
2648 Crawford John O III AT2-0928
2649 Mitchell Donald G AT1-3962
Poppy al ends
Manzanita dr intersects
2651 McClellan Gerald F AT2-5527
2652 Pohl Richd A AT4-2534
2656 Rogallo Harold M AT3-3558
2661 Mitchell Guy W ⊙ bldg contr AT1-1386

148
VIRGINIA AVENUE—From Stanley av south, 1 east of Seminole dr
4567 May Jack W ⊙ JU3-1719
Acron intersects
4568 Stanberry Thos G ⊙ JU2-0508
4575 Savel Jos S ⊙ JU2-2600
4576 Seidel Geo A ⊙ JU3-3939
4583 Dowell Kenneth jr ⊙ JU2-4053
4584 Ibe John G jr ⊙ JU2-4602
4591 Skelton Byron M ⊙ JU3-7419
4592 Magee John W ⊙ JU2-3711
4611 Tripp Chas E ⊙ JU2-7705
4612 Holmes Fred E ⊙ JU2-4014
4617 Schrempf Fred A ⊙ JU2-8422
4618 Orr Edw R ⊙ JU2-9413
4623 Loman Esther H Mrs JU3-7153
4624 Stemen Edgar M JU2-8453
4629 Rinder Wm F C ⊙ JU2-1932
4630 Peale Wm R ⊙ JU3-3692
4635 Schaner Alex T ⊙ JU2-7035
4641 Butler Frank O ⊙ JU2-7541

264
VIRGINIA AVENUE (San Ysidro)—From San Ysidro blvd south, 1 west of Chicago av
24 Dunkak Aug ⊙ GA8-1663
28 Mahan Delmar ⊙ GA8-1852
29 Holbrook Norvil F ⊙ GA8-1517
121 Vacant
123 Vacant
125 Benson Frank L
127 Kinninger Cletus
129 Shell Maxwell GA8-1532
130 Dailey Saml M
131 Vacant
132 Pettington Margt J Mrs
133 Mendoza Bertha Mrs
147 Martinez Dolores Mrs GA8-1884
212 Clarke Thos GA8-1478
280 Tollefson Arne C ⊙ GA8-1324
282 Thoromix Feed Store GA8-1407
Zager Wallace F
291 Vacant
295 Haskell J C jr GA8-1820
299 Gutierrez Fidel J GA8-1735
325 Vellasquez Juanita Mrs
327 Carillo Ignacio
329 Vacant
331 Burruel Arth
333 Padilla Raquel Mrs GA8-1894
335 Villegas Geo
337 Billa Manuel
339 Perez Antonio

153
VIRGINIA WAY (LaJolla)—From 7600 Girard av east and northeast, 1 south of Torrey Pines rd
Herschel av intersects
Torrey Pines rd intersects
1027 Bay Shore Mtr autos GL4-0456
1105 Baker Geo A GL4-4658
1120 Embery Harry A ⊙ GL4-3075
1121 Brahtz Charlotte P Mrs ⊙ GL9-5718
1127 Heimstra Richd G ⊙ GL4-5611
1138 Flora Eliza U Mrs ⊙ GL4-1661
1142 Baraca Zita Mrs ⊙ GL4-7623
1155 Penry Willard W ⊙ GL4-4955
1156 Thompson Bob
1168 Storm Margt S Mrs GL9-5781
1178 Everett Horace D ⊙ GL4-4137
High av intersects
1201 Thomas Jack E ⊙ GL4-6995
1208 Staley Allen C ⊙ GL4-2056
1211 Irvine Willard W ⊙ GL4-7542
1214 Davidson Muriel A Mrs ⊙ GL9-5877
1221 Crooker Harold M ⊙ GL4-3571
1224 Nicol Duncan D ⊙ GL9-5073
1231 Watson E Morgan ⊙ GL4-7891
1235 Skidmore James G ⊙ GL4-0848
1236 Williamson Arth H ⊙ GL9-5071
1245 Tavares Cecilia Mrs ⊙
1246 Smith Francis M ⊙ GL9-5597
1252 Gardner Frank M ⊙ GL4-7563
1257 Steese Evelyn D Mrs ⊙ GL4-3365
1260 Baker Edwin M ⊙ GL9-5833
1263 Thurmond Ethlin E ⊙ GL4-7008
1271 Zender-Browne Thos J ⊙ GL4-1941
1274 Fox Kathleen S Mrs GL4-1717
1275 O'Laughlin Helen ⊙ GL4-6608
1285 Murray Frank B GL4-1243
1287 Schnurer Geo GL4-7208
1299 Simonds Ann F Mrs ⊙ GL4-6884
Ivanhoe av intersects
1301 Lutkins LaRue GL4-1932
1304 Ford Evelyn P GL4-5036
1314 Desse Mary R Mrs ⊙ GL4-6049
1321 Greene Lenore ⊙ GL4-5218
1324 Russell Ruth H Mrs ⊙ GL4-6602
1325 Rathell Sam T ⊙ GL4-1844
1328 Vacant
1338 Males W Horace ⊙ GL4-4106
1345 Murphy Edwin F ⊙ GL4-4103
1350 Donaldson Elise ⊙ GL4-2697
1351 Booth Richd F ⊙ GL4-4008
1356 Gardner John S ⊙ GL4-2962

TP	Adjoining	Source
-	✓	R. L. Polk & Co.

WALNUT AVE W 1961

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WACO—Contd
3535 Ernspiker Wm E ® BR4-3869
3543 Pyle Ray D ® BR3-1568
3551 Morris Roucene H ®
3559 Kennedy John W ®
3567 Wilhite Robt W ® BR3-0106
3575 Chehoski Joseph E BR3-6775
3583 Curtis Myreta E Mrs BR3-5947
3603 Santiano Arth ® BR3-6711
3611 Borey Chas S BR3-8268
3619 Ferguson Walter J ® BR3-9992
3627 Riggs Newell R ® BR3-1232
3635 Bloom Harley F ® BR3-2073
3643 Newman Dan ® BR3-5381
3651 Bulone Angelo G ® BR4-4528
3659 Smith Geo W ®
3667 Loftin Nolan A ® BR3-5208
3703 Booth Frank D ® BR3-0488
3711 Phillips Wm F ® BR3-5482
3719 Vannucci Joan M Mrs ®
3727 Carter Elmer ® BR3-1586
3735 Randles Lorene R Mrs BR3-9204
3743 Hough John D ® BR3-1348

198
WADE—From Carditt east, 1 north of San Vicente
8505 Vacant
8530 Allen Walter E
8540 Singleton J P ® HO9-8975
8550 Jones Chas W
8560 Salas Miguel S HO3-5240
8565 Axt Robt V ® HO9-7879
8570 Bagley Carl E ® HO8-5500
8580 Baumeister Victor J ® HO6-1210

143
WAGNER AV—From Dorchester southwest to dead end, 1 north of Guild
9340 Thomas Wm R ® BR7-7684
9350 Smaldino John J ® BR8-2010
9361 Rucker Robt C ® BR7-9248
9371 Purdy Chas A ® BR8-3423
9379 Boone John M ®
9387 Scott Jas C BR8-1257
9388 Cook Donald D ® BR7-0502
9396 Danielson Raymond ® BR7-1224

143
WAGNER PL—From Wagner av northwesterly to dead end, 1 east of Marathon
3303 Statton Frank ®
3317 Lee Austin ®
3331 Smith Donald J ® BR7-1438
3604 Johnson Clifford T ® BR8-0769
3618 Vacant
3632 Harter Chas R ® BR8-2706

178
WAITE DR—From Nassau dr east to Front
6808 Kutscher Marvin F ® JU2-8111
6814 Vacant
6820 Tranter Harry JU2-6769
6826 Bly Loren D
6832 Vacant
6838 Vastola Joseph L ® JU3-7638
6839 Yuhas John F ® JU2-8528
6844 Farmer Geo W ® JU2-4542
6847 Noyes Jack F ® JU2-8274
6855 Fuson Albert J ® JU3-0040
6863 Williams Eug C ® JU2-3090
6871 Smith Wm J ® JU2-5831

153
WALL (LaJolla)—From 7900 Girard av east, 11 south of Prospect
1006 Public Library (LaJolla br) GL4-3174
1008 Athenaeum Mus & Arts Library GL4-5872
1026 Parson's Eliz Shop women's clo GL4-4664
1030 Bowers Jwlrs GL9-5165
1032 Security First Natl Bk (LaJolla Br-Escrow dept) GL4-0151
1039 Walker Scott Youth Center dept store GL9-3321
1041 LaJolla Variety Store GL9-5336
1044 Security-First Natl Bank (LaJolla br) GL9-4311
1047 Fay's Candy Cove GL4-6522
1051 LaJolla Sporting Gds GL9-3359
Herschel av intersects
1100 LaJolla Fed Sav & Loan Assn GL4-0744
1101 Chases Alex M Co real est GL4-7194
1107 Health & Diet Foods GL4-4556
1111 Coffee Cup The restr GL4-2819
1115 Stephen-Hassard Quintin M dentist GL4-2021
1117 **Sheppherd Building**
Harrison John A dentist GL4-1248
LaJolla Credit Assn GL4-2375 GL4-6044
Longstreth Enterprises authors GL4-4511
Miller Mtge Co GL4-4059
1121 DeJarnette Realty GL4-0105
DeJarnette Ira L GL4-0105
1122 Scotty's Mkt gro GL9-5415
1123 Harry's Lndry & Clns GL4-4890
1124 Elva's Beauty Studio GL4-4004
1125 Vacant
1127 Hayden Stone & Co Inc stock brokers GL9-3415
1128 Susan's Toy Center GL9-5104
1131 Allen Willis M Co real est GL4-0721
Allouridge Corp The real est GL4-0721
1140 US Post Ofc (LaJolla) GL4-7139

23
WALLACE—From 2800 Davis northeast
3953 Shelton John W jr CY8-4360
3963 Shelton John W
3976 Mailloux Russell P CY5-0211
3980 Perez Alphonzo

25
San Diego av intersects
4106 Vacant
Calhoun intersects
Juan intersects
4135 Abrego's Golf Sch & Clinic CY5-9476
Presidio Hills Golf Course CY5-9476

188
WALLACE CT—From National av north 3 east of 39th
912 Cartledge Geo ® CO4-2613
916 Hernandez Filomeno ® CO4-7128
920 Gallardo Dominador ® CO4-1323
927 Ginos John G ® CO4-5872
930 Duran Hospicio ® CO4-1452
931 Brook Saml R ® CO4-4286
941 Novotny Coralie A ® CO2-7739
National av intersects

106
WALNUT AV—From 3500 1st av east
115 **Apartments**
1 Vacant
2 Harris Wm E CY8-5356
3 McKenna Lawrence P
4 Simpson Clyde L
5 Self Wayne CY8-6863
6 Humphreys Blythe CY8-3871
7 Smith Eva
Street continued
140 Basham Clinton M ® CY5-9911
2d av ends
205 Reeves Jas E phys CY5-2147
207 Maurer Esther L phys CY6-0186
211 Perry Harold K
221 Vacant
225 Stanton Eleanor ® CY5-5578
3d av intersects
305 Schiefer Wm E dentist CY8-1181
306 Low Corinne P Mrs ® CY5-0871
Elliott Ralph CY8-7521
328 Putnam Anne R ® CY5-8669
335 Pine Villa Terrace motel CY6-9428
335 Pine Villa Terrace motel CY6-9428
McCoy Barney L ®

206
4th av intersects
418 Torres Alfonso CY5-7469
420 Belford Wm W phys CY5-2129
5th av intersects

106
WALNUT AV WEST—From 3500 1st av west
101 Augustine Mary Mrs CY5-1324
103 Dorsey Jack
105 Buchan John C CY8-4509
109 Galvin Virginia E Mrs
111 Byrd Denver E CY8-5873
117 Sdillart Anna ®
119 Vacant
130 Vacant
134 Bailey Orland H CY8-4391
Front intersects
204 Vacant
205 Sherwood Edyth
211 Fay Mary L Mrs ® CY5-2462
230 Thurston Saml S III CY7-3498
246 Ray Robt R CY5-0910

13
Albatross intersects
315 Kendall Cora E Mrs ® CY5-2330
321 McVey Margt M ® CY5-1665
Curlew intersects
605 Zink Emmett B ® CY5-3222

11
Goldfinch intersects
Hawk intersects
1004 Tuohy Robt E ® CY5-0363
1012 Farnsworth Chas C ® CY5-7944
1021 Vacant
1025 Jones Newell N ® CY6-3396
1041 Enright Patk J ® CY6-1872
1141 Morgan Frank J ® CY8-4463
Ibis intersects

15
Jackdaw intersects
1300 West Francis E ® CY6-1784
1333 Dennis Linna B Mrs ® CY5-2000
Lark intersects
Union intersects
1608 Briggs Christine W C Mrs ® CY5-1945
1617 Flynn Joseph T CY7-3105
rear Vacant
1621 Brown Clair W ® CY8-7363
1623 Cusady Derek B CY8-8612
1626 Duclos Homer ® CY6-4900
1627 Wyman Elsa
1629 Vacant
1631 Vacant
1703 Myers Maurine Mrs ® CY6-6438
1703½ Regan Chas CY6-3892
1709 Davis Harry M ® CY5-9114
1711 Braithwaite Lloyd N CY5-2801
1717 Milligan James A CY8-2158

174
WALSH WAY—From Saxon east, 1 south of Remington rd
5112 Blumer Benj ® JU3-5263
5115 Greenwood Robt C ® JU2-4072
5127 Rassin Saml ® JU2-2029
5138 Drexler Robt B ® JU2-8919
5139 Gerstler Sidney ® JU2-8022
5151 Grawunder Ralph M ® JU3-1244
5152 Salvato Louis V ® JU3-3596
5163 Kallander Robt J JU3-1327
5164 Vacant
5173 Foster Geo H ® JU3-2945
5174 Johnson Arvid T ® JU3-3624
5183 Ellman Harry ® JU3-0734
5184 Nicolin Michl J ® JU2-5416

244
WALTER AV—From 6705 Winona av east, 1 south of Greenbrier av
4907 Wilcox Allison W ® JU3-2765
4908 Heald Danl A ® JU2-2835
4919 Hopkinson Kleina B ® JU2-3087
4920 Gear Eli C ® JU2-9019
4931 Buchy Paul jr ® JU3-0120
4932 Zidlick Rudolph ® JU2-8376
4943 Kaminsky Steven J ® JU3-0032
4944 Johnson Kennard H ® JU2-1410
4955 Hargis Richd ® JU2-1988
4956 Iannucci A Vernon ® JU2-2573
4967 McCullough David C ® JU2-8959
4968 Martin John M ® JU2-2898
4979 Hilgeman Lawrence ® JU3-4244
4980 Driussi Jesse J ® JU2-6184
5007 Westman Jas E ® JU3-1318
5008 Rogers Jas R ® JU2-0584
5019 Suchar Michl ® JU2-8761
5020 Hawkins Lynn E ® JU2-3384
5031 Gorham Clarence W ® JU2-1183
5032 Morris Lester M ® JU2-5297
5043 Danielson Ephraim R ® JU2-7815
5044 Burak Jack ® JU2-4959
5055 Nygaard Hal ® JU3-1685
5056 Hermandez Alphonso jr ® JU3-4739
5067 Harrison Robt C ® JU2-9463
5068 Gabioud Helen A Mrs ® JU2-7643
5079 Tomasin Wm ®
5080 Osborn John E ® JU2-5785
50th intersects

222
WALTON PL—From Ohio east, between Monroe av and Madison av
3057 Schartz Florentine M Mrs AT4-8053
3060 Vacant
3061 Butcher Anna Mrs
3064 Tillman Julian P

CECIL B. GROVE - Contractor
DUMP TRUCKING - EXCAVATING - GRADING - CRUSHED ROCK - SAND - GRAVEL
3216 Island Ave. Franklin 7474

CABLE (Ocean Beach)—Contd
1809 Neish R E
1811 Rebouche A J
1813 Clawson A T
1815 Wardrop M R, B 2-2487
1821 Webber G G @ B 5634
1828 Fleming L A @ B 7925
1844 Brown G W, B 9896
1846 Meitzler M G Mrs @ B 6845
Niagara av intersects
1852 Schmitten Duane J, B 2-3666
1856 Neill Thos, B 4066
1857 Dodson Ethel Mrs
1859 Vacant
1860 Newkirk Raymond A
1862 Rothrock Marjorie Mrs
1869 Austin E W repr shop B 8324
Newport av intersects
1875 Swenson Cleaners B 4547
1877 Ocean Beach Laundromat B 1165
1908 Kuntz Seymour optom
Newport av intersects
1910 B's Beauty Salon B 4002
1911 Churchill E D acct B 4108
Fortenberry F Mrs B 2-3183
1912 Morlin's Furn & Toys B 3817
1916 Cord's Paints B 9635
1918 Morlin's Tot Shop children's clo B 3817
1919 Tipp A J, B 8213
1920 Vacant
1934 **Bay Professional Building**
Nelson T A phys B 0454
Sand Alf phys B 3125
1936 Burkett Lyle M dentist B 6532
Murphey R C dentist B 6532
1978 Stahl C R @
1980 Bartholomew A A, B 6352
1982 George John, B 9034
1984 Shideler J H
Santa Monica av intersects
Saratoga av intersects
2003 West C H, B 8328
2004 Cordray R E
2007 Rozean Darlene I, B 8815
2010 Young Dwight, B 2-3765
2011 Smith J E
2015 Clark Mary Mrs B 2-3300
Cape May av intersects
2016 Sample Anna B, B 7779
2020 Hall C A
2031 Pogar Frank
2032 LaMontagne P J @ B 9708
2033 Hamilton D D, B 2-1138
2034 McColloch K W
2035 Wahlberg G O
2036 Bird W L
2037 Vacant
2056 McKenley E W @ B 4434
2058 Knott E J, B 2-3256
2070 Miller R M @ B 2-2644
2076 Gilbert B M Mrs @ B 3067
2077 Wolfe Geo W, B 0988
2083 Ashley L A
2085 Beals R L
2090 Clark Helen M Mrs
Brighton av intersects
2101 Akey W E @ B 8641
2111 Dunson W G @ B 5648
2120 Luckey Lucille Mrs, B 2-2098
2121 Michael M H @ B 5174
2124 Russell B G, B 8917
2130 Vacant
2131 Charlson C L, B 2-2995
Long Branch av intersects
2143 Waves Orton H
2149 Brekke Stella M Mrs
2152 Vacant
2153 Rose J A, B 1872
2154 Ferris Emma Mrs @ B 8039
Muir av intersects
2180 Cutter F J, B 7632
2186 Smith's Barber Shop
2192 Voltaire Clns clo B 1204
2194 Tupperware Home Parties B 0363
2196 Reliable Market gro B 0549
Voltaire av intersects
2216 Peters Bakery B 5070
2218 Malt Shop restr
2219 Bouldin R C, B 2-3309
2221 Green Pauline Mrs
2223 Lemmon Cora D Mrs B 1003
West Point Loma blvd intersects

CABRILLO AV (La Jolla)—North from 1 blk s of 1300 Pearl
7390 Magnussen C M @ G 5-3742
7404 Floyd P J, G 5-6863
7416 Anderson O T @ G 5-3056
7427 Wingard L S @ G 5-3353
7430 Goodwin J W @ G 5-4149
7432 Dickey W L @ G 5-4470
7441 Vacant
7446 Appold J B Mrs G 5-3340
Pearl intersects
7501 Dorr E R Mrs @ G 5-3288
7515 Weaver R C @ G 5-6300
7520 McMaster L W, G 5-7238
7527 Fellows W F W @ G 5-7681
7528 Zabel A A @ G 5-4116
7534 Corey R D @ G 5-1860
7535 Heink H A @ G 5-3748
7542 Sidey John, G 5-4796
7548 Bell V O, G 5-2435
7553 Walker A C @ G 5-3701
7561 McDonald D C elec eng G 5-7887
7564 Pilgrim J H @ G 5-1496
7569 Rachmanow R R @ G 5-4523
7570 Hubbard Hampton, G 5-4451
7577 Cook I B, G 5-1314

CABRILLO FREEWAY—
and Friars rd Hazard Concrete Products Inc mfrs J 0051
Hazard R E Contracting Co J 0051

CADIZ (Loma Portal)—Southeast from Rosecrans, 1 n of Lytton
2802 StCharles Borromeo Academy
StCharles Borromeo Catholic Church B 7097
2808 StCharles Borromeo Convent B 8271
2825 Clark J D
2827 Golt R W
2833 Siner Abr, B 3514
2835 Vacant
2843 Sweeney Jacob
2845 Althouse E A
2847 Vacant
2849 Sodeck C Mrs
2851 Bowie R L, B 2-2957
2855 Galli Gordon
Palmer Wm
2905 Loma Portal Medical Group B 7127
Martin J S phys B 7127
Person E C phys B 7127
Russell R S phys B 7127
2911 Lutes G E dentist B 2-2117

CADMAN—South 1 block from 7300 Lisbon to Jamacha rd
549 Dimmitt D D
550 Gardiner F E @ M 4-7131
604 Fortney E R @ M 4-3726
613 Williams H D @
614 Feagin R H @
621 Drake C D @
624 Dinkins D V @
633 Woods W M @
634 High W H @
644 Boys V I @
645 Komaroski T G @ M 4-6779
653 Vacant
654 Brown V A @ M 4-2274
655 Miller M L @
664 Hale E L @ M 4-7241

CAHMOUNE AV—
4268 Fuller Margt K Mrs

CAJON WAY—North from Madison av to Siesta dr, 1 w of 55th
4602 Paxton P H @ T 1-4847
4604 Barnhart K E @ R 2878
4609 Christy R R @ T 2203
4610 Dennstedt E W @ T 1-3491
4625 Procopio S J phys R 5470
4630 Howard J P @ T 1-5725
4633 Emerson R C @ T 6220
4636 Corrin R D @ R 3283
4641 Johnson C G @ T 1441
4646 McDougal A C @ pntr R 5201
4657 Potter I P @ R 8286

CALAVERAS DR (Ocean Beach)—North from Osprey to Barcelona dr, 3 e of Cornish dr
1025 Charton R P @
1032 Watson C G @ B 6600
1036 Drasil Victoria P @ B 1481

CALHOUN (Old Town) — Northwest from 4050 Harney
2610 Culbertson T C
2612 Hier E A
2614 Schrader A Z
2616 Watson Marion D
2618 Arnott C W
2620 Groves G W, W 3986
2622 Bowdene T H, J 8048
2624 Boecker G A
2626 Dickey H A
2628 Prothreu Robt
2630 Bell R W
2632 Reid H L
2634 Gilliamson W J, J 7022
2636 Mosley Manuel
2638 Forward Mae E Mrs, W 0510
2640 Quarterman R D, J 2568
2660 Casa De Bandini Hotel W 9792
Cardwell J H, W 9792
Mason intersects
2732 Fousek Gertrude
2734 La Casa Blanca restr J 7339
2754 Casa De Pico Motor Hotel J 7160
Cardwell F K @ J 7160
Wallace intersects
Taylor intersects

CALIFORNIA—North from 800 W Market to Witherby
1220 Collaso Felisiano, M 3230
1447 Wilson Harry @
Beech intersects
1506 Aleto Gaetano, F 6778
1560 Pioneer Printers F 9-0341
Cedar intersects
1620½ Martin Adolf
1632 Gliberti Philip @ F 5622
Date intersects
1824 Western Oil Co whse
1842 Piranto Salvatore@
1930 Crivello Tony, F 3460
1932 Bologna Peter @ M 5325
1940 Di Maggio Sebastino @ F 0681
1948 Vitrano Anthony @ F 5026
1954 Asaro Ignazio, M 1398
Grape intersects
Hawthorn intersects
Ivy intersects
2244 Pontecorvo B Mrs @ F 0781
2246 Pontecorvo John
rear Venzor Genoveva Mrs
2250 Salmon T H @ F 5035
2250½ Vacant
2272 Salmon Joaquin @
2280 Chavez Francesco, F 9-3314
Juniper intersects
Kalmia intersects
2416 Estrada Clemente, M 9213
Garcia E M
2424 Costello Hector
2430 Gonzales Augustine
Picon Jesus
Severa Ralos
2440 Alatorre Vincent, M 9718
Elan Sam
Samora Jos
Laurel intersects
2560 Pioneer Truck Co Inc F 9-2133
Maple intersects
2801 Murphy M C @ J 3866
Palm intersects
2921 Walker Chas @ J 1597
2929 Naranjo Estanilado @ J 1321
2968 Joseph A A, W 1404
2970 Knauf C H
Quince intersects
3005 Garcia Raymond @ J 2274
3015 Gillam R H @ W 8-1038
Redwood intersects
Spruce intersects
Thorn intersects
3449 Talbot Frank @ W 3829
3596 Bateman T O Co J 5163
Upas intersects
Vine intersects
Walnut av intersects
3607 May H W, W 2491
3619 Rebeles M Mrs @ J 2678
3625 Mallet C J @ J 9666
3630 Ideal Laundry W 1786
3645 Hiatt LeRoy @ J 4570
3669 Fontana Insul-Rock W 2734
Johnson Metal Works W 2496
Perma-Stone of San Diego Co bldg sups W 2734
Rogers Construction Co W 8-1939 8-2203
State Public Utilities Commission J 9537
Bean ends
Chalmers intersects
Winder intersects
3705 Price & Horton sht mtl W 1160
Randall E P bldr W 8-3157
3707 Nelson C O
3709 Meadville P R
3711 Juarez Gertrude Mrs
3717 Docker R E
3719 Rhodes Mickey
3719½ Stafford J P, J 1638
3721 Mayer Luella W 8-2214
3723 Hohnhaus G W, J 3358
3725 Dillon L P, W 1897
3727 Szehner F C jr
3729 Schneider Loraine C, W 1834
3731 Seymour H C
Andrews intersects
3751 Five Points Auto Court W 9276
Barlow J H, W 9276
3777 Five Points Inn liquors W 9541
3779 Five Points Clns J 9487
3781 Five Points Beauty Shop J 0484
3785 Five Points Pharmacy J 7308
PO Sta No 4, J 7308
3787 Ales J C, J 7622
3789 Mooney T S phys J 1631
3791 Five Points Barber Shop
3793 Five Points Cafe
3795 Five Points Food Market W 9264
Five Points Meat Market W 9264
McKee intersects
3801 Five Points Delicatessen J 7545
3805 San Diego Motor Inn W 9457
McCune W A, J 4371
3809 Bunger F S real est J 9790
3810 Five Points Serv Sta J 2376
3811 Baine Edna M Mrs @ J 9790
Ward C L
3817 MacDonald Margt E Mrs
3819 Walker W R
3821 Harrison G S, W 1551
Clayton ends
3827 Belavek Mary A Mrs
Seymour Henry
3830 Waitscox Robt, W 1803
3831 Theriot A E, J 6575
3832 Finnigan W C dentist J 0298
3833 Bologna Filippo @
3834 Duhamel Leo, W 4685
3835 Asaro J J, J 7107
3836 Wilson W A
3838 Taylor Clarence, W 4591
Pringle begins
3841 Vacant
3844 Gibbon O W, J 0935
3844½ Dotts Esther Mrs @
3845 Five Points Variety Store
3846 Oscar's Barber Shop
3849 B & E Jwlry J 7924
3856 Brown Bear Bakery J 9761
3870 California Auto Court W 9278
Gott Edw, W 9278
3873 Bayview Motel W 6737
Happy's Mkt gro J 6903
Kirkbride H A, W 6737
Sutherland ends
La Jolla begins
3911 Evans H J @ J 0340
3919 Haugen E N @ W 8-2464
3922 Wilson E W @ W 6052
3929 Palmer Eliz Mrs
3931 Watson Etta E Mrs @ J 0545
3935 Pine Wm @ W 3289
3938 Messinger R E
3942 Jackson Andrew @ J 2302
3951 Passmore Jacques @ W 8-3062
3965 Selby H C @ W 4535
3992 Wilson Irvin @ W 6052

CALIFORNIA WEST—From Henry w to Witherby, continuation of California
1907 Kohl Maude Mrs @ W 2339
1917 Rickon F J @ W 4779
1931 Minor S H jr @ J 2695
2001 Vacant
2005 Wotton A H @ W 1125
Keown J F
2011 Kahn Saml @ J 9772
2017 Muser Margt Mrs @ W 8-1625
2025 Teixeira John jr @ J 4282
2026 Potter Peter @ W 0548
2037 VanDoren R L @ W 5050
2044 Jarvis Grace Mrs @ J 3582
Wright intersects
2045 Shaw H I jr @ J 4445
2049 Vacant
2050 Bagby J W @ J 7280
2051 Beedlestone R H @ J 1458
2067 Taylor H J, J 5707
2069 Gross Saml, W 8-1269
2070 Quincie Vincent @ W 9929
2074 Muir Wm D @ W 8-1447
2075 Lorona Alfonso
2077 McCormick Margt M Mrs @ J 1907
2085 Strachan Floyd @ J 9331
2086 McAlister H B Mrs @ J 9735
2095 Ames M H, J 3408
2097 Lorona J R, J 4734
2098 Mack Chas @
Bandini intersects
2105 Wilke Herman P @ J 2649
2111 Englehart J R @
2120 Stohm L E @ W 2727
2121 Baird A N @ J 9192
2137 Holloway J G @ W 8-3501
2143 Phillips W G @ W 4028
2146 Chowning T J @ W 0422
2149 Shoven A M @ J 7138
2151 Dixon Beecher, W 8-3173
2169 Wessell N E Mrs @ J 4410
2171 MacGovern Robt, J 7698
2186 Davis R L @ W 6486
2191 Stewart E T @ J 0956
Couts intersects

CALLE BREVE (Pacific Beach)—North from Balboa av, 1 w of Pico
4600 Bayview Terrace Housing Project Child Care Center H 8-2990

CALLE CAMPANA (Pacific Beach)—North from 2300 Reed av to Calle Corva
4251 Couch A L, H 8-6187
4252 Longwill Dena Mrs
4255 Rooks E L
4257 Fender W W
4259 Noble H G, H 8-3426
4261 Lindquist G E, H 8-6769
4263 Brown L H, H 8-3987
4265 Vacant
4267 Frobst J W, H 8-4368
4269 Ryerson H W, H 8-0460
4271 Harris H J, H 8-8429
4273 Gee M L, H 8-3573
4275 McGarity Marie C Mrs
4277 Woodcock Jack, H 8-0273
4279 Sullivan Lee, H 8-2703
4281 Jones T T
4283 Ashley A W, H 8-6967
4285 Redding C C, H 8-6411
4287 Dove L A, H 8-2276
4289 Davenport R W, H 8-8101
4301 Collman J W, H 8-4002
4302 Wilkinson C M, H 8-4937
4303 Lopez Jose D
4304 Zachary C D
4305 Wilkerson H C
4306 Merritt L B
4307 Folsom V H, H 8-9784
4308 Gutierrez R Z
4309 Stover L C, H 8-1519
4310 Redman O P, H 8-7242
4311 Volkov Jos D, H 8-7515
4313 Brown Rodney
4314 Dowding Mawson L, H 8-2960

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F. 9-9394
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COLUMBIA—Contd

1843 Tarantino Sebastiano
1857 Zolezzi Steve @ F 5760
Fir intersects
1907 Chuck's Radio & TV Serv reprs M 8-1867
Batista Antonio F 9-7067
D'Amato Frank
Mahlin C M, M 8-1867
1915 Santos Manuel, M 9897
1918 Tarantino Steve @ F 9-1652
1919 Corrao Frank
1920 Amaral J A, M 3363
1922 Lococo J F
1924 Silvo Zolezzi
1926 Busalacchi Casimo
1928 Busalacchi Casimo jr F 7854
1929 Brunetto Pasquale @ F 9-3382
1931 Brunetto J J, F 9-5517
1941 Marchese Saml @ F 9-3003
1942 Cefalu Saml, F 9-3168
1943 Grosse Caetano
1945 Sardna Jack
1953 Bilardelli Armando @ F 0548
1959 LaGioia N D @
1965 Greggs Shelby O @ F 9-2013
1970 Jackson & Blanc, F 8169
Grape intersects
2011 Vacant
2015 Coy M A
2019 Vacant
2021 Moore H J Mrs, F 9-5398
2031 D'Acquisto Antonio @ F 3952
2033 Corrao Jos @ F 9-6973
2034 Schmucker Anna E @
2041 Marker L H Mrs M 9427
2043 Vanpelt Andrew @ F 9-7488
2043½ Vacant
2044 **Columbia Apartments**
Ashcraft R E, M 8-1381
Carlson Carl
Green Earl, F 6060
Jordan Jack
Mair G L
McKay Patk
Price Allen A jr
Strachan J E, M 0592
2051 DeSanti Jos, F 9-5973
2053 Sotura H T
2053½ Vacant
2054 Apparitio Gaspare, F 9-7285
2064 Valenti Jos, F 2743
2066 Machado J F, M 8-1479
2071 Manning Jas
McPhee Emma Mrs @
Hawthorn intersects
2104 Sardo Salvatore @ M 5900
2118 Canepa Angela Mrs @ M 5793
2121 Oritano Vincent @ F 5821
2130 Alioto A J @
2133 Buompensiero Jos
2135 Buompensiero Salvatore @ F 2245
2136 Bregante A E @ F 3645
2137 Strawn W G Mrs @ M 1998
2141 Goodwin Dan @ F 4449
2143 Enstall Chas F 2752
2146 Bregante Cath Mrs @
2154 Sardina Jos jr @ F 9-1495
2155 Benner R P @
Benner W N, F 9-6963
Laski E W
2165 Filippone F J, F 9-0606
2168 Stagnaro Mary Mrs @ F 5598
Ivy intersects
2201 Nigro Victor @ M 0522
2203 Vacant
2210 Harbor View Bapt Ch F 9-8675
SanDiego Baptist City Mission Soc M 3703
Bauserman A K, F 9-8675
2215 Sherlis Aleck
2219 Charves Macy, F 5656
2230 Nascimento Tiago @
2233 Ridley R T
2235 Brazil E M Mrs
2239 DiCola Dominico
2241 Carrao Peter @ F 8496
2243 Mussomeli Angelo, F 9-4507
2245 Taormina Lawrence @ M 1265
2260 Foster & Kleiser Co outdoor adv F 6347
Juniper intersects
2303 Sanfilippo Dominic @ M 5717
2312 Lococo Pasquale @ M 9498
2313 Lewson R K, F 3422
2314 Neill J A @ F 2690
2315 Balsamo Anthony, F 9-8264
2316 Laird John E
2317 Giacalone Thos @ M 3957
2326 Parmigiani Beatrice Mrs @ M 2981
2328 Parmigiani Rocco @ M 9946
2333 Crivello Saml @ M 9782
2343 Dalfio Tony, F 9-4645
2345 Santos J C, F 9-4423
2348 Lococo John @ F 9-3506
2349 Turner G O Mrs
2350 Dacquisto Saml@ M 5551
2351 Davis Leslie
2353 Garren Helen Mrs
Gregory Clarence
O'Connell E J
Vines Wm J
2555 Bridge C R @ M 8-1779
2356 Caramagna V A, F 9-4696
2357 Vacant
2358 Buompensiero Matteo @ M 9373
2363 Fuller G K, F 9-2537
2365 Pool W J
Kalmia intersects
2415 Flamini Jos @ F 4769
2416 Navarro Carlo @ M 0580
2429 Palmer E W@ F 5251
2430 Valenti Anthony, F 9-5611
2430½ Glacalone Saml @ F 9-3323
2439 Otenda Edw
2441 Quinci Paul @ F 5417
2443 Corbeille Lawrence
2445 Vacant
2455 Blair P M
Whitney J W @ F 3374
2465 Piranio F P @ F 9-1920
Laurel intersects
2518 Battaglia G W, F 9-5743
2519 White J A @
2520 Sanfilippo Peter @ M 0555
2525 Gicalone Jos @ M 1776
2525½ Baldwin H W, F 4679
2528 Hill C J
2532 Maugeri Stefano @ F 8498
2540 Balistreri Dominic @ F 8460
2565 Hebel R E @ F 9-5868
Maple intersects
2603 Lamb W H, W 8-3006
2619 Kenyon Arth @ J 3011
2620 Tarantino Isadore @ W 8-1637
2621 Bertrand M D, J 4096
2629 Robertson Fred, J 6919
2629 1/4 Dody Don
2629½ Lucas Frank @ W 5156
2630 Hart C H, J 8170
2636 Anderson C F, W 1533
2638 Mathew M G, W 8-1783
2639 Husband R F @ J 7963
2640 Holland F C
2642 McVicker W J, W 8-1519
2643 Clark L S Mrs
2653 Robare N D
2655 LaFaver Louis, W 3594
2657 Tallman K L
2664 Donahue A T @ J 9582
2666 Tilotte Anthony, J 1089
2669 Remick J K @ J 9229
Nutmeg intersects
2703 Albert Lawrence, W 4379
2705 Conaway John @ W 8-2467
2715 Walter G L Mrs @ J 4453
2727 Anderson C T, W 8-1688
2729 Barker J S @ J 5377
2730 Middlebrook H C @ W 4192
2732 Irving M T, W 5235
2737 Kolenda P M, J 4309
2739 Ellis R G, W 8-2579
2741 Niehoff H E, W 1747
2744 Middlebrook P R @ J 5084
2753 Barr Mary L, W 8-1892
Cavitt Eula Mrs, J 6023
Traggard R M Mrs @ W 3407
2756 Jones E D Mrs @ J 1894
2768 Germo D H, J 5088
2773 Coggeshall A W, W 1095
Olive intersects
2811 Crivello Peter @ J 9489
2816 Kniazeff M Z Mrs @ W 8-1788
2818 Bellis R K, W 8-2005
2825 Bonham H L @ J 5380
2827 Steimile E M
2830 Griffitts Mollie Mrs @
2840 Walker E H Mrs @ J 4796
2849 Nicholson R P @ J 9945
2851 Feeney E R, W 4397
2853 Colla Nicola @ J 6311
Young R E
2864 Tetlow Ida Mrs @ J 7046
2869 Pickens Theo jr @ W 4225
Palm intersects
2930 Pierce Wm @
2940 Bibb R V, J 2770
2950 Nichols Manista, J 6455
2952 Baker W M
2954 Perry A W, W 8-1926
2955 Julien A R Mrs @ J 1884
Miller Otto, J 2815
2964 Norris J R @ J 3726
2965 Dailey John W @ W 4805
Quince intersects
3002 Jumper F F @ W 8-1510
3018 Aron P M Mrs @ J 1292
Aaron W P
3038 Loring Carolyn @
3040 Brewer A M, W 2918
3045 Millusi J E @ J 7571
3062 Peters B H Mrs, W 3642
3064 Hubbard W C, W 0398
3066 Clarkson Max, J 9245
3068 Ramsey O W, J 1723
Redwood intersects
3225 Cheek Reginald C @ J 5335
3229 Palmer Florence
3242 Goodwin H M @ W 8-1659
3243 Zabrist R C @ J 0636
Sassafras intersects
3310 Monk R L
3319 Comer B J, W 8-3757
3320 Adams Chas C, J 6806
3321 Parsons Rosa F @ J 6116
3330 Miller R G @ J 7690
3331 Vacant
3333 Sargent E M @ J 9285.
3343 Bray C E, W 1779
3344 Guyton Omer @ J 5551
3345 Mesch Rudolph E, W 8-3358
3347 Hobbs R H @ J 6661
3355 Levin Sydney, W 8-3317
3357 Theobold C, J 8383
3364 Dunham L B Mrs, J 0901
3366 McDonald N N, J 8378
3368 Taylor E G, W 8-2640
3370 Topping M G Mrs @ J 8293
3372 Sinclair Robt
Thorn intersects
3445 Canale J C @ J 1251
3455 Crivello Vincent @ J 4848
3465 Bailey Bernardine, J 5539
3465½ Moore H J
3467 McGuire H W @ W 8-2219
Upas intersects
3504 Lattin R M, W 2935
Stedman O @ W 2935
3509 Kilgore E L
3510 Doerr W A
3510½ Emory G N, J 9585
3512 Bowen W E
3513 Dean W E, J 5418
3515 Gentry R G, J 4983
3517 Zwemer Thodore W, W 8-3450
3519 Muller C H, W 8-2758
3521 LaRue P S, J 7971
3523 Spangler C M
3525 Montalvo Raymond, W 8-1316
3528 Smith R M @ J 0529
3531 Jester Matilda Mrs, J 8224
3535 Murphy Thos
3538 Crisci Jos, J 2869
3545 Taylor G F, W 8-3613
Vine intersects
Glenwood intersects
3615 Harrison J L, W 4641
3621 Lichty Eug @ J 8705
3627 Walton F W @
3629 Carlson B R
3645 Osborn E H @ J 8431
Chalmers intersects
3652 Williams Mona E Mrs
3655 Bell N D jr @ W 8-3645
3661 Goldmann J D @
3662 Dafflon Jeanne Mrs W 6553
3667 Hill R S, J 1618
3669 Lewis L L, W 0648
3669½ Pipes E F
3670 Pires Joaquin M @ W 4947
3677 Hansen H B @ J 4092
3678 DuCette Norman, J 6731
3680 Klingenberg A J Mrs @
3685 Price A J, J 2121
3686 Evans S C @
3687 Miles L B Mrs @ J 2372
3693 DeSoto Raymond, W 9376
3695 Holt F M, W 8-3688
Welborn begins
Winder begins
3707 Poirier Lional
Worthen H E @ J 5885
3708 Boles J H, W 8-1347
3710 Wheeler O J, J 6057
3712 Heldenbrand R N
3719 Daley J E, J 2053
3720 Monath Robt @ J 4049
3723 Crisci Vincent @ J 3872
3730 Horton J S, W 4462
3731 Williams T A, J 3549
3736 Brown K C, W 4206
3744 Stenger G W @ W 8-1773
3745 Davis Roy L, J 7964
3746 Davis T C, W 0170
3748 Reid J L, W 8-2975
Andrews intersects

COLUMBINE (East San Diego)—Southeast from 4270 Manzanita dr

2716 Geisler A L @ T 8028
2723 Hemphill J F Mrs @
2729 Jenkins R H @ T 9115
2733 Cotrell H H @ T 9614
Olive intersects
2820 Vacant
2828 Randall F E jr @ R 5447
2843 Mallory G L @ T 9736
2903 Houtz R A, T 1-2440
2905 Miller L A @ T 7566
2909 Fitch W F
2915 Bowers E E @
2921 Johnston J W @ T 5172
2927 Adair Vivian @ R 6173
2930 Kernes J F @ T 6764
2933 Bibb E L @
2939 Mitchell B E Mrs @ R 7013
Quince intersects
Poplar intersects
3014 Krum M M Mrs@
3020 Creese D B Mrs @ R 6511
3021 Ninnis Theo T @ R 2076
3026 Vidmar H J @ T 4877
3029 Norman G R @ T 6933
3032 Elliott J B @ R 7707
3033 Wilde J W @ T 1-4568
3038 Huillet F G @
3041 Henderson Wm @ T 1-4114
3042 Higgs G A @
3044 Finlay W A, T 3-1378
Manzanita dr intersects

COLUSA (North San Diego)—North from 2 blks s of 5600 Gaines

967 Vacant
1075 Messer Silas jr, W 8-3642

COLUSA (North SD)—Contd

1077 Davis V C
1079 Gray P F
1081 Vacant
1083 VanKirk Robt
1085 Chapman F R
1101 McDaniel L C @ W 3990
1111 Thorpe E B Mrs
1121 Osborn M G @ W 8-2046
1129 Osborn C W @ J 8635
1135 Rice L J @ W 0888
1145 Benson O W @ J 0632
1205 Moore C W @ J 6051
Woodward H L
1236 Clark John jr @
1245 Spencer H B @

COMLY (Linda Vista)—North from Preece thence e to Comstock, 5 n of Osler

6506 Moorby Jas
6516 Hunt J M, W 7-1836
6525 Walker N M Mrs, W 7-3064
6527 Phillips N W, W 7-0740
6536 Nance H P
6542 Coats W G, W 7-1241
6545 Walker R T
6548 Butram Elmer, W 7-3353
6550 Milstead O A, W 7-0062
6555 Weigel A A, W 7-0596
6556 Moar Wm L, W 7-1994
6558 Glessner M E
6559 Comly H E F, W 7-1700
6562 Tiedeman H G, W 7-1357
6563 Phillips E R, W 7-1417
6568 Nelsen W A, W 7-3702
6569 Newman R C, W 7-2764
6573 Hardy I F, W 7-3235
6583 Chazen David, W 7-4019
6589 Gredvig W G, W 7-2439
6592 Rodriguez M G, W 7-3622
6594 Bullard E F, W 7-0470
6597 Graham C E, W 7-0535

COMLY COURT (Linda Vista)—East from Comstock 5 n of Osler

6617 Marques E D, W 7-1751
6618 Young A R, W 7-2122
Hardy J E, W 7-3126
6628 Favor C E, W 7-2664
6637 Hunstable D S, W 7-1837
6638 Heitman R V, W 7-9133

COMMERCE AV—East and west from College av, 1 n of Mission rd

COMMERCIAL (Changed from N)—East from 9th, 1 s of Imperial av

1335 Shankles Lester, M 0181
1337 Snook Carl
1341 Vacant
1343 Sarain Gabriel
1345 Buzan J P
16th intersects
1610 Diaz Bartola C
Paris Bartolo
17th intersects
1721 Moran Vincent, F 9-4528
1726 Castro J S Mrs, M 2968
1739 Valdez Aurelio
1738 Montoya Saml
1745 Ruiz Antonio
1746 Perry Carmen Mrs, M 0810
1747 Camacho Mary Mrs, M 8-1070
18th intersects
1815 City Auto Wrecking Co
1840 Frenneth Eliz Mrs @ F 5718
1848 Harbor Salvage Inc, F 9-3049
19th intersects
1996 Atlas Iron & Wire Works (fence dept) F 9-2679
20th intersects
2031 Wilson Store Equip Co M 3097
21st intersects
22d intersects
2101 Bd of Educ purch and mtce
2226 SD Lndry Tray Co M 3720
2246 Guerrero Luciana Mrs @ M 1355
2248 Ballou Chas
2250 Mendez Erasmo @
2260 Maxon J A Mrs @ F 4784
2278 Eder Michl @
24th intersects
Harrison intersects
2416 Sapin H L @
2422 Serna Francisco @ M 1286
2430 Hayes J F @ M 2395
2434 Rubalcava Julian
rear Elliott Jas
2438 Dahms Gustav B @ F 9-0661
2440 Williams L K, F 9-0150
2444 Walls Jas, M 3905
2444½ Conner T R @, M 0550
2450 Cobb D N
rear Callari Salvatore
2452 Hensley R L
2458 Goldbaum Ricordo
2462 Velez J S @
2468 Dozzell Frank @ F 7900
2470 Vasquez J A @ F 2010
2472 Zuniga R R cement wkr
25th begins
Ocean View blvd begins
Crosby begins

On Yellow Paper Immediately Following Alphabetical List of Names

Rayons • ST. • 1787 • Patterns
NORTH PARK — ACROSS FROM MAYFAIR

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GLENMORE LANE (Linda Vista) —Contd
7537 Wash G L Mrs W 7-3328
7538 Myers C E, W 7-1870
7539 Lewis J L, W 7-2556
7540 Lintvedt A M, W 7-2694
7542 McLaren I D

GLENWOOD (Pacific Beach) — Changed to Glendora

GLENWOOD DRIVE — West from 3570 Union
1504 Donahey L A @ W 5193
1505 Vacant
1507 Schmidt R E, J 9040
1509 Nilsen R E, W 3213
1511 Boyle W H, W 8-2698
1512 Phillips Paula @ J 2446
1519 Button M H
1525 Binder E J @ J 9214
1531 McLouth Ada @ J 7943
State intersects
1602 Knight J S @ W 3687
1605 Overdick L A
1610 Fairman A T @ J 6748
1616 Daly J G @ J 7323
1624 Portor Frankie, W 6871
1626 Davis M E @ J 5067
1628 Vacant
1628½ Schnaars Nathl
1630 Vacant
1630½ Thornton J T, W 3925
1632 Hagerbaumer D W, J 2303
1633 Gordon Wm
Morgan Marie E @ W 0649
1634 Porter M J
1636 Covell C W, J 9031
1702 Johnson J H, J 8660
1704 Noakes E I
1705 Belchez R R, J 8098
1706 Vacant
1708 DeLay W M @ J 4776
1709 Jacob Mae M
1711 Riffel H H, J 1364
1712 Barnes S W
1712½ Parks C G, W 8-1660
1715 Signorelli F J, J 6883
1716 Tittle Ella Mrs W 5009
Ziegler R P
1716½ Boers K B, W 8-1679
1720 Knowles Delbert
1720½ Constant Jack, W 1805
1722 Fennell J C
1722½ Roper G I
1724 Patterson W S
1724½ Hamilton E J

GLIDDEN (Linda Vista) — East from Linda Vista rd, 1 s of Kramer
6821 Vacant
6822 Smith H M
6831 Butterfield J J, W 7-0712
6832 Darland E M, M 7-1676
6842 Barnes O B
6847 Ardoin J C, W 7-1061
6849 Langston H E, W 7-2510
6852 Hinrichs C J, W 7-4391
6921 Beckham J R, W 7-1781
6922 Dooley C N, W 7-1489
6931 Daly L A
6932 McLaren A R, W 7-0021
6941 Hernandez Jose, W 7-4115
6942 Siska Stanley
6951 Estes A R, W 7-2429
6952 Abrams Wm, W 7-0822
6961 Officer M L Mrs, W 7-2449
6962 D'Agostino D J, W 7-0380
6971 Lee F P, W 7-0955
6972 Silkwood J A, W 7-3753
6981 Kuhns J H, W 7-0060
6982 Darr G L, W 7-1024
6991 Parton R R, W 7-1163
6992 McClure Louise Mrs, W 7-0860

GLOBE (North San Diego)—North from 1 blk s of 3500 Bisbee

GLORIA — South from Franklin av bet S 48th and S 49th
307 Hoy L E @ M 4-6189
322 Cook Berlyn @ M 4-6878
324 Cooper E L, M 4-6582
325 Quince Vito @ M 4-4251
326 Vacant
332 Anderson R M @ M 4-2339
342 Ek R D @ M 4-4932
344 Romero Santana, M 4-2164
346 Ruble E V Mrs M 4-4309
348 Mendoza A J jr
350 Archibald Ronald
352 Burgi F S @ M 4-1038
424 Romero A R @ M 4-2009
444 Jenkins Charlotte Mrs @ M 4-3318

GODSAL LA — South from Pennsylvania av, 1 w of Albatross
3667 Bohringer D G @ W 4727

GOLDEN GATE DRIVE (Mission Cliffs) — East from 700 Madison av to Campus av
906 McNulty J R Mrs @ R 4679
McPhee J R @ J 7753
933 Eschwege J B @ J 1968
1029 Brown F L Mrs W 0323
1111 Phelps Lovinia F Mrs @ W 2553
1202 Edwards John, W 1617
1205 Hall S F Mrs @ J 4384
1211 Lydon R W @ J 1139
1219 Beale E W @ J 5442
Harvey rd begins
1229 Norwood G @ J 8738
1235 Amsden Georgia C, J 8807
1240 Wilson W W, W 1652
1245 Watson W J @ W 6452
Maryland intersects
1403 Rich C A, W 8-1268
1404 Newsom B L Mrs @ J 7768
1412 Riis G H Mrs @ J 0562
1413 Haw H H @ J 4937
1419 Rapier R S @ J 1153
1420 Dobbs H J @ W 5792
1429 Hanes H G @ J 4059
1430 Shankland B L @ J 3519
1433 Scribner G R @ J 9771
1443 Chevalier A R, W 6474
1444 Courtright R E @ W 1758
Cleveland av ends
1521 Lake D L @ W 1129
1529 Brown J T, J 1064
1538 Owen H S @ W 5579
Campus av intersects

GOLDEN PARK AV (La Playa) — North from 1 blk s of 3300 Lucinda
730 Fintzelberg M E @
731 Stephenson E I @ B 5308
755 Girard Steph @ B 2-1184
808 Vacant
820 Vacant
821 Brown V M, B 3403
824 des Granges Pauline @ B 3920
831 Langlois L J @ B 2-2162
Lucinda intersects
845 Monsees S V @ B 7040
854 Sly R G
875 Elliott M M Mrs @ B 4092
876 Small C A @ B 4326
Harbor View dr intersects

GOLDFIELD (Morena) — Northeast from Georgia, 1 sw of Phoenix
1803 Dold Miriam Mrs J 3209
1809 Nolan P L @ W 4154
1819 Aguirre L S @ J 6275
1820 Anderson D A @ J 6335
1826 Riddell R S @ W 8-2071
1827 Hall A W jr W 4005
1831 Andersen H A @ J 9133
1834 Barker H W @ J 3920
1842 Bruce M S Mrs @ W 6009
1847 Warner E J @ W 3370
1848 Young A E Mrs @ W 8-2922
1853 Smith C A @ W 4337
1860 Simons J E @ W 4460
1865 Linsky Renee Mrs @ W 8-3342
1870 Lehman O E jr W 0759
Ashton intersects
1911 Maffioli C C @ W 4709
1914 Hess Dale @ W 1045
1919 de Leon E W @
1927 Dahl R R @ J 5728
1928 Benson F K Mrs @ J 3952
1935 Leiter Rose @ J 5913
1943 Thurgood G N @ J 3350
1951 Osburn E A @ W 3649
Osburn M F Mrs CSP W 3649
1952 Wilmer Alf @
1957 Rowan Key, J 8695
1967 Woodard J A @ W 2216
Napier intersects

GOLDFINCH — North from 3050 Horton av bet Hawk and Falcon
3205 Brown G A @ J 2202
3219 Glenn Adolph @ W 8-3731
3220 Haddock J C @ W 0905
3231 Leppart H C @ J 9978
3232 Kraus J C @
3242 Zuanich Andrew @ J 8422
3254 Vacant
3255 Hupple W B @ J 6680
3265 Guidi A L, J 8387
3266 Vella Jos @ W 2338
Thorne intersects
3315 MacDonald Irene Mrs @ J 6647
3352 Gurling C R @
3370 Marion F A @
Upas intersects
3411 Caulk H B, W 3530
3414 Peck H K @ W 8-3414
3421 Stevens W W @ W 3453
3428 Kelly G M, J 1732
3437 Pinnell R L, J 1360
3447 Pitts G F
3451 Ward A L @ bldg contr W 8-3187
3457 Worden E S, J 5231
3692 Naylor C H
3740 Boyle B F @ J 8093
3748 Iraci Frank @ W 2756
Sutter intersects
3752 Barrett Irvin @ W 1825
3760 Burgad Frank @ J 5695
3768 Weeks J A @ W 5648
3769 Fowler L B @ W 1228
3775 Cavanaugh F B
Cavanaugh Julia @ W 4405
3776 King D F Mrs @ W 8-2195
3781 McGehee M S, J 8122
3784 McGhee J W
3792 Neve J P @ J 7926
3795 Becht N C Mrs @ W 6416
Bush intersects
3801 Mentle E L Mrs @ J 3062
Goldfinch pl begins
3809 Moyer W D, J 4880
3817 Sheldon Alice @ W 3253
3820 Kulich P G
3820½ France M D
3825 Robinson H F @ J 3422
3828 Roper C P @ W 0919
3831 May John @ W 4912
3834 Cate D P @
3837 Bierbower Louise B @ J 6458
3838 Fong Lee @ J 7666
3842 Henrick L L @ W 3555
3901 Rea J S @ J 0639
3904 Nevitt C J @ W 1479
3907 Goldnamer R E Mrs @ J 5884
3910 Woodard A B Mrs @ J 8173
3911 Dutton C J @ W 8-2817
3920 Griffin W G @ W 3320
3921 Hamilton E J @ J 6733
3933 Fry C L, W 0695
3934 Williamson C J
3936 Turner L B
University av intersects
3951 Goldfinch Market W 9183
3952 Arthur H B @ J 3117
3953 Clement Eleanor Mrs W 5896
Hawkins L M Mrs J 1706
Moreland C B
Strickler T E, J 7435
3957 Goldfinch Clnrs W 1632
3962 **Ellenrose Apartments**
Geoghan A D
Haythe T E
Herrill E R @
Marotta C A
Marshall Victor
Sears Mabel Mrs W 8-2522
Wiederspahn J C
Wiggin L D
Young W J
3965 Knickerbocker I B @
3967 Reed Ina Mrs, J 4648
3970 **Goldfinch Apartments**
Bengtson V A, W 0293
Campbell K R Mrs W 5903
Cooper Ida J, W 2257
Farr Bertha A, W 0942
Federle K J jr J 8486
Hawkinson Muriel
Lamb D E, J 6842
Leighner C A
LeVangie Dorothy H, W 5991
Smith Kath J
3971 Hamilton Roe M, W 4481
3974 Fire Dept Sta No 8
3975 Nagel D B @ J 6168
3977 Meads G W real est W 8-1426
Misuraca A V V real est J 5295
3979 Vacant
3981 Carl's Barber Shop
3983 Martha's Beauty Shop W 4116
3987 **Orchid Apts**
Rozella Newton
Walker T O
Washington intersects
4003 Fry L C phys J 7566
Wilson R H dentist J 5153
4010 Chitwood J R auto repr J 7281
4011 Thrifty 5-10-25c Store W 3481
4012 Watts E W, J 7623
4013 Clothesline Lndry W 2971
4021 Mission Hills Bky W 9274
4023 Coronet Soda Bar
4025 Williams D D Stores
4030 Clos John
Mission Hills Dairy Mart & Delicatessen J 6783
4038 Oltman J Jeane Mrs
Oltman's Jwlry & Gift Shop W 8-2632
4040 Vacant
4046 Bunch R E, W 5063
4054 Kochel K L
4061 Vacant
4062 Brown G W @ W 4848
4068 Vacant
4069 Sinner O A @ W 2508
4070 Vacant
4077 Thuli A J @ real est J 6226
4080 Vacant
4084 Wegner P A
4085 Celiceo L C @ W 8-2959
Sullivan L M @ W 6741
4092 Hughes W P @ W 8-3013
4095 Pack A M @ W 8-2555
Lewis intersects
Montecito way intersects
4310 Kinsman R E, J 7332
4311 Wincote C B, J 1909
4320 Anderson K O
4321 Brown J K @ W 6988
4328 Brightwell H W @
4336 Flecher R R @ W 2867
4347 Soukup E J termite control W 8-2402
4363 Hazard B R, W 4433

GOLDFINCH PLACE — East from 3800 Goldfinch, 1 n of Sutter
816 Hayes J P, W 6374

GOLDSMITH (Loma Portal) — Northeast from 2750 Rosecrans
3009 Quattlebaum W I @ B 7553
3017 Whitacre A E Mrs @ B 4814
3020 Gillia A F @ B 0469
3028 Stirling C W @ B 7562
3031 McHenry H D @ B 1767

GOLDSMITH (Loma Portal) — Contd
3036 Sanford E N, B 4537
3044 Peterson H H
3045 Wilson G P B 2-3572
Locust intersects
3105 Trumbo T D, B 3845
3113 Ashley J M @ B 4515
3120 Giraud M J Mrs @ B 0035
3123 Williams C G @
3126 Stull R F @ B 2-3056
3136 Angus John @ B 0534
3143 Stevenson F W @ B 5237
Evergreen intersects
3203 Wallace M M Mrs @ B 6577
3204 Russell R S @ B 5330
3217 Bloedt Louise Mrs B 3550
3220 Henderson A T @ B 7394
3227 Davin J M @ B 4081
3230 Fitze H W, B 2-1986
3235 Peterson G A @ B 2-1929
3238 North W H @ B 2-3167
3243 Hall O J jr B 8460
3246 Knudsen Paul @ B 0632
3252 Baum Etta S @ B 3343
Willow ends
3319 Bach R E @ B 3333
3335 Sinclair Mary B @ B 3322
3353 Forward C H, B 3413
Chatsworth blvd intersects

GONZAGA—Southwest from Frontier, 1 w of Fordham
3402 Harrington J S, B 2-3938
3408 Kennedy J A
3412 Tenney C V, B 2-3918
3416 Williams David
3420 Vacant
3424 Freitag R S, B 2-1261
3428 Lindeneau G D, B 5694
3434 Weber R F, B 7216

GOODWIN (Linda Vista) — West from Drescher, 3 s of Tait
6435 Plantz G H, W 7-0696
6436 Ballard W E, W 7-1511
6445 Vallejo Benedict, W 7-1467
6446 Coxon W R, W 7-0823
6462 Hatch C G, W 7-3069
6472 Gavett J S, W 7-0747
6482 Gautreau A L, W 7-3685
6485 Peteerson R A, W 7-4359
6492 Crayton Donald, W 7-2231
6495 Walter L E, W 7-0283
6501 Martin A R, W 7-2632
6502 Cruz T A, W 7-2889
6511 Marries J C
6512 Lorette Nella D, W 7-4181
6521 Thompson W E
6522 Ridgeway E M Mrs, W 7-0343
6532 Murphy R M
6533 Fabian J G, W 7-1096
6542 Goodwin
6543 Stangl R E, W 7-0952
6552 Copp V O
6555 Solansky E P, W 7-4088
6562 Schelske E W, W 7-1475
6565 Henos M G
6572 Graff W J, W 7-0036
6575 Trask W W, W 7-1493
6582 Davis S M Mrs, W 7-1794
6585 Scholtz Divanna W, W 7-2660
6592 Claussen L D, W 7-3043
6605 Letcher F R, W 7-1403
6606 Koelling L B, W 7-1240
6615 McLaughlin J L, W 7-3127
6616 Boyle G W
6625 Greve J P
6626 Leedom C W, W 7-0120
6635 Parker Winfred C
6636 Denny R S
6645 Weatherby F J, W 7-3905
6646 LeFlore Campbell jr, W 7-2070
6656 Holcombe J B, W 7-0089
6666 Aleman F R
6668 Heathcote R J
6706 Sterbenz P J, W 7-1665
6716 Millburn P L, W 7-1054
6725 Reid K B, W 7-0850
6726 Bradwell G F, W 7-0583
6735 Laughery W W, W 7-1427
6736 Tappan Wm, W 7-0636
6745 Barrett G V, W 7-0106
6746 Forbes J B, W 7-2409

GOSHEN (North San Diego) — North from 2 blks of 5800 Gaines
1273 Genoa Sartorver @ W 8-3877
1281 Ellis W L @ W 8-3152
1330 Robinson Austin @ W 8219

GRANADA AV—North from 2850 A
1301 Schmidt C W @ F 4643
1306 Woodward L D @ F 2452
1311 Vacant
1319 Potter R S @ M 2463
1320 Hilgeman R A @ F 3559
1322 Halley F G @ F 5469
1325 Jones L B, M 1644
1331 Pickering E E @ F 9-8665
1336 Scott Lulu M Mrs @ F 5889
1344 Parker V A @ M 0301
1345 Keough P J @ F 2573
1346 Bush E F @ F 9-8380
Maguire Marie Mrs @
1355 Perkins M W Mrs @ F 9-0541
1360 Davis F L, F 9-1033
Ash intersects
1406 Naylor Leila B Mrs @ M 0519

INDIA ST 1952

INDIA—Contd
2823 Bell E S Mrs
2825 Dillon P M
2827 Hamilton Florence Mrs
2827 Flanagan R L, F 9-5466
2828 Kelly T R
2829 Hoag D C
2830 Stanley S A, F 9-3209
2831 Papke E M, M 8-2692
2832 Nigro J V, F 3180
2840 Canepa John, F 9-3825
2844 Luizzi Natale @ M 2349
2848 Garcia L A @ F 7868
2852 Sabatini Dominick @ F 9-1463
2854 Ryno L T Mrs, F 9-7070
2858 Wallendorff H G, M 1503
2900 Haley H B @ F 4910

Maple intersects

2902 Bert's Welding Shop W 1351
Ventrice Bert @ W 1351
2915 Jeffrey E R, W 5060
2922 Cardani Eug @ J 9818
2924 DeNecochea Caroline Mrs @
2928 Wagner Robt F
2930 Johnston Violet @ J 2465
2932 Hemmen Marie A, W 4110
2936 Dualtone Muffler Mfg Co
J 2465
2957 Vacant
2959 Campanella J E, W 8-3477
2963 Kenyon V V @ J 5769
2966 Frye & Smith Ltd litho
W 8-1156

Nutmeg intersects

2700 A & P Real Estate W 8-1185
2701 Lutz C L @ W 5341
2702 Watt P M @ J 2081
2702a Lynch John
2702b Lichty Zelma Mrs
2704 Bishop T K
2706 Chambers Mary H
2708 Alexander M C
2710 Scroggins Helen
2718 Stromberg Genevieve Mrs
W 8-2830
2720 Coop Amelia Mrs @ W 6490
2722 Bellistri Carlo, W 8-2394
2734 Randall P A Mrs, J 0264
2734½ Crawford Mildred Mrs
W 0826
2736 Taylor W F, J 0661
2740 Cavesina B J
2742 Cavesina Peter, J 2737
2742½ McCausland C A
2747 Palm E A pntr @ J 9947
2760 Harbeston R E @ W 0514

Olive intersects

2801 Simmons D W
2804 Safford W H, M 8-2064
2805 Geudtner Walter jr W 1682
2815 Schmid F C, W 5218
2818 Lucas P T, J 3631
2820 Searcy Arch, W 8-1823
2828 Cicala Anna Mrs @ J 9171
2828½ Pribble C J
2834 Bliss Olga Mrs W 8-3011
2836 Merritt G E, W 6895
2837 Mooney W T
2839 Mott H O, W 2630
2840 F & B Mkt, W 9176
2840½ Isbelle B T, W 9776
2842 Hawkins L E
2842½ Bass E L
2844 Rich V B, W 8-1377
2848 Barnett L J
2849 Banda Ralph @ J 9332
2850 Fernandes Jos, J 3757
2860 Ilderton E M
2867 Tarantino F S @ J 8392
2869 Canson John, W 3786

Palm intersects

2903 Jacobson S A
2905 Grindl S D Mrs @ W 1810
2905½ Parker J W jr
2907 Snodgrass H A
2909 Barton W D
2915 Peck M W Mrs W 5942
2920 Huber N V Mrs @ J 9629
2921 Rigney L F, W 8-1209
2921½ Andrus E W
2923 Brown G C, J 2529
2927 Robbins R L @ W 8-2671
2930 McBride Jas
2932 Aubert Mary Mrs @
2932½ Basel Fredk
Herron Robt
2934 Gundy Jas
2936 Todd J M
2940 Mercurio Michl @ J 1845
2940½ Kelly R T, J 1581
2942 Johnson L M
2944 Basgall J R, J 6765
2945 Stagg H W, J 8165
Splinter C H
2952 Finnegan V B Mrs @
Goy Pauline
rear Harris Martin, J 0981
Morrison Walter, W 6476
2966 Canepa John, J 9361
2966½ Baldwin Madge, J 4495

Quince intersects

3002 Anderson A E
Bagu D L Mrs
Gonzales Manuel
3008 Silva Jose @ W 6840
3014 Lawson A L
3016 Bavaro Michl, W 9245
3016½ Dunn O C, W 8-2015
3020 **Bay View Apts**
Ford R E, W 9245
3040 Barnes V H Mrs
3042 Chase C S
3042a Sligh M E Mrs
3044 Schultz Helen, J 7419
3044a Darrah Barbara
3044½ Woolworth W T
3046 Garber Wm, W 5033
3048 Deibert P P, W 4240
3053 Vacant
3054 Harvey R D, J 1250
3056 Harvey's Grocery J 1250
3058 Cone Lela A
3060 Mitchell H J
3064 Paquette P M, T 1-7998
3068 Brooks Colleen

Redwood intersects

3103 Compleet Interior Clns
W 3366
3114 Sloan Kenneth, J 5436
3116 King E E, W 8-3070
3124 Preciada Richd @ J 1290
3129 Porter H R @
3131 Porters Gro
3140 Whitney F A Mrs @
3141 Walt R L, W 1681
3153 Collender Louis @
3167 Green J B
3171 Douglas Bayview Serv gas sta
W 9362

Spruce intersects

3232 Am Clns J 2111
3241 Engineers & Architects Assn
J 9253
3243 Schroder J D
3252 Mendenhall E S Mrs J 2068
3254 Budge K B, J 2319
3256 Ostergard J M, W 8-3706
3258 Joncas H J, J 5536
3260 Piearcy A L
3265 Harry J L auto body reprs
W 8-1451

Sassafras intersects

3300 Airmen's Hotel W 9787
Meers Shelburn, W 9787
3302 S D Insulation & Roofing Co
Inc W 6355
3325 Tuffley M K Mrs @ J 2457
3336 Plastik-Arts W 3415
3341 Stewart Q G, W 8-3561
3341½ Reeve J B, J 1205
3343 Simpson Rose
3343½ Hennessey Harry, J 3300
3345 Shaull M T
3347 Bonsall W E, W 4305
3353 Eichen H R, J 1136
3355 Morton Frank

Thorn intersects

3468 **El Francisco Apts**
Bullin G P
Dunn T E
Johnson Emmett
Jones C D
Minard G L jr
Monroe E D
Narvet Jos jr
Paratt Jack
Schluter D H, W 8-2577
Stafford Roy
Thomas Don

Upas intersects

3503 Welch W E, J 1980
3505 Currier T H
3507 Prall H L
3509 Stevens W E, W 2953
3512 Andrews T N @ J 8925
3514 Fancher Roy, W 8-1486
3519 Lamoreaux P W @ J 3784
3525 Wilcox Florence Mrs W 3489
3526 Billick Mary E, J 9892
Brown W E, J 8557
Iddings W E jr W 4253
Oberto Dominick @ W 6720
Scott J M
Snodgrass R L, W 4957
3527 Wright Marvin
3529 Jamieson D N @ W 6927
3536 Elkins J R
3537 Osmundson G J
Perone R N, J 0582
3538 Myers Jack, W 5652
3540 Holt R W @ W 8-1450
3541 Jones Jean L, J 2839
3544 Brayfield G E @ J 9949
3545 Derbes E J, W 0694
3546 Walton C H, W 3222
3547 Fuller F R, J 9816
3547½ Leach K C
3549 Edwards Willis, W 2542

Vine intersects
Glenwood dr intersects
Walnut av intersects

3616 Green A F, J 2607
3620 Brindle Clarence
McClelland R H, W 8-1016
3621 Cunningham J O Mrs
3630 Walton Ernest
3633 Atlas Transfer & Stge Co
W 0126
Stipp R R
3642 Brown Wayman M, barber
W 9981
3645 San Diego Exterminating Co
J 6500

Chalmers intersects

3652 **Normandy Apts**
Bloomfield Norris, W 8-2739
Burt Jo Ann
Knutson L T, J 5951
McDonald F V, J 9042
Metzger C H, W 8-2601
Moore Berneice Mrs
Pettkoske F A, W 8-1791

Normandy Apts—Contd
Rust K W, W 8-1675
Soliday Donna Mrs J 3663
Steele A W, J 1486
3653 Vacant
3660 Vacant
3661 Camp India Auto Court
W 6068
Davis Albert, W 6068
3662 Dillon J E @ J 4833
3664 Banes M H, J 2700
3667 Palomar Shoe Shop, W 2080
3668 Clauser John
3670 Dillon Ruth Mrs
3672 McFann C B
3674 Ratliff Saml, J 4057
3675 Haley's Payless liquors
W 9771
3676 Warner A E @ W 0462
Pedrin Albert, W 2080
3678 Bock E J, W 8-3830
3680 Connery Irene O
3682 Duffy C C
3684 Wordsworth M A Mrs
3688 McLine Wm
3690 Culver Isabelle Mrs
3692 Williams L J
3695 El India Shop tortilla mfrs
W 9555
3697 Corkcrew The J 5789
3698 McPherson Susie Mrs @
J 3990
3701 Ladd W E, J 7147

Winder intersects

3702 Palomar Golf Park W 9334
Palomar Sandwich Shop
W 9334
3711 Estes H B, J 0494
Walter N C auto repr W 1495
3719 Aiello P M @ W 0300
3731 Larsen L A Mrs @ W 5090
3735 DiGiovanni Modestino @
W 3523
3735½ England Stanley, J 7387
3737 Bryan Co furn J 9987
3739 Ted's Studio of Beauty
beauty shop W 1982
3741 Hurd A O, W 1451
3743 Thomas C W, W 8-2854
3745 Randall Dorothy Mrs
3745½ Phillips H M
3749 Penland C L, W 8-3284
3751 Perry D H, J 0372

Andrews Intersects

3753 Mission Hills Realty Co
W 0169
3766 Rick G A
3768 Treantafilos C G
3770 Allen C R
3772 Royce Helen Mrs
3772½ Cope J B
3779 Piersall F L
3780 Iversen T L @ W 2495
3781 Williams J E
3792 Blanchard W H @ J 0778

INDIANA—North from 1800 E Upas

3503 Burgster N S Mrs @ J 7148
3514 Inhofe E V @ J 1386
3515 Burns J M Mrs
3517 Lemon D M @
3522 Jarrell M A Mrs
3524 Foster H E Mrs J 1259
3528 Hopkins J A, W 8-2087
3530 Hayes V R Mrs @ J 5497
3532 Nottingham Loring
3537 Boettger Herman, W 8-2145
3538 Arnold R S @ J 5947
3544 DeWoody C A, J 6294
3545 Edson M B Mrs @
3546 Bacon R L
3547 Hane G K, J 8522
3548 Anderson Nelson, W 0545
3549 VanKammen S M Mrs W 1019
3551 Brown J A Mrs
3554 Thomas M E Mrs J 8352
Jones D I
Sell W C
3559 Jones I L, W 6997
Nelson Bessie Mrs @ J 9692
3604 Vacant
3605 Cramer H G jr @ W 2619
3606 Devorraux H V, W 8-3250
3606½ Vacant
3608 Murrell E L Mrs W 5529
3608½ Cash Hattie Mrs
3610 DeMuth J M, J 3897
3610½ Batcher Jennie I @ W 1428
3611 Klima T J @ W 8-2310
3612 Warner V E, J 3444
3612½ Roff C V, W 8-3490
3613 Gaylor C W
3614 Vacant
3616 Buckley E A, J 1012
3621 Vacant
3622 Driver Justine Mrs @ W 1312
3623 Melton C J, W 8-2710
3624 Paxton T J, W 0751
3627 Eickmeyer Clara Mrs @ J 4673
3628 Vacant
3630 Ferrantelli Peter @ W 2879
3633 Furgeson O L, W 8-1469
3634 Gehring N J phys W 3756
3636 Hires R M
3637 Sylvester R A, W 0903
3638 Sysak Steph @ W 5158
3640 Dendis R J, W 4274
3641 Konker E F @ W 8-3345
3642 Williams C R, J 4280
3644 Creswick H L @ W 6738
3650 Camp Jas

INDIANA—Contd
3652 Graham R C, W 8-2319
3654 Stone Hickman, J 0444

Cypress av intersects

3660 Lawson Georgia L, W 4336
3662 Hubbard H F, J 8713
3665 Daedler M C Mrs J 3049
3667 Ferrell Rose Mrs
3668 Swank R J, W 8-3550
3669 Vance Harry J @ J 3091
3670 Anderson A W, J 0530
3672 Metz M R Mrs, W 5112
3674 Ayers E D, J 1436
3676 Bartlett L L
3680 Avoyer Elise Mrs @ J 7945
3681 Jordan J E @ W 1481
3683 Twisleton P L Mrs J 2501
3683½ Slater W B
3685 Olivier F R, J 3493
3688 VanWinkle L S @ W 4547
3689 DuPaul Josephine Mrs @
W 1257
3690 Taylor Helen Mrs W 0533
3692 Bolton E K Mrs W 2576
3694 Cramer E J @ J 0710
3697 Antonioli N M @ J 8054
3702 Najoks Christopher
3704 Rumbutis Stanislaw @ J 3321
3706 Clark G W, J 1797
3707 Crosby K W @ J 8569
3708 O'Quin H W, W 8-1024
3710 Franckins R M @ W 4793
3712 Lee Jas
3714 Heggs V E, W 8-2124
3715 Snell S W @ J 9006
3716 Counts I W
3718 Waldron W L
3720 Wickman E L @ J 9046
3721 Peranski Z F @ W 8-3475
3729 Buttrill M L jr @ J 0147
3733 Baldwin E A Mrs @

INDIANAPOLIS (East San Diego)—Northeast from 4750 Laurel

INEZ (LaPlaya)—West from 1050 Bow av

3522 Bowdle J W @ B 7757
3530 Tate B R Mrs @ B 9916

INGALLS (Mission Hills)—North from 1 blk s of 1300 Douglass

3952 Martinson G J @ J 5281
3961 Fitzer A S @ lwyr J 1157
3967 Clarke G R @ J 0892
3973 Jahnke E B Mrs @ W 1643
3978 Shockley F B, W 0276
3979 Lasco Henry @ W 8-3653
3988 Lucas Eulalia M, W 5132
rear Reynolds M E
3994 Ramay J L, W 1415

Washington intersects

4005 Rutledge R L
4011 Summerlin H L @ W 4835
4020 Phelps Arth @ J 2893
4021 Anseth D C, W 5670
4024 Pellman J G @ J 8135
4027 Shephard W O @ J 5629
4028 Harcleroad M M Mrs @
W 1855
4033 Lawton E M Mrs @ J 2887

Ft Stockton dr intersects

4060 Stanko J E
Carlton D H
4061 Jennings M C @ W 1032
4062 Hill Wm, W 8-2991
4068 Swanson Karolina Mrs @
W 8-1970
4068½ Guiliane David
4069 Lavezzi H A @ W 2609
4070 Moore Robt
4072 Pitts J O
4074 Allen G W, W 8-2925
Wright H A, W 8-2598
4082 Mumford E C @ W 2856
4087 Garrett T P @ W 1278
4090 Brvitz C M Mrs, W 1996
Nicholls W R, W 1996

W Lewis intersects

4104 Mills W S @ J 0951
4112 Mulligan A M @ W 5396
4120 Mitchell Austin @ W 5368
4121 McKeown C F @ J 0962
4128 Cunnion T J @ W 8-1909
4129 Woodward C H @ J 9144
4133 Snodgrass D W @ J 7958
4140 Ahring O F @ J 7106
4141 Noisat W M Mrs @ J 6480
4142 Pepin W A @ W 2993
4143 Klein D E
4145 Castator R A, J 2802
4147 Kindy Gordon, W 8-1988

Montecito way intersects

4151 Donovan E W, F 9-4603
Wilson A J @ W 0479
4159 Haun F L Mrs @ J 6429
4162 Bowersock E H @
4165 Kendall C I Mrs @ J 1278
4167 Pohle E W jr
4169 Durham Francis jr J 1987
4171 Wiles H E, J 2461
4185 Emery K M Mrs @ J 1842

INGELOW (Roseville)—Northwest from 2 blks s of 1550 Rosecrans

2910 Kirkhuff W J
2910½ Bennett J W
2910½ Oswald E N
2910¾ Metzger D R
2912 Walsh W J @ B 2-3432
2915 Lattin J L @ B 7848
2920 Pais A J, B 6905
2929 Buecne N J @ B 6450

KETTNER BLVD 1952

2235 PACIFIC HIGHWAY — USED CARS — PHONE FRANKLIN 9-8083

KETTNER BLVD—Contd
1671 Ghio Battista
1673 Canepa John @ M 1406
1702-10 Electrical Products Corp F 7565
1718 Domaino Filippo
1719 Ciaramitaro Saml M 1573
1731 Vacant
1745 Cecchin A J, M 3486
1753 Asaro Jos @ F 9-0986
1760 Carlson Co The oil burning ranges F 5444
1764 General Elec Appliances F 9-6165
1765 Annaloro J C, F 9-2405
Cloud J K
1770 Baird A N bldg specialties M 7173
1780 Asbestos Products Co F 7665
1781 Carniglia John, F 1490
Fir intersects
1902 Boulevard Paint Co M 9-1824
Hultgren Helge painting contr M 0210
1903 Carniglia Augustino @ F 9-0505
1907 Corini Jos, F 9-1606
1915 Hardy M P Mrs, F 4566
1929 Colombo Winery Liquor F 9-9926
1971 Kelley Lndy & Dry Cln F 7454
Grape intersects
2001 Gunther-Shirley-Trepte Contrs bldg contrs M 6188
Trepte Constn Co M 6188
2030 Baird-Hackett Sound Control acoustic materials M 0179
2036 Davis G M Mrs real est F 9-2459
Quiry E A pntr F 9-8400
2044 Waterfront liquors F 4777
Myers C M, F 4777
2045 Shanks & Wright electronics F 9-0176
2054 Vacant
2055 Wells Flossy L Rev F 0532
2057 Zolezzi Angela Mrs @ F 5073
2071 Sullins Beatrice E, F 8660
2056 Eden Helmar Inc contrs F 0108
Eden Helmer, F 0108
Hawthorn intersects
2101 Ortega's Cafe M 6382
Ortega R G @ M 6382
2136 Benton C H Inc paint mfrs F 5108
2151 D'Angelo Leo @ F 9-2357
2175 Standard Brands Inc whol gro F 8824
Ivy intersects
2201 Chapman Gilbert Co (whse) Chapman R B insecticides mfr
2210 Antelline F F htg contr F 6663
2215 US Battery Mfg Co F 4901
2217 Vacant
2227 Davis J C
O'Shell W E
2228 Helix Sup Inc bldrs sup F 9-9394
Pabco Products Inc whol paint F 9-9394
2229 Crivello F @ M 9077
2241 Dalfio Francesca Mrs @ M 3764
2251 Cresci Gaetano, M 5570
2253 Massa S S, F 2252
2266 Haulman Welding Wks F 9-0558
Juniper intersects
2308 SanDiego Macaroni Mfg Co F 9-8614
2311 Gray Enterprises real est F 9-1387
Gray's Mortgage & Loan Corp F 9-1387
Loma Lands Inc F 9-1387
2321 Stagnaro Marcella Mrs @ M 7069
2327 Trevisani Benedetta Mrs M 5945
2345 Alioto Rosario F 2494
2347 Balistreri John @ F 3054
Kalmia intersects
2400 Dryer's Furniture Co F 6421
DainDiego Heaven On Earth Club F 6421
2401 Dryer's Furn Co whse F 6421
2419 Castagnolo John @
2435 Dunn H E @
2443 Sanfilippo Tony @ net repr F 9-8494
2453 Parman J L, M 8-2069
2455 Zizzo D A, F 9-5693
Laurel intersects
2501 Club liquors F 9-9926
2505 Lorillard P Co whol tob F 2651
2515 Duncan Thos, M 0890
2517 Kemp L K
McKeown L W
2519 Barnett H B
2521 Wohlford R L
2525 Harris P C
2548 Naval Research Ofc M 5075
2550 Superior Roofing F 9-0269
2555 Giacalone Frank @
2557 Baker Gladys Mrs
Maple intersects
2601 Vacant
2603 Isaac E M Mrs
2605 Mader M R Mrs
2607 Cassel M D
2609 Cassel D F
2611 Vacant
2621 Badella E H
2641 Culligan Soft Water Serv of SanDiego J 0321
2651 Stokes R E, W 8-2060
2563 Estes Geo, W 0996
2655 Giordano Anthony
2657 Taylor Roy, J 3814
2676 CH&N Pattern Shop J 7871
2380 Capitol Electric Co contrs J 3168
Nutmeg intersects
2700 Special Serv Flooring Corp W 0168
2704 Wanzer A J @ W 9756
2711 Victor Equip Co welding apparatus W 6372
2745 Acme Saw & Sup W 0124
rear Kettner Radiator J 6917
Overnight Round Saw Serv J 6406
2753 Kettner Radio reprs J 4441
Olive intersects
2805 Ghio Matt @ W 2833
2812 Pat's Cafe W 9320
2815 Zolezzi Rosa Mrs @
2824 Heineke L C, W 5077
2825 Massa Louis @ J 3764
2830 Lococo Philip, W 3892
2836 Ghio A C Mrs, W 8-2591
2839 Asarow Andrew @ W 8-1898
Palm intersects
2903 Rouke & Sharp prntrs W 8-1235
2917 Bowers & Co hosp sups W 6339
2918 Valin M F, W 8-2480
2920 Broell P C @ W 6255
2931 Welding & Cutting Apparatus J 3136
2941 Angle J S
2942 LaVee Harry @
2953 Gordon A G @ J 8642
2958 Leesman G J @ J 6637
2960 Scholder J G, J 1736
2962 Kolb L A jr W 2079
Quince intersects
3001 Milburn Ernest
3002 Colombo Fidel @ W 2980
3003 Vacant
3009 Harrison R W, W 2440
3011 Swearengin G E Mrs J 6130
3013 Vacant
3017 Gluyas J R
3017½ Craig S R, W 5211
3019 Green H E
3020 McIvor Geo cabtmkr J 9750
3027 Hart O J
3028 Kearney C E, W 8-2546
3029 Detton Betty
3030 Hubele E O
3031 Moody W D, W 0439
3032 McDonald J W
3033 Graham R B
3034 Morris C J, W 2868
3038 Cottrell H A, J 2252
3040 Adams C R
3041 Aufort W H
3042 Tremble J S, J 2047
3043 Vermilya J W, W 1624
3044 Johnson C W, J 2526
3045 Smith D W
3046 Blanchard J D
Redwood intersects
3105 Koehler Amelia Mrs, W 0646
3109 Rennells C L
3111 Rich I W, J 5733
3113 Armstrong R L, W 8-1567
3125 Melcheng W F @ J 8374
3136 Switters Freda A ins agt J 3114
3140 Ace Land & Mortgage Co loans J 3114
3143 Vacant
3146 Kelley W C
3148 Froehlich B D
3148½ O'Quin J D, J 7589
3161 Crain L M jr
3163 Vacant
3165 Albany W H
3167 Tomasin J B
Spruce intersects
3205 Lazear C D gas sta W 9563
German E J
Stanley Hobart
Thompson J D @ W 5988
Witt D H
3231 San Diego Seat Adv Co J 2974
3237 Sappington Ross
3239 Ogilvie W D, W 4707
3241 Mercurio Mary Mrs J 6549
3242 Ricker W H
3243 Topolski Chas
3249 Foster Marion O
3251 Wong Stella H @
3253 Gabrielle John jr
3255 Elliott T R
3257 Crawford Frances, W 4719
Sassafras intersects
3334 Welding Engineering W 8-3740
3338 Vacant
3340 Rollins M V
3342 Horner H H
3346 Cormier A C
3348 Carmichael J V, W 8-3008
3370 Soares Euzebia Mrs @ J 1285
Samayva A M
Turner Ruby M Mrs
rear Brandon Russell
Thorn intersects
3420 Coggeshall A W plmb J 6979
3433 Swope Termite & Fungi Co pest control J 7471
3441 Nelson E M @
3444 Ilavelli M L
3452 Jacobsen Ernest, J 7434
3455 Fletcher Elmer
3455½ Phelps R D @
3456 McDaniel W H
3465 Vacant
3466 Vacant
3467 Pedrin Albert jr W 6404
3468 McCrohan Dan
3469 Jackson S R
3471 Watkins V L
3473 Hill H R, W 8-1352
Upas intersects
3505 Neidig W H, J 3832
3507 Clark Luella, W 1410
3509 Hardy W A, W 6800
3511 Boucher Chas, J 8032
3513 Dennis G M
3515 Eichinger John
3517 Tate Clyde
3519 Richards R H, J 8309
3521 Fowler Dorothy Mrs J 7175
3523 Graham I H
3527 Moore V I
3529 Sowersby Jas
3531 Wetherbee R C, W 3759
3533 Halvorson D K
3535 Schelly Burt, J 1745
3537 Babbs Loren
3539 Ainsworth J P
3541 Jones Chas, W 8-2024
Vine intersects
3553 Baden C F
3575 Fire Dept Sta No 20
Walnut av intersects
3600 Century Lmbr & Mill Co J 3125
3603 Holladay W J, J 0338
3605 Marker L U, W 9909
3607 Cruger A B, J 6513
3609 Spence K W
3611 M & M Cafe W 5352
3611a McClelland LaVerne Mrs J 5908
3611b Palmer Walter D, W 8-2871
3619 Costello C E broker J 0794
Eby R R real est J 0794
Mellan & Qualls plmbrs J 9927
Sherman H A real est J 0794
3631 Olf Abr @ J 3880
3637 McMorrow Carrie Mrs @ J 3455
Chalmers intersects
3655 Thiem A G @
3657 Rubin Maurice & Sons news distr J 1755
3663 Brown Harold C
Brown Henry C
Fisher Evelyn
3663½ Burnett Chas
3665 Vacant
3667 Taylor S L Mrs J 5031
rear Unger P S, W 2982
3667½ Godfrey V E, J 8976
3674 Bonded Cleaners & Lndry W 9027
3675 Knox N A Mrs
3677 Fitzgerald J B

KETTNER BLVD—Contd
3679 Leckliter Helen Mrs J 6993
3681 Franklin G L Mrs
3684 Ross News Co news distr J 8525
3686 Vacant
3695 Whittington H J, J 3057
Winder intersects
3704 McCollom R B Mrs ins agt J 3175
McCollom W M acct J 3175 and J 3176
3706 Frazier Max
3708 Ogle C C, J 7228
3710 Baker L E
3730 Bethel Chas
3734 Walker R A shtmtlwkr W 0893
3744 Koehl G J, J 2212
3747 Palomar Lndry and Dry Clnrs J 5181
Andrews intersects
3765 Morris R E, W 1550
3767 Alves Anthony, J 4242
3776 Curry G L, W 8-2168
3776½ Holloway J H Mrs
3778 Sylvester M A Mrs W 4965
3779 McCowan B E @ J 8206
3785 Halwick Lucille @ J 8157
3792 Alexander W A
3794 McDonald J A, W 5464
3796 Smith D M @
3797 Fowler E W @ J 0804
McKee intersects
3802 Nichols F L, W 8-2097
3803 Oslar W R @ W 1840
3809 Biendara J A @ W 8-3398
3821 Rice J D Mrs @ W 2489
3830 Penkowski Adams
3831 Fouts E L Mrs @ J 1602
Wheeler Mabel Mrs
3832 Komos H J @ W 5578
3833 Mason R A, W 8-1796
3838 Morse N E
3841 Austin V M Mrs @ J 8346
Unger E J, W 5965
3844 Devine Betty, W 4726
3847 Farrell F R, J 6986
3848 Bullard Margt @ J 3347
Pringle intersects
3857 Wellman S C
3859 Hughes H E
3865 Bolhuis Alice, W 8-1133

KEW TERRACE — South of Nutmeg bet Teresita and Boundary
2603 Vismara Mario @ T 1-8442
2604 Trelease J A @ R 7455
2609 Ramsey M O @ T 9747
2610 Mentzee R J @ T 0988
2615 Griffin F J @ T 5909
2618 Burke W L @ T 1-1719
2623 Tilton E B @ R 7784
2624 Combs L A @ T 1-2901

KEY WEST LANE (Frontier Homes Housing Project)
3201 Lynch J E
3202 Kirby T L
3205 Christensen F M
3206 Addington M G
3209 Givens R D
3210 Labbe J R
3213 Fenstermacher E R
3214 Zaleski S D
3217 Motes G E
3218 Schofield D T
3221 Crane C D
3222 Stover F E

KING (North San Diego) — Southeast from 750 Lieta

KINGSLEY (Loma Portal) — Northwest from 2950 Rosecrans
3003 Faulkner H R @ B 4151
3021 Wright L A II @ B 6097
3022 O'Rourke C F, B 7059
3030 Levy David @ B 2-3026
3035 Warren W L @ B 8672
3036 Sample W jr @ B 8665
Locust intersects
3104 Rist A E, B 1449
3105 Shearer G W @ B 3384
3111 Crossman H M @ B 8576
3114 Waterbury E N Mrs @ B 7755
3121 Cartwright A B @ B 7058
3122 Connelley H H @ B 2-2473
3130 Gould S C @ B 0484
3131 Bartel R F @ B 3734
3141 Cartwright Grace Mrs @ B 5492
Gillespie J P
Evergreen intersects
3212 Hurlburt G G @ B 3315
3226 Heissel E J Mrs @ B 5597
3641 Post L M @ B 7472
3642 Caine M R @ B 2-1763
3647 Smith C J, B 2-2843
3648 Bonner K H @ B 2-2497
3653 Duncan W S

CREDIT REPORTING
Prompt, Accurate Service
MERCHANTS CREDIT ASSOCIATION
RETAILERS CREDIT ASSOCIATION
15th FLOOR SAN DIEGO TRUST & SAVINGS BUILDING
TELEPHONE FRANKLIN 6241
Affiliated with the National Retail Credit Association, The Associated Credit Bureaus of California, Inc. and Associated Credit Bureaus of America
COLLECTIONS $ FOR D-E-B-T-S

CECIL B. GROVE - Contractor
DUMP TRUCKING - EXCAVATING - GRADING - CRUSHED ROCK - SAND - GRAVEL
3216 Island Ave. Franklin 7474

OVERLOOK DRIVE E—Contd
4254 Ellison M L @ T 1-8022
4260 Easton O W @ T 0297
4305 McQuaid R B @ T 3-1812
4306 Frank H J @ R 0312
4311 Crouse W E @ R 0241
4312 Sanders Andrew @ R 0900
4317 Messick J A @ T 1-3832
4318 Snow A L @ T 2424
4325 Cordell C E @ T 4435
4326 Hoffmann K R @ T 1-6892
4331 Nichols W A @ T 1-5732
4332 Chartier R A @ T 1-4974
4338 Michaelis L M @ R 2508
4339 Lewis J T @ T 9811
4344 Thomas W O @ T 1-8222
4345 Clark C L @ T 9208
4351 Weiss R R @ R 5718
4352 Fisher W L @ T 1-7232
4359 Hall S H, T 1-6441

OVERLOOK DRIVE, WEST—South from 5800 Trojan, 1 w of E Overlook dr
4204 Stiltner H H @ R 6919
4210 Lesser Jas Mrs
4216 Camarda Frank @ T 1-7959
4219 Parker W K @ T 1-7636
4220 True W R, T 1-7084
4226 Jullen E F @ T 5293
4232 Anderson J T @ T 1-7223
4238 Danon S C @
4244 Rivers R A @ T 5318
4245 Karpman Ephraim @ R 3400
4250 Farris R L, R 7383
4255 Bell R J @ T 1-6493
4256 Brick R W, T 2863
4261 Overton H W @ T 0313
4262 Patz F E @ T 1-4011
4267 Saunders E C @ R 1066
4268 Hauser L D @ T 1-6761
4273 Cooter G R @ T 1-4517
4274 Loch W Y @ T 1-5748
4279 Harris R M @ T 1-6316
4280 Ryan H H @ T 9797
4304 Hilbish R D, T 1-6144
4305 Moncey R J @ T 1-1320
4315 Chamberlin Russell @
4316 Odil J F @ T 1-4537
4325 Thorne M G @ R 6826
4328 Kalanquin R B @ T 1-6886
4335 Silverstein V N @ R 1404
4340 Wolf N L @ T 1-6410
4345 Shilling P P @ T 1-5962
4350 Steffen W C @ T 1-2175
4355 Watson E F @ T 1-2605
4360 Rimoldi E J, T 1-5350
4365 Underwood D O @ R 7774
4375 Smith W W @ R 5685

OWEN (La Playa)—West from 500 San Antonio av
2922 McLean R K @ B 7311
2930 Bunell J W @ B 2-3149
2939 Miller C E Mrs @ B 5284
Reeder E J @ B 5284
Rosecrans intersects
3033 Morales L M @ B 2-1611
San Elijo intersects
3117 Thompson G C Mrs
3120 Strawn A E Mrs @ B 4351

OZARK N (Encanto)—North from 4920 Imperial av
202 Pankratz L M, M 4-2150
205 Forbes J C @ M 4-4082
206 Kingston Alf @ M 4-1084
209 Smitherman W A @ M 4841
212 Forbes G E @ M 4-2565
Woods R H H
217 Turner R G @ M 4-3234
218 Morgan D J, M 4-1621
219 Notter F E @ M 4-1786
222 Pierce Chas
222½ McAnally R W @
225 Smith G S @ house mover M 4-5707
314 Klassen C A @ M 4-1358
323 VanDuzer H M @ M 4-2039
334 Healey C A @ M 4-4161
335 Perry E E @ M 4-4136

OZARK S (Encanto)—South from 4920 Imperial av
105 Kocher M E
107 Vacant
144 Chism H G
146 Carlson E J, M 4-1330
214 Crewse Cofer, M 4-7422
218 Sharpnack J M @ M 4-3747
220 Hudson R D, M 4-6591
231 Ludovici J @ M 4-5001
237 Hesterberg Maxine Mrs M 4-7276
243 Tabler Gladys Mrs @ M 4-2855
251 Kuhle Jeannette Mrs
251½ Sabin E J
305 Smutny Bertha M, M 4-7034
309 Smutny Louis @ M 4-4763
317 Burgess D I Mrs
327 Marshall Albert @ M 4-1853
344 Marks J R, M 4-5382
405 Martin W D, M 4-2189
411 Webb O E @ M 4-2252
429 Daniel L S @ M 4-3426
436 Morrison A G @

PACIFIC BEACH DRIVE (Formerly Pacific Av; Pacific Beach)—East from 4100 Ocean blvd
722 Holand Clyde @ H 8-5427
729 Ebert P C W
731 Gandolfi P F, H 8-0178
735 Mangum D H @ H 8-4109
747 Rigoll-Barron Consln Co bldg contrs H 8-2842
816 MacLean A B @ H 8-7442
824 Conover Roy @ H 8-7571
832 Walsh W E, H 8-1470
840 Mandell Harry @ H 8-7770
850 Beukema H J @ H 8-6047
911 Seiler W E @ H 8-3210
919 Moore K H @ H 8-3279
924 Mayse D W jr @ H 8-5339
927 Denton Kenneth @ H 8-2354
935 Pridemore R P @ H 8-0074
936 Leonard C A @ H 8-5932
945 Wisdom M V @ H 8-7293
952 Mitchell T T @ H 8-3400
Cass intersects
1002 Wark A S, H 8-5687
1012 Perry L J @ H 8-2340
1020 Schiefer W E @ H 8-4663
1025 Rice B F Mrs @ H 8-2364
1028 Ybarrondo E C @ H 8-8994
1046 Morrison A H @ H 8-4163
1050 Olsen Holger @ H 8-8692
1060 Kelly J S @ H 8-5569
1068 France V A @ H 8-5980
1071 Allen F W @ H 8-6910
1076 Falvey S R, H 8-7846
Dawes av intersects
1102 Jarvis J F @ H 8-2123
1111 Hunt D L, H 8-9222
Zlac Rowing Club H 8-9222
1112 Wynn L C @ H 8-7054
1120 Bailey E J @ H 8-3181
rear Bradfield Jas
1125 Ingle H J @ H 8-2468
1145 Johnson M W, H 8-6282
1152 Miller J A @ H 8-2130
1160 Lynch Howard @ H 8-2034
1163 Hess C H @ H 8-5007
1164 Gillespie L P Mrs
1168 Kueny F H @
1173 Diamond N W @ H 8-2404
1174 Long M A @ H 8-2752
1175 Diamond A E @ H 8-6171
1176 Nelson C A, H 8-2767
1178 Delbert N K
1183 Watt D F, H 8-0389
Everts intersects
1205 Sawyer J W @ H 8-2420
1211 Brooks C E @
1212 Dean K J Mrs @ H 8-8751
1220 McCall L S @ H 8-4607
1221 Laughlin J J @ H 8-3302
1226 Slagle R E, H 8-1255
1228 Klauk M F
1229 Albright E H @ H 8-3860
1230 Cooper W L jr, H 8-2928
1232 Wilson E W @ H 8-6044
1235 Bair E S @ H 8-7972
1243 Miller W E real est @ H 8-4436
1246 Ernst J R @ H 8-3277
1251 Sarkiss Hrand @ H 8-3026
1254 Thomson Elmer @ H 8-3193
1259 Boughton D C @ H 8-3496
1264 Moneysmith A D
1267 Walter A E @ H 8-8165
1268 Douglas Monte @ H 8-2132
1275 Tobin T M @ H 8-5115
1278 Pedersen Jens @ H 8-3339
Fanuel intersects
1304 Grabowsky T A, H 8-4492
1312 Burgess L V @ H 8-6844
1320 New J R @ H 8-3904
1321 Cromer R E @ H 8-6806
1327 Vacant
1330 Hodges E D @ H 8-3184
1335 Crotty J R @ H 8-3161
1343 Bertrand E L, H 8-2916
1346 Lisle W K @ H 8-4354
1351 Morton R C, H 8-4458
1356 Inhofe Rose Mrs @ H 8-4203
1360 Jones J C @
1361 Felix C A @ H 8-4294
1364 Dailey L A Mrs @ H 8-2817
1368 Moore Joyce
1369 Bell E R @ H 8-3502
1375 Edwards E C @ H 8-7196
1376 Vacant
Gresham intersects
1401 Proulx J B @ H 8-8841
1404 Terry J C, H 8-2785
1412 Beaty R G @ H 8-5243
rear Burnwood F A
1420 Comstock G F, H 8-4095
1422 Oster F F Rev @ H 8-6567
1424 Borysiewicz A F, H 8-9141
1432 Shaw Burt
1434 Osbrink R H, H 8-1543
1438 Knox I M Mrs H 8-4465
1440 Bradbeer C B, H 8-5543
1442 Alschuler Geo @ H 8-4817
1444 Randall Wm
1471 Marchette D E
1481 Guedon Wm, H 8-1439
Haines intersects
1510 Watkins D W @
1520 Plummer L A
1521 Blackman D G, H 8-1844
1530 Harris W A @ H 8-8772
1532 Floyd T J
1534 Smith R M jr
1536 Vacant
1542 Staples R H, H 8-4085
1542½ Peschall F J, H 8-9956
1544 Ronoser R M
1544½ Wood C O, H 8-4025
1550 Beyton G O
1552 Medin L L
1560 Braun M L @ H 8-9942
1564 Bruno Anthony @
1568 Anderson Rosemarie Mrs @
1572 West H T
1575 Campbell E M watch mkr
1577 Williamson Margt S, H 8-0051
1616 Crocker C M @ H 8-8415
1626 Melby E A Mrs @ H 8-1037
1636 DiBiaso Michl @ H 8-1693
1646 Schueler H A @
1656 Parker G H @ H 8-9779
Promontory intersects
Ingraham intersects
Jewell intersects
1704 Carey Benj @ H 8-5440
1714 Baxter S H, H 8-4670
rear Graham Gentiliska Mrs @ H 8-4670
1720 Parker S A Rev H 8-3575
1730 Zander C J @ H 8-6201
1731 Martin Merrill @ H 8-4545
Shasta intersects
1744 Kirkpatrick C L @ H 8-8240
1754 Hafey C L @ H 8-6310
1756 Batson H H @ H 8-3349
1760 Peterson F J @
1761 Roberts N W @ H 8-6826
1768 McAllister T F @ H 8-2984
1778 Bunch F L jr @ H 8-6065
North Shore School of Fine Arts H 8-6065
Kendall intersects
1804 Chatterton R A @ H 8-5912
1812 Garner T A @ H 8-8898
1821 Vess E L
1822 Wery Emil @ H 8-5902
1828 Smith L A @ H 8-6440
1836 Mattson C A @ H 8-3013
Sequoia intersects
1846 Jackson C R @ H 8-1866
1854 Kelly L Y @ H 8-6880
1855 Hayden R J @ H 8-9121
1860 Brotherton T W @ H 8-6901
1870 Young B A
1878 Zamba John @ H 8-7384
Lamont intersects
1913 Morris Alice Mrs @ H 8-9913
1914 King A E, H 8-8709
1916 Morris J S @ H 8-7920
1925 Martine E E @
1928 Lihben Edith B @ H 4196
rear Symmonds W L
1956 Dysart L M @ H 8-1048
1959 Hilbert R E @ H 8-5155
1968 Sharpless C F Mrs @ H 8-4520
1970 Bair G G @ H 8-2550
Morrell intersects
2014 Gordon G B @ H 8-1410

PACIFIC HIGHWAY (Formerly Pacific Blvd)—North from 900 W Market, 2 w of Kettner blvd
ft Harbor House F 6116
—— San Diego-Coronado Ferry Landing M 5879
525 Municipal Court Dept 5 County Criminal and Traffic Div F 9-6061
West G intersects
West F intersects
West E intersects
Broadway intersects
600 Waddell's Red Service M 6600
1220 Naval Public Wks M 3871
1305 Harbor Travelodge motel F 0398
Moss H L @
Ash intersects
1405 Standard Station M 7392
1495 Parker & Thornburg gas sta
Beech intersects
1505 Civic Center Travelodge motel F 9-3778
Crocker J R @
1533 Calabrese's Civic Center Cafe F 4934
1569 Quiggle Dick Texaco Serv gas sta F 2040
Cedar intersects
1600 City & County Administration Bldg (civic center) F 9-7511
lobby James M F Mrs notary
Winther Christian cigars
1601 Shaw Bros Shell Service gas sta F 9-5254
1645 Ryan Aero Co (emp ofc)
1647 Business Advisory Bkpg Serv F 8876 and F 8877
1655 Buker S M Mrs F 9-3913
1745 National Supply Co The F 8878 and F 8879
1747 Dann A E importer F 9-5488
Robbins Marine Engine Wks M 5501
Date intersects
1801 Aero Tool Serv & Sls F 6475
S & M Trucking Service F 6475
1803 Eagle Oil & Refining Co F 6883
Flying Tiger Line Inc F 6504
1833 Redell J C phys M 9300

PACIFIC HIGHWAY—Contd
1905 Vinyard Fred Overhead Garage Doors F 6193
1913 Servisoft Soft Water Service F 9-1375
1915 Cal-Diesel Service Co mach M 0602
1917 Quinci J B @ F 9-5359
1919 Lounsbury Harold
1919½ Conduit John
1943 Cordileone N J, M 1604
1971 Thompson B F Mrs F 8636
Grape intersects
2045 Baldwin G L @ fuel oil F 6533
2065 Vacant
2070 Moring's Union Serv F 5472
Hawthorn intersects
2104 Balogh J W gas F 9-3143
2137 Top's Inc motel and restr oprs F 9-4441
Top's Motel F 9-9441
Top's Restr F 9-7274
Ivy intersects
2200 Solar Aircraft Co F 9-9211
Solar Emps Federal Credit Union F 9-9211
2235 Harbor Motors, F 9-8083
2263 Van's Richfield Serv F 9-2487
Juniper intersects
2305 Seaside Oil Co F 9-6839
2339 Travelodge Downtown F 9-2157
Ives D K Mrs
Kalmia intersects
2365 Hall Motors used cars M 5637
2431 Charlemagnes Inc F 9-5051
W Laurel intersects
2521 Caldwell Kenny Union Serv gas sta M 6736
2535 Anthonys Fish Grotto M 3444
2665 Lewis Service gas sta W 4112
Nutmeg intersects
2730 Fisher Aircraft Co gas sta W 8-1129
2775 Forshee W A, W 4219
Olive intersects
2843 Vacant
Palm av intersects
2905 Air Terminal Service gas sta W 3257
2930 Lindbergh Field W 0619
Acme Aircraft Instrument Co W 9948
Am Airlines Inc W 2111
California Central Airlines W 6282
Coast Guard Air Sta J 3121
Friedkin Aeronautics Inc
Molitor Edw T Aircraft Serv reprs J 6321 and W 6117
Municipal Airport W 0619
North Am Air Lines J 7558
Pacific Southwest Airlines J 2105
San Diego Sky Frt W 3119
Friedkin Aeronautics Inc W 6138
Friedkin Sch of Aeronautics flight instruction W 6138
Skychef Cafe
Slick Airways Inc W 6117 and W 6118
Standard Air airline W 8-3112
Swift Air Service W 5552
United Air Lines W 3121
U S Air Traffic Control Tower J 4578
U S Aviation Safety Dist Ofc J 3112
U S Communication Sta W 1405
U S Weather Bur W 3191
Western Air Lines W 8-1161
Western Union Telegraph Co W 5552
3055 Convair Employees Cafeteria W 6141
3165 Consolidated Vultee Aircraft Corp W 6611
3302 Consolidated Vultee Aircraft Corp plant No 1
3395 Convair Recreation Assn Club House W 8-3030
3401 Aircraft Cafe W 9464
Sassafras intersects
3521 Dot & Ben's Diner restr J 4584
Bean begins
3727 Ace House Moving Co W 0830
3733 Boss Chuck Wagon Cafe J 7117
Washington intersects
3743 Davidson & Son Texaco Serv W 9710
Clayton intersects
3803 Pacific Sporting Goods J 6258
Witham T H
3831 Keen's Donut Shop restr W 9405
3845 Safeway Stores Inc
Sutherland intersects
3853 Pacific Gas Market gas sta W 6865
3877 South Seas Cafe J 1606
3879 Whittiker P R (whse)
3881 California Liquor House W 9855
3885 Super-Cold Corp W 8-1195

UPAS/COLUMBIA 1952

THE Only COMPLETE IMPARTIAL LIST OF BUSINESS CONCERNS without regard to Size, Importance, Location, or Appointments, is your CITY DIRECTORY CLASSIFIED BUSINESS SECTION

UNIVERSITY AV—Contd
6490 Hikel John @ T 2014
6506 Ahlers C R @ R 3206
6514 Graves M J @ T 6377
6522 Wrightson Arth jr @
6530 Roth M H @ T 6283
Aragon dr begins
6570 Vacant
6602 Gilman Grading Co T 3-1354
6636 Richard's Shell Sta R 9642
6903 Moranville Realty H 6-3289
7021 A & W Liquor Store H 6-9958
7025 Vista La Mesa Garage H 6-9811
Vista La Mesa Serv gas sta H 6-9811
7057 Valentine House H 9-3717
7095 Denison Sporting Goods H 6-7837
7099 Bonded Cleaners & Lndry H 6-9844
7103 Du Friend's Shoe Repair
7105 Vista La Mesa Beauty Salon H 0283
7109-11 Hammersley Hdw H 6-5698
7117-21 Pritchard N Y Junior Dept Store H 6-5375
7127 Vista La Mesa Pharmacy H 6-1948
7147 Coopers Food Store H 6-6116
Tyson & Turvill Quality Meats H 6-6116
Tyson C N
7151 Parish R H real est H 6-7319
7287 Alvord J E concrete contr H 6-5831

UNIVERSITY AV WEST — West from 3900 1st av
120 Florence School J 6177
131 Ace Rug & Upholstery Clnrs W 5102
Hayes Marion J @
Albatross intersects
Front intersects
316 Jewell Jenna E Mrs @ J 4463
318 Mollison W R, J 5061
326 Borushek G G @ W 5737
327 Ryan Maurice L, J 4338
331 Brisco C J Mrs @ W 3936
337 Robbins F R @ J 1230
338 Lusk M A Mrs @ J 3925
340 Grundy S E Mrs W 6780
341 Sampson A E, J 7453
342 Wilson J W
343 Campbell Thos
344 Buckle H T, W 2701
344a Fields Grace
345 Montes N G Mrs W 2455
346 McConalogue W E, J 6231
348 Evans R M, W 5785
350 Horton H H @ J 6108
351 Hawes E A @ J 8687
352 Renshaw Arth B audio eng W 1572
354 Sargeant J A, J 4536
356 Waibel R E
358 Monsen Norman, J 3790
370 Blume Kathryn M, W 8-2022
390 Grigg H M
Brant intersects
408 Dalton C E Mrs @
Lovett A M
410 **Rex Arms Court**
Gallagher J A
410½ Sheppard H F Mrs J 6922
412 McDonald J O, W 8-3381
412½ Thompson O B, J 0808
414 Haggett L G, J 5882
414½ Thorson Richd, W 2672
415 Lepore Louis @ J 2384
416 Heimuller Ernest, W 4633
416½ Fitzsimmons K J
418 Moost M D Mrs
418½ Mullin J J
421 Espinosa T R @ J 0616
422 **Palm Heights Court**
Garrett T E, J 9672
423 Bush J T
424 Anderson J E, W 6076
425 McMullen Andrew
426 Lyons M M Mrs @ J 0126
427 Ryan R L
428 Broderick E M
430 Lemke A G, J 6089
Dove intersects
Eagle intersects
718 Cheney M M Mrs @ J 1001
Falcon intersects
811 Clymer J H, J 0400
820 Kenny Fred O, W 3232
823 Donlevy Clara Mrs @ J 4835
Goldfinch intersects
909 Accurate Co household appl W 8-2210
919 Friedman L M, W 0867
932 Baker H C, W 3781
Hawk intersects
1005 Barton R E @ phys J 3465
1019 Jones E P, W 8-2377
1020 Humphrey H J C, W 3785
1021 Beatty Lois Mrs
1026 Paddock Letha @ W 5058
1029 Curtis G R, W 3473

UNIVERSITY PLACE — West from 3900 Front to ½ blk w of Brant
326 Deal L M Mrs @
332 Gordon R O Mrs J 1822
340 Pitt W E
405 Sacco Sam @ W 8-1713
411 Frye K D @ J 4805
416 Couch C D @ W 6710
417 Murray H B
422 Heskett Martha @ W 4330
425 Myers Chas @ W 3286
431 Wheeler S A, J 7802
433 Hughes Annetta Mrs @ W 8-2862
535 Gordon R S @ J 4769

UPAS—East from 3400 1st av
120 Jones L E Mrs @ J 1210
2d av intersects
206 Oatman J L @ W 2395
209 Black W C @ J 0764
243 Choate Rufus @ J 8577
246 Dalton J B, W 3729
3d av intersects
306 Durfee E N @ J 1564
307-19 **Fashion Court**
307 Kearns Agnes E, W 1216
309 Simants Ruth E
311 Morton R M @ J 3379
313 McWilliams H P, W 8-2652
315 Miller C W Mrs J 1239
317 Bolton J H
319 Radick Geo, W 8-3840
320 Smith D J @ J 3301
322 Turner Ethelwyn Mrs J 7733
323 Blanchard J M, W 8-3077
325 Nesch Burde, W 0632
327 Culbertson Grace Mrs
4th av intersects
419 Jacobs T M @ J 7765
428 Billings R A, W 1309
430 Brownell E B Mrs J 2550
434 Baker Candy Co
436 Spratt Geo W Optical Co F 7293
438 Ryan D J, concrete contr W 0791
440 Barney Lorenze W Co real est W 2119
Belt J Rex acct W 2119
Mission Beach Coaster Co amusements W 2119
Palmer Arch W Co ins agts W 2119
5th av intersects
510 **LaEstrellita Apartments**
Bengston Corinne, W 4565
Blasack Mary J, J 5754
Booher C J, W 2815
Boyle Mary M, W 8-3154
Davis Maude B, J 6465
Emeis Jane B Mrs J 1419
Feaster Dick
Gibson F A, W 4556
Owen L M Mrs J 1975
Pruye V M, W 8-1649
Ruddy Clara M, W 1105
Scholder Ethelmae, W 5023
6th av intersects
624 Maurer E L, J 1256
Robinson Margt Mrs @ W 2237
636 Thurston D C Mrs @ W 4109
7th av intersects
741 VanKeuren J O @ J 4230
Vermont intersects
1202 Inch Hilda @ W 3751
1212 Beardsley J R @ W 1818
1234 Vacant
1238 Ironside Isabel P Mrs @ W 1341
1256 Brown A C @ W 3722
1262 Allen H H @ W 8842
1270 Metts P W @ W 5488
1282 Fisher M E @ W 5272
1290 Briggs W L ins @ J 9450
Richmond intersects
1404 Langenheim A H @ J 3248
1414 Storey G E @ J 3755
1420 Harlan Dale @ J 8622
1428 Carr Saml @ W 5589
1430 Brown H S, W 8-1317
1440 Hause G C @ J 1504
Albert intersects
1506 Harbaugh O S @ W 1155
1512 Johnson H C @ W 4178
1520 Brothers L P Mrs @ W 3921
1530 Mitchell F J, J 0404
Herbert intersects
1602 Flentye W H, J 5473
1610 Miller E C, W 1382
1610½ Alley A J, W 8-2292
1612 Bushman Jos @ real est W 5036
1614 Sammons V J, W 6569
1616 Talmadge E E Mrs W 3490
1618 Stone R K, W 5432
1620 Wencke Walter
1622 Rood M E whol lbr J 5324
1624 Brown F H, J 3234
1624½ McCartney J H, J 1908
1626 Haigler J F, W 8-3523
1628 Johnston H E, W 0636
1632 Halloway Ovidia T, J 7188
1632a Craig E E, W 2877
1632b Christenson L H, J 1662
1632c Pratt Viola G, J 7184
1634a Ketchum C E, W 3411
1634b Fitzpatrick I A Mrs W 8-2368
1634c Blome Margarethe G
1634d Rinne C A, W 2048
Park blvd intersects
1714 Gourley T M, W 8-2595
1716 Madden R White Mrs J 5954
1718 Woolford Mary E, J 0589
1720 Byers P U, W 0979
1726 Gaffney G J, W 2447
1726½ Paxton Betty J, J 7482
1728 McCabe Julia A, J 5905
1728½ Law Ruth R
1730 Emerson R M Mrs, J 7256
1730½ McGee Pearl R, W 2959
1732 **Gramercy Court**
1732½ Badollet Sue C, W 8-1923
1734 VanLuvanee Leonore
1734½ Fournier J A, J 6745
1736 Ledbetter E R, J 3614
1736½ White H F
1738 Hughes T C, W 1246
1738½ Perkins Lois, W 3480
1740 Hemphill H A dance tchr J 9458
Iverson Lucille Dance Studio J 9458
Kaliskis Nadesda Mrs dance tchr J 9458
Young L I Mrs
Indiana intersects
1800 Bagley Eliz, W 8-1897
Chessman W D Mrs, W 5021
Dalyrmple Jas, W 4820
Finnegan W J, W 0839
Slusher Sarah Mrs
Georgia intersects
Florida intersects
2044 Lymons Ellis @ W 2008
Alabama intersects
2102 Greenlee D G @ W 8-2256
2124 Stivers V E Mrs @ W 1581
2132 Warner M E Mrs @ W 4295
2140 Biedermann J L @ J 2329
Mississippi intersects
2212 Wortman E C @ W 0228
2222 Bright H S, J 8686
2228 Davies C W @ J 8611
Louisiana intersects
2306 Turner D L @ W 3581
2318 Phipps W A @
2328 McIntosh J A @ J 9445
Texas intersects
2420 Reyburn L F @ J 5307
2426 Sawyer N S @ W 8-2694
2436 Downard M W Mrs @ W 9997
Arizona intersects
2516 Hallquist C S @ J 1969
2518 Caperton Virginia Mrs @ W 4258
2530 Corbit G C
2543 Vacant
2566 Ward A E, W 8-1948
Arnold intersects
Villa ter intersects
2602 Brown N C Mrs @
2612 Toussaint R B @ W 0357
2616 Vacant
2618 Ford Louis J
2620 Grant Robt @ W 3307
2628 Netherlands Consul of VanEeghen Alf @ W 8-2536
Pershing av intersects
2718 Matson Jas R, J 1219
2728 Belden C L @ W 2275
2738 Smith R C @ J 4609
28th intersects
Utah intersects
2812 Schweizer G S, W 8-3851
2828 Behles C S, W 8-3180
2830 Landt H L @ W 4842
2832 Sullivan J F @ J 7987
2853 Vacant
2873 Krull W D Mrs @
2875 Coyle A J
Granada av intersects
29th intersects
2905 Seger Virginia Mrs
2911 Linley C A @ J 3922
2917 Pendleton Nellie M @ J 2989
2924 Harrington's (whse)
2925 Marshall C V @ J 8970
Dale intersects
2959 Dougherty A M gas sta W 9205
2965 Cramer's Mello-Cream Do-Nut Co whol baker J 6266
2969 Upas Food Market J 7656
2975-77 Metal Cutting Tool & Supply Co J 5409
2979 Gillen W D real est J 1869
2983 Vacant
30th intersects
3022 Cottage Pet Shop, J 4214
Houlihan Marguerite
3025 Powell R A Mrs T 0136
3026 Whitman J A chiropractor W 3776
3028 Lora-Vee's Inn W 9104
Ray intersects
3035 Stoner V L, T 1-1815
3036 Stevenson's W R Texaco Serv gas sta R 9787
3040 Skelley Tom Garage T 1-1901
Grim av intersects
3065 Taylor P H @ T 1-2060
3074 Lawrence A R @
3075 Hall E M @
31st intersects
3108 Smith M E Mrs T 1-1844
3114 Anderson A L, T 4651
3115 Vacant
3127 Faust A E Mrs @ R 7091
3128 Wayner L A Mrs R 2359
Herman av intersects
3130 VanScoy Fuchsia Mrs @ T 9407
3162 Lauritzen I L @ T 1-1186

UPAS—Contd
3162½ Stewart H R Mrs
3174 Mathews M M @
3177 Knecht O G @ R 5063
32d intersects
3215 McLoughlin Charlotte Mrs @ T 1-7659
3218 Wilson R C
3224 Barry R L @ R 5058
3231 Smith C W, T 1-6425
Bancroft intersects
3254 Barnhart F G @ T 6609
3271 Clark J M Mrs @ T 1-1470
3274 Dowd Harriett Mrs @
33d intersects
3305 Kaplan J J @ T 5136
3316 Williams L @ T 1-5398
3317 Nash C G @ R 7213
3322 Funchess M S @ T 1-1623
3324 Pond R F @ R 2608
3325 Cunningham B L @ T 1-4417
3344 Vacant
3364 Ayala C L @ T 1-2159
Felton intersects
3376 Preibisius L J @ R 0285
3380 Alford Edw @
3386 Sullivan K P @ T 1-1608
Johnston T D
Boundary intersects
4059 Dougherty A M gas sta W 9205

UPAS W—West from 3400 1st av
102 Oppenheimer Paul
104 Toy Anton, J 4483
106 Butsch C N, J 8911
108 Radtke Agnes Mrs W 8-3192
120 Jones Lela Mrs @ J 1210
Wahler V C
122 Wilson C H, W 6042
124 Brodman Adolph, W 4486
126 Tressler C T, W 3571
142 Crouch R J, J 7717
Crouch E K, J 7717
144 Costello L P, J 5648
146 Hemingway Paul
148 Kerth A H @ J 9294
Front intersects
Albatross intersects
335 Reemelin L F @ J 1254
336 Vacant
410 White W D @ J 2720
702 Gould L H
705 Johnson C M @ W 5820
716 Baltes L P, W 8-1094
716 Miller S Q @ J 0447
719 Giacalone Jos @ J 2240
724 Colson A M Mrs W 8-2841
726 Holloway L R Mrs J 8882
728 Buell C S, W 2361
729 Field H C @ W 8-2835
730 VanDusene E F, J 0345
732 Stanaland B N, J 8435
741 VanKeuren J O @ J 4230
753 Ekern Signe Mrs @ W 8-3347
807 Brown F J, J 9553
810 Weigand J W @ W 8-3356
817 Russell E L @ W 1565
820 Kinnie Lawrence @ J 2592
845 Razzetto Chas @ W 5626
850 Brennan J J @ W 8-1387
Goldfinch intersects
Hawk intersects
1040 Milligan J A
Falcon intersects
1315 Carl R H @ W 4426
Kite intersects
Union intersects
1506 Hubbard B A, J 5604
1508 Hubbard Kenneth, W 8-3446
1510 Sherman A C, W 8-2690
1512 Vogel R E, W 4472
Columbia intersects
India intersects

UPLAND (Encanto) — East from 1600 60th
6038 Mathews L A @ M 4-5569

UPSHUR (LaPlaya) — West from 1050 Shaffer, 2 e of Rosecrans
2716 Hart S F, B 2-3081
2761 Golden J W
2768 Wilson W R, B 2-2437
2778 Chadick R L, B 4822
2782 Bradley O G
2784 Mead C W, B 2-2913
2905 Nash C W @ B 8169
2911 Osterode R F, B 0179
2918 Deveny P J
2919 White C L @ B 2-1222
2920 Orum D M
2922 Devitt M T
2924 Asbury Rose Mrs
2924½ Silva Mario
2926 Viegas Mae Mrs
2926½ Vacant
2927 Silva Adeline Mrs B 1896
2928 Seeber F J
2933 Medina Marine Repair B 7460
2936 Damara S M Mrs
Rosecrans intersects
3014 Spitz K J
3916 Epler S R, B 7014
3018 Kipp H P Mrs
3020 Nutty J E
3022 Allen L J Mrs
3024 Rowland Erwin
3026 Florin C J, B 1844
Armada ter ends

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VINE ST 1952

VILLA TERRACE—Contd
3688 Maxwell C W, W 8-3665
3693 Bailey Lela E @ J 8967
3694 Hicks M C, W 5669
Landis intersects
3704 Lansaw V C @ J 0943
3710 Stock W J jr W 9939
3714 Stock W J @ J 5362
3715 Welin C E @ W 6792
3719 Cosgrove J E @ J 4080
3720 Bales E A @ W 3924
3725 Burnett D B @ W 2007
3730 VanDort Tom @ J 8526
3734 Godwin A J D, J 9581
3735 Brennecke Minnie Mrs @
3736 Veldman A W
3738 Stahlfeld A P Mrs @ W 0287
3738½ Neiman J B, J 9535
3745 Kidder M T @ J 5607
3746 Rush E T @ W 5083
3748 Bilbow P J, W 5647
3750 Stivers Mary, J 6374
3751 Newton E R @ W 5521
3752 Lucke L E @ J 7007
3761 Leff Jos @ W 2258
3762 Miller A L Mrs W 6078
3762½ Vacant
3764 Dyche J Vivian, J 3341
3766 Jordahl Nordahl
3767 Gault W W @ W 5959
3768 Wallis C W
3768½ Rye J E
3770 Perkins L C
Steele Alex @ J 7108
3772 Peeler S E, W 6086
3775 Grant A G @ J 0166
3776 Jordan H E
3783 Freeberg L B Mrs @ W 5378
3784 Switzer C L Mrs @ J 4781
3785 Batten C E
3788 Brown J F, J 0455
3794 Perkins R E @ W 1874
Wightman intersects
3803 Neill P C, J 8678
3806 McDermott T J @ W 4679
3808 Hapton Bessie Mrs
3809 Zuber A B, W 8-3783
3810 Chambers J R
3810½ Huffman D C
3811 Cummins W R, J 3891
3812 Davis M L
3813 Kulzick K E, J 3506
3814 Smith P C @ J 7304
3815 Brouillette P E Mrs W 4710
3817 Schmidt Mildred L, J 0700
3819 Edwards D G Mrs, J 8363
3820 Burn E F Mrs @
3822 Adams R D, J 1529
3829 Century Upholstery Co (shop)
3830 Smith J K @ W 6915
University av intersects

VINCENTE WAY (LaJolla)—East from LaJolla blvd, 2 s of Palomar
404 Bright J E
405 Rudnick Philip @ G 5-7459
411 Booth F A @ G 5-4547
412 Buehlman W L @ G 5-1215
419 McGowan L A jr @ G 5-7027
420 Brown E R @ G 5-3638
427 Floyd C E @ G 5-2982
428 Lee Laura @ G 5-6650
436 Roginson R O @ G 5-3641
Dowling dr intersects
531 Hayes A J @ G 5-4661

VINE—West from 3550 Union
1405 Wade Merrel @
1405½ Moore Mae Mrs
1412 Ballstreri Steve @ W 5103
1417 Vinyard F A @ W 1134
1420 Hermes W H @ J 1394
1421 McKinney J H @ J 3097
1430 Clark R W @ W 4312
1449 Wells M H @ J 6561
State intersects
1501 Mueleisen Adolph @ J 4325
1516 Saville Loeta Mrs @ W 3090
1524 Barrows Anna Mrs @ W 3600
Columbia intersects
1611 Thomas D S @ J 6298
1621 Schimmel E M, W 1783
1623 Wheeler R W
1629 Way E E, W 1708
India intersects

VINE COURT—East from ½ blk w of 750 S 29th

VIOLA (North San Diego)—East from 2200 Morena blvd
1320 Bruns G C @
1345 Anderson A T

VIOLET — Southeast from 4050 Manzanita dr
2502 Peabody E E @ R 2940
2510 Hochwender G K @ T 8266
2511 Dugal A M @ R 0594
2518 Frandsen C W @ R 1394
2519 Frisk J A @ T 1-3600
2525 McCraw J R
2530 Pitzer E G @ T 2015
2536 Oliver W C @ T 3-1883
2537 Schwartz Harry @ T 2868
2540 Dowers R J jr @
Sycamore dr intersects
2544 Ferrara P J @ T 2946
2547 Pernicano Geo @
2548 Liberatore T J @ T 1-2372
Pepper dr intersects
2560 Choate G M @ T 4007
2564 Chapman M H Mrs @ T 8309
2568 Way R W
2571 Shasteen T O @
2576 Knudson H E @ T 1-3294
Poplar intersects
2608 Simpson T R, T 5958
2614 VanBuren H C @ P 8606
2622 Juhls Aug @
2625 Wright J H @ R 0427
2629 Ursillo Carmine, T 1-7341
2631 Adams Vandora Mrs @ T 5954
2634 Kempe Arth @
2640 Ferris J R, T 1-6172
2643 Blankenburg A F @
2646 Cooksey F P @ R 8262
Poppy pl ends Manzanita dr intersects

VIRGINIA (LaPlaya)—North from 1 blk s of 3550 Dudley, 2 e of Catalina blvd

VIRGINIA AV—South from Stanley av, 2 s of Seminole dr
4611 Tripp C E @ T 1-7147
4612 Morris J T @ T 1-1654
4617 Schrempf F A @ R 5650
4618 King B D @ R 0331
4623 Andrews L J @ T 1-5901
4624 Cox A W, T 2155
4629 Bratkovic F A @ T 1-4903
4630 Kinsman H D @ T 1-4551
4635 Schaner A T @ T 3-1468
4641 Butler F O @ T 1-6785

VIRGINIA LANE (LaJolla)—East and ne from intersection of Torrey Pines rd and Girard av

VIRGINIA WAY (LaJolla)—Northeast from 7600 Girard av, 1 s of Torrey Pines rd
1027 Nance Bros Roofing G 5-2331
1105 Digges D H @ G 5-1464
1120 Embery H A @ G 5-3075
1121 Fowler Harry, G 5-7879
1127 Jordan C A Mrs g G 5-3764
1138 Flora Eliza Mrs @ G 5-1661
1142 Barca J F @ 5-6603
1155 Penry W W @ ins G 5-4955
1156 Vacant
1168 Thaxton R C @ G 5-3719
High av intersects
1178 Vacant
1201 Zimmer V C, G 5-1101
1208 Creighton H C Mrs @ G 5-6785
1211 McLeod W E @ G 5-6780
1214 Decker M H Mrs @ G 5-2389
1221 Crooker H M @ G 5-3571
1224 Nicol Duncan @ G 5-3073
1231 Gaines M D Mrs @ 5-2618
1235 Elliott Fanny L E, G 5-3955
1236 Williamson A H @ G 5-3071
1245 Short R H, G 5-1604
1246 Smith F M @ G 5-3597
1252 Edwards Alice @ G 5-3997
1257 Steese G M @ G 5-3365
1260 Baker E M @ G 5-3833
1263 Allison C B, G 5-1467
1271 Mackeown I C Mrs @ G 5-6640
1274 Fox Kathleen Mrs @ G 5-1717
1275 O'Laughlin Helen @ G 5-6608
1285 Weese J M, G 5-4725
1287 Magee J J, G 5-9822
Thonberry Barbara E, G 5-7630
1299 Kelley L E @ G 5-3366
Ivanhoe av intersects
1301 Case L B, G 5-1234
1304 Wilcox E H
1314 Deese M R Mrs @ G 5-6049
1321 Vacant
1324 Russell H L @ G 5-6602
1325 Williamson Agnes Mrs @ G 5-6716
1328 Vacant
1338 Males H W @ G 5-4106
1345 Murphy E F @ G 5-4103
1350 Donaldson Elise @ G 5-2697
1356 Carothers M H photog G 5-6768
Yarros V S @ G 5-2024
1361 Krell H L E Mrs @ G 5-2823
1364 Battin J D, G 5-4419
Exchange pl intersects
1400 Hoover A A @ G 5-1793
1401 Walters B M @ G 5-2773
1411 Campbell A A @ G 5-4723
1412 Thorup L E Mrs @ G 5-4724
1414 Torrey P H, G 5-4282
1419 Vacant
1436 Nadig I E Mrs @ G 5-6525
1437 Schuman A E Mrs @ G 5-6500
1440 George V E Mrs @ G 5-6452
1445 Romadka Mary T @ G 5-1282
1453 Lee May @ G 5-1093
1454 Wernham G T @ G 5-3786
1461 Vacant
1475 Vacant
Prospect pl intersects
1522 Evans John @ G 5-3829
1533 Vacant
1540 Johanson J G @ G 5-2083

VIRGO ROAD, EAST—North from 5600 Redwood, 1 e of W Virgo rd
3203 Mullenix D F @
3204 Slaven G E @
3212 Howard J R @
3215 Grant C G
3220 Davis L E Mrs
3225 Quin E E @
3230 Archer J R @

1038
3235 Mason J B @
3240 Aguilar M E @
3245 Skinkle C D @
3250 Harman W C jr
3255 Stone W R @
3260 Henderson E G @
3263 Boss C D @
3269 Joyce Lillian Mrs @
3270 Burnett Alva L @
3275 Huerta J J @

VIRGO ROAD, WEST—North from 5550 Redwood, 1 e f 55th
3104 Ingram S W @ T 1-7857
3112 Shuford R E @ R 2958
3117 Thompson J W @
3122 Brackett R F @
3131 Pick Leo @
3132 Valday Alf @
3142 Robison E B @
3149 Knapp H B @
3150 Wilke R M @
3203 Hamm L L @
3204 Lane J A @
3211 Duty Wm @
3212 Edenburn E C @
3221 Schooley P O @
3222 Vacant
3231 Panepinto L E @
3232 Bershaw J L @
3241 Schwelkhard L E @
3242 Towsley G J @
Worthington A L Mrs
3250 Fritz W W @
3251 Fair T E @
3258 Wortman C P
3261 Graham H G @
3264 Jerger A J @
3270 VanAuker E L @
3276 Foreman Hulon @

VISTA (Kensington Park)—North from 4260 Madison av
4502 Dublin Michl @ T 4983
4503 Thorne Waring @ R 7270
4508 Frizzell M H @ R 2435
4511 Fernandes J M @ T 2558
4519 Woolley R B @ R 6124
4520 Deming R B @ T 2823
4525 Kinnaird L D @ T 1-5605
4528 Moore R C @ T 5668
4533 McKinley W J @ R 7467
4536 Schwellenbach Jas @ R 4336
4540 VanCott Thos @ T 7302
4543 Williams J R @ T 4980
4550 Gainor L J @ R 7839
4551 Lonergan J E @
4560 Minor G E
4561 Tyrrell R D @ T 2840
4566 Scoville M D, R 8306
4569 Ryberg S A @ R 8461
4575 Sawaya J F @ R 9838
4576 Pallister H V @ T 1-3213
4580 Hambly T A, T 1-2154
4583 Burns J M @ T 1-4784
4591 Dimitrio W K @ R 7378
4592 Maltby M L Mrs @ T 1-3945
4596 Donahue P H @ T 3-1707
4597 Lee L P @ R 4234
Madison av intersects
4603 Holmquist N A @ T 6573
4604 Slattery J M, T 1-7368
4608 Pearson L E Mrs @ R 3451
4609 Parr W A @ R 1668
4615 Posten C W @ R 3362
4616 Robison G H @ R 2261
4620 Dumlar Paul @ T 2856
4621 Podufaly E T, R 6656
4627 Stovall S L @ R 9866
4632 Rust J A jr @ T 1-6016
4633 Rugg A W @ T 9816
4639 Clark C C @ R 7683
4640 Gleason C E @ R 3425
4641 Worthington P K @ R 9265
4644 Clark G B @ R 7261
4648 Hallahan M C @ T 8813
4649 Nelson E M @ R 1641
4655 Cooper A E @ R 7069
4658 Wetter J M @ T 6124
4663 Chaffee A E @ R 7903
4664 Johnson R W @ T 1-6147
4669 Felactu J O @ T 1-5987
4670 Hill A R @ R 0364
4674 Kilcourse T J @ R 4560
4675 Aupperle C F, R 4333
4679 Vacant
4682 Hayes J E jr @ R 4853
4685 Bernardine C V @ R 1222
4688 Handrock L F @ T 4014
Adams av intersects
4704 Hrdina L S, R 6945
4706 Conwell H F Mrs @ T 3-1998
4711 Turk Chas @ R 5218
4722 Schmidt Emma M @ T 0475
4723 Drommerhausen Esther J @ T 3-1383
4725 Pettit E T @ elec contr T 7071
Pettit M J @
4726 Vacant
4730 Ballinger Amy L Mrs @ R 4982
4731 Vesco J C @ R 8018
4733 Marshall Florence D @ R 7151
4735 Kerlick S W
4817 Couvrette G J, R 7412
4820 Westover G A @ T 1-3195
4824 Karagas Christ @ T 1-2135
4825 Wolff J A Mrs @ R 2663
4835 Stenger C F @ R 6383
4836 Arnold W P @ T 3-1094
4841 Lister W W @

VISTA (Kensington Park)—Contd
4842 Kenny C T @ T 4712
4850 Morse F 1 @ T 1-7197
4851 Morris J T @ T 1-5094
4857 Payson E E @ T 0240
4860 Shield R G @ R 5029
4865 Parrish R M, R 1355
4868 Bell W H @ R 9091
4873 Girodon E M Mrs @ R 4373
4874 Harris L W @ R 1265
4881 Curzon Cuthbert @ T 0659
4886 Dean A Mrs @ T 7233
4889 Laughon Allen @ R 0871
4890 Levitt Jack @ T 1-7815

VISTA LANE (Kensington Park)—West from 4661 Vista
4754 Brown J H @ R 2793
4755 Moreno L N @ T 5922
4758 Stewart G W, R 8464
4771 Hewicker J A @ T 6625

VISTA PLACE (University Hts)—North from 2875 Copley
4919 Moeller J A Mrs @ R 5591
4924 Robinson O A, T 0540
4928 Lessner M H @
4931 Lewis H W @ T 3325
4937 Miller I D @ R 7791
4941 Gerteisen John jr @ R 6250
4949 Wodcock Guy @ T 1-1192
4950 Wolfe J R @ T 7030
4953 True Gertrude @ R 0470
4955 King W O @ R 3333
4960 Tolson E L @ R 5981
4964 Harris Jack
4965 Fleming Cath Mrs @ R 7591
4966 Lowe W A @ T 1-6551
4970 Goulet E A Mrs @
4974 Heise M B Mrs @
4980 Holden H J @ T 7955
4984 Hagen L L @ T 7768
4989 Cobley R J @ R 3537
4991 Parks D M @ R 1217
4997 Hendricks Lawrence @ T 0216
5015 Richardson W F, T 8833

VISTA DE LA MESA (LaJolla)—North from LaCanada, 1 w of 5900 LaJolla blvd
6003 Platner Linn @
6004 Boone R L @ G 5-1715
6007 Koenig Aileen Mrs @ G 5-6481
6011 Palmer Solon @ G 5-4198
6012 Mitchell Edw @ G 5-2779
6014 Vogel C H @ G 5-3323
6015 Brady S B @ G 5-1558
6017 Smith G D @ G 5-3817
6020 Steele G H @ G 5-2429
6023 Pixley A B @ G 5-2203
6026 Martin J C @ G 5-7418
6030 Smith Kath J @ G 5-3082
6100 Sikes R L @ G 5-3930
6101 Schander I N @ G 5-7368
6105 Philips J L @ G 5-2881
6106 Schneider S G @ G 5-4196
6110 Trask Julia Mrs @ G 5-3368
6111 Doughty H J @ G 5-6967
6114 Vacant
6115 Nuckolls V W Mrs @ G 5-6296
6118 Gale Marguerite E @ G 5-4864
6119 Maxwell Diane Mrs @ G 5-2391
6122 Diefenbach W E @ G 5-2966
6125 Maclennan Alta Mrs @ G 5-4571
6126 Bauder P F @ G 5-4108
6130 Rypinski E M Mrs @ G 5-2452
6131 Whelan Theodora Mrs @ G 5-2402
6169 Broan C E gdnr G 5-3327

VISTA DE LA PLAYA (LaJolla)—East from 1 blk w of 7126 Monte Vista av
305 Harding E R Mrs @ G 5-1893
308 Lyon F G @ G 5-3259
318 Millikan Frank @ G 5-6627
323 Houseman W H @ G 5-6038
326 Imes Natalie Mrs @ G 5-6497
329 Taube R M @ G 5-6717
Ferris F J
331 Vacant
339 Heuser Emil @ G 5-3378
347 Vacant
348 Clark Fuston, G 5-1963
354 MacPherson J D @ G 5-4158

VISTA DEL MAR (LaJolla)—North from Palomar, 1 w of 6400 La Jolla blvd
6507 Clark J C, G 5-6351
6509 Zarick J A @ G 5-4450
Rosemont intersects
6612 Bartels C O, G 5-1007
6613 Tischoff C W, G 5-7296
6622 Howard V G Mrs @ G 5-3729
Kolmar intersects
6651 Doxie C M Mrs @ G 5-3680
6653 Hedges C J W, G 5-1916
6661 Masterson C B, G 5-3319
6667 Harris W M @ G 5-4021
6669 Kappenberger Agnes Mrs 5-3453
Gravilla intersects
6701 Aldrich J L
6717 Glen H M @ G 5-3502
6721 Vacant
Playa del Sur intersects
Playa del Norte intersects
Bon Air intersects
Westbourne intersects

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VOLTAIRE (Roseville)—Contd
5109 Georgius Reka
5111 Reed Harold
5113 Brekke Melvin
5115 Casey Michl
5116 Warneke Julius @
5117 Heislep Chas D
5117½ Colquhoun A A Mrs @ B 3681
Wonderland Court B 3681
5118 Warneke H J @ B 8582
5119 Hall Arth
5121 Galley M H
5122 Hawe Christopher B, B 5653
5124 Bastrom A L
5125 Nusbaum Isadore, B 9900
5126 Marquette A W
5127 Stewart D C lab contr
5128 Hecox F C
5129 Price C W, B 6463
5131 Wilkinson John J, B 2-1367
5133 Witten R F
5134 Melchers Jos P @ B 5596
5143 Hewitt Vida G @ B 5667
5147 Perkis H G
5149 Lyons Joselyn M
5151 Erdelyi M H
5153 Stickney Nell A
5155 England Paul W
West Point Loma blvd intersects

VULTEE (Frontier Homes Housing Project)—Northwest from w end of Reliant to Fordham, l s of Frontier
3201 Zentzis Orn W
3203 Swanson Glen D, B 1921
3205 Greene Jos M
3207 Naylor Wm T
3213 Goodell Harry R
3215 Bowman J T, B 0366
3217 Lubo D L
3219 Jefferson John, B 1912
3225 Helwig M G
3227 Stephenson P L
3229 Morris J W B 2-3916
3231 Bedreau Marvin
3237 Ball N R
3239 Neeley T E
3241 Martin Virgil, B 1624
3243 Melton Wm H
Liberator intersects
3301 Mitchell L T, B 5116
3303 Johnson Clyde
3305 Wasenar D F
3307 Dennis Valentine
3308 Venegas Angela M
3309 White Z A Mrs B 2-2170
3310 Bartlett Geo L
3311 Stough Elmo L
3312 Lewellin C R, B 2-2279
3313 Markwith R L
3314 White Jas R, B 2-3769
3315 Scott M L Mrs B 2-2180
3316 Linke M E Mrs
3317 Salley Harold
3318 Konshi Mitsu Mrs
3319 Leon Alta L Mrs
3320 Hinsen C A
3321 Brossard Della Mrs
3322 Clausen Victor
3323 Paschall Erskine J
3324 Cox V D, B 6682
3325 Hickox C E Mrs
3326 Chabak Paul A
3327 Hart Robt M
3328 Bailey W J
3329 Uyeda K K
3330 Zimmerman R M, B 2-1459
3331 Ploman C A, B 1788
3333 Smith Jas T
3335 Taver Neal
3337 Blessinger Robt, B 0417
3339 Birdsall E H, B 2-1709
3341 Sullivan M A
3343 Morris R R, B 2-1354
3345 Moore M G
3347 Davis G E
3350 Frontier Homes Housing Project Mtce Dept B 7178
3401 Combs C V
3403 Timmons T G
3405 Karr Maulty W
3407 Rogers D F Mrs
3413 Mawhinney A D, B 3816
3415 Harvey R M
3417 Short R L
3419 Downs Raymond R
3425 Carlson Carl O
3427 Marks Albert A
3429 Fuller Albert L
3431 Albert Eli
3433 Douglas Wm S, B 9062
3435 Vasquez Jessie Mrs B 2-1084
3437 Martinez Arth
3439 Alexander V L, B 8402
3441 Barnd M M Mrs B 4133
Collins Ann M Mrs B 4133
3443 Chandler Jack M
3445 Kelley Louise C Mrs
3447 Traylor Ruby I Mrs B 9846
3449 Robback Raymond
3451 Lopez M M, B 3929
Mauro Merrill, B 3929
3453 Cohen Paul
3455 Harper M O Mrs

WABASH AV—North from l blk s of Estrella Park and n from 3700 Estrella pl
3662 Eberle A L, T 1-8140
3668 Barbieri Richd @ R 7571
3678 Hitesman W C @ R 3178
Landis intersects
3720 Johnson R L
3720½ Mansir H E
3738 Nelson C E Mrs @ R 8769
3752 Puryear Olive @
Wightman intersects
3811 Vacant
3813 Vacant
3815 Vacant
3817 Vacant
3819 Pollard S J
3824 Vacant
3824½ Peralta Alf
3825 Betz Wm jr R 8949
3830 Bolduc H T
3831 Dunn L C @ T 6715
3832 Clark Eug C @ T 9540
3842 Lee C H @ R 0948
3843 Switgall A R, R 3560
3846 Stewart L S Mrs T 9367
3847 Burkhart A A, R 3639
3848 French B A Mrs T 1-4145
3849 Shows J C, T 1-1359
3850 Wormington A D Mrs @ R 5993
3851 Tone John A, T 1-6909
3858 Gillis Edw N, T 2796
3865 Curtis R L, R 5114
3867 Turner H W Mrs T 1-4703
3871 Ryan H H mach R 3110
University av intersects
3904 Roobol Cornelius jr barber
3906 Barnes Karma L
3914 Colton J B, T 1-5315
3914½ Evans Hattie A @ R 5033
3930 Tepper Saml @ T 4177
3944 Cook D A, T 2229
Lincoln av intersects
4002 Alden Bldg Maintenance
Creager Business Serv business serv bur T 2323
Lewis Chem, R 4642
M S Cing Serv T 3-1639
Sexauer Mfg Co
Todd Co ofc sups
Walter Lucille Mrs @ T 0467
Walter Secretarial School T 0467
4003 Wabash Market gro T 5352
4007 Johnston C A @ W 1-5404
4015 Haynes Harry @ T 6177
4016 Wallace Wm W
4018 Murphy H A, R 0566
4020 Lipscomb E C @ R 0316
4022 Potts P M Mrs T 1-8274
rear Dunn N J Mrs
4023 Ravy Julia Mrs @ T 1-2710
4029 Mendel L W @ T 2981
4032 Hamm E E @ T 8236
4035 Lundell S P @ T 3-1055
4036 Martin C E @
4039 Otsuka F H @ R 8086
4044 Bennett I L @ T 7217
4045 Officer H L @ T 4350
4048 Love F T
4050 Oliverio Theo @ R 8230
4051 Goodwin Birta Mrs @ R 7201
4060 Jones Chas @ R 3377
rear Kelley Cozine
4061 Banks Ida Mrs @ T 1-5246
4067 Kluberg Howard P @
4068 Chinnock R E @ R 8210
4074 Alessio Rosa Mrs @ R 7181
4075 Carter Theo J @ T 1-5133
4077 Taylor John jr T 1-6092
4082 Greenwald Willard, T 1-4225
Polk av intersects
4102 Gann C J @ R 1038
4103 Connor Cath Mrs @ R 0978
4109 Cottam F H Mrs T 8370
4110 Millspaugh D M, R 9800
rear Sutton R B Mrs @ T 1-2576
4112 Pierson I B
4115 Summers H J, R 4029
4117 Hanson Raymond
4119 Trelle R K
4120 Vacant
4123 Stanberry Dolly Mrs @ T 1-2639
4125 LeClerg L E Mrs T 6760
4128 Morris S A @ R 1-7572
4133 Erickson C J
rear Pilley S I Mrs @ T 4113
4134 Wood P U @ T 1-5224
4140 Solomon C B @ R 8440
4141 Hoscher J J @ R 1942
4148 Buethe Geo M @
4151 Koehler F J, T 1-4926
4156 Hatch R W @ T 2536
4157 Vacant
4164 Roval L L @ R 3721
4167 Jensen J M @ R 8795
4172 Erchul J T @ T 2357
4174 Ryan E B Mrs @ R 1413
4175 Clapper R L @ T 2128
4189 Luce W E, T 1-3476
El Cajon blvd intersects

WABASKA DRIVE (Ocean Beach)—Southeast from Voltaire, l w of Wolcott
3619 Vacant
3625 Vacant
3655 Klerstad H S @ B 8986
3706 Mutch W A @ B 0046
Correia M A @ B 1553
3714 McHenry A E @ B 3796
Centraloma dr intersects
3774 Strainge S H @ B 6591
3780 Wells C E @ B 7247
3795 Hetzler M B Mrs B 8408
3828 Vacant
3921 Bedford R I @ B 9786
3926 Emrey K A, B 9809
3927 Caldwell Edgar @ B 4492
3928 Brown R J
3939 Olsen H C @ B 8270

WALL (LaJolla)—East from 7879 Girard av, l s of Prospect
1006 LaJolla Public Library G 5-3174
1026 LaJolla Shade & Linoleum Co G 5-6104
1030 Bowers Jwlrs G 5-3165
1032 Village Beauty Shop G 5-2681
1033-35 Stevenson's Dept Store
1034 Vacant
1037 LaJolla Beverage Shop
1039 Warwick's books
1041 Wrieth O H variety store G 5-3336
1044 Security Trust & Savings Bank of SD G 5-7147
1047-49 Fay's Candy Cove G 5-6522
1051 LaJolla Sporting Gds G 5-3607
Herschel av intersects
1100 LaJolla Fed Sav & Loan Assn G 5-2116
1101 Flower Box The G 5-4133
1107 Health & Diet Foods G 5-4556
1111 Coffee Cup The restr G 5-2819
1115 Stephen-Hassard Q M dentist G 5-2021
1117 **Shepherd Building**
Busch N I real est G 5-3708
LaJolla Credit Assn G 5-2375 and G 5-6044
Soderberg A E acct G 5-3708
Vandervest M J Mrs CSP G 5-1340
Woodhull J K osteo phys G 5-1777
1119-21 Colonial Clns & Lndry G 5-4774
1122 Nash S H gro G 5-3415
1123 Buckingham W H real est
Farrar D D real est G 5-4566
Farrar M R Mrs real est G 5-4566
1124 Frymann V M Mrs osteo phys G 5-2200
1125 Dawson J H lwyr G 5-3691
Hart J W Mrs pub sten G 5-7046
Hixon F P lbr G 5-7046
1128 Elva's Beauty Studio G 5-4004
1140 Post Office

WALLACE (Old Town) — Northeast from 2800 Davis
3301 Hall Lewis, B 3015
3303 Rezabek Frank, B 1738
3305 Pisoni L M, B 2-1496
3306 Branch Jos
3307 Heath C C
3308 Brown Robt, B 5524
3309 Casey E F, B 2-3093
3310 Hudson Lowell, B 9689
3311 Hamann Arth D
3312 Fredericks W C, B 7271
3313 Gorman C F, B 5568
3315 Trogdon C B, B 0266
3317 Powell J T, B 6920
3319 Markham F J
3321 Lyles C E
3323 Fletcher V H, B 7307
3325 Carter M M Mrs
3327 Jackson W W, B 7197
3329 Moran Lloyd J
3331 Wood A B, B 2-3675
3332 Sommers E J, B 0876
3337 Danis H O
3339 Johnson R L
3343 Roering V P
3345 Bufka J N, B 5577
3347 Mirabel M J Mrs B 0460
3349 Guistino N B
3351 Baker C A, B 0702
3355 Richardson M I, B 0971
3356 Schleif Wm W, B 2-1844
3357 Marin Ernest
3358 Beith A E
3359 Vacant
3360 Morgan Patrol Serv
Priest A R, B 8017
3361 Vacant
3362 Strickland Jas W
3365 Carrel J M
3367 Dunn J R, B 6938
3369 Chapman F J
3371 Ulshoeffer J J, B 0010
3373 Woolever N C Mrs B 2-2905
3375 Rathke O R
3377 Johnson Chas L, B 3060
3379 Zagami Peter F
3381 Clayton Glenn L, B 4497
3383 Morrison H L, B 6424
3385 Venus John jr
3401 Caldwell R W
3403 Stone B O Mrs B 2-3040
3405 Byrd Murlin L, B 1766
3407 Cruz Wm, B 7691
3409 Hartman R A, B 2-1383
3411 Medina M E
3413 Jara S N, B 1245
3415 Thiele Roy E
3417 McDonald Kath Mrs
3419 Vacant
3421 Foster J E, B 2-2012
3423 Giles D O
3425 Sperry G D, B 0272
3427 Johnson Wm L
3429 Lawrence Wilbur, B 0992
3431 Vacant
3433 Kelley G T, B 6949
3435 Glassford C J
3437 Morris Joshua jr B 2-3479
3439 Lasswell L L
3441 Trent Roy F
3443 Burger Thad
3445 Mazey Wm R
3447 Houston B J
3976 Sampino Anthony, W 2082
3990 Gomez Delores Mrs
SanDiego av intersects
4016 El Nopal Dining Room J 9997
4104 Hall D E, W 5573
4124 Serrano Jos A @
4136 Presidio Hills Golf Course J 9476

WALLACE COURT — North from National av, l e of 39th
912 Cartledge Geo @ M 4-2613
927 Ginos J G @ M 4-5872
931 Brook Saml R @ M 4-4286
National av intersects

WALNUT AV — East from 3500 1st av
100 Brown A S @ W 6893
115 Borden Saml
Harris Wm E
Herzig R E @ J 5485
McCoy C W, W 1664
Rasmussen N Mrs W 4449
Wideman Kenneth
140 Basham M C @ J 9911
2d av ends
207 Millam D N, W 1417
211 Vacant
221 Vacant
223 Vacant
225 Hall Russell A
Stanton E Louise @ J 5578
3d av intersects
303 Rountree H B, W 2277
306 Low Corinne P Mrs @ J 0871
328 Putman Amy @ J 8669
335 Coburn Villa Terrace lodgings J 6515
Coburn Clyde
4th av intersects
418 Miles Wm H, J 8202
420 Belford Wm W phys J 2129
5th av intersects
430 Vacant

WALNUT AV W—West from 3500 1st av
111 Brust Marcel S @ J 5588
117 Flint J K Mrs @ J 3054
130 Morris C M
134 Lewis M F, W 8-1095
Front intersects
204 Fisher J Wm @ J 5025
205 Jenkins B F @ J 8329
211 Fay M L Mrs @ J 2462
230 McDowell Mary J @ J 8056
246 McLean M G @ J 2801
Albatross intersects
315 Kendall C E Mrs @ J 2330
321 McVey M M @ J 1665
605 Zink Emmitt B @ J 3222
Goldfinch intersects
Hawk intersects
1621 Barnard T W @ J 4738
1625 Jones N N, W 3396
1641 Enright Patk J @ W 1872
Ibis intersects
Jackdaw intersects
1800 Dennis V R @ J 2000
Lark intersects
Union intersects
1608 Briggs Christine W @ J 1915
1617 Wood J A Mrs @
1621 Louissan W A @ J 3096
1623 Kliaber R W
1626 Jenkins H J @ W 4900
1627-31 **Louissan Apartments**
1629 Parks Leroy C
1631 Hasselman Norma Mrs J 5661
1703 Myers Glenn @ W 5690
1703½ Stone Wayne
1709 Davis H M @ J 9114
1711 Brotherton G A, W 0730
1717 Meyer W W @ W 2208

WALTON PLACE—East from Ohio bet Monroe and Madison avs
3057 Schrick C F, T 3-1457
3060 Fiedler J E @ R 2195
3061 Bills Dock J @ T 1-
3064 Emes C F @ T 9459
3069 Lang Zelma Mrs @
3070 Brockmyer M A Mrs @
3072 Garcia Ernest
3074 Jenkins J Leonard
3076-88 **Walton Place Courts** R 4148
Henderson E L @ R 4148
3078 Barron Monee Mrs R 8860
3080 Coles L B Mrs T 1-2627
3082 Robinson Ray
3084 Ostberg H A
3086 Homeyer R A
3088 Treece H M

WARD ROAD (Normal Heights)—To Camp Kearney via Murphy Canyon—East from Cherokee av to Madison av
3716 Erwin C B @ T 1-8874
3717 Hearst C J @ R 4204
3720 Bennett Isabell Mrs @ R 3650
3728 Horton N B Mrs @ pract nurse T 9397
3735 Vacant
3736 Braly Mayme Mrs @ R 6040
3737 Pohl Leonard O, T 1-3726
3739 Morgan A J
3741 Wilbur P P, T 1-3219
3743 Maxwell C E, T 7403
3745 Emmett Geo E @ T 8821
3751 Kloberdanz F L @ T 5067
3752 Porcher J L @ T 1-4576
3759 Wilson C A Mrs @ T 5261
3760 Donner M A Mrs @ R 6537
3767 Hootman F E @ R 6142
rear Underwood E B Mrs
3768 Brown R A Mrs T 1-4719
3773 Helmich Edw C @ T 9620
3778 Vacant
3786 Dickinson Geo A, T 1-5972
Fine Floyd F @
3788 Fine Noble F @ T 1-5992
38th intersects
3816 Cook E E Mrs @ T 2623
3818 Davidson K W, T 1-7036

WARNER (La Playa)—West from Silvergate av
3623 Carr L W @ B 7669
3624 Schwartz Edw J @ B 9987
3655 Lorenz C A @ B 9148
3658 Bennett Laurence @ B 1132
3705 Ferris H H @ B 1287
3710 Haugh Jas C @ B 2-1718
3725 Hilleary Bertrand @

TP	Adjoining	Source
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CALIFORNIA ST 1948

2632 Broderson R K
2634 Whilldin S E
2636 Mosley M F
2638 Forward Mae E
2640 Casa Jeanette
2660 Vacant
2662 Schuett E E
Mason intersects
2734ΔBuck A H restr
2754ΔCasa De Pico Motor Hotel
Wallace intersects
Taylor intersects

CALIFORNIA—North from 800 W Market to Witherby

1447 Watson J E
Beech intersects
1506 Contreras R L
1516 Vacant
1516½ Standley N T
Cedar intersects
1610 Curtis E M Mrs
1612ΔBarber J S
1616 Ramirez Eug
1618 Urquijo L N
1620 Castaneda John
1620½ Martinez R E
1632 Brennan Floyd
ΔGilbert Philip ◎
Goldberg Herbt
McClain E L
Zotti Eug
1634 Hoyt Patricia
1636 Tardowsky Gus
Dale intersects
1804 Stillson F B ◎
1804½ Frisby Bert
1808 Riddell H W ◎
1824 Fogerty F J (whse)
1842 Piranio Salvatore ◎
1930ΔFarace John
1932ΔBologna Peter ◎
1940ΔDiMaggio Sabetino ◎
1948ΔVitrano Anthony ◎
1954 Tarantino Salvatore
Grape intersects
Hawthorn intersects
Ivy intersects
2244ΔPontecorvo Bertha Mrs ◎
2246 Pontecorvo G E
2250ΔSalmon T H ◎
2250½ Salmon T E
2250½ Salmon T E
2272 Salmon Joaquin ◎
2280 Tripp B M Mrs
Juniper intersects
Kalmia intersects
2416 Garcia E M
2424ΔGomez A B
2430 Gonzales Augustine
Picon Jesus
Ramos Gilbert
2440 Alatorre Vincent
Atayde V S
Zomora Jos
Laurel intersects
Maple intersects
2801 Murphy M C ◎
Palm intersects
2921 McLaughlin L G ◎
2929ΔNaranjo Estanilado ◎
2941 Solorzano R M ◎
2968ΔBeers E G Mrs ◎
2970 Sands W E
Quince intersects
3005ΔGarcia Raymond ◎
3015ΔGillam R H ◎
3043 Vacant
Redwood intersects
Spruce intersects
Thorn intersects
3449ΔTalbot Frank ◎
Upas intersects
Vine intersects
Walnut av intersects
3607ΔMay H W ◎
3619ΔColeman W S ◎
3625ΔMallett C J ◎
3630ΔMariposa Lndy
3645ΔHiatt LeRoy ◎
3669ΔAssociated Pipe & Sup Co Buff V R bldg matls
ΔJohnson A E ◎
3669 State Public Utilities Comm
Bean ends
Chalmers intersects
Winder intersects
3717ΔBurnett E D
3719 Wharton Chas
3719½ΔPesanti M J
3721 Strong F L
3723 Gregory Claude
3725 Chaney G O
3727 DeHope Jas
3729ΔWegeforth L P
3731 Baluka T A
Andrews intersects
3751 Five Points Auto Court
ΔBarlow J H
Clark H H
3777 Norris J G liquors
3779 Roisman Simon clo clnr
3781 Sims Irene Mrs beauty shop
3785ΔFive Points Pharmacy
3787ΔSelby M J Mrs ◎
3789ΔMooney T S phys
3789½ Weiss Francis
3791 Balsey I L barber
Boles J H barber
3793 Peavler P G restr
3795 Five Points Food Mkt
McKee intersects
3801 Barton Nadine Mrs delicatessen
3805ΔS D Motor Inn
Wood W N
3809 DeBow R G real est
ΔIrey Ira S Co real est
3810 Five Points Serv Sta
3811ΔBaine E M Mrs ◎
3817 MacDonald R D
3819 Tracy A W
Clayton ends
3827 Gentry C M Mrs
3830 Waitscox Robt
3831ΔTheriot A E
3832ΔFinnigan W C dentist
3833 Asaro J J
Bologna Philip ◎
3834 Carter H V
3836 Wilson W A
3838 Vacant
Pringle begins
3844ΔDotts Homer ◎
3846 Ruocco Massimino barber
3856ΔDeVolld L R baker
3870ΔCalifornia Auto Court
Nappin F H
3873ΔBay View Motel
Graham T R gro
Hall J R
Levy J K
ΔModern Cbt Shop
Nichols H L cbtmkr
Sutherland ends
La Jolla begins
3917 Overmier J C ◎
3919ΔKnudson Emma Mrs
3921ΔGuess L M
3922 Wilson Florence Mrs
3922½ΔUnger P S
3929 Harper R E
3931 Watson L E ◎
3935 Pine Wm ◎
3938ΔMcKalson E L
3942ΔJackson Andw ◎
3951ΔHenderson Dorothy Mrs
3965ΔSelby H C ◎

CALIFORNIA, WEST — From Henry w to Witherby, continuation of California

1907 Kohl C N
1917ΔRickon F J H ◎
1931ΔMinor S H jr ◎
2005ΔWotton A H ◎
2011ΔKahn Saml
2017ΔBeetlestone R H ◎
2025 Vacant
2037ΔLeadbeater J G ◎
Wright intersects
2044ΔCollins V D Mrs ◎
2045ΔShaw H I jr ◎
2049 Burba L W
Keinanen R W
2050ΔBagby J W ◎
2051ΔHartley M E Mrs ◎
2067 Archibald G S jr
2069ΔTaylor H J
2070ΔGraham H W ◎
2074 Muir W D ◎
2075ΔHagbloom Benny
2077ΔMcCormick Edw ◎
2086ΔMcAlister H B Mrs ◎
2095ΔCaufield C T
2097 Stamps S M Mrs
2098 Mack Chas ◎
Bandini intersects
2105ΔWilke H P ◎
2111ΔEnglehart J R ◎
2121ΔBaird A N ◎
2137ΔMartin D G ◎
2149ΔDingman L H
ΔShoven A M ◎
2151ΔKeenan J G
2169ΔDubowsky Oscar
2186ΔDavis R L ◎
2191ΔStewart E T ◎
Couts intersects

CALLE BREVE (Pacific Beach) — North from Balboa av, 1 w of Pico

CALLE CAMPANA (Pacific Beach)—North from 2300 Reed av to Calle Corva

4251 Couch A L
4253 Steinruck W A
4255 Shepler R D
4257 Hill S J
4259 Rutledge Clarence
4261 Nelson H C
4263 Brown L H
4265 Collins Marion Mrs
4267ΔProbst J W
4269 McDaniel Floyd
4271 Siskron J L
4273 Gee M L
4275 Parr J W
4277 Nicholas C D
4279 Underwood H H
4281 Brennen Richd
4283 Bentley F W
4285 Miller W M
4287 Dove L A
4289 Davenport R W
4301 Cioe H P
4302 Wilkinson C M
4303 Lopez Margt Mrs
4304 Spiewak Stanley
4305 Marlatt J A
4306 Damron Eleanor Mrs
4307 Beveridge H M
4308 Holford F J
4309 Russell P L
4310-Simpson Susan Mrs
4311 Phares M D
4312 Miller J A
4313 Calogne C P
4314 Ross E M Mrs
4314 Ross J A
4315 Durham H E
4316 Hovey E D
4317 Haas D E

TP	Adjoining	Source
-	✓	San Diego Directory Co.

COLUMBIA ST 1948

COLUMBIA—Contd
2043 Pierce R C
2043½ Smithson Norman
2044 Columbia Apartments
Brown H A
Brown J A
Case C J
Cole C V
Dawson Kay
Parks Arth ◎
Peterson June M
Williams E C
2051 DeSanti J L
2053 Pinta Andw
2054 Bono Jack ◎
2064 Sardina Guiseppi
2065 Hebel R E ◎
2066 DiCola Dominic
2071 McPhee E S Mrs ◎
Hawthorn intersects
2104 Balistreri Peter
Sardo Salvatore ◎
2118 Canepa Lorenzo ◎
2121 Oritano Vincent ◎
2130 Alioto A J ◎
2135 Buompensiero Salvatore ◎
2136 Bregante A E ◎
2137 Clark F L
2141 Goodwin D O
2143 Canfield Wm
2146 Bregante Cath Mrs ◎
Weaver J B
2154 Busalacchi Jos ◎
2155 Benner R P ◎
Benner Wm
Kronkright L V
2165 Sherlis Aleck
2168 Stagnaro P P ◎
Ivy intersects
2201 Nigro Victor
Oliveri Jas ◎
2203 Vacant
2210 Baptist Christian Center
Italian Baptist Mission
S D Baptist Mission Society
2215 Melluse J E
2219 Charves Mary Mrs
2230 Vacant
2233 Johnson W G
2235 Brazil Ella Mrs
2239 Contaste Raffaela Mrs
2241 Corrao Peter ◎
2243 Puccio Peter
2245 Collini Jos ◎
2260 Foster and Kleiser Co adv
Juniper intersects
2303 Sanfilippo Dominic ◎
2312 Lococo Pasquale ◎
2314 Neill J H ◎
2316 Johnson W A
2317 Giacalone Thos ◎
2326 Parmigiani Beatrice Mrs
2328 Parmigiani Rocco ◎
2333 Crivello Saml ◎
2343 Vacant
2345 Short Addie M
2348 Lococo John ◎
2349 Smith O H
2350 Donnelly D J
2351 Richardson M C Mrs
2353 Reed Helen Mrs
2355 Galbraith J B
2357 Loftin Clifford
2358 Schlegel Mary R ◎
2363 DiBona Mario
2365 Pool W J
Kalmia intersects
2416 Navarro Carlo ◎
2429 Palmer E W ◎
2430 Giacalone Saml ◎
2439 Vacant
2441 Quinci Paul
2443 Russo Saml
2455 George Robt
Kelly Martha E ◎
Tillman C G
2465 Piranio F P ◎
Laurel intersects
2518 Crivello Jos
2519 Rose H W ◎
2520 Sanfilippo Peter ◎
2525 Farnasero R C Mrs ◎
2528 Mendola Sebastian
2532 Maugeri Stefano ◎
2540 Tenas S S ◎
2548 Consentino C J
Maple intersects
2601 Hogan J L
2603 Usler J J
2619 Kenyon Arth ◎
2620 Neuerburg Maude Mrs ◎
2621 Gossett R R
2629 Lowry R E
2630 Hart C H
2636 D'Arcy P J
2638 Ryno L T Mrs
2639 Husband R F ◎
2640 Akers R F
2642 Bugenhagen H F
2643 Lucas F S
2653 Hoss J J
2655 Hoss W A ◎
2657 Smith Coy
2664 Ronan M D Mrs
2666 Urban K L
2669 Remick J K
Nutmeg intersects
2703 Webb Hazel I
2705 Jones V M Mrs ◎
2715 Walters G L Mrs ◎
2727 Pyles H K
2729 Barber J S W ◎
2730 Middlebrook H C Mrs ◎
2732 Irving M T
2737 Wickens J E
2739 Durkee A E
2741 Dew G A
2744 Middlebrook L R Mrs ◎
2753 Langley C M
Murray J M
Tråggard R M Mrs ◎
2756 Bushnell A N
Jones W L ◎
2768 Germo D H
2773 McCarty T C
Olive intersects
2811 Crivello Peter ◎
2816 Allen Beatrice Mrs ◎
2818 LaChance F E
2825 Bonham H L
2830 Rubesh C L
2840 Howell S B Mrs ◎
2849 Buttermore W B ◎
2851 Toy C L
2864 Tetlow Ida Mrs ◎
2869 Pickens Theo jr
Secore Margt B ◎
Palm intersects
2919 Rosiak F J
2930 Pierce Wm ◎
2940 Bibb R V
2950 Nichols M M Mrs
2952 Webber J E
2954 Decker H L ◎
2955 Avary Hugh
Julien J D ◎
McGinnis R D
2964 Norris J R ◎
2965 Webster M D Mrs
Quince intersects
3002 Jumper F F ◎
3018 Aron Pearl Mrs ◎
3040 Atchison T N
3062 Wilkerson L E
3064 Hubbard W C
3066 Brunner M A Mrs
3068 Wanger J L
Redwood intersects
3225 Cheek R C ◎
3242 Goodwin H M ◎
3243 Zobrist R C ◎
Sassafras intersects
3319 Rounsefell S G ◎
3320 Adams C C ◎
3321 Sulis Agatha L
3330 Miller R G ◎
3331 Wakeman S P
3333 Moeller G E
3343 Bunnell J W
3344 Guyton Omar ◎
3345 Albertson F D
3347 Eldridge Riley ◎
3355 Curtis C W
3357 Theobald C W
3364 Mundo A L
3366 McDonald N M
3368 Thompson H W
3370 Topping M G Mrs ◎
3372 Sorensen C W
Thorn intersects
3445 Canale J C ◎
3455 Crivello Vincent ◎
3465 MacFarlan R A
Upas intersects
3504 Lattin J L
Steadman O J ◎
3515 Boniface Frank
3517 Schwegel G W
3521 Dye W R
Woodman G G
3523 Woodis D N
3525 Starkey L E
3528 Smith R M ◎
3531 Worner K W
3535 MacLennan Donald
3538 Crisci Jos ◎
3545 Wilson Louise F
Vine intersects
Glenwood intersects
3615 Jenkins H T ◎
3621 Lichty Eug ◎
3627 Miller L R
3629 St Claire C H ◎
Chalmers intersects
3645 Osborn E H ◎
3652 Williams M E Mrs
3655 Francis C N ◎
3661 Goldmann J G ◎
3663 Gorman Lynn
3667 Woods H S
3669 Oberg A B ◎
3669½ Lewis C A
3670 Pires Joaquin ◎
3677 Hansen H B ◎
3678 Hunt Albt
rear Vacant
3680 Klingenberg A J Mrs ◎
3685 DuMond E A
3686 Evans S C ◎
3687 Bischoff J N F
3693 Mattock Glen
3695 Ray D F
Welborn begins
Winder begins
3707 Milligan M D
Worthen H B ◎
3708 Peacock N A
VanAntwerp J R
3710 Wheeler O J
3712 Weede L T ◎
3719 Rosiak F J
3720 Hansen A P ◎
3723 Stanton P A ◎
3730 Long C O
3731 Williams T A
3736 Billings Florence
3744 Stenger G W ◎
3745 Buttemer R J ◎
3746 Schill W F
3748 Glock Fred
Andrews intersects

COLUMBINE (East San Diego) —Southeast from 4270 Manzanita dr
2715 Todd Alice M
2716 Geisler P J ◎
2723 Hemphill J F Mrs ◎
Olive intersects

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GLENWOOD DR 1948

1412

COSGROVE, DUNN & HERSEY

GENERAL INSURANCE

FIRE — AUTOMOBILE — LIABILITY — COMPENSATION

506 San Diego Trust & Savings Building 530 Broadway Franklin 9-1239

GLENMORE DRIVE—Contd
7525 Cooper M G
7528 Hicks Senolia
7529 Kellough Elbt
7532 Berglund Lester
7534 Higdon Jas
7535 Keswick Harold
7537 Johnson Callie S

GLENMORE LANE (Linda Vista) — Northeast from Chesterton dr to Westmoreland dr, 3 e of Linda Vista rd
7409 Vogt H D
7411 Pegler Helen
7412 Thompson D K
7414 Leicht A O
7419 Bailey W G
7420 Smith C J
7427 Malone Ocie
7428 Wertz Clarence
7429 Schott Arth
7430 Rivera P L
7507 Hoffman A G
7511 Benjamin F H
7512 McGee Wm
7513 Smith G H
7514 Beckham Ellz
7515 Graham Erland
7517△Rowe R A
7519 Malsbury R W
7520 May Winfield
7521 Johnson M E
7522 Hays O R
7529 Kohl J G
7530 Milhollan Vivian
7531 Capshaw R L
7532 Ricketts E C
7537 Wash Geraldine
7538 Myers Chas
7539 Lewis Johnie
7540 Stewart E B
7542 Chicoine L S

GLENWOOD (Pacific Beach)—Changed to Glendora

GLENWOOD DRIVE — West from 3570 Union
1525△Binder E I ⊙
1531△McLouth Ada ⊙
State intersects
1602 Hibbard W C ⊙
1605 TenBroek Madaline Mrs
1610△Fairman A T ⊙
1616△Daly J G ⊙
1624 Planondon Romeo
1626△Davis M E
1628△Barton E J
1630 Untney F M
1630½ Porter M J
1632△Hagerbaumer G W
1633△Morgan Harry
1634△Riese P E
1636 Humphrey E T
1702 Johnson J H
1704 Holland F C
1705△Scott W R
1708 Brooks Quanetta V
1709△Pinson K C
1711△Reinemund B R
1712△Domnie W D
1712½ Parks C G
1714△Holloway E L Mrs
1716△Crawford Jac
1716½ Cutcheon W B
1720△Hoffman Albt
1720½ Casner W D
1722△Lakin M B Mrs
1722½ Barnes S W
1724 Sainsbury L W
1724½ Simons J M

GLIDDEN (Linda Vista)—East from Linda Vista rd 1 s of Kramer
6822 Bates J W
6831 Butterfield Jacob
6832 Darland E M
6842 Hannum J F
6847 Camp D B
6849△Langston H E
6852 Hinrichs C J
6921 Allee F L
6922 Kinyon E M
6931 Daly L A
6932 McLaren A R
6941 Turner R A
6942 Young F R
6951 Millikan L J
6962 Abrams Wm
6962 Aagastinc D J
6971 Lee F P
6972 Janowitz Harry
6981 Nelson R J
6982 Darr G L
6991 Roczey Edw
6992 Johnson A M

GLOBE (North San Diego) — North from 1 blk s of 3500 Bisbee

GLORIA—South from Franklin av bet S 48th and S 49th
307 Hoy L E ⊙
325△Quince Vito ⊙
424 Panhorst C E ⊙

GOLDEN GATE DRIVE (Mission Cliffs) — East from 700 Madison av to Campus av
1111△Phelps L F Mrs ⊙
1202△Byerley Rita Mrs ⊙
1205△Hall S F Mrs ⊙
1211△Lydon R W ⊙
1219△Beale E W ⊙
Harvey rd begins
1229△Norwood G J ⊙
1236△Amsden Georgia C ⊙
1240△Stimmel B F ⊙
1245△Allen H H ⊙
Maryland intersects
1403△Werden D H ⊙
1404△Newsom B L Mrs ⊙
1412△Riis H E ⊙
1413△Haw H H ⊙
1419△Rapier R S ⊙
1420△Dobbs H J ⊙
1429△Allen Oneita ⊙
1430△Shankland B L ⊙
1433△Scribner G R
1443△Baker A S ⊙
1444△Courtright R E ⊙
Cleveland av ends
1521△Lake D L ⊙
1529△Brown J T
1538△Owen H S ⊙
Campus av intersects

GOLDEN PARK AV (La Playa)—North from 1 blk s of 3300 Lucinda
820△Shropshire W B ⊙
Lucinda intersects
845 Elliott M M Mrs ⊙
△Warnes E D
876△Small C A ⊙
Harbor View dr intersects

GOLDFIELD—(Morena) Northeast from George, 1 sw of Phoenix
1803△Newell W C
1809 Nolan P L ⊙
1819△Aguirre L S Mrs ⊙
1826△Flese A P ⊙
1827△Brenchley Reginald ⊙
1831 Andersen H A ⊙
1834△Smith K H ⊙
1842△Hofmann Richd ⊙
1847△Warner E J ⊙
1848△Logan V H ⊙
1853△Smith C A ⊙
1865△Fuller R G ⊙
Ashton intersects
1911△Maffioli E A Mrs ⊙
1914△Frank Alfd H ⊙
1919 DeLeon E W ⊙
1927△Dahl R R ⊙
1928△Benson J W ⊙
1936△Shelton M J ⊙
1943 Thurgood G N
1951△Hunt S J ⊙
1962 Wilmer Alfd ⊙
1957△Rowan Key
1967 Windsor A H ⊙
Napier intersects

GOLDFINCH—North from 3050 Horton av bet Hawk and Falcon
2809△Moyer D W
3136 Dean Jean
3206△Bown G A ⊙
3220△Haddock J C Mrs ⊙
3231 Leppart H C ⊙
3232△Kraus J C ⊙
3242△Henry Ogie Mrs ⊙
3254△Vattuone J B ⊙
3256△Oakley T B ⊙
Thorn intersects
Upas intersects
3411△Major W H ⊙
3421△Stevens W W ⊙
3428△Wakefield R R ⊙
3437△Larsen A C Mrs
△Pinnell R L ⊙
3447△Burdine S O ⊙
3451△Orrell F G ⊙
3457 Worden E S
Hawk intersects
3520△Maguire J G
3740△Boyle B F ⊙
3748 Sepin E K Mrs drsmkr
Sutter intersects
3752△Barrett Irvin ⊙
3760△Davee H L ⊙
3768△Weeks J A
3769△Erlenborn O P ⊙
3775△Cavanaugh Julia A
3776 King Jackson ⊙
3781△McGehee M S radio repr
3784△Updike L C
△Walton G M Mrs ⊙
3792△Rose David ⊙
3795△Arnold L E Mrs ⊙
Brown H A chiropractor
Bush intersects
3801△Mentle E L Mrs ⊙
3809 Bowen H M Mrs
3817△Sheldon Alice ⊙
3820△Ballam E W
3825△White T W ⊙
3831△Powell S J ⊙
3834 Cate D P ⊙
Marsh J A
3837△Bierbower L B Mrs corsetiere ⊙
3838△Haas C W D ⊙
△Sherman C R ⊙
3842△Johnson R H ⊙
3901△Burkhard A V
3904△Nevitt C J ⊙
3907△Goldnamer S C ⊙
3910 Mears B C
△Woodard A B Mrs ⊙
3911△Dunning R L ⊙
3920△Griffin W G ⊙
3921△Hamilton E J ⊙
3934△Croucher R D
3936△Templeton W L
Douglass intersects
3951△Barta J C gro
3952△Miles C D

BOOKS

STATIONERS CORPORATION — 1040 Sixth Avenue —

Goodwill Industries

Your Discarded Clothing, etc. Gives Work to Aged and Handicapped Persons

MYRON INSKO Exec. Sec.

Tel. Fr. 7401

402 Fifth Ave.

Central Federal-Savings and-Loan Assn.

ALL ACCOUNTS INSURED UP TO $5000.00

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INDIA ST 1948

INDIA—Contd
2144 Jones H M
2146 Joe & Geo Card Rooms
ΔDrozdy Jos
2148 Drown G J
2150 Campos Benj
2157ΔMoorsteen Mfg Co furn mfrs

Ivy intersects

2202ΔLucente P J
2206 Asaro Mary Mrs ◎
2215ΔHardy H J refrigerators
2220ΔDeBrito Abel ◎
2230ΔAsaro A A ◎
2240ΔBerardino Fortunato ◎
2270ΔReeves Max gas sta

Juniper intersects

2304ΔCanepa Fred
2306ΔZolezzi John
2307ΔImperial Dist Co liquors
2314 Zolezzi Angelo ◎
2315ΔPrice & Horton shtmtlwks
2316ΔAlioto John ◎
2317ΔLupini Victor baker,
2326ΔCresci John ◎
2328ΔPiranio Pietro ◎
2329 Gould L F
ΔSzalinski Jessie Mrs ◎
2347 Corrao Thos
2349 Grivello Marie
2352ΔDenison Mattress Co.
2355ΔHenderson A L radios
ΔHiggins J P auto repr
ΔLutz Carl outboard motors
ΔOrtlieb J M auto equip
2361 Motisi Antonio liquors
2367ΔWallen A J drugs

Kalmia intersects

2400ΔCity Dye Wks
2401ΔHunsaker L S gas sta
2404ΔMcLean H C Co real est
2418 Webb H J
2420ΔCordileone Beneditto ◎
2422 Balistreri John
2431 Grant J C auto lndry
2444ΔCastiglione Leonard
2446ΔSardo Saml ◎
2452ΔSarnuto A J
2454 Brandes Shirley A
2458 Giordano Jos
2466 Luizzi J L

Laurel intersects

2501ΔGhio Adeline M
2503ΔRobinson J W
2504 Lauritzen Ebba
2505 Curri S A
2507 Inman R M Mrs
2508 McCue D B
2509 Golden W H
2511 Norvell D L
2513ΔEldredge A L
2517 Burchiel R E
2518ΔFowler O F
2519 Kirby Attie H
2521ΔDickson Robt
2523ΔMarzoll Irene N
2525ΔBracken W J
2527ΔRoss J W jr
2528 Pauley Victor
2530 Lentz G H
2531 Irvine H F
2532ΔCurtis Victor
2540 Luizzi M L
2544 Canepa John
2548ΔLuizzi Natale ◎
2552 Reid Anna G
2554 Sabatine Dominick
2558 Rausa Santo
2566ΔFaresman C B
2568ΔHaley H B ◎

Maple intersects

2602ΔVentrice Bert wldr ◎
2615ΔKilmer P S ◎
2622 Cardani Eug ◎
Cardani J E
2624 DeNecochea Car...e Mrs ◎
2628 Everitt W E
2630ΔMoran J D ◎
2632 Moore P O
2657ΔHall F R ◎
2659 Van Kampen Neal
2663ΔKenyon V V Mrs ◎

Nutmeg intersects

2701 Harris M S Mrs ◎
ΔLutz Carl ◎
2702ΔWatt P M ◎
2702aWarner G L
2802b Worall A W
2706 Crowder S O
2708 Miller Norice
2710 Arnold J B
2718ΔStromberg Carl Δ
2720ΔCoop Amelia Mrs ◎
2722ΔChellis R J ◎
2734ΔStensland S C
2736ΔCrouthamel H R
2740 Burton Lena Mrs
2742ΔMcNeil F J ◎
2742½ Bestick J R
2747ΔHorton E J ◎
2760 Donovan J A
Jones J H ◎

Olive intersects

2801ΔBarnes B I
2804 Gibbs A G ◎
2805ΔKniazeff A J ◎
2815 Henning A T Mrs
2818ΔHaskins W F ◎
2820 Collier F R
2828ΔCicala Anna Mrs ◎
2828½ΔSouza A E
2834ΔMcKenzie Paul ◎
2836 Todd J R
Todd R P
2837ΔFischer Geo
2839ΔNelson Martha O
2840ΔClarke H W gro
2840½ Clarke H W
2842ΔMace J W
2842½ΔBogart E D
2844ΔAllard J L ◎
2848 Garbarino A M
2849ΔRauscher E W ◎
2850 Vacant
2860 Vacant
2867ΔTarantino F S ◎
2869ΔRandolph V E ◎

Palm intersects

2902ΔFoss E V ◎
2903ΔErler T C ◎
ΔLarkin D M Mrs
2905ΔGrindl S D Mrs ◎
2905½ McDaniel T M
2907 Shaw R J
2909 Rigney L F
2915ΔFrontiera Vito
2920ΔHuber H O ◎
2921 McClary K A
2921½ Gantt A A
2923 Gabriel Peter
2923½ΔRhein Eliz
2927 Robbins R L ◎
2932ΔAubert M A Mrs ◎
2932½ Hill Nana Z
McBride J I
2934 Meronk Frank
2936 Todd J M
2940 Mercurio A A
2940½ΔMercurio Mary Mrs
2942 Bolton Chas
Brown I N
2944 Marotta John
2945 Gorman B F
ΔSplinter C H
ΔStagg H W
2952 Burbidge P W
ΔFinnegan V B Mrs ◎
rearΔHarris Martin
Morrison W R
2966ΔCanepa Paris ◎
Isbelle F B
2966½ΔCanepa John

Quince intersects

3002ΔSevere M O ◎
3002½ Foster J B
3004 Logan P O
3009ΔSilva Jose ◎
3014 Campagna E T
3016 Huie T J
3016½ Compagna R P
3020 **Bay View Apartments**
Allen M T Mrs
Gilley M T Mrs
Jacobson S A
Jelinski A P
Morris T K
Smith Bradley
Strange Bette F
Wanek Frank
White K P
3040 Tyler C W
3042 Chase C S
3042aΔBruce Lelia Mrs
3044 Smith H B
Smith M A Mrs
3044aΔSims R E
3044½ Cushing W F
3046ΔGarber Wm
3048ΔMelin Eleanor R
3053ΔDill C E ◎
ΔFransel W B ◎
3054ΔLewis L P Mrs
3056ΔHarvey R D gro
3060 Reed V H

Redwood intersects

3114ΔAverill C C
3116ΔMcCracken Josephine Mrs ◎
3124ΔMcCracken P E ◎
3129 Porter H R ◎
3131 Porter H R delicatessen
3140ΔWhitney O L ◎
3141 Goldi Isabel Mrs
ΔPoucher Leland ◎
3153ΔZori Vince real est
3167 Boalich D M
Jensen Paul ◎
3171ΔAshburn D A gas sta

Spruce intersects

3222 Puterbaugh Geo
3232 Montgomery R M clo clnr
3252ΔMaines E B Mrs
3254 Budge Kath B
3256 Moffett W M
3258ΔHopman J P
3260 Carter T H

Sassafras intersects

3265ΔDudney R W clo clnr
3300ΔAirmen's Hotel
Meers J S
Meers S H
3302ΔS D Insulation Co
3306 Wittman Pauline
3312 Bowers D A
3314ΔMilne T C
3316 Phillips E A
3318 Massey Mammye Mrs
3320 Potcate E L
3325 Lerner C L
ΔTuffley R L ◎
3326 Conway J R
3328 Gron P A
3330ΔBrizendine Earl
3336ΔLandy & Mort plastic mfrs
3338 Gron P A shoe repr
3341 Merrill K V
3341½ Hull R E
3343ΔKruck E W
3343½ΔHainlin L E ◎
3345 Christian G E
3347ΔSchicker G N

Thorn intersects

3460 Vacant
3460a Castellanos Louis
3460b McFarlane Rosie Mrs

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3460d Peck F B
3462 Schade V H
3462½ Barnes J W
3464 Green L W
3466△El Francisco Apartments
Brown L W jr
Kukor Chas
Pharis L H
3468Johnson A W
3472 Grindstaff A A

Upas intersects

3472½ Pemberton L W
3503△Welch W E
3505 Currier J H
3507 Houghtaling L R
3509 James M M Mrs
3512△Andrews T N ◎
3514 Leonard E G
3519△Lamoreaux P W ◎
3525△Wilcox F A Mrs
3527 Reehl W W
3529△Jamieson D N ◎
3536 Thaler Martin
3537△Hess L A ◎
3538△DeShon Gilbert
3540△Holt R W ◎
3541△Sinnott M R
3544△Rodgers R R ◎
3545△Funk J J
3547 Vacant
3547½△Underwood W D
3549△McDonald Hugh jr
3573 Smith J H

Vine intersects
Glenwood dr intersects
Walnut av intersects

3612½△Powell R C
3619 Bryson R W ◎
3620 Woodhouse R L
3625△Miramontes L A
Oakley T G
Turnbull W O
3633△Atlas Trans & Stg Co
3642 Baxter F W barber
3645△Greene E E

Chalmers intersects

3652△Fitzgerald J M
△Gross Harold
Hilyard Ruth
△Johnson G A
△McMinn Margt C
Metzger C H
Short J W
△Walker M L
3661 Alger M S
Black M L
Emmerling M J
Henning Genvieve M
Landers R E
Norris Willis
3664△Turpin G C
3667 Pedrin Albt shoe repr
3668△Barr Dorothy
Pound L L
3670△Sample V E real est
3672 Mead S M clo clnrs
3674 Ruhberg G T
3675△Haley Linnie Mrs gro
3682 Wilson L R
3684 Wordsworth Fred
3688△Montanye C E
3690 Kuhn W J
3697△Gomon W H liquors
3698△McPherson Susie Mrs

Winder intersects

3701△Julian T N
3702 Palomar Golf Park
McClelland R H restr
3711△Boardman Kath Mrs
△Burns H T ◎
3719△Aiello P M ◎
3731△Larsen L A Mrs ◎
3735 McClelland R H
3735½△Rymsza Frank
3737△DiGiovanni Modestino radios
3739△Ted's Studio of Beauty beauty shop
741 Vacant
3743 Reichart L R
3745△Shackelford Benj
3745½ Richards R H
3749 Chellieu D A
3751△Perry D H

Andrews intersects

3753 Tarr Frank photog
3779△Benner D M Mrs
3780△Tuft N A ◎
3792△Schultz D J Mrs ◎

INDIANA—North from 1800 E Upas

3503△Burgster J B ◎
3514△Inhofe A R ◎
3515 Burns J M Mrs
3517 Lemon D M ◎
3524△Foster H E Mrs ◎
3528△Paxton Betty J
3530 Hays Verna Mrs ◎
3532△Gross D J Mrs
3537△Hulden L S
3538△Arnold Rosalie R ◎
3541△Edson M B Mrs ◎
3544△Clause Mel
3546 Muncey H V
3547△Fisher C W Mrs
3548△Chandler B H Mrs
3549△Filippi F J jr
3551 Brown J A Mrs
3554△Casebolt L B
Fisk Mildred A
McDonald Mary R
Showalter Annie T
3559△Jones I L
△Naumann F J
Nelson Bessie Mrs ◎
3602 DiBartolo Benny
3604△Baldan Anthony ◎
3606△Devorraux H V
3606½ Cash H H Mrs
3608 Grimm J C
3608½△Marlin Robt
3610△Johnson S K
3611△Pettey J V ◎
3612△Passmore G D
3613△Dunn A B Mrs ◎
3614△Britton D M
3616△Batcher W H ◎
3621△Cunningham J O ◎
3622△Driver Justine Mrs ◎
3623 Vacant
3624△Drake M A
3627△Eickmeyer Clara Mrs ◎
3630 Ferrantelli Peter ◎
3633 Reeder E A
△Richard C B Mrs
3634△Bayles M E Mrs
3636△Culbertson Grace Mrs
3638△Burbeck J G Mrs
3640△Nichols Louise Mrs ◎
3641△Johnson H C ◎
3642△Cunningham L K
3644△Creswick H L ◎
3650 Francis C W
3652 Gillett R G
3653 Burnet F J ◎
3654 Birch C S
3656△Gehring N J

Cypress av intersects

3660△Fischer Cecelia ◎
3662 Fletchal D C
△Forrest W J
Kinman R J jr
Noble W E
Parr R E
3665△Simoneau Alphonse
3669△Gettys G V
3670△Adams T E
3672△Swank R J
3680△Avoyer Constantine ◎
3681△Jordan J E ◎
3683 Lambert B M
3683½△Cyr C S
3685△Oliver F R
3688△VanWinkle L S
3689△DuPaul J B ◎
3690△Edwards J R
3692 Kane Agnes
3694△Cramer E J ◎
Pearson H C Mrs
3695△Shortridge C H ◎
3697△Antonioli Nick ◎
3704△Rumbutis Stanislaw ◎
3707 Crosby K W ◎
3710△Franckins R M ◎
3712 Bryant P R
Woodford N E
3714 Cafferty F L
Heffington F W
3715△Snell S W ◎
3716 Fisher C F
3718△Bluder A W
3720△Wickman E L ◎
3721 Peranski Zigmunt ◎
3729△Baldwin Emma A ◎
3733 Doggett Eugenia Mrs ◎

INDIANAPOLIS (East San Diego)—Northeast from 4750 Laurel

INEZ (La Playa)—West from 1050 Bow av

3522 Patterson M L Mrs ◎

INGALLS (Mission Hills) — North from 1 blk s of 1300 Douglass

3961 Donaldson J H
3967△Hunt H B
3973 McClaugherty Kath S
3978 Futrell H M
△Scofield Margt Mrs
3979△Over S M Mrs
3987△Bagda O R
3988△Lucas E M Mrs
3994△Starbeck S H ◎

Washington intersects

4005△Enfield F D
4011△Sumerlin H L
4020△Phelps Arth ◎
4021△Hunter C R
4024△Pellman J G ◎
4027△Shepard W O ◎
4028△Harcleroad M M Mrs ◎
4030 Winn J H
4033△Lawton T F ◎

Ft Stockton dr intersects

4060 Paulman Alma
4061△Jennings Mary C ◎
4062 Greenleaf W L ◎
Gustafson Viola
4068△Martinsen C W
4069△Mengle J M Mrs ◎
4074△Martinsen P E Mrs
4076△Boyles H M Mrs
4082 Vacant
4087△Garrett T P ◎
4090△Macfarlane I M Mrs

W Lewis intersects

4104△Mills W S ◎
4112△Mulligan Cath J ◎
4120△Mitchell Austin ◎
4121△McKeown C N ◎
4128△Smith E R Mrs ◎
4129Woodward Harry ◎
4133△Snodgrass D W ◎
4140△Ahring O F ◎
4141△Langston Pauline
4143△O'Rourke M J Mrs
4145 Miller E M Mrs
4147△Holston A E ◎

Montecito way intersects

4151△Kyle Wm
4159 Haun H B ◎
4162 Bowersock E H ◎
4165 Kendall B F
4167 Sweeney H F

TP	Adjoining	Source
-	✓	San Diego Directory Co.

KETTNER BLVD 1948

KETTNER BLVD—Contd
3009ΔSmith J R ◎
3011ΔSwearengin Grace E ◎
3017 Hastings C F
Stanley C F
3017½ Turner R A
3019ΔGordon W R ◎
3027 Dodson R A
3028 Morgan V M Mrs
3029 Lawson W L
3030 Escallier R F
3031 Eggley Frank
3032 Baumer K L Mrs
3033 House W J
3034 Anaya E P
3040 Vacant
3041 Echwege J B
3042 Vacant
3043 Vermilya J W
3045 Smith D W
Redwood intersects
3105ΔKoehler Amelia Mrs ◎
3109 Rennels C L
3111 Jaekel R F
3113 Parker C W
3125ΔMelching W F ◎
3136ΔSwitters Freda A lbr
3140 Noakes D W real est
ΔSwitters C W real est
3146ΔAnderson E F ◎
Hoadley L B
3148 Green C U
3150 Stone L J
3160 Doolin J L
3161 Morgan W H
3163 Dreylinger Milton
3165 Gates V H
3167ΔRoan A J ◎
Spruce intersects
3205 Thompson J D gas sta
3231ΔS D Seat Adv Co
3237 Urich B E
3239 Ogilvie W D
3241 Bates R G
3242 Henson Edith T
3243ΔBaum O J ◎
3251 Wong Stella H ◎
3253 Michael R J
3255 Ballatore Batista
3257 Copeland E B
Sassafras intersects
3338 Ratliff R S
3340 Houston Ray
3342ΔFrost A H ◎
3344 Burgees E T
3346 Blake B E
3348 Sutton Winifred M
3370ΔSoares E C Mrs ◎
Thorn intersects
3420ΔCoggeshall A W plmbr
3433ΔSwope Termite & Fungi Co
3441 Ward W G
3444ΔEdmonds LeRoy
3452 Smith Virginia
3455ΔTerada John
3455½ΔPalmer F W
3456ΔColeman W S radio repr
3465 Stark Gloria L
3466 Brown Carrie Mrs ◎
3467ΔRawlinson F H
3469 Wendschuh Elsie
3471 Keough W E
3473 Lane W D
Upas intersects
3505 Neidig H W
3507 Clark L M Mrs
3509ΔJohnson J R
3511ΔSinger Jos
3513 Oleson R D
3515 Eichenger J W
3517ΔMcMurry R T
3518ΔMaczko E F
3521ΔSwanson Dorothy Mrs
3523 Marsh Robt
3527ΔCates W R
3531ΔHuntington R L
3533 Wood G W jr
3535ΔWalton C H
3537 Blank Helen Mrs
3539ΔMatthews H D
3541 Davis H G
Vine intersects
3553 Mendoza Douglas
3575ΔFire Dept Sta No 20
Walnut av intersects
3600ΔCentury Lbr & Mill Co
3603 Emery G F
3607ΔLyter H C
3609ΔCausey C H
3611 Filletti Eug restr
3611a Butler Basil
3611b Hogg H B
3611cΔHogg H H ◎
3619 Mellan & Qualls plmbrs
3631 Olf Abr
3637ΔMcMorrow Carrie Mrs ◎
Chalmers intersects
3655ΔThiem A G ◎
3657 Western Union Telegraph Co plant
3663ΔReynolds P A ◎
3663½ Williams T K
3665 Vacant
3667 Powell M R Mrs
Taylor S L Mrs
3667½ Jones W W
3669 Knox N A Mrs
3674ΔChappel E L serv sta
3679 Taylor B E
3681ΔLeckliter H W Mrs
3683 Murray Eliz Mrs
3684 McGregor Jas jr int dec
3686 Vacant
3694ΔScott M W aircraft instruments
3695ΔWhittington H J
Winder intersects
3702 Ellis W L
ΔFrancisco E H ◎
3707 Thompson J D ◎
3730ΔCropley W L
3734 Walker R A shtmtlwkr
3744ΔKoehl G J ◎
ΔLightening Mach Co
3747ΔPalomar Lndy & Dry Clnrs
Andrews intersects
3765ΔKing I H
3767 Stockman David
3776 Durbin D F
3776½ Holloway J H
3778ΔArmstrong M A Mrs
3779ΔMcCown B E ◎
3785ΔHalwick Lucille ◎
3794 Sims J M jr
3796ΔNichols O P ◎
3797ΔFowler E W ◎
McKee intersects
3802 Peterson H C
3803ΔStullken W G ◎
3809ΔBaker G S ◎
3821ΔRice J D Mrs ◎
3831ΔFouts E L Mrs ◎
3833 Brosseau E A
3838ΔSampson C A ◎
3841 Austin Verda M ◎
3844ΔMorse C F
3847 Farrell F R
3848ΔBullard Margt Mrs ◎
Pringle intersects
3857ΔArmstrong Frank
3859 Drenth P J
3865ΔRay Hazel ◎

KEW TERRACE — South of Nutmeg bet Teresita and Boundary
2603 Cahill R E ◎
2604ΔTrelease J A ◎
2609ΔMarshall L E ◎
2610ΔMentzer R J ◎
2615ΔGriffin Fred ◎
2618ΔBurke W L ◎
2623ΔTilton Edw ◎
2624ΔCombs L A ◎

KEY WEST LANE (Frontier Homes Housing Project)
3201 Callia W M
3202 Garvey D R
3205 Roberts T H
3206 McConnell M G
3209 MacPherson D A
3210 Williamson R J
3213 Stephens F E
3214 Wise V L
3217 Boche K F
3218 Kitchell T G
3221 Paez Rudolph
3222 Hall E F

KING (North San Diego) — Southeast from 750 Lieta

KINGSLEY (Loma Portal) — Northwest from 2950 Rosecrans
3003ΔFaulkner H R ◎
3021ΔWright L A II ◎
3022ΔClower H C ◎
3030ΔZalkurtz H H ◎
3035 Warren W L ◎
3036ΔSample Wm jr ◎
Locust intersects
3104ΔClements L V ◎
3111ΔCrossman H M ◎
3114ΔWaterbury E L Mrs ◎
3122 Kuhtz W A
3130ΔTyzzer R N ◎
Evergreen intersects
3212ΔHurlburt G G ◎
3226ΔHeissel E J Mrs ◎

KINGSTON COURT (Mission Beach) — East and w from Mission blvd, 8 n of Amusement Center
714ΔClifford P G
718ΔSmithwick R W ◎
721ΔDurrill L H Mrs ◎
726ΔHeberletin Augusta Mrs ◎
Mission blvd intersects
809ΔKucher Wm ◎
810 Anders O U
811 Cotton R B ◎
812ΔHensley F W
814 Phelps J F
816 DeWitt A C
818 Keller H A
Bayside walk intersects

KITE—North from 1 blk s of 1300 W Walnut av
3414ΔBarron Ben ◎
3416ΔFritzen Jacob ◎
3420ΔPerley W M ◎
3425ΔCalvert T F ◎
3430 Drake R L ◎
3447ΔLewis C E
3450ΔCommings S A ◎
Walnut av intersects
3511ΔWilliams C M ◎
3514ΔStanley H B ◎
3521ΔWebb E N ◎
3521½ΔSoto H K
3522ΔPugh L R
3524ΔPerkins J W ◎
3527ΔSovey F L
3530ΔZolezzi S D ◎
3536ΔGregory W L ◎
Brookes av intersects
Puterbaugh intersects
3612ΔQuay R L ◎
3620ΔOfferdal Olaf ◎
3621ΔSears L F ◎
3625ΔWeigle E H ◎
3631ΔMullen J S ◎
3635ΔBishop H C ◎
3637ΔMcDonald D M ◎
3643ΔBarnes Ford ◎
Torrence intersects
3647ΔGordon J A ◎
3651 Cook Dorothy M

TP	Adjoining	Source
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PACIFIC HWY 1948

2934ΔNarmco Inc plastic products
3165ΔConsolidated Vultee Aircraft Corp (genl Administration Bldg)
3302ΔConsolidated Vultee Aircraft Corp Plant No 1

Thorn intersects

3521ΔBoggs Bros Diner
3600ΔVinyard Fred Overhead Garage Doors
3625ΔHageman G A gas sta

Bean begins

3733ΔChuck-Wagon Cafe

Harasthy intersects

3743ΔShell Oil Co gas sta
3753 Peterson H H (work shop)

Clayton intersects

3787ΔFrazer Oil Co
3803ΔPrall R K sporting gds
3831 Ainsworth J H restr
3845 Safeway Stores gro

Sutherland intersects

3853 Stewart E P fish
3877ΔSouth Seas Cafe
3881 Van's Markets gro
3885ΔS D Tile Co
3895ΔSheffield E F vet

Noell intersects

3911ΔMachinists Union (Internatl Assn Silvergate Dist Lodge No 50)
ΔMachinists Union Local 389 (contract)
ΔMachinists Union Local 685 (Aeronautical)
ΔMachinists Union Local 726 (Civil Service)
ΔMachinists Union Local 1125 (Aeronautical)
ΔMachinists Union Local 1370 (Automotive)
3923ΔLittle R W jr ornamental plstrs
3925 Vacant
3927 Vacant
3939ΔBray G H gas sta
3955ΔDaley H A fruit pkr
3957ΔPiggly Wiggly of San Diego
3959ΔBechaver Michl liquors
3967ΔFreyler Frank gro
Grimsley Neil meats
Herzog Karl fruits
3985ΔCravens Rush nursery

Wright intersects

4005 Al's Auto Eat restr

Bandini intersects

4025ΔWright Refrig Serv
4047 Palmer D O bait and tackle
4059 Kahn Saml baker
4083 Bundschuh H H restr
4085 Bundschuh H H doughnuts
4095ΔCrossland W S restr

Couts intersects

4105 Coleman H D watch repr
Coleman L M Mrs liquors
4107 Vacant
4137 Shackelford Benj restr
4139 Beauty Rest Motel
Pitzer W F
4145 Gallant P S barber
4149ΔBailey S J gas sta

Witherby intersects

4205ΔConsolidated Vultee Plant No 2
4306 Standard Sta
4350ΔAcme Pipe Co
4360ΔBuilding Material & Dump Truck division No 36 AFL
ΔTeamsters Local No 36
4386ΔAcme Trailer Pk and Gro
Steck R J
White C L
4432 Cherney E A real est
ΔPacific Motel
Trichak J P
4474 Werner A J
ΔWithers H J auto court
4480 Gaddy J W
ΔMiller W H auto court
4570ΔSunset Auto & Trailer Court
Bates G D trailers
Olson M R
Thompson Wm
ΔUnited Mfg Co platers
ΔVitrified Products
Watts E R
4594ΔSunset Auto Serv

Rosecrans intersects

ΔAztec Oil Co
4615ΔSandell T O heating contr
4620 Flying Heart Serv gas sta
4640ΔEl Padre Motel
Wetenkamp A E
4646ΔRogers S G restr ◎
4650 Bruce Jeane A
ΔMecca Motel
4841ΔOchoa R Z Mrs ◎
4857ΔJones Walter
4881 Klein M P
4883ΔHales G A
6303 Parker B A Mrs ◎
6375ΔBraun M L gas sta
6453ΔHanks R C kennels
6558 Wagstaff J C ◎
6596 Horton Albt
Kimball S B
ΔRancho 101 Motel
6615ΔCheney L W auto court ◎
6636 Brown S S ◎
6646ΔGateway Motel
Mills J T

Balboa av intersects

6703ΔFrey C W gas sta
6704 Griff & Bill Mobile Serv
6711ΔSheldon's Cafe
6712 Clute R L barber
Hughes Harry jr liquors

PACIFIC BEACH DRIVE (Mission Beach)—West from 3997 Mission blvd

PACIFIC BEACH DRIVE (Formerly Pacific Av) (Pacific Beach) —East from 4100 Ocean blvd

735ΔMangum D H ◎
840 Vacant
911ΔSeiler W E ◎
952ΔMitchell T T ◎
1006ΔBriarfield Walter ◎
1068 Hale E J ◎
1076ΔRanglos P D ◎
1102ΔHunt D L ◎
1111ΔZlac Rowing Club
1112 Hannah R M ◎
1120 Bailey E J ◎
1125ΔIngle H J ◎
1128 Vacant
1145ΔMcKinnon C D ◎
1152ΔMiller J A ◎
1160ΔLynch Howard ◎
1163 Hess C H ◎
1168ΔKueny F H ◎
1173ΔDiamond N W ◎
1175 Diamond A E ◎
1205ΔSawyer J W ◎
1211 Brooks C E ◎
1212 Dean K J Mrs ◎
1221ΔLaughlin J J ◎
1229ΔAlbright E H ◎
1235ΔMcQuaid L R ◎
1243ΔAnderson J M ◎
1246ΔErnst J R ◎
1251ΔSarkiss Hrand ◎
1254ΔArcher C A ◎
1259ΔBoughton D C ◎

Evarts intersects

1267 Walter A E ◎
1275ΔMitchell C R ◎
1278ΔPedersen Jens ◎

Fanuel intersects

1304ΔGrabowsky T A ◎
1312ΔBurgess L V ◎
1314ΔBurnette C M ◎
1320ΔNew J R ◎
1321 Cromer R E ◎
1327ΔDurden Danl ◎
1330ΔHodges E D ◎

Gresham intersects

1335ΔCrotty J R
1343ΔBrown Owen ◎
1346 Peterson L M
1356ΔInhofe L M ◎
1361ΔFelix C A ◎
1364 Dailey L A Mrs ◎
1368 Reed D O
1369ΔBell E R ◎
1375 Edwards Della
ΔEdwards E C ◎
1376 Rundle F A ◎
1404ΔJones R H Mrs ◎
1405ΔWhaley C A ◎
1412ΔBeaty R G ◎

Haines intersects

1420 Hock A A ◎
1550 Wyett Willard
1552ΔScott F M
1560ΔYork G W ◎

Ingraham intersects

Jewell intersects

1704ΔEhrendreich A F ◎
1714ΔDunmore C A ◎
1720ΔVanDelinder H W Rev
1730 Zander C J ◎
1731 Shelstead H R ◎
1744 Kirkpatrick C L ◎
1754 Hafey C H ◎
1756 Woosley P J
1760 Marco Frank ◎
1768ΔMcAllister T F ◎
1778ΔBunch F L jr ◎

Kendall intersects

1804 McLendon Wayland
1812 Garner T A ◎
1821 Ertle L S ◎
1822ΔDonsted R A ◎
1828ΔSmith L A ◎
1836ΔMattson C A ◎

Sequoia intersects

1846 Radke A A ◎
1854ΔKelley E Y
1860ΔBrotherton T W
1870ΔMorrison E S ◎
1878 Weatherbie G T ◎

Lamont intersects

1913 Morris Alice Mrs ◎
1914 Santos J D
1916 Morris J S ◎
1928ΔLibben D F ◎

PAGEL PLACE (Encanto) — South from 6650 Benson av

PALERMO DRIVE (Ocean Beach) — North from 2000 Chatsworth blvd

2301ΔMaguire A J ◎
2225 Burdick C E
2325 Gerhauser G F
2337ΔPercival J W
2345 Busse O J

PALISADES ROAD (Kensington Heights) — Northwest from 4200 Ridgeway

4104ΔBridge N H ◎
4110 Salmon B T
4118ΔRavin O G ◎

TP	Adjoining	Source
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UPAS/COLUMBIA 1948

NCE - REAL ESTATE - LOANS • Franklin 4171 • 343 Spreckels Bldg.

UPAS—Contd
2616ΔGrant Robt ◎
2618ΔRasmussen P J
2620ΔGrant Robt jr
2628ΔGraves J M ◎
Pershing av intersects
2718ΔMatson J R ◎
2728 Belden C L ◎
2738ΔSmith R C ◎
28th intersects
Utah intersects
2812 Schweizer G S
2828ΔWeitzel J L
2830ΔLandt H L ◎
2832ΔGaskins P E ◎
2853ΔKennaly F C
2873ΔKrull M D Mrs ◎
2875 Lindsey E M Mrs
Granada av intersects
29th intersects
2905ΔDavies J H ◎
2911ΔLinley C A ◎
2917ΔPendleton C M ◎
2924 Harrington's Appliance Serv whs
2925ΔMarshall C V Mrs ◎
Dale intersects
2959ΔDougherty A M gas sta
2965ΔMello Cream Do Nut Co
2969ΔUpas Food Store
2975ΔSaleski Jos
Saleski Martha Mrs beauty shop
2975½ Barnett V C
2983 Vacant
30th intersects
3022ΔHoulihan Margt pet shop
3025ΔSkelley T L
3028 Engel H J restr
Ray intersects
3035ΔBandy H F
3036ΔStevenson W R gas sta
3040ΔSkelley T L auto repr
Grim av intersects
3065ΔTaylor P H ◎
3074ΔThompson J A
3075 Hall Estelle ◎
31st intersects
3108 Smith W G
3114ΔThomas S J
3115ΔBrady M M Mrs ◎
3127ΔFaust A E Mrs ◎
3128ΔNunneley N D Mrs
Herman av intersects
3162ΔLauritzen I L ◎
3162½ Stewart H R Mrs
3174 Matthews J O ◎
32d intersects
3215ΔLogan F E
3218ΔWilson R C
3224ΔBarry R L ◎
3231 Conley F N
Bancroft intersects
3254 Barnhart F G ◎
3271ΔClark J M Mrs ◎
3274 Dowd H S Mrs ◎
33d intersects
3305ΔKaplan J J ◎
3316 Williams Leslie ◎
3317ΔNash C G ◎
3324ΔNicholson R R ◎
3325ΔHenderson Audeen ◎
3344ΔHaynes L A ◎
Felton intersects
3376ΔPreibisius L J ◎
3380ΔVarney L E J ◎
3386ΔMoore E M ◎
Boundary intersects
UPAS, WEST — West from 3400 1st av
102ΔHoffman F H
104ΔMurphy W H
106 Joseph Warren
108ΔPatz F E
120 Murray G J
122ΔFord L L
124 Peterson H W
126ΔGagnon Omer
142ΔAuchmutey W E
144 Costello L P
146ΔFurer C S
148ΔKerth A H ◎
Front intersects
Albatross intersects
336ΔJohnson C M ◎
410ΔWhite W D ◎
702 Gould L H
716ΔMiller S Q Δ
724ΔSalyers D H
726 Holloway L R Mrs
728ΔTurner Lyle
729ΔLantz C E
730ΔWard M E Mrs
732ΔMiller C G
741ΔVanKeuretn J O ◎
753 Lam R W ◎
807 Chambers H C ◎
810ΔGoodrich M D ◎
817ΔWolcott E W ◎
820ΔKinnie L O ◎
845ΔRazzeto Chas ◎
850ΔMedina J A ◎
Goldfinch intersects
Hawk intersects
Union intersects
1315ΔCarl R H ◎
1506 Johanson Evelyn H ◎
1508 Gentry P R E Mrs
1510ΔKeller A E
1512ΔVogel E R
Columbia intersects
India intersects

UPLAND (Encanto) — East from 1600 60th
6038 Qualls P J ◎

UPSHUR (La Playa) — West from 1050 Shaffer, 2 e of Rosecrans
2905ΔNash C W ◎
2911ΔBlackford C H ◎
2919ΔSwiler J C ◎
2927 Luz Jose ◎
2933ΔMachado Frank repr shop
2936 DeMoris S M Mrs
3003 Gundersen J A appl
3011ΔFontes E P
3014ΔMurphy R W
3016ΔEpler R S
3018 Gilliam M N
3020 Vacant
3022ΔChamberlin C E
3024 Scanlon G W
3026ΔHarris G W
Armada ter ends

UPSHUR DR (Navy Defense Housing Unit No 2) — Northwest from 3224 Barnett av
2602ΔHoutz L F
2604ΔCammack E M
2606 Emley J H
2608ΔBreece E J
2612ΔNeitsch A R
2614ΔMcGowan J H
2616 Vacant
2618 Elmer C E
2622ΔBaughn E J
2624ΔArthun J G
2626ΔDarr C H
2628 Todd T L
2701 Monoghan V E
2702ΔHead B C
2703 Heams P A
2704 Vacant
2706 Smith C R
2707 Talon Sol
2708 Peterson J E
2709ΔCothron L L
2711 Stout R D
2712 Inscore C W
2714ΔHolmgren M C
2715ΔWright G E
2716 Lear C L
2717ΔSvenningsen A R
2718ΔMessina J M
2719 Cruger Eliz Mrs
2721 Sims W M
2722ΔSinquefield J B
2723ΔDaniel H W
2724 Maloney A B
2725ΔBurham D E
2726ΔKirkpatrick E L
2727ΔGregg R E
2728 Swapp W H
2731 O'Brien J P
2732ΔAndersen H M
2733ΔRay R C
2734 Davies D J
2735 Heaton F H
2736ΔStringer J D
2737ΔDrew H E
2738 Bryan E P
2741 Peters Everett
2742 Ward S W
2743 Wild Raymond
2744 Townsend H E
2745ΔWard W N
2746ΔHaas Alvy
2747ΔTrummer Harold
2748ΔCorbett R J
2751ΔHaggin D E
2753 Konopa F J
2754ΔHumphrey G E
2755 Lemieux C H
2756ΔTurner J L
2757ΔJolly T R
2758 Press W T
2761 Vacant
2762 Lamb L L
2763ΔNagengast C M
2764 Henebry T H
2765ΔNewman J T
Penny W J
2766ΔVan De Moere M J
2767ΔDavis G R
2768ΔMonasterolo L F
2772 LaMattey J J
2774ΔHammett O A
2776ΔSpencer Chas
2778ΔHoppe K E
2782 Schutt J R
2784ΔMatthes C J
2786 Avery G F
2788 Gesiewski Emil
2792ΔGurley J H
2794ΔWilkinson J P
2796ΔMcMullen S A
2798 Welch M D Mrs

UPTON COURT (Linda Vista) —West from Ulric, 2 n of Fulton
6801 Austin R G
6802 Davis O L
6811 Buffington R F
6812 Peacock J P
6821 Caseres Daisy
6822 Speulda R L
6831 Stevens K E
6832 Pierce W K

URBAN AV—East from Elizabeth, 1 s of Ocean View blvd

UTAH (University Heights) — North from 2850 E Upas
3404 Earl Virginia Mrs
3411ΔSimpson H W
3412ΔDenison Kath Mrs ◎
3419ΔHatalsan J W ◎
rear Tober B H
3422ΔBrogle J P ◎
3429 Vacant
3430ΔGruebele J G ◎
3436 Friednash B A Mrs
3437 Zierke E A ◎
3443ΔHansen W L
3446ΔMaguire F H ◎
Myrtle av intersects
3501ΔWhite C M ◎
3502ΔCass H W ◎
3511ΔShell G R ◎
3512ΔMoskowitz Max ◎
3519ΔKrebs Kath ◎
3520 Botkin C A Mrs ◎

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VINE ST 1948

VICTORY—Contd
3515 Bush Phyllis Mrs
3516 Rowe Mary
3517 Glinke B E
Storck Marcella
3518 Landers R L
3519 Bledsoe C M
Howell J E
3521 Cochran C H
3522 Cox Kath
3523 Colver L C jr
3524 Boutell Minnie Mrs
3525 Reid H R
3526 Stein C W
3527 Gibson W A
3528 Engelbrecht L C
Leighton C F
3529 Lockhart J H
Lockhart Nettie J
3531 Loftis J M
3532 Eckenrod K T
3534 White M E
3536 Murphy Chas
3538 Cale R G
3541 Lisares J L
3542 Rung A L
3543 Fields J J
3544 Gomes P G
3545 Spohn P W
3546 Knox R L
3547 Dyess E M
3548 Haselden W A
3552 Montoya E A
Waner R M
3554 Boyd D W
3556 Prentiss Herbt
Snyder J T
3558 Castle M B
Parson Beatrice
3561 Robinson E S
3562 DeWall B H
DeWall Nona M
3563 LaMantain C R
3564 Hobbs R E
3565 Pattengill P N
3566 Hodges H H
3567 Simmons R W
3568 Sulser W W
3572 Musjard Grace
3574 Daniel P A
3576 Pohlman Chas
3578 England J H
4543 Erwin R J

VIELLE COURT (Linda Vista) — West from Seldon 1 n of Linda Vista rd
6202 Finch P H
6203 Billing Mary E
6208 Mack L P
6209 Stradley B W
6212 Smith Hazel
6221 Prudhomme L P
6227 Smittle Fred
6232 Garrett Lottie V
6233 Knight Dolores
6236 Thurman Wm
6237 Cornell D N
6240 Fortuna F J
6243 Harmon H
Harmon N K
6244 Lundeen E B
6247 Poyner F C
6250 Urias Bruno
6253 Steinberg Peter

VIEW AV (La Jolla) — North from 1200 Bird Rock av

VIEW POINT DRIVE — North from 2050 Columbia

VIGO DRIVE (Loma Portal)—Southeast from intersection of Madrid Dr and Alamo Dr
6648ΔJobe R L ◎
Owen M E

VIKING WAY (La Jolla) — North from 1850 Torrey Pines rd to Newport ter
1802 Knoepp M H
Thorsen Jules ◎
1821 Best Theo
1856ΔHutchinson C S Mrs
1857ΔWier J L ◎
1874ΔShea M N Mrs ◎
1879ΔSchrider P P ◎
1881ΔBreder S C ◎
1888 Foster E J

VILLA DRIVE (Loma Portal) —North from 2100 Chatsworth blvd

VILLA TERRACE — North from 2600 E Upas
3420ΔShelton G C ◎
3424ΔBartlett N R
3428ΔBennett W J ◎
3438ΔConnery E M Mrs ◎
3439 Wilson C O
3446ΔOvercash Frank ◎
3447ΔSegal Walter ◎
Myrtle av intersects
3504 Monson O L ◎
3512ΔHall W J ◎
3513 Carson W P
3521ΔBerger F J
3522ΔSeaton J L L ◎
3527ΔMattison G A ◎
3535ΔCoble R E ◎
3536ΔTruitt L C Mrs ◎
3540ΔKnotts Jos ◎
3542ΔNaumann E M Mrs
3542dΔHolt Sadie Mrs
3544ΔKadillac J A ◎
3545ΔBeebe Carr ◎
3546ΔStone W J
3551ΔRobinson L B ◎
3552 Schrader W A
3559ΔNeale C E ◎
3567ΔHoffman A J ◎
3568 Vacant
3576ΔLeinbaugh E W ◎
3584ΔGhio E A ◎
3585ΔHeatherly B A Mrs ◎
3593ΔReed C L ◎
Dwight intersects
3602ΔDe Los Cobos O C ◎
3603ΔPratt H A
3611 Park R H ◎
3612ΔHicks M C
3617ΔO'Neill E G ◎
3620ΔHenke H C ◎
3623ΔBeck C G
3625 Junghams B E Mrs
3626 MacDonald Mildred
Stephenson B C Mrs
3626½ Vacant
3628 Prendergast L L
3629ΔStewart Ross ◎
3630ΔEvans H W
3635ΔPierce J R ◎
3636ΔHink H D ◎
3639ΔBastian B H ◎
3644ΔO'Connor Jack ◎
3645ΔEaston H M
3650ΔLearnard N O ◎
3655ΔAllen W G ◎
3660 Piechochi J L
3661ΔHiller E J ◎
3662ΔDevich N R ◎
3664 Rogers F W
3665 Bryans J E jr ◎
3667ΔBryans W J ◎
3670 Vacant
3674 Vacant
3675ΔRow R C ◎
3676 Vacant
3693ΔBailey Lela E ◎
3694ΔMiles R S ◎
Landis intersects
3704ΔDeem Margt Mrs ◎
3714ΔStock W J ◎
3714½ Parker E D
3715ΔWelin Eric ◎
3719ΔBooth Alberta Mrs ◎
3720ΔBales E A ◎
3725ΔPerry C F
3730ΔVanDort Thos
3735 Brennecke Minnie Mrs
3736ΔZeller P A
3738 Stahlfeld Anna Mrs
rear O'Brien G J
3745ΔClark J E
ΔKidder M T ◎
3746 Rush E T
3748 Hawkins C O
3750 Burnett J D
3751ΔNewton E R ◎
3752ΔLucke L E ◎
3761 Leff Jos ◎
3762ΔShockley F I
3764ΔDyche J Vivian
3766ΔMcCown R H L
3767ΔGault W W ◎
3768 Peeler S E Mrs
3770ΔPerkins L C
ΔSteele A M bldg contr
3772 Jackson Huey
3775ΔGrant A G ◎
3776 Jordan H E ◎
3783ΔFreeberg O E ◎
3784 Switzer C L Mrs
3785ΔBatten C E
3788 Brown J F
3794ΔPerkins R E ◎
Wightman intersects
3806ΔCummings G G jr
3808 Hopton Bessie Mrs
3810 Loper G L
3811 Chakarun Nichl
3812ΔCunningham Anna Mrs
3814ΔSmith P C ◎
rear Lyman John
3815ΔSolbue A J
3817ΔCupples Z C
3819ΔTucker S C
3820 Bryne Lenora K ◎
3822ΔGerzema F D
3829 McDuffey B M
3830ΔWilson H A ◎
3840ΔVarenhorst Frank
University av intersects

VINCENTE WAY (La Jolla)—East from La Jolla blvd, 2 s of Palomar
104ΔNagel K C ◎
405ΔMuehling C A ◎
411 Bunch J V
412ΔBuelman W L ◎
419 Smith J F ◎
420 Brown E R ◎
427ΔFloyd C E ◎
436ΔRoginson R O ◎
531ΔHayes A J ◎

VINE — West from 3550 Union
1405ΔWade Henry ◎
1405½ Moore Mae
1412ΔZolezzi Angelo ◎
1417ΔVinyard F A ◎
1420ΔHermes W H ◎
1421ΔMcKinney J H ◎
1430ΔClark R W ◎
1449ΔWells M H ◎
State intersects
1501ΔMuehleisen Adolph ◎
1516ΔSaville L M Mrs ◎
1524ΔBarrows Anna Mrs
Columbia intersects
1611ΔHyde M J ◎
Prescott G R Mrs ◎
1621ΔGable J G
1623ΔBaranov Harold
1629 Tenney C V
India intersects

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WALNUT AVE W 1948

1507 Lubitch Harriet M
1509ΔOberheu A H
1511ΔFoster N B
1512ΔLee C T ◎
1519 Button M H ◎
1616ΔBriggs C W C Mrs ◎
1617 Wood J A Mrs ◎
1621 Louissan W A
1623 Engelage G H
1626ΔLenier Hans ◎
1627 **Louissan Apartments**
ΔLawrence E M
1629ΔBlevins F L
1631ΔSheriell D P
1703ΔMyers Glenn ◎
1709ΔDavis H M ◎
1711 DeMarce V V
1717 Trevennen John jr

WALTON PLACE — East from Ohio bet Monroe and Madison avs

3057 Schrick C F
3060ΔFiedler J E ◎
3061ΔLatham Ruby Mrs
3064ΔEmes C F ◎
3069 Lang Zelma Mrs ◎
3070 Brockmeyer E F ◎
3074 Borneman E A
3076ΔHenderson E L ◎
3078ΔBarron Monel nurse
3080 Treece Henry
3082ΔHadding Robt
3084 Walton Place Court
Henderson R B Mrs
3086 Manson C A
3088 Allison T J

WARD ROAD (Normal Heights) — To Camp Kearney via Murphy Canyon — East from Cherokee av to Madison av

3716 Erwin C B ◎
3717 Hearst C J ◎
3720ΔBennett Isabell Mrs ◎
3728 Haynes A G Mrs ◎
3736ΔBraly M C Mrs ◎
3745ΔEmmett G E ◎
3751 Dye G H ◎
3752 Colson F C ◎
3759ΔRumsch Meta Mrs
3760ΔDonner M A Mrs ◎
3767ΔHootman F E ◎
ΔUnderwood Eva Mrs
3768 Brown H A Mrs
3773ΔCramer L H ◎
3778ΔHamman O M
3786 Sowers Truman L
38th intersects
3816ΔCook J B ◎
3818 Grillot John
cor Mission Valley rdΔDaley Corp paving contr

WARNER (La Playa) — West from Silvergate av

3624ΔSchwartz E J ◎
3655 Vacant
3658 Bennett Laurence ◎
3705ΔD'Atri E H ◎
3710ΔMaw R L
3730 Vacant
3741ΔBryant N M Mrs ◎
3753ΔHowes J N ◎
3761ΔCarr L W jr
ΔHolliday C A ◎

WARRINGTON (Ocean Beach) — Northeast from Wildwood rd, 1 w of 1700 Chatsworth blvd and ne of 3800 Tennyson

1786ΔThompson Gordon ◎
2120ΔChadwick R W ◎
2138 Vacant
2144ΔRowe H T ◎

WASHINGTON (Mission Hills) —East from 4000 1st av

100ΔAnderes A E restr
102ΔKinne F C clo clnr
105ΔMission Dry Clnrs
106ΔGoetz Carl
108ΔLaFrance Productions photog
109ΔDuBois H N ◎
111 Stauffer A W auto supp
117 Clark H T
119ΔFlippin Warren
120ΔChancellor Vivian L ◎
121 Stauffer E D ◎
123 Hanks O L
126ΔCorder Myrtle Mrs
128ΔCollins Eula Mrs ◎
130 Wagner D H
132Δ**Las Dos Palmas Apartments**
ΔAnderson W G
137ΔClifford J W gas sta
Stauffer E D auto repr
144ΔMitchell C G real est
180ΔWalraven Vion gas sta
224 Christian & Missionary Alliance Ch
3d av intersects
302 Stalmer Reg autos
305ΔStalmer Reg autos
330Δ**Casa de 'Oro Apartments**
Borthwick M A Mrs
Cooper Jean I
Francis F G
ΔHaas C R
Kaufman S H Mrs
Stanford Agnes C
Stewart Nell I
Strain E D Mrs
Toomey Hannah Mrs
Wheeler M P
Wood L M Mrs
342ΔMichan I W florist
395ΔPope G H gas sta
4th av intersects
412ΔHillcrest Clinical Group
Ornstein Walter phys
418 Franklin Frances
441 Erickson E A gas sta
447ΔEvans Wm
5th av intersects Hillcrest dr begins
515 Hillcrest Bowl
6th av intersects
6th av extension intersects
602ΔLutes C M cbt mkr
630 **Cornelius Apartments**
632ΔPre-Mixed Concrete Co
721 Basso R E
Harris R E
836 Olson Bessie
9th av intersects
920ΔBurkholder J C
1450ΔBeason S M ◎
1750ΔRhodes F E Mrs
2473 Alt K S

WASHINGTON, WEST (Mission Hills) — West from 4000 1st av

108ΔCal & Joe Motor Sls used cars
110ΔLehrer Vera Mrs gro
112ΔNussbaumer A E drugs
114ΔBurke Juleann gift shop
116 Astra Tile Co contrs
118 Maxfield Almedia A beauty shop
119ΔMartin J H exterminator
121ΔKleen M C Indy
127ΔMoffett R D artist
129ΔHillcrest Book Shop
131ΔGenns W T
138 Vacant
140 Foster C G
142ΔWest Washington Mkt
Front intersects
204ΔCaldwell H F Mrs
ΔCaldwell H F Realty
207 Greenwood W E restr
209 **Washington Apartments**
Einhaus F H
Palumbo D E
Whitmore Nettie S
211ΔStewart R H reweaving
215 Shafer Ed
220 Vacant
222 Two-Twenty-Two Club
228ΔShafer Ed plmbr
230ΔJohnson H W
ΔRicheson J G
Salva N F
ΔSoper H C
231 Hansen E H jr
232 Vacant
234 Vacant
239ΔCasey O S Mrs ◎
245ΔStewart W W V ◎
246ΔNat's Auto Paint Shop
Albatross intersects
308ΔEckery's Auto Serv
Loshenkohl John auto repr
315ΔCunningham G F
317 Colby N M Mrs ◎
320 Stewart E A
324ΔBall H A
Duncan J J
ΔKennedy D L ◎
325ΔBaker R H ◎
329ΔBurnell W F ◎
330 Markey M M Mrs
333ΔEngelhorn E M
334ΔSchwartz Eliza Mrs
Steinmetz Nicholas
335 Hunter H J ◎
343 Vacant
345ΔHoltmyer J F ◎
347 Broyles Ella Mrs
349 Mumper Alice I
Brant intersects
401ΔGregory Gran auto repr
405ΔSimmons D S
407ΔRizzo Lewis ◎
417ΔDell'Acqua M J ◎
419ΔHanggi H L ◎
422 Pee Wee Cafe
425ΔKemp E W ◎
440 Vacant
441ΔTaylor E R Mrs ◎
503 Bennett F L ◎
510ΔAntonicelli Pasquale nursery
515ΔOhm I F
Dove intersects
603 Vacant
609ΔRiggs Harold
610ΔGood Humor Ice Cream Co
620 Theel F O
624ΔEdwards F H
630 **Cornelius Apartments**
ΔBergen J J Rev
Clarkson Ova Mrs
Emerson L D
ΔKness Irene M
ΔMiller M C Mrs
Russell R B Mrs
Sharp P C Mrs
Sparks J E
631 Hall H O gas sta
Eagle intersects
704ΔCampbell J P gas sta
720ΔWalker Bros used cars
729ΔDorman's auto supp,
Falcon intersects
800ΔBocardo R B liquors
802 Sullivan E E Mrs shoe repr
804ΔRadio Doctors
805 Falcon Liquor Store
806ΔHenderson E E infants' clo
808ΔYoung M E hdw

OVERHEAD

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KETTNER BLVD 1943

KETTNER BLVD—Contd
3348 Hess Edw
3370ΔDuggins Russell
Soares E C Mrs ◎
Thorn intersects
3444 Blan L W
3452 Gilkey H H
3455 Clark H W
3455½ Irwin F W
3465ΔCripe K B Mrs
3466 Hukill R L
3467 Hall Everett
3469ΔThayer Rex
3471 Stone Richd
3473ΔBoyd F H
Upas intersects
3505ΔChamberlin E J
3507 Monise F S
3509ΔBeavers J T
3511ΔKnutson N O
3513 Olson Donald
3515 Eichenger J W
3517ΔMcGrew D R
3519ΔMaczko E F
3521 Hansen M A
3523 Fleming R F
Papke A H
3527 Watson F C
3531ΔRoberts C M
3533 Clapper Maurice
3535 Walton C H
3537ΔMcClarren W T
3539ΔBoswell J W
3541 Williams W L
Vine intersects
3550 Solomon Jacob gas sta
3553ΔThompson H L
3575 City Fire Dept Sta No 20
Walnut av intersects
3600ΔCentury Lbr & Mill Co
3603 Watts E W
3605 Benoit R S
3607 Elliott D E
3609 Richey I P
3611ΔDavis R C restr
3611a Gallagher R E
3611b Fellette Eug
3619 Sparkman C L
rearΔTerry G F
3631 Collins R H
3637ΔMcMorrow Carrie Mrs ◎
Chalmers intersects
3663ΔReynolds P A
3663½ Malcik A T
3665 Vacant
3667 Taylor W E
3667½ΔHolbrook N F
3669 McDonald M V
3674 Vacant
3679 Whittley Melvin
3681 Koontz J E
3683 Murray Eliz Mrs
3695ΔRichards J A
Winder intersects
3702 Francisco B H Mrs ◎
ΔFrancisco E H ◎
3730ΔPeterson L T Mrs ◎
3744 Koehl G J jr
ΔKoehl M J Mrs ◎
ΔLightening Machine Co
3747ΔPalomar Lndy & Dry Clnr
Andrews intersects
3765 Redlein R J
3767 Varney Wm
3776 Bloch M A
3776½ Gittings D L
3778ΔSylvester M A Mrs
3779ΔSilence T E ◎
3785ΔHalwick Lucille ◎
3794ΔBradford R C
3796 Metcalf Jesse
3797ΔFowler E W ◎
McKee intersects
3802 McLerran G W
3803 Sims Irene Mrs ◎
3809 Walker Ella Mrs ◎
3821ΔGalvin H M
3831 Fitzgerald J B
ΔFouts E L Mrs ◎
3838ΔSpangler A D
3841 Peck G W
3844ΔSchulenburg Richd
3847 Farrell F R
3848 Moats L B Mrs
Pringle intersects
3857ΔArmstrong J F
3859ΔLe Claire E W
3865ΔArthur L D
Ray Roy

KING (North San Diego) —Southeast from 750 Lieta

KINGSLEY (Loma Portal) —Northwest from 2950 Rosecrans
3003ΔFaulkner H R ◎
3021ΔConklin C R ◎
3022ΔClower H C ◎
3030 Zalkurtz H H
3035ΔMillar R K ◎
3036 Sample Wm jr ◎
Locust intersects
3104 Boo C A ◎
3111 James M A Mrs ◎
3114ΔWaterbury J A ◎
3121ΔCartwright A B ◎
3122 Reese G A ◎
3130ΔTaylor T J ◎
Evergreen intersects
3212ΔHurlburt G G ◎
3226ΔHeissel Ellen Mrs ◎
Chatsworth blvd intersects

KINGSTOWN COURT (Mission Beach)—East and w from Mission blvd, 8 n of Amusement Center
714 Vacant
718 Coats R M
721ΔDurrill J K ◎
726 Templeman P U
Mission blvd intersects
809 McKeithen Otis
rear Deering R W
810 Kirk W E
811ΔTaggart C E
812 Rockwell Fred
814 Pritchett A A
816 Mullins Harley
818 Silberhorn Wallace
Bayside walk intersects

KITE — North from 1 blk s of 1300 W Walnut av
3414ΔCooper V C ◎
3416 Page J M jr ◎
3420ΔPerley Wm ◎
3425ΔCalvert T F ◎
3430 Drake R L ◎
3447ΔHart R W
3450ΔCummings S A ◎
Walnut av intersects
3511ΔLambla C S Mrs ◎
3514ΔHeilman Adam ◎
3521ΔSchelp F H ◎
3521½ΔColquitt Rollins
3522 Enk L W
3524ΔCompton E M Mrs
3527ΔSpringer J D ◎
3536ΔGregory W L
Brooks av intersects
Puterbaugh intersects
3612 Vidger A C Mrs
3620ΔHanks W C ◎
3621ΔBlissard R L
3625ΔArchibald D M ◎
3626ΔGustafson E O ◎
3635 Bishop H C ◎
3637ΔKriete J H ◎
3643ΔBarnes Ford ◎
Torrence intersects
3647 Gordon J A ◎
3651ΔMcCutchen R N
3653 Garner G F
3655 Brownson Merilyn
3657ΔCourton W D
3665ΔBivens J C ◎
3668ΔEliasen Hjalmar ◎
3673ΔHolland H J ◎
3676ΔTheobald C W ◎
3694 Vacant
Pennsylvania av intersects
3704ΔSwisher C W
3705ΔMorton Jas ◎
3710ΔWarfield Kenneth ◎
3713 Coverly J H
3719ΔMartin D M
3724 Ludwig F E
3727ΔBenner G E Mrs
3728ΔBillman E J ◎
Sutter intersects

KLAMATH AV (Pacific Beach) —North from 2200 Loring

KLAUBER AV (Encanto) —North from 6500 Broadway
1002 Eide A A
ΔYonuschot R A ◎
Wren begins
1109ΔSabin R E
1140ΔHutchins W M ◎
1161ΔNesbitt M I Mrs ◎
1162ΔDahl C J ◎
1189ΔBaldwin C C ◎
Sparrow av intersects
1259 McGraffin R I ◎
1320ΔDunn R R jr ◎
1322 Dunn M E Mrs ◎
Scimitar dr ends
1444ΔLake A V ◎
Eider ends
1525 Van Erden Gertrude Mrs ◎
1535 Hanson Ella
Thompson John ◎
1538 Martin B G
Martin W G ◎
1546 Kosak Geo ◎
1559ΔBennett L C ◎
Attix intersects
1606 Jackson Andw ◎
1634 Rauch F L ◎
Hilger ends
1715ΔHannibal J E ◎
1735 Shidler Geo
1752 Rincon Jose
Plover ends
1842ΔMoore Karl
Romaine V F
1856 Pendleton L D
1890 Baker H E
1936 Miller F W Mrs ◎
1937ΔOlson M R ◎

KLINE (La Jolla)—East from 7700 Draper av, 1 s of Prospect
711ΔFischer M E Mrs
720 Munson O E
Eads av intersects
819ΔGarner Clifford
850ΔDavis C M
854 Pinnell A C Mrs
Fay av intersects
903 Watts O J Mrs
908ΔHiggins H F
909 King H P
917ΔGray J H
920ΔSackett Hubert ins broker
921 Vacant
Girard av interestcs
1032 Altenbern A L
1034 Lehde R C
Herschel av intersects
1121 Field Evelyn C
1122 Walker Christine C
1125 Johnson D P Mrs
1130ΔHall S H
1130½ Barbour P J
1132 Miller L W

CLEANS NOT-INFLAMMABLE

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CALIFORNIA ST 1943

CABLE—Contd
2016 Litton Wm
2020 Mathias J Mrs
2070 Ross Eliz Mrs
2076 Webb F L
2077△Dinkheller M R Mrs ◎
2083 Banks T N
2085△Bailey Ray
2090 Vacant
Brighton av intersects
2101△Dunson W G ◎
2111△Duff D D
2120 Miracle Jo Ann
2121△Michael M H ◎
2124 Gilmore J B
2130△Lanier T C
2131 Howell Florence
Long Beach av intersects
2143 Eddleman J L
2149 Brekke M C
2152 Moore C W
2153 Edwards Wayne
2154△Ferris E B Mrs ◎
Muir av intersects
2180 Hutchinson F C
2181 Hayworth Peter
Voltaire av intersects
2216 Appel R M
West Point Loma blvd intersects

CABRILLO AV (La Jolla) — North from 1 blk s of 1300 Pearl
7416△Anderson O T
7427△Wingard L S ◎
7430△Goodwin J W
7441△Bauer E F
△Bauer L H
7446△Carmello J M ◎
Pearl intersects
7501△Dorr F D ◎
7520△Tooker J B ◎
7528△Thompson Alex ◎
7534△Hanson Ethel M ◎
7542△Churchill N C ◎
7548△Malm Ann Mrs ◎
7553△McCarthy J A ◎
7561 Nickelson C J ◎
7569△Rachmanow R R ◎
7570△Butts Olin
7577△Rees du Bois L

CAJON WAY — North from 5400 Madison av
4504△Barnhart K E ◎
4509△Haynes Jos ◎
4525△Gillia A F ◎
4530 Vosburgh O R
4533△Andersen R A ◎
4536△Corrin R D ◎
4541△Bigelow Josephine Mrs ◎
4546△McDougal A C ◎

CALHOUN (Old Town) — Northwest from 4050 Harney
2660 Casa de Bandani furn rms
Grant Alec
2662 Schuett E E
2664 Vacant
Mason intersects
2734 Fousek Karl ◎
2754△Casa de Pico Motor Hotel
Cardwell F K ◎
Wallace intersects
Taylor intersects

CALIFORNIA — North from 800 W Market to Witherby
1220 Buso Jesus
1447 Watson J E
Beech intersects
1506 Contreras R L
1516 Stanley N J
1564 Martinez Jos
Cedar intersects
1610 Curtis E M Mrs
1612 Barber J H
1616 Dutra Edw
1616½ Mora Antonia Mrs
1618 Ramirez Quirina Mrs
1620 Castaneda John
1620½ Martinez R E
1630 Verdugo Ignacio
1632△Yslava Benita Mrs
1634 Solis J M
1636 Torres D H
Dale intersects
1804 Stillson F B
1804½ Anderson Sens
1808 Riddell H W ◎
1824 Vacant
1842 Piranio Salvatore ◎
1930 Asaro Batista
1932△Bologna Pietro ◎
1940△Di Maggio Saml ◎
1948 Buompensiero Frank
1954 Vitrano Tony
Grape intersects
Hawthorn intersects
Ivy intersects
2206△Gangitano Fannie Mrs ◎
2224 Roiz Ignacio ◎
2230 Ribas Manuel
2244 Pontecorvo Bertha Mrs ◎
2246 Acosta Peter
2250△Salmon Tarquino ◎
2250½ Salmon Robt
2272 Salmon Joaquin ◎
2280 Martinez Jos
Juniper intersects
2337 Figueroa Margarito
Kalmia intersects
2416 Gomez A B jr
2424 Gomez Antonio
2430 Gonzales Augustine
2440△Atayde V S
Laurel intersects
2554 Le Gerrette J R
2560 Quiroz Rafael
2572△Sanchez Pedro
Maple intersects
2801 Murphy J E ◎
Palm intersects
2921△Harper Lucy Mrs
2929 Ledesma G Y
2941 Garcia Raymon
2968 Beers S F
2970 Chapman J W
Quince intersects
3005△Tarantino F S
3015△Davies Clara Mrs
3043△Castro R T Mrs
Redwood intersects
Spruce intersects
Thorn intersects
3449△Talbot Frank ◎
Upas intersects
Vine intersects
Walnut av intersects
3607△Lawson Clarence ◎
3619 Salcedo Lawrence ◎
3625△Mallet C L ◎
3630△Mariposa Lndy
3645 Real F G ◎
Bean ends
Chalmers intersects
Winder intersects
3717 Topolski Chas
3719△Kennedy A F
3719½ Salisbury R M
3721 Weiland J H
3723 Wharton C O
3725 Beck D E
3727 Lemons C E
3729 Montgomery Richd
3731△Hofstetter A C
Andrews intersects
3751 Five Points Auto Court
△Clark H H
3777△Andrews T N billiards
3779△MacDonald Margt Mrs variety store
3781△Page I S Mrs beauty shop
3785△Mills J M drugs
3787 Kemble J R
3789△Mooney T S phys
3789½ Barrett D S Mrs
3791 Bryenton F V barber
3793 Vacant
3795△Bell A J gro
3795½△McElroy M F
McKee intersects
3805△Hampton Myrtle Mrs auto court
3809△Baine E M Mrs notary
△Irey Ira S Co real est
3810 Vacant
3811△Baine E M Mrs ◎
3817 MacDonald R D
3819△Harsha M E Mrs ◎
Clayton ends
3821 Guess L M
3827 Dyckman D B
3831△Connors Mabel Mrs
3832△McGregor Gregor dentist
3833 Ruth Lois Mrs
3835 Walker F E
Pringle begins
3844△Wilton J W
3856△Dyckman D B baker
3870△California Auto Court
3873△Bayview Auto Court
Graham T R gro
△Levy E B
Weaver Dawson
Sutherland ends
La Jolla av begins
3911△Skoda Steph ◎
3917 Houghen Thos
3919△Knudsen Emma Mrs ◎
3922△Viery E D Mrs ◎
3929△Henderson D D Mrs
3931 Beal Chas
3938 Dyer Noel
3942△Jackson Andw ◎
3965△Harper C S
3971△Maze M E Mrs

CALIFORNIA, WEST — From Henry w to Witherby, continuation of California
1907 Kohl C N ◎
1917△Rickon F J H ◎
1931△Minor S H jr ◎
2005△Hewitt C B ◎
2011 Vacant
2017△Beetlestone R H ◎
2025△Kelley C S ◎
2037△Andrews H O
Wright intersects
2044△Collins V D Mrs ◎
2045△Shaw H I jr ◎
2049 Vacant
2050△Bagby J W ◎
2067 Taylor H J
2069△Shrosbree R M
2074 Graham Horace
2075 Bakke H R
2077△McCormick Edw ◎
2086△McAlister H B Mrs ◎
2095 Colman Arlan
2097△Chiappe Mary Mrs ◎
2098 Flanagan D S
Bandini intersects
2105△Wilke H P ◎
2111△Rosenbaum Mortimer ◎
2121△Baird A N
2137△Martin D G ◎
2149△Shoven A M ◎
2151 Vacant
2169△Haase M C ◎
2186 Davis R L
2191△Stewart E T ◎
Couts intersects

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COLUMBIA PL 1943

1824ΔTarantino Pietro ◎
1830ΔDe Blasi Saml ◎
1833 Harris A M Mrs ◎
1836 Asaro Jos
1839 Gangitano Giuseppi
1840 Desenti Tony ◎
1843 Asaro Jos
La Pinto Andw
1857ΔZolezzi Steph

Fir intersects

1907 Inacio Salvador
Olivera Antonio
1915 Santos M G
1918 Canose Vincente
1919 Carrao Francisco
1920 Castagnola Dominic
1922ΔOliveira Jose
1924 Stagnaro Geo
1928ΔBusalacchi Cosino
1929 Brunetto Pasquale ◎
1931 Sullivan J L
1942 Zolezzi Silvio ◎
1943 Visceglio Mary Mrs
1953 Bilardelli Armando
1959 Balestreri John
1965ΔSullivan E C ◎

Grape intersects

2011 Leach E E Mrs gro
2015 Vacant
2033 Buompensiero Anna Mrs ◎
Carrao Jos
2034 Schmucker A E ◎
2041 Deming Gurmi
2043 Pierce R C
2043½ Couperton Ival
2044 **Columbia Apartments**
Halimicek Eug
La Valle Roy
Moglia R L
Petterson Mildred
ΔRank Clara Mrs ◎
Reedy Harold
Roberts W E
Shween J J
2051 Brancaleone Anthony
2053 Terramagra Vincent
2054ΔBuono Jack ◎
2064 Sardina Jos
2066 Di Cola Dominic
Sardina Jos
2071 McPhee E S Mrs

Hawthorn intersects

2118 Canepa Lorenzo
2121ΔHenrich Leo
2130ΔDalfio Francesca Mrs ◎
2133 Buompensiero Mateo
2135ΔBuompensiero Salvator ◎
2136 Bregante A E
2137 Drury Cecil
2141 Canfield Wm
2143 Brenner Helen Mrs
2146ΔBregante Cath Mrs ◎
2154 Busalacchi Jos
2155 Benner R P
2165 Sherlis Alex
2168 Stagnaro P P

Ivy intersects

2201ΔNigro Victor
Oliveri Jas ◎
2203 Vacant
2210 Baptist Christian Center
First Italian Baptist Ch
San Diego City Baptist
Mission Soc
2215 Mellusi J E
2219 Charves Mary Mrs
2233ΔJohnson W G
2235 Brazil E M Mrs
2239 Matera Jos
2241ΔCorrao Peter ◎
2243 Puccio Peter
2245 Collini Guiseppe
2260ΔFoster and Kleiser Co
outdoor adv

Juniper intersects

2303ΔSanfilippo Dominic ◎
2312 Lococo Pasquale ◎
2314 Neill J A
2316ΔHall Lona Mrs
2317ΔCrivello Mariano ◎
2323ΔCrivello Peter
2326 Parmigiani Beatrice
Mrs ◎
2328ΔParmigiani Rocco ◎
2343 Badilla Eva Mrs
2345ΔReitz Winnie Mrs
2348ΔQuinn W S ◎
2349 Hall Jessie Mrs
2350 Pauley Virgil
2351 Crivello Frank
2353 Carmichael H L
ΔDarby D F Mrs
Faun L J
MacDonald H H ◎
2355 Galbraith J B
2358ΔWulff M R Mrs ◎
2363 Di Bona Mario
2365 Pool W J

Kalmia intersects

2416 Navarra Carlo ◎
2429 Calpin J C
ΔPalmer E W ◎
2430 Giacalone Saml ◎
2441ΔQuinci Paul
2455ΔKelley Martha E ◎

Laurel intersects

2518 Sanfilippo Andw
2519ΔCausarano Thos ◎
2520 Sanfilippo Peter
2525ΔAlioto J S ◎
2528 Vacant
2532ΔMaugeri Stefano ◎
2540 Zottolo Vito
2548 Christino Michl
2565 Jones J H ◎

Maple intersects

2601 Helm R O
2603 Wangler Robt
2619ΔKenyon Arth ◎
2620 Neuerburg Maude Mrs ◎
2621 Gossett R R
2629ΔLawrence A W ◎
2630 Hart C H
2636ΔD'Arcy P J
2638 **Holston Court Apartments**
Thompson W S
2639ΔHusband R F ◎
2640 Akers R F
2642 Bugenhagen H F
2643 Lucas F S
2653 Keating E H
2655ΔHoss W A ◎
2657ΔMaton Jos
2664 Benhart L V
McCrea A J
2666ΔHarrisburg E E
2669ΔRemick J K ◎

Nutmeg intersects

2703 Tinney G V Mrs
2705 Crooks R C
2715ΔWalters G L Mrs
2727ΔGross C M Mrs
2729ΔBarber J S W ◎
2730 Middlebrook H Caroline ◎
2732ΔIrving M T
2737ΔLovell Marion
2739 Glenn Frances
2741 Dennis R H ◎
2744ΔMiddlebrook L R Mrs ◎
2753ΔTraggardh R M Mrs ◎
2756ΔJones W L ◎
2768ΔGermo D H
2773ΔSimms F B

Olive intersects

2811ΔPickney W A ◎
2816ΔAllen Beatrice Mrs ◎
2818 Fischer H B
2825ΔBonham H L ◎
2830ΔRubesh C L
2840ΔHowell S W ◎
2849ΔButtermore W B ◎
2851 Johnson R E
2864 Morrison R F
ΔTetlow Ida Mrs
2869 Rogers Romie

Palm intersects

2930 Pierce Wm ◎
2940ΔBibb R B
2950ΔHamilton Byron
2952 Witkoff Jos
2954ΔDecker H L ◎
2955ΔJulien J D ◎
2964ΔNorris J R ◎
2965ΔWebster M D Mrs

Quince intersects

3002ΔJumper F F ◎
3018ΔAron Pearl
3038 Parsons G H
3040ΔAtchison T N
3062 Regorson D G
Wilkerson Luther
3064 Kiefer Earl
3066 Lewis Robt
3068ΔSaville Leota M

Redwood intersects

3225ΔYale A W ◎
3242ΔGoodwin H M ◎
3243ΔZobrist Ralph ◎

Sassafras intersects

3310ΔKirkwood C C
3319ΔMillar A A
3320ΔAdams C C ◎
3321ΔSulis Agatha L ◎
3330ΔMiller R G
3331ΔStanden W E
3333ΔNoisat R P
3343 Bennett C L
3344ΔStewart Wellington ◎
3345 Daniels A B
3347 Hall E E
3355ΔJohnson D A
3357ΔHagan Mildred C
3366 Machamer J C
3368ΔRice M B
3370ΔTopping F C ◎
3372ΔBarnett W H

Thorn intersects

3445ΔCanale J C ◎
3455ΔBrady C R ◎
3465 Pool C V

Upas intersects

3504ΔSteadman O J ◎
3515 Boniface Frank
3517 McCusker G C
3521 Stevens D S
3525ΔStarkey L E
3528ΔSmith R M ◎
3531ΔKendrick J L
3535ΔMacLennan Donald
3538ΔKinney Marvin
3545 Wilson Louise F

Vine intersects

Glenwood dr intersects

3615 Fleming E G
3621ΔLichty Eug ◎
3627ΔDragon J L ◎
3629 Fick C T

Chalmers intersects

3645ΔRobbins E S Mrs
3652ΔWilliams M E Mrs ◎
3661 Vacant
3662 Vacant
3663 Schaub C F
3669 English A W Mrs ◎
ΔLittle L G
3670ΔLalicata Dominic ◎
3677 Hansen H B ◎
3678 Stout N D
3680ΔKlingenberg Anna Mrs ◎
3685ΔMacIntyre T B
3686ΔEvans S C ◎
3687ΔBischoff J N F
3688 Rayburn R W
3693 Sawyer Lucy F
3695 Wolslager L A

Wellborn begins
Winder begins

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GLENWOOD DR 1943

GIRARD AV—Contd
7819ΔDiefenbach W E phys
7824ΔGarty F J florist
7825 Hull A K Mrs art gds
7826ΔCalloway C H gro
7826½ Masonic Temple
Jewel Club
7828 Bolinger J H meats
H & R Grocery
Murphy H F dentist
7829ΔGreat A & P Tea Co gro
7833 Bolinger J H fruits
7835ΔRoberts W R baker
7837ΔBarnes J H radios
7841ΔMode O'Day women's clo
7843ΔAppleton Mabel F gift shop
7844ΔLa Jolla Hardware Co
7845ΔBonner Jennie Mrs beauty shop
Bonner W W barber
7847ΔHouse of Flowers florist
7848ΔQuon Mane Co art gds
7850ΔLittle Shop The sport clo
7851ΔS D Gas & Elec Co
7852ΔAmerican Red Cross Information Bureau
7855ΔPiggly Wiggly Stores gro
7856ΔPost F S dentist
7857ΔStewart Mel Drug Store
7858ΔRichter Armin int dec
7860ΔBurger O E jwlr
7861ΔBen Franklin Stores notions
7862 Pecard Georgien mlnr
7861ΔVan Antwerp M H Mrs women's clo
7863ΔGirard Hotel
Vogt W H
7864ΔEdmonds J D baker
7865ΔSelby Edw S Co china
7867 Lester F H confy
7868ΔCavaleer E V Mrs
7870ΔHossein Syed art gds
7872 Vacant
7874ΔVlahos J C gro
7877ΔGranada Theatre
7880ΔThompson Peter liquors
Young J A shoe repr
7881ΔIller's Inc women's & men's furngs
Wall begins
7884ΔSprouse-Reitz Co variety store
7888ΔHandley Camera Exch
La Jolla Camera Club
7906 Arcade Building
Allely G P real est
Betts Arth tailor
Cotsonis G P restr
ΔHill K B ins agt
ΔLipe T J phys
ΔMcLaren A D inv sec
7910 Clark B A barber
ΔClark M E Mrs beauty shop
7912ΔPatz T M gro
7915ΔRae Joan photog
7916ΔMartin E A drugs
7917ΔGray Cary Ames & Driscoll lawyers
ΔGray Gordon lawyer
7920ΔMyers T G restr
7921 Jorgensen J L men's furngs
ΔSmith J F dry gds
7927ΔW U Teleg Co
7929ΔBarrett B T beauty shop
7931ΔBallam G E Mrs antiques
7933ΔLa Jolla Credit Assn
Prospect intersects
8002 Vacant
8004 Lathrop Goldie Mrs
8008ΔBagarus S M
8029ΔCook M H ◎
8045ΔLeBaron Ada Mrs
8047ΔAngier L V Mrs
Coast blvd intersects
ft of La Jolla Athletic Park

GLADIOLA (Pacific Beach)—East from Pendleton, 2 n of 2300 Beryl

GLEN ROAD (Encanto)—North from 550 Kenwood

GLENDALE AV—North from 2550 F to Broadway
811ΔPinnick Herbt
812 Davidson A C ◎
820ΔSturgis S C
821ΔGarretson Investment Co
Guyette Mae Mrs ◎
822 Amstein Adolf Rev ◎
826ΔThayer E F ◎
827 Howard Earl ◎
835ΔHolman Stella Mrs ◎
836 Thayer Vincent ◎
841 Kecskes Steve
845ΔHamilton H E
E intersects
912ΔNosler A M ◎
915 Anderson A O
925 Pearson R L ◎
927ΔMcRae Alex
942 McPherson W H

GLENDORA (Pacific Beach)—East from 4100 Dalton, 1 n of Rosewood
3010 Hover J C

GLENFIELD — Southeast from 4300 Manzanita dr
3135 Vacant
3136ΔDeKoven Jean Mrs ◎
3138 Vacant
3143 Vacant
3144 Shirr Henry
3148ΔHockhart G H ◎
3154ΔVanderpool Louis ◎

GLENMORE DRIVE (Linda Vista)

GLENMORE LANE (Linda Vista)

GLENWOOD (Pacific Beach)—Changed to Glendora

GLENWOOD DRIVE — West from 3570 Union
1500 Capps E P
Herrell E E
1502 Sieler M O
1504 Davis Darrel
1506 O'Neill Mary E
1508ΔPaul Jean
1525ΔBrack Frank ◎
1531ΔMcLouth Ada ◎
State intersects
1602 Fairman Adelbert
ΔKershner D S ◎
1605 Tenbroek H A ◎
1616ΔDaly J G ◎
1617 Vacant
1624 Milliren K C ◎
1626 Davis M E
1628 McDaniel E H
1630ΔScudder J C
1630½ Porter M J
1632 Wright Roy
1633ΔMorgan Harry ◎
1634 Riese P E
1636 Highfield Cecil
1702 Alsup J W
1704 Christian Mildred
1705ΔScott W R
1708 Smith R D
1709ΔBenedict E K
1711 Donnegan M S Mrs
1712 Wagner Conrad
1715ΔNoack L G Mrs
1716 Sellers E L
1716½ Glass K S
1720 Roberts W M
1720½ΔDominoe W D
1722 Kilgore C L
1722½ Gould Benj
1724 Sainsbury L W

GLIDDEN (Linda Vista)

GLOBE (North San Diego)—North from 1 blk s of 3500 Bisbee

GLORIA—South from Franklin av bet S 48th and S 49th
307 Baysen A M ◎
325ΔKnox V C ◎

GOLDEN GATE DRIVE (Mission Cliffs)—East from 700 Madison av to Campus av
1111ΔPhelps J D ◎
Delaware av ends
1202ΔBauer M F ◎
1205ΔHull S F Mrs ◎
1211ΔStebbins L M Mrs ◎
Harvey rd begins
1219ΔBeale E W ◎
1229 Norwood G J ◎
1235ΔStanton L A Mrs ◎
1240ΔStimmel B F
1245ΔAllen H H ◎
Maryland intersects
1403ΔSwinnerton J M
1404ΔNewsom B L Mrs ◎
1412ΔRiis H E ◎
1413ΔHaw H H ◎
1419ΔRapier R S ◎
1420ΔCotant C L
1429 Allen Onelta
1430ΔShankland B L ◎
1433ΔScribner G R ◎
1443ΔBaker A S ◎
1444ΔRoesner J L
Cleveland av ends
1521ΔLake D L ◎
1529ΔBrown J T
1538ΔOwen H S ◎
Campus av intersects
4501ΔBoldman I C ◎
4515ΔBellon Walter jr ◎
4545ΔSloper M E ◎

GOLDEN PARK AV (La Playa)—North from 1 blk s of 3300 Lucinda
820ΔShropshire W B ◎
Lucinda intersects
845ΔWarnes E D
876ΔSmall C A ◎
Harbor View dr intersects

GOLDFIELD (Morena)—North from 4300 Littlefield
1803ΔThompson R E ◎
1809ΔNolan P L ◎
1819ΔAguirre Anthony ◎
1826ΔEnglish Gordon ◎
1827ΔBrenchley Reginald ◎
1831ΔVan Dusen E G ◎
1834ΔGleason R F ◎
1842ΔHofman Richd ◎
1847ΔWarner E J
1848 Logan V H ◎
1853ΔSpencer J D ◎
1865ΔJackson C R ◎
Ashton intersects
1911ΔMaffioli C C
1912 Marinucci Geo ◎
1919 Carpinelli W J
1927ΔDahl R R ◎
1928ΔBenson J W ◎
1935ΔShelton M J ◎
1943 Thurgood Newell
1951ΔPlummer R R ◎
1952 Wilmer Alf ◎
1957ΔRowan Key ◎
1967ΔHight G E ◎
Van Horn A E
Napier intersects

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AVENUE BUILDING

INDIA—Contd
ΔMoran J D
2632 Williams Leon jr
2657 Dean O L
2659 Mecklenburg H G
2663ΔKenyon V V Mrs ◎
Nutmeg intersects
2701 Harris M S Mrs ◎
2702ΔBullard E C ◎
2702a Stromberg Carl
2702b Deskins Eliz
2704 Blackburn A E
2706 Hanks Thos
2708 Baierlein W H
2710ΔDupuy M D
2718ΔLuck A T
2720 Coop Amelia Mrs
2722ΔHarrison R R
2740 Burton Eug
2742 Dolson R R
2742½ McNeece J F ◎
2747ΔHorton E J ◎
Palm E A
2764 Jones J H coml photog ◎
Olive intersects
2801ΔChambers R W
2804 Gardner S J Mrs ◎
2805 Teaford F I
2815 Yates G W
2818 Marotta John
2820 Reed W H
2828 Erlandson F E
2828½ Cicala Anna Mrs
2834 Shuay Roy
2836 Plumley G W
2837 Kelley W C
2839 Geltosky J J
2840ΔAdams Florence Mrs gro
2840½ Adams Florence Mrs
2842ΔBrown C N
2842½ Evans R W
2844 Westfall Frank
2849ΔRauscher E W ◎
2850 White J F
2860ΔWhite J F phys
2867 Tarantino Frank ◎
2869 Olsen Sophie ◎
Palm intersects
2898 Parrott J M
2902ΔYbarre A R ◎
2903 Marker M E
2905 Grindl Sophie Mrs ◎
2905½ Vacant
2907 Shaw R J
2909 Smith H C
2915ΔMelencamp E N ◎
2920ΔHuber H O ◎
2921ΔMcPherson J W
2923 Applegate F D
2923½ Andrus E W
2927 Robbins R L ◎
2932 Aubert M A Mrs
2932½ Hazle W C
2934 Hobson L F
2936 Ahern Lawrence
2940ΔEversoll D B
2942 Maxwell E I Mrs
2944 Hansen Andw
2945 Splinter C H
ΔStagg H W
rear Davis W J
2952ΔFinnegan Virginia Mrs ◎
Winkle F A
2966ΔCanepa Paris ◎
2966½ΔCarniglia Jack
Quince intersects
3002 Owings L A
3002½ McKenzie D F Mrs
3009ΔSilva J D
3014 Sholota Adolph
3016 Shenbarger Earl
3016½ Jacobson S A
3020 **Bay View Apartments**
Letbetter J S
ΔMorris T K
3040ΔTarlton F A
3042 Chase C S
3042aΔLang Tressia Mrs
3044 Smith Alice Mrs
3044a Formella Stanley
3044½ Lewis R L
3046 Wilder Wm
3048 Renzulli Louis jr
3053ΔAmos Cleon ◎
3054 Robins F A Mrs
3056ΔBologna Philip gro
3058 Wingefield R R
3060 Morrow L G
Redwood intersects
3114ΔMarchman C A
3116 McHatton J F
3124 Vacant
3129 Porter H R ◎
3131 Porter H R cigars
3140 Whitney O L ◎
3141 Goldie Isabel Mrs
3153 Morrison M E
3167 Underwood R B
3171 Vacant
Spruce intersects
3179 Dison H B
3232ΔAmerican Clnrs
3252ΔNelson K G ◎
3254 Agee W M
3256 Krueger E F
3260 Hutchinson C W
Sassafras intersects
3300 Airman's Club
ΔU S Army Air Corps
3325 Gregory F C
ΔTuffley R L ◎
Van de Werken Herman
3341 Tinker T J
3341½ Cussins J E
3343 Vacant
3343½ΔKettelson W E
3345 Christian G E
3347ΔGarrett H E ◎
Thorn intersects
3460a Buys N F
3460b Fletcher W D
3460c Cramer Nita Mrs
3460d McDonald Mack
3462 Schade Virgil
3462½ Simpson T J Mrs
Wildaw H
3464 Vacant
3466 **El Francisco Apartments**
ΔDingeman F J jr ◎
3468 Torres A S
3472 Vacant
Upas intersects
3503 Welsh Walter
3505ΔJamieson D M
3507 Hart A E
3509 Radecke G R
3512ΔDougherty P D ◎
3514 Barnes S W
3519ΔLamoreaux P W
3525 Darby R T
3527 Reehl W W
3529ΔWilcox R J
3536ΔLasater J A
3537ΔLacey D S ◎
3538ΔBender C R
3540 Burkard G W
3541 Devers E C
3544ΔRogers R R ◎
3545 Funk J J
3546 Siddall M S Mrs
3547ΔBorey A A
3547½ Gable J G
3549ΔClaassen W J ◎
Vine intersects
Glenwood dr intersects
Walnut av intersects
3616 Tarver J E ◎
3620 Blaisdell L R
Kelley K L Mrs ◎
Tanner Harry
3634ΔBayles M E Mrs
3637 McMurtry M T
3642 Baxter F W
3649 Vacant
Chalmers intersects
3652 **Normandy Apartments**
Bauer Mary Mrs
Bjorness Leland
Cordova Inez
Crews B F
Knight Richd
Moore Melvin
Myers John
Tidball Lillian
Voorhees Helen
Walker Wayne
Whatley C R
Whitfall Helen
3661 Emmerling M J
ΔPorter K H
Stacey E J
3662 Orres Bernice J
3664ΔCotham J F
3667 Pedrin Albt shoe repr
3675 Brenner E A
ΔHaley Robley gro
3682 Wilson L R
3684 Wordsworth Fred
3688 Atkinson Newton
3690 Duffy C C
3692 Lucao Jade
3697 Almeter Everett
3698ΔMcPherson Susie Mrs ◎
Williams L J
Winder intersects
3701 Julien W J
3702ΔPalomar Golf Park
3711ΔStallings H R ◎
3719 Burgasten R E ◎
3735ΔEarle H H ◎
3735½ Vacant
3743 Hower P W
3745 Cherones Geo
3745½ Marquardt H E Mrs
3749 Chellieu D A
3751 Perry D H
Andrews intersects
3771 Williams J T ◎
3780 Twiggs B M
3792ΔCannon R Mamie

INDIANA—North from 1800 E Upas
3503ΔBurgster J B ◎
3515 Burns J M Mrs
3517 Lemon D M ◎
3524ΔFoster H E Mrs ◎
3527ΔHulden LeRoy
3528ΔArnold Rosalie S ◎
3530 Nylin N E
3532 Crosby Amy M
3538ΔHolmes Gerald
3541ΔEdson M B Mrs ◎
3544ΔRogers G A Mrs
3546ΔMuncey H V
3547 Ringer M S
3548 Anderson Clyde
3549 Franklin Harry
3551 Brown J A Mrs ◎
3554 Felgar R E ◎
ΔFickler Wm ◎
Nelson K A
Rudolph Edw
3559ΔMcChesney D W
Nelson Bessie Mrs ◎
3602ΔBarham E G
3604ΔYount C H
3605ΔJenson R E ◎
3606ΔLeisure Leon
3606½ΔCash J G ◎
3608ΔGoetz Bertha Mrs
3608½ Poschman W H
3610ΔMeeker R F
3611 Palmer E M Mrs
3612ΔWilburn Louise Mrs
3612½ Nicholas C D
3613ΔDavis W W ◎
3614 Ford Hattie
3614½ Rooks M J
3616ΔBjorklund M K
3621 Kilgore E L
3622 Moody Wm ◎
3623ΔCunningham J O ◎
3624 Hendrix A R

TP	Adjoining	Source
-	✓	San Diego Directory Co.

PACIFIC HWY 1943

ΔWestern Air Lines Inc terminal
2843ΔWilshire Oil Co
Palm av intersects
2905 Embleton H A gas sta
2930 Lindberg Field
ΔU S Airport office
ΔU S Civil Aeronautics Admin
ΔU S Weather Bureau
3165 Consolidated Aircraft Corp
3302ΔConsolidated Vultee Aircraft Corp plant 1
Thorn intersects
3401 Leighton Industries Inc commissary dept
3625 Parker & Thornberg gas sta
Bean begins
3733ΔLowery R A restr
Harasthy begins
3753ΔBrake Corner brake sta
Clayton intersects
3831ΔKeen K V Mrs restr
3845 Safeway Store gro
Sutherland intersects
3853ΔRay-Ken Sea Food Co
3877 Becker A W Mrs restr
3881ΔLeinsteiner F J meats
Sloan Albt fruits
Van's Market gro
3885ΔSan Diego Tile Co
3895ΔSheffield E F vet surg
Noell intersects
3911 Pool C V restr
3923 Little R W & Sons
3925 Parks F E ◎
3939ΔBray G H gas sta
3955ΔCity Tire Products
3957 Piggly Wiggly gro
3959 Bechaver Michl liquors
3967ΔFreyler Frank gro
ΔWeber O M meats
3985ΔDiederichsen Arth nursery
Wright intersects
Bandini intersects
4005 Fenn Harry restr
4095ΔCrossland W S restr
Couts intersects
4105ΔClark A B liquors
4137ΔSorenson F C restr
4139ΔBeauty Rest Motel
4143ΔKahn Saml baker
Witherby intersects
4205ΔConsolidated Vultee Aircraft Corp plant 2
4306 Ballanger W C gas sta
4350ΔAcme Pipe Co
4432ΔPacific Boulevard Motel
ΔLombard E A
4474ΔBlue Bell Motel
Allen V D
4480ΔReynolds J D
4570 Sunset Auto & Trailer Court
ΔVitrified Products Corp
4594ΔShields R L gas sta
Rosecrans intersects
4634ΔBray R L
4646ΔEl Padre Motel
Craig W C
Schario C J
4650 Mecca Hotel
4714ΔParkinson E K auto camp
4841ΔOchoa Gabino ◎
4857ΔSmith A B ◎
4883ΔSmith E P ◎
6303 Parker Belle ◎
6375 Smith E C
Wharton R M gas sta
6453 Hover J C kennels
6558ΔShirley H F
6596 Irwin F E Mrs ◎
6615ΔRoepke E H ◎
6633ΔKelly Dewey
6636 Brown S S
6646 McMurray Trailer Court
Baccus Garland
Balboa av intersects
6704 Kendall C B gas sta
6712 Sheldon & Schmidt restr
Boland H C liquors

PACIFIC BEACH DRIVE (Mission Beach) — West from 3997 Mission blvd

PACIFIC BEACH DRIVE (Formerly Pacific av) (Pacific Beach) — East from 4100 Ocean blvd
952ΔTolle N W ◎
1025ΔRice W T ◎
1076ΔRanglos P D ◎
1102 Woudstra H W
1111ΔZlac Rowing Club
1112ΔAnderson M E
1120 Bailey E J ◎
1125ΔIngle H J ◎
1145ΔMitchell J D ◎
1152ΔMiller J A ◎
1160ΔLynch Howard ◎
1168 Kueny F H ◎
1173ΔDiamond N W ◎
1175 Diamond A E ◎
1205 Kelly D J
1211ΔPope C A
1212ΔDean Elza
1221ΔLaughlin J J ◎
1229ΔAlbright Irvin
1235ΔMcQuoid L R ◎
1243 Anderson Robt ◎
1246ΔErnst J R ◎
1251ΔSarkiss Hrand ◎
1254ΔMcCarthy J C ◎
1259ΔBoughton D C ◎
Evarts intersects
1267 Walter A E
1278ΔPeterson Jens ◎
1284 Douglas M E ◎
Fanuel intersects
1312ΔCoombs N C jr
1314ΔBurnette Clive ◎
1320ΔNew J R ◎
1321ΔCromer R E ◎
1327ΔMoss E A
1330ΔHodges E D jr ◎
Gresham intersects
1335 Mac Lellan Margaretta Mrs ◎
1346ΔSaukko R E ◎
1351 Edwards W W ◎
1356ΔInhofe L M ◎
1361ΔButler P C ◎
1364 Gray E W bldg contr
1368 Gibbs D H ◎
1369 Bell E R
1375ΔTipsward Juliette
1404ΔRubish H N ◎
1412ΔHock A R ◎
Haines intersects
1560ΔYork G W ◎
Ingraham intersects
Jewell intersects
1704ΔElmore V H ◎
1714ΔDunmore C A ◎
1720 Thompson C V
1730ΔBunsen W F ◎
1744ΔVollman Leonard
1754 Barnett Pearl Mrs
1760 Marco Frank
1768ΔHawkins H H ◎
1778 Bunch F L jr
Kendall intersects
1804ΔPeck J M ◎
1812 Garner T A ◎
1821ΔPohl E W ◎
1828 Lucast J E ◎
1836ΔMattson C M ◎
1846 Radke A A ◎
1854 Kelley E D ◎
1860 Brotherton T W ◎
1870ΔEdmiston Alton
1878ΔMiller A D ◎
1882ΔDonstead R A ◎
Sequoia intersects
Lamont intersects
1914 Santos J D
1916ΔLibben D F ◎

PAGEL PLACE (Encanto) — South from 6650 Benson av

PALERMO DRIVE (Ocean Beach) — North from 2000 Chatsworth blvd
2301 Fletcher R T
ΔWord W E ◎
2325ΔGerhauser G F ◎
2337ΔKnight M K
2345ΔBusse O J

PALISADES ROAD (Kensington Heights) — Northwest from 4200 Ridgeway
4104ΔBridge N H ◎
Lane Fred
4110ΔSalmon B T ◎
4118ΔRatliff V H ◎
4126ΔHutchison C E Mrs ◎
4148ΔBond F M
ΔMorgan W A
4161ΔBullard O K ◎
4184ΔMyers Lloyd ◎
5302 Borer R C
5308ΔSchultz A L
5311ΔGilchrist B M ◎
5317ΔShudde W J ◎
5324ΔKellogg G H ◎
5331ΔKennedy G F ◎
5333ΔWaite R P ◎

PALM — East from 2900 1st av
415 Przekop A J
417 Vacant
420ΔWeber Laura
422 Lawton Ann
432ΔCarmichael M M Mrs
434ΔVancil M A Mrs
442 Hemple Ray
5th av intersects
506ΔJenkyn S R Mrs ◎
518 Vacant
520ΔErickson Mildred
6th av intersects
Balboa Park (not open to 28th)
Granada av intersects
2854 Gilbert B E Mrs ◎
2855ΔButt C R
ΔCummins J W
2864ΔKrumm W A ◎
2867ΔWenz H A
2868ΔStrong Alma Mrs ◎
2870ΔAllison W A ◎
2875ΔPresser T B Mrs
2889ΔOrtlieb J M ◎
29th intersects
2911ΔRitter Howard
2913ΔQuick V S
2915 Lowry H O
2926 Unroe J L
2927ΔPoole Mary H ◎
2928 Hunt R R
2941ΔNichols Dee H ◎
Dale intersects
2975ΔSingletary E R ◎
30th intersects
3001ΔMetcalf E M Mrs ◎
3009ΔNeal P M
3015ΔGanger H J
3016ΔMiner E J ◎
3024ΔRadford R R ◎
3025ΔBuysman V E ◎
3031ΔKuhlman Edna Mrs
3033ΔRevere J C
3035 Pritchett W S
3036ΔIrwin A Q ◎
3039ΔFlaherty Frances Mrs ◎
3040ΔHausdorf Mae Mrs
3042ΔEnneking W C ◎
3049ΔKustermann Julia ◎
3052ΔCrowe E E ◎
3055ΔDevorraux H V ◎
3058ΔWalsh John ◎

UPAS/COLUMBIA 1943

1202ΔInch Hilda ◎
1202½ Olson Burton
1212ΔBeardsley J R ◎
1234ΔLockwood F M ◎
Paddock M G Mrs
1238ΔStorm A V ◎
1256ΔBrown A C
1262 Vacant
1270ΔMetts W P ◎
1290ΔBriggs W L ◎

Richmond intersects

1404ΔMetts J C ◎
1414ΔStorey G E ◎
1420ΔHarlan Dale ◎
1428 Dole Iva Mrs
1440ΔHouse Newton ◎

Albert intersects

1506ΔBrown H C
ΔHarbaugh O S
1512ΔJohnson H C ◎
1520 Brothers L P Mrs ◎
1530ΔMitchell F J

Herbert intersects

1602ΔLundy W C ◎
1610ΔSchwimley M A
1612ΔSoye Maria Mrs
1614ΔSiefert C H
1616ΔMossman Eliz Mrs
1618 Bettle Hannah B
1620 Costello H H
1622ΔCarswell C C
1624ΔSorenson N L
1626 Crawley M C
1628ΔFiske R W
1632a Berenson Albt
1632bΔChristensen L H
1632cΔHaskell J N jr
1632d Holloway O T Mrs
1634aΔ Ketchum C E
1634b Ellis R C
1634cΔHeppe Mary
1642ΔClark Eleanor Mrs
1644 Akerberg H G
1646ΔWrightson Arth
1648ΔSanders Julia Mrs
1652ΔNelson J E ◎
1654ΔRead C J
1656ΔWilcox M K Mrs
1658ΔHunt Irene Mrs

Park blvd intersects

1714ΔPhillips C A
1716ΔMadden R W
1718 Arntson K I
1720ΔByers P U
1726 Gaffney G J
1728ΔMcCabe Julia A
1728½ΔBallinger L A
1732 Gramercy Court
1732½ΔPfeiffer Virginia
Spencer Virginia
1734 Van Luvanee Leonore
1734½ΔHyatt R J
1736 Tucker Wm
1736½ Shaw G D
1738 Hughes T C
1738½ΔBarker C J jr
1740ΔHemphill H A dancing tchr

Indiana intersects

1800ΔCrittenden Sarah Mrs

Georgia intersects
Florida intersects

2044 Kirk H R

Alabama intersects

2102ΔPowell P C ◎
2114ΔSeagren C G
2124ΔMurphy E H Mrs
2132ΔWarner G M ◎
2140ΔGaines G A ◎

Mississippi intersects

2212 Oscars L J
2222ΔBright H S
2228ΔDavies C W ◎

Louisiana intersects

2306ΔBruns T A
2318ΔArcher S D
2328ΔMcIntosh F S Mrs

Texas intersects

2426ΔKirby J L ◎
2436 Tamila C M ◎
2516ΔBell H M
2518ΔWeisberg Arth ◎
2530ΔStofer D D

Arnold intersects
Villa ter intersects

2602ΔBaisch J G ◎
2612ΔToussaint R B ◎
2616ΔGrant Robt ◎
2618 Hickey R W
2620ΔHanna A C
2628ΔHaines P W ◎

Pershing av intersects

2718ΔStork Lydia B ◎
2728 Sanner R L
2738ΔPierce G T Mrs

28th intersects
Utah intersects

2812 Potter G E
2828 Cunningham Allen
2830ΔLandt H L
2832ΔGaskins P E ◎
2853 Shands E E
2873ΔKrull M D Mrs ◎
2875 Thompas Lindsay

Granada av intersects
29th intersects

2905ΔWalker J C
2911ΔLinley C A ◎
2917ΔPendleton C M ◎
2924 Giles H B furns
2925ΔMarshall C V Mrs ◎

Dale intersects

2959 Babek J P gas sta
2965 Mello Cream Do Nut Co
2969 Oberg Enoch gro
2975ΔSaleski J S
2975½ΔBarnett V C
2983 Vacant

30th intersects

3016 Rose J C
3022 Rose J E
3025ΔKirkland Clara G ◎
3026 Vacant
3028 Church of Christ

Ray intersects

3035 Bandy H F
3036ΔLynn H D gas sta
3040 Skelley T L auto repr
3060ΔSkelley T L

Grim av intersects

3065 Norman Alf ◎
3074ΔNiedermayer H J
3075 Hall Estelle ◎

31st intersects

3108 Kast W C
3114 Degnan B E
3115ΔHill J C
2127ΔFaust A E Mrs ◎
3128ΔNunneley Nellie D

Herman av intersects

3162 Lauritzen I L
3162½ Stewart Helen ◎
3174 Mathers J O

32d intersects

3215ΔLogan F E
3218 Wilson R C
3224 East L F
3231 Vacant

Bancroft intersects

3254ΔWiggin Clarence
3271ΔPowell E S ◎
3274 Dowd H S Mrs ◎

33d intersects

3305 Alexander G V Mrs
3316ΔMoreland C B
3317ΔSchutt E G
3324ΔWattenbarger R M
3325 Huet O T ◎
3344ΔHaynes L A ◎

Felton intersects

3376ΔPreibisius L J ◎
3380 Hess C W
3386 Moore E M

Boundary intersects

UPAS, WEST — West from 3400 1st av

102ΔSanborn R E
104ΔMurphy W A
106ΔRodgers Barbara Mrs
120ΔLind M G
122ΔFord L L
124ΔPetersen H W
126ΔSimko Ambrose
142 Spencer J C
144ΔAlison Lamar
146ΔFurer C S
148ΔKeith J N

Front intersects
Albatross intersects

180ΔMcConnell C R
336ΔJohnson C M
410ΔWhite W D ◎
702ΔStarr Wm ◎
741ΔVan Keuren J O
810ΔGoodrich M D ◎
820ΔErving J S
845ΔRazzeto Chas ◎
850 Medina J A ◎

Goldfinch intersects
Hawk intersects

1315ΔHopkins T C ◎

Union intersects

1506ΔJohanson R H
1508 Frapp W A
1510ΔGoodwin S G
1512 Warren Cecil

Columbia intersects
India intersects

UPLAND (Encanto) — East from 1600 60th

UPSHUR (La Playa) — West from 1050 Shaffer, 2 e of Rosecrans

3011ΔViegas Marcelino
3014ΔCahn W B
3016 Epler R S
3018ΔSwartz G J
3020ΔSchlink V G
3022ΔDabkowski Stanley
3024ΔKlause W L
3026ΔKis Geo

Armada ter ends

UPTON COURT (Linda Vista)

URBAN AV — East from Elizabeth, 1 s of Ocean View blvd

UTAH (University Heights) — North from 2850 E Upas

3404ΔWills T W
3411 Simpson H W
3412 Vacant
3419ΔHatalsan J W ◎
3422ΔBrogle J P
3429ΔMerry W L ◎
3430ΔGruebele J G ◎
3436ΔRuffin R S
3437 Zierke E C Mrs
3441 Littleford Joshua ◎
3443 Hansen W L
3446ΔMaguire F H ◎

Myrtle av intersects

3501ΔWhite C M ◎
3502ΔCooke F M Mrs ◎
3511 Shell G R
3512ΔMoskowitz Max ◎
3519ΔKrebs Kath ◎
3520ΔBotkin C A Mrs ◎
3526ΔStrohauer W J ◎
3529ΔHenderson P C ◎
3536 McCarroll J H
3537 Moore A M Mrs ◎
3543ΔNelson Lemuel ◎
3544 Parvin F P

Capps intersects

3552ΔBacon R E W
3553 Boldrick E H
3562ΔHarkleroad H J
3565ΔConn John
3568ΔAylesbury A G ◎

TP	Adjoining	Source
-	✓	San Diego Directory Co.

VINE ST 1943

738 Vacant

Mission blvd intersects

804 Liftchild Chas ◎
807Δ Lenhart W L
811Δ Hill C R ◎
817 Vacant
821 McElhaney L L
822Δ Clarke J E ◎
829Δ Prentice G G ◎

Bayside walk intersects

VESTA — Southwest from 3900 Acacia

1701Δ Chapman Bros paper boxes
1702 Hollis J E ◎
1703 Vacant
1728 Campbell Luther
1731Δ Frye A L ◎
1734Δ Nicholson Thos ◎

Birch intersects

1805Δ Mitchell F M ◎
1820 Rasimas A V
1825 Simmerman Chas ◎
1831 Davie D L
1832 Smaw G G
1837 Carr E T ◎

Dalbergia intersects

2004 Kreis Theo
2005Δ Shreve H C ◎
2010 Rowe L V
2011a Brown W E
2011b Martin R L
2016 Machado L C
2019a Vining E P
2019b Easter Thos
2020 Sutherland Ezra

Cottonwood intersects

Main intersects

2401Δ Hutto J D
2402 Whitney W W
2403 Short L E
2404 Wilson Henry
2421Δ Brewer Landon
2422 Haynes Harold
2423 Hardwick Victor
2424 Klein E C
2429 Bliss Chas
2430 Johnson Ralph
2431 Olive Ethel Mrs
2432 Riley R H
2439Δ Langston Wilbur
2440Δ Butterworth J S
2442Δ Lowe R H
2449 Ralston E I
2450 McGuire E V
2451 Whelpley R A
2452 Bayse Geo

McCandless intersects

VIA DEL NORTE (La Jolla) — West from 6100 La Jolla blvd

202Δ Kiely W R
203Δ Scobie G G

Avenida Cortez intersects

301Δ Nelson H G
302Δ Young Du Bois ◎
311Δ Shepherd T L

Vista De La Mesa intersects

315Δ Turner H D ◎
340Δ Dyer J E
350Δ Roden W D Mrs ◎

La Jolla blvd intersects

VIELLE COURT (Linda Vista)

VIEW AV (La Jolla) — North from 1200 Bird Rock av

VIEW POINT DRIVE — North from 2050 W Columbia

VIKING WAY (La Jolla)—North from 1850 Torrey Pines rd to Newport ter

1802Δ Igelstroem C I ◎
1821Δ Rand Maya Mrs ◎
1856Δ Hutchinson C S Mrs ◎
1857Δ Burnham Carrie Mrs
Δ Wier J L ◎
1874Δ Shea M N Mrs ◎
1879 Green G S
1881Δ Shelburne S A
1888Δ Ziegler F S Mrs

VILLA DRIVE (Loma Portal) — North from 2100 Chatsworth blvd

VILLA TERRACE—North from 2600 E Upas

3420Δ Skelton G C ◎
3428Δ Hoss P F
3438 Connery E M Mrs
3439 Walruff E H
3446Δ Overcash B F ◎
3447Δ Genet M E Mrs ◎

Myrtle av intersects

3504Δ Whitmoyer P H
3512Δ Hall W J ◎
3513Δ Carson W P
3521Δ Harris F M Mrs
3522Δ Seaton J L L ◎
3527 Vacant
3528 Jackson Wilber
Lickert Winnifred D ◎
3535Δ Rutherford M L ◎
3536 Vacant
3540Δ Knotts Jos ◎
3542Δ Naumann Evelyn M
3542d Matzke A M
3544Δ Vereen Russell
3545Δ Beebe Carr ◎
3546Δ Byllesby H A
3551 Robinson L B ◎
3552 Doesschmann W H
3559Δ Neale C E ◎
3567Δ Hoffman A J ◎
3568Δ Brown H K
3576Δ Robinson E H ◎
3584Δ Ghio E A ◎
3585Δ Heatherly B A Mrs ◎
3593Δ Bixler B A

Dwight intersects

3602Δ McCoy E E Mrs ◎
3603 Hall W R
3611Δ Springer L W ◎
3612Δ Couch R M ◎
3617Δ Bath B T ◎
3620Δ Henke H C ◎
3623 Beck C G
3625 Junghans H F
3626Δ Stephenson B C Mrs
3626½Δ Mueller Barbara Mrs ◎
3628Δ Rountree T B
3629Δ Gould S J
3630Δ Jones E W
3635Δ Anderson A F ◎
3636Δ Hink H D W ◎
3639Δ Tate J D
3644Δ Griffin J J ◎
3645Δ Easton H M
3650 Learnard N O ◎
3655Δ Allen W G ◎
3660Δ Nagle G E jr
3661Δ Henderson A E Mrs ◎
Wahn J H
3664Δ Devich N R ◎
3667Δ Fruit H C ◎
3670 Sidall Frank
3674Δ Hunter N V
3675 Row R C
3676 Prater Chas
3693Δ Bailey Lela E ◎
3694Δ Miles R S ◎

Landis intersects

3704Δ Deem Margt Mrs ◎
3714Δ Stock W J ◎
3714½ Hutchinson Wm
3715Δ Welin Eric ◎
3719Δ Stewart Blanch Mrs ◎
3720Δ Bales E A ◎
3725 Peery C F
3730Δ Van Dort Thos ◎
3735 Brennecke Minnie Mrs ◎
3736Δ Day R W jr
3738Δ Stahlfeld P G ◎
3745 Carson H H
Δ Mineah L E ◎
3746 Rush E T ◎
3748 Ebel Wm
3750 Burnett J D
3751Δ Newton E R ◎
3752Δ Lucke L E ◎
3761Δ Buis J W ◎
3762Δ Davison M C Mrs ◎
3764 Dyche J Vivian
3767Δ Gault W W ◎
3768Δ Anderson J O
3770Δ Steele A M ◎
3772Δ Hammerstein M P
3775Δ Goldsmith C T ◎
3776 Jordan H E ◎
3783Δ Freeberg O E ◎
3784Δ Switzer C L Mrs ◎
3785 Batten C E
3788Δ Brown J F
3794Δ Perkins R E ◎

Wightman intersects

3803Δ Mager Edwin ◎
3806Δ O'Meara Nora G ◎
3808 Hopton Bessie Mrs
3810 Deming Clark
3811Δ Martin Benj ◎
3812 Buono Norene Mrs
3814Δ Smith Palmer ◎
3815 Solbue A J
3817 Beaudry L A
3819 Tucker S C
3820 Koates Amelia Mrs ◎
3822Δ Sperow W B
3829 Myers R J
3830Δ Ray L E

University av intersects

VINE — West from 3550 Union

1405Δ Wade Henry ◎
1405½ Wintle R J
1412Δ Crump L M ◎
1417Δ Vinyard F A ◎
1420 Hermes W H
1421Δ McKinney J H
1430Δ Dorland F N jr ◎
1449 Oates Pirl

State intersects

1501Δ Muehleisen Adolph ◎
1516Δ Gates P E ◎
1524 Likes E K Mrs ◎

Columbia intersects

1611Δ Glasson W J ◎
1621Δ Forry J E
1623Δ Baranov Harold
1629 Hardgree Albt

India intersects

VINE COURT — East from ½ blk w of 750 S 29th

VIOLA (North San Diego) — East from 2200 Morena blvd

VIOLET — Southeast from 4050 Manzanita dr

2511Δ Ritz C W ◎
2518Δ Frandsen C W ◎

Sycamore dr intersects

Pepper dr intersects

2547Δ Erny F F ◎
2560Δ Choate G M ◎
2564Δ Redman F P
2571Δ Smith H W ◎
2576Δ Wolthorn A H ◎

Poplar intersects

TP	Adjoining	Source
-	✓	San Diego Directory Co.

WALNUT AVE W 1943

WABASH AV—Contd
4029 Ward C P ⊙
4032 Goforth E C ⊙
4035 Richmond J R Mrs
4036 Martin C E ⊙
4039 Clark E P
4044ΔPhillips Mary Mrs ⊙
4045 Miller L I
4048 DuBrock O L
4050 Oliverio Theo
4051 Goodwin W R ⊙
4060ΔJones C H ⊙
4061 Stonestreet J W
4067 Kleeberg Howard ⊙
4068ΔSacco Saml ⊙
4074 Allession Rose Mrs ⊙
4077 Biggerstaff Chas
4082 Martin Hazel Mrs
Polk av intersects
4102 Tyrell May Mrs ⊙
4109 Price H W
4110 Morris R M
4115 Lane Pearl Mrs
4120 Brown Florence ⊙
4128ΔMorris S A ⊙
4133 Farina J S ⊙
4134 Haggard P T ⊙
4140ΔSolomon C B ⊙
4141 Schweikhard L M
4148 Burbee J S Mrs
4151 Harlan Richd ⊙
4156ΔArchibald W N ⊙
4157 Seales Lawrence ⊙
4164ΔRoevai Assunta ⊙
4167 Jensen J M ⊙
4172 Snodgrass L L
4174 Ryan E B Mrs ⊙
4175 Clapper R L ⊙
4189 Hoffner B J ⊙

WABASKA DRIVE (Loma Portal)
3714 Morris J R
3921ΔNorris G G ⊙
3927 Caldwell Edgar
3939 Kline E L

WALL (La Jolla) — East from 7879 Girard av, 1 s of Prospect
1002ΔLa Jolla Public Library
1019ΔBarnowski F J chiropractor
1026ΔSmith C C restr
1028ΔConrad Bruce & Co inv sec
1030ΔKlingele A P jwlr
Rinehart's Cleaners & Dyers
1032ΔRae P C photog
1033ΔMatlaw A P clo clnr
1034ΔGordon Ruth M library
1037ΔJones B F liquors
1039ΔPayne A G Mrs antiques
1041ΔZimmerman R F plmbr
1044ΔSecurity Trust & Savings Bank of S D
1047ΔAnderson Janette E drsmkr
1049ΔAdams Realty Co
1051ΔBlue Seal Laundry Servce
Herschel av intersects
1111 Scales M B Mrs drsmkr
1115ΔStephen-Hassard Q M dentist
1117 Atchison R L
ΔSeeber Beulah M
1118ΔSmith M R Mrs real est
1119ΔLane I C Mrs int dec
1120 Ogden W W shoe repr
Shannon F W shoe shiner
1122ΔKessling A F gro
1123ΔRadio Service Laboratory
1124ΔGoucher A E Mrs beauty shop
1125 Williams J M ⊙
1128ΔMcLaughlin J L A radio eng
1140ΔPost Offce
Ivanhoe av intersects

WALLACE (Old Town)—Northeast from 2800 Davis
3976 Tarter T B
4016ΔCardwell F K restr
4090ΔOld Mission Packing Corp
4104 Grimmer O R ⊙
4124 Serrano J A ⊙
4136ΔPresidio Hills Golf Course
Juan intersects

WALLACE COURT — North from National av, 1 e of 39th
912ΔCartledge Geo ⊙
927ΔGinos J G ⊙
931ΔBrook S R ⊙
National av intersects

WALNUT AV—East from 3500 1st av
100ΔBrinton F L Mrs ⊙
115ΔButterfield P H
Campbell J R
Campbell R M
Hacker E F Mrs
140ΔDay M R Mrs ⊙
2d av ends
207 Swearingen R E
211ΔMitchell G S
221 Burrell A C
225ΔStanton E Louise ⊙
3d av intersects
303ΔRidout L C ⊙
306ΔNelson Charlotte Mrs ⊙
328ΔPutnam Anne R ⊙
335ΔPrescott G R Mrs furnrms
Prescott G H ⊙
4th av intersects
418ΔMack Martha
420ΔBelford W W phys
435ΔTimmins Jane A
5th av intersects

WALNUT AV, WEST — West from 3500 1st av
111ΔBrust M S ⊙
117ΔFlint J K Mrs ⊙
130ΔBrown W I
ΔDean E H Mrs
Front intersects
204 Fisher J W ⊙
205ΔBalyeat F S
211ΔFay W S ⊙
230ΔMcDowell M J Mrs ⊙
246ΔCase N B Mrs ⊙
McLean M G
Albatross intersects
315ΔKendall J M ⊙
321ΔMcVey Margt M ⊙
605ΔMerkley H W ⊙
Hawk intersects
1021 Rivkin Melvin
1025ΔJones N N ⊙
1041ΔCouts L G ⊙
Ibis intersects
Jackdaw intersects
1300ΔDennis V R ⊙
Lark intersects
Union intersects
1504ΔMorton H E
1505ΔStraus S M ⊙
1507 Dewey O L
1509ΔHord G D
1511 Latson A C
1512ΔLee C T ⊙
1519ΔSherrill F T ⊙
1616 Kersten R B
1617 Wood J A Mrs ⊙
1621ΔLouisan W A ⊙
1623 Reynolds L A
1626ΔLenier Hans ⊙
1629ΔLaird M I
1631ΔWillenberg W C
1703 Myers Glenn ⊙
1709ΔDavis H M ⊙
1717 Bentson Lester

WALTON PLACE—East from Ohio bet Monroe and Madison avs
3057 Schrick C F
3060ΔFiedler J E ⊙
3061ΔThompson J A
3064 Hearn Harold ⊙
3069 Lang C W ⊙
3070 Brockmeyer E F ⊙
3074 Borneman E A
3076ΔHenderson E L ⊙
3078 McArthur D E
3080 Jones Muriel Mrs
3082 Hester Hazel Mrs
3084ΔHenderson Ruby Mrs ⊙
3086 Barron Monee
3088 Swanson H L

WARD ROAD (Normal Heights) —To Camp Kearney via Murphy Canyon—East from Cherokee av to Madison av
3716 Erwin C B ⊙
3720ΔBennett Isabel Mrs ⊙
3728 Haynes A G Mrs ⊙
3736ΔBraly M C Mrs ⊙
3745ΔEmmett G E ⊙
3751ΔSancho A G ⊙
3752ΔPage C N ⊙
3759ΔTinkham N A ⊙
3760ΔDonner J S ⊙
3767 Landon V E
rearΔWright E F
3773ΔPalmer O J Mrs ⊙
3778 Hamman O M
3786ΔSowers E L jr
38th intersects
3816ΔCook J B ⊙
3818 Dailey R H
Damron L H
cor Mission Valley rdΔDaley Corp paving contrs

WARNER (La Playa) — West from 650 Silvergate av
3623ΔCarr L W ⊙
3658 Caldwell D G
3705ΔZorn K B ⊙
3710ΔMom R L ⊙
3741ΔBryans N M Mrs ⊙
3753ΔHowes N E ⊙
3761 Clover Ernest

WARRINGTON (Ocean Beach) —Northeast from Wildwood rd, 1 w of 1700 Chatsworth blvd and ne of 3800 Tennyson
1740ΔTimmons J K real est ⊙
rear Yeatts G E
1786ΔThompson Gordon ⊙
2120ΔChadwick R W ⊙

WASHINGTON (Mission Hills) —East from 4000 1st av
105ΔMission Dry Cleaners
109ΔDuBois H N ⊙
117 Vacant
119 Vacant
120 La Lanne Leone Mrs
121 Richard A R chiropractor
126 Corder Myrtle Mrs
128 Lucas Eulalia M
130ΔWalter W A ⊙
132 Las Dos Palmas Apartments
Dent G C
137ΔClifford J W gas sta
ΔStauffer E D auto repr
144ΔMitchell Glenn real est
180 Eckery C E gas sta
3d av intersects
302 Stalmer R G used cars
305 Stalmer R G autos
330 Casa De Oro Apartments
Ekern Sidne Mrs
ΔHaas C R
Johnson H W
ΔPizza Norman

TP	Adjoining	Source
✓	✓	San Diego Directory Co.

KETTNER BLVD 1938

KETTNER BLVD—Cont
2119 De Falco Etienne Mrs wines
ΔPacific Beverage Co bottlers
2136ΔBenton Roof & Paint Co
2151 Canepa Lorenzo

Ivy intersects

2220 Vacant
2227 Asaro Frank
2228ΔGoughnour O Q mfrs agt
ΔSchuster R P whol gro
2229 Cavella Saml
2251 Cresci Gaetano
2253 Alioto Frank

Juniper intersects

2308ΔSan Diego Macaroni Mfg Co
2321ΔZolezzi Josephine Mrs (o)
2327 Massa Laurie (o)
2328 Hernandez Antonio
Martin Raymond
Sabatini Dominico
Sanchez Viviano
2330 Pena Juan
2345 De Santi Leo
2347 Vitrano Josephine Mrs
2368ΔStandard Furniture Co

Kalmia intersects

2401 Vacant
2419ΔCastagnola Louis (o)
2433 Filippone Thos
2435 Vacant
2443ΔSanfilippo Antonio (o)

Laurel intersects

2521 Young Otto (o)
2548ΔHazard R E & Sons contrs

Maple intersects

2601 Richards C J
2603 Everard F R
2605 Reed W J
2607 Pearce D A
2609 Zerbst C F
2611 Halvorsen John
2621 Vacant
2651 Ortiz J M
2653 Cerda Mabel Mrs
2680ΔBarth Foundry & Machine Co
2690ΔSiebert S R mach

Nutmeg intersects

2700 Reinohl H J
ΔSpecial Serv Flooring Corp

Olive intersects

2805ΔGhio Matteo (o)
2806 Agnew R J
2808 Calkins L B Mrs
2812ΔMcQuoid L R baker
2815ΔZolezzi J B (o)
2825ΔMassa Louis (o)

Palm intersects

2941 Copley David
2942 Meilleur W A (o)
2953 Gordon A G Mrs (o)
2958 Leesman G J
2960 Smith H F
2962 Vacant

Quince intersects

3002 Colombo Fidel
3017 Vacant
3017½ Phillips Philip
3019 Wood J J
3027 Speier Jos
3029 Le Blanc S J
3031 Duncan Arth
3033 Carnes Sally Mrs
3040 Hays Robt
3041 Renzulli Louis
3042 Trujillo Canuto
3043 Tucker G H
3045 Smith D W

Redwood intersects

3105 Koehler Amelia Mrs (o)
3109 Dinver C D
3111 Ireland J L
3113 Contreras P J
3125 Melching W E
3136ΔAce Lumber Co
3155ΔAce Building Co
3165 Ace Plumbing Supply Co

Spruce intersects

3205ΔThompson J D gas sta
3207ΔThompson J D (o)
3242 Morton Chas
3245 Dutra John
3247 Inscore W C

Sassafras intersects

3300 McCormick Margt
3302 Vacant
3304 Fisher J L restr
3308 Fisher J L
3338ΔShrine Court
ΔLeonard E W
3340 Chase Stewart
3342 Vacant
3344 Vacant
3346 Vacant
3348 Vacant
3370 Duggins Russell
Kettrick E E
Soares Manuel (o)

Thorn intersects

3441 Davies W E jr
3452 Mitchell John
3455ΔBrown J D
3465ΔLewis John (o)
Medina Jos
3466 Joaquin Jos

Upas intersects

3500ΔCentury Lumber & Mill Co
3521 Austin C E
3527ΔJones P W F
3531 Vacant
3533 Marek Jos

Vine intersects

3550 Solomon Jacob gas sta
3553ΔThomas E F
3575 City Fire Dept Sta No 20

Walnut av intersects

3605 Rury M M Mrs
3607 Cavendar J L
3609 Weir P B
3611 Fillette Eug restr
3619 Laidley R B
3631 Entwisle J J
3637 Slavin J T

Chalmers intersects

3663ΔReynolds P A chiropractor (o)
3667 Taylor W E (o)
3667½ Jury Cora Mrs
3669 Seitz H M
3674ΔThompson C V gas sta
3679 Belcher H R
3681 Van Blarcom E Z
3683 Murray Eliz Mrs
3695 O'Donnell H R

Winder intersects

3702 Joseph R M
ΔMcFarland B A Mrs (o)
3730ΔPeterson T D (o)
3744ΔKoehl G J (o)
ΔLightening Machine Co
3747ΔPalomar Lndy & Dry Clnrs

Andrews intersects

3765ΔDavis E A
3767 Hague H C
3779ΔSilence T E (o)
3785ΔHalwick Lucille (o)
3794 O'Neill John
3796 Metcalf Jesse
3797ΔFowler E W (o)

McKee intersects

3809 Priest A B
3821ΔGalvin H M (o)
3831 Fouts E L Mrs (o)
3833 Dunlap Harry
3838 Webber R F
3841ΔHill H O (o)
3847ΔTate Emil
3848 Kulhanek J J

Pringle intersects

3857 Vacant
3859ΔMontague C G Mrs
3865 Taylor J F (o)

KING (North San Diego) — Southeast from 750 Lieta

KINGSLEY (Loma Portal) — Northwest from 2950 Rosecrans
3021ΔJones L E (o)
3022ΔEngel F M Mrs (o)
3030ΔTompkins C L
3035ΔRogers G A Mrs (o)
3036 De Carre Alphonse

Locust intersects

3104 Costa M E (o)
3111ΔJames M A Mrs (o)
3114ΔReynolds R R
3121ΔHall H W
3122ΔReese G A
3130ΔTaylor T J (o)

Evergreen intersects

KINGSTOWN COURT (Mission Beach)—East and w from Mission blvd, 8 n of Amusement Center
714 Vacant
718 Brabban Robt
721ΔGrowald H K

Mission blvd intersects

809 McGetchin R S
810 McDade Ray
812 Vacant
814 Payne Edw
815 Elsner J C
816 Vacant
818 Le Neve P R

Bayside walk intersects

KITE—North from 1 blk s of 1300 W Walnut av
3416ΔPage J M (o)
3420ΔPerley W M (o)
3425 Senft Henry (o)
3430 Hansen C B
3447 Vacant
3450ΔHall G T

Walnut av intersects

3511ΔBell A S
3514ΔBennett Jean Mrs
3521 Ruby Saul
3521½ Vacant
3522ΔHolt N L
3524ΔEdgar Milton
3527ΔSmithers F W (o)
3536ΔChabot A E (o)

Brookes av intersects
Puterbaugh intersects

3621 Warner G O (o)
3625ΔBouvet M B
3635 Bishop H C (o)
3637ΔHayes J D Mrs (o)
3643ΔBarnes Ford (o)

Torrence intersects

3647ΔGordon J A (o)
3651 Deering J E
3653 Young T L H
3655 McCutcheon R N
ΔTemple M O
3657ΔCrittenden T T (o)
3665 Vacant
3668ΔMcKelvey R J (o)
3673ΔHolland H J (o)
3676ΔTheobald C W (o)

Pennsylvania av intersects

3704 Vacant
3705 Stronsky C W
3710ΔWarfield Kenneth
3713ΔMotes J H
3719 Cones H N
3724ΔBuckman E A
3727ΔWest I C Mrs
3728 Kellough W F

Sutter intersects

KLAMATH AV (Pacific Beach) —North from 2200 Lorin

KLAUBER AV (Encanto) — North from 6500 Bach av
1002 Landis R G

Wren begins

1109 Brewer D C
1161 Schott L A Mrs (o)
1162ΔDahl C J (o)
1189 Suchow W E (o)

Sparrow av intersects

1259 Mitchell R L
1320ΔDunn R R jr
1322 Dunn M E Mrs

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CALIFORNIA ST 1938

1611 Rosso F A
1615 Vacant
1621 Edmands A C
1626ΔNash N S
1641ΔKrettler Lawrence

Coronado av intersects

1667 Bradley C C
1675ΔMontgomery E W
1676 McCreight R L
1679 Vacant
1681ΔLanglois C H
1684ΔLancaster M W
1685 Lewis Manuel
1690 Brown T F

Santa Cruz av intersects

1720 Atkins F J
1722 Eller R J
1726 Vacant
1727 Leary J H
1730 Vacant
1735 Vacant
1743 Musso L J (o)

Del Monte av intersects

1756 Connor W A
1766 Carter C W
1768 Bordeaux Lafayette
1776ΔFrancis G H
Marcek S J
1779 Isackson O V
1780 Thaden E L D

Narragansett av intersects

1821ΔDavis A E Mrs (o)
1844ΔBalmforth A J (o)

Niagara av intersects

1852 Jacobs Grant
1856 Calandrino Saml
1857 Claxton M C
1859 Schackelford C O
1862ΔOliver Jas (o)
1869ΔPeltcher C H plmbr

Newport av intersects

1911 Tipp L A (o)
1919ΔWebster H T (o)
1929 Sixth Church of Christ Scientist
1944ΔDriskill C D (o)

Santa Monica intersects
Saratoga av intersects

2003 Halvorsen A B
2007 Thompson Thos
2011 McAllister W J
2015ΔFitzpatrick J J

Cape May av intersects

2024 Nelson R A
2070 Darnell R L
2075 Vacant
2076 Austin M L
2090 Currier O L

Brighton av intersects

2101ΔAskew B E (o)
2111ΔJones G M
2120 Hayman R W
2121ΔMichael M H (o)
2130 Vacant
2131ΔPhelps N B (o)

Long Branch av intersects

2143 Gladin L C
2149 Vacant
2152 Jones E L
2154ΔFerris E B Mrs (o)

Muir av intersects

2180 Vacant
2181 Rasmussen A J

Voltaire intersects

2216 Rodgers T S

West Point Loma blvd intersects

CABRILLO AV (La Jolla) — North from 1 blk s of 1300 Pearl

7427ΔBrown W P (o)
7441 Hazeton G K
ΔJohnston W R

Pearl intersects

7501ΔDorr F R (o)

CAJON WAY—North from 5400 Madison av

4504ΔMunro J F (o)
4509ΔHaynes Jos (o)
4525ΔGillia A F
4536ΔCorrin R D (o)
4541ΔCormack T H
4546ΔMcDougal A C (o)

CALHOUN (Old Town)—Northwest from 4050 Harney

2660ΔBaldaugh Chas
2662ΔHaas Chas

Mason intersects

2734 Buck Albt

Wallace intersects
Taylor intersects

3226 Fillet John

CALIFORNIA—North from 800 W Market to Witherby

1443 Vacant
1445 Vacant
1447 Vacant

Beech intersects

1506 Daleo Jos
1516 Sellers Geo
1560 Allen L J whs
1564 Allen L J marine salvage
1568 Vacant

Cedar intersects

1612 Aleto Jos
Brown H C
1616 King G H
1616½ Kearney N A Mrs
1620 Melanese Andw
1620½ Vacant
1630 Thompson Beatrice
1632 Yslaba Benita Mrs
1634 Drawn J J
1636 Miramontes Frances Mrs

Date intersects

1804 Stillson F B (o)
1804½ Grossi Gaetano
1808 Riddell H W (o)
1824 Vacant
1842 Piranio Salvatore (o)
1930 Giamanco Jos
1932 Bologna Pietro
1940 Di Maggio Sebastiano
1948 Buompensiero Frank
1954 Alioto Anthony

Grape intersects
Hawthorn intersects
Ivy intersects

2206 Gangitano Antonio
2224 Ellis Daisy Mrs
Roiz Ignacio (o)
2230 Arellano Victoria Mrs
2244 Pontecorvo Bertha Mrs
2246 Acosta Peter
2246½ Varela Anita Mrs
2250 Salmon Tarquino
2250½ Aguirre Bernarda Mrs
Pico Jesus
2272 Salmon Joaquin
2280 Gaxiola Antonia Mrs

Juniper intersects

2337 Figueroa Margarito (o)

Kalmia intersects

2402 Vacant
2416 Estrada Clemente
Gomez A B
2424 Gomez Antonio
2430 Garcia Jose
Gomez Manuel
Gonzales Augustin
Sotelo Jesus
2440 Atayde Apolonia Mrs
Cortez Alex
Samora Jos

Laurel intersects

2554 Stagnaro Bartol
2560ΔStagnaro Antoinette Mrs (o)
2572 Palestini Palma Mrs

Maple intersects

2801 Murphy J E (o)

Palm intersects

2921 Harper Lucy Mrs
2929 Ferguson S H
2941 Garcia Ramon
2960 Beers S F
2970 Vacant

Quince intersects

3005 Castagnola Mary Mrs (
3015 Busco John (o)
3043 Castro Ramona Mrs

Redwood intersec
Spruce intersec
Thorn intersec

3449 Talbot Frank battery m
(o)

Upas intersec
Vine intersec
Walnut av intersec

3607 Oliver F M Mrs
3619 Salceda Miguel
3625 Stanton John
3645 Ivicevic Paul (o)

Bean end
Chalmers intersec
Winder intersec

3719 Cleveland W A
3721 Mello J A
3725 Dudley Jesse
3727 Wronick W J
3729 Holloway L E
3731 Burke W P

Andrews intersect

3751ΔFive Points Auto Court
Clark H H ins agt
3777 Andrews T N billiards
3779ΔMilburn F R plmbr
3781ΔSims Irene Mrs beauty shop
3785ΔMills J M drugs
3787ΔCook E L Mrs
3789 Mooney T S phys
3789½ Terrill G E
3791 Bryenton F V barber
3793 Solari Frank restr
3795ΔBell A J gro
3795½ Vacant

McKee intersect

3805ΔSan Diego Motor Inn
ΔGilbert W S (o)
3805ΔIrey I S
3810ΔWaiter L M gas sta
3811 Baine E M Mrs
Irey I S
3817 Engi A L
3819ΔHarsha M E Mrs (o)

Clayton end

3821 Smith D L
3827 Dyckman D B
3831 Oberbauer Anthony
3833 Briggs Roy
3835 Cruse J O
3836 Clay Cassie Mrs real est
Clay Chas
3856ΔDyckman D B baker
3870ΔLuscomb R E tourist camp
McCoy Henry
3873ΔBay View Auto Camp
Birkett Minnie Mrs
Le Roy E C gro
Solari Frank (o)

Sutherland intersect
La Jolla av begin
Stone begin
Pringle begin

3917 Lockwood F H Mrs
3919ΔKnudson Emma Mrs (o)
3929 Gainer O C
3931ΔGoforth E C
3938ΔMcKalson E L
3942ΔJackson Andw (o)
3965ΔMcDougal D C jr
3971ΔMaze M E Mrs

CALIFORNIA, WEST — From Henry w to Witherby, continuation of California

1907 Kohl C N (o)
2005ΔHewitt C B (o)
2011ΔGabbs L M Mrs
2017ΔBeetlestone R H (o)
2025ΔKelley C S

Wright intersect

2044ΔCollins V D Mrs
2049ΔButzow T F
2050ΔBagby J W
2051 Ambrose W W
2067 Taylor H H
2069 Rosenthal B M
2070ΔMartie R S
2074ΔBaumont Wm

TP	Adjoining	Source
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COLUMBIA PL 1938

COLUMBIA—Cont
1522 De Maria Peter
1522½ Principato Angelo
1525 Cale H R
1527 Willis J W
1528 Giacalone Jos
1529ΔSmith N H Mrs (o)
1530 Daleo Jasper
1531 Light C J
1542 Solman W H
1543 Cadina Jos
1544 Mercurio Thos
1545 Scardino Jacob
1547 Brenha Jos
1549 Berger Adolph (o)
1555 Dix R T
Toston G T
1557 Balbala Peter
Ballatore Matteo (o)
1572 City Fire Dept Sta No 6

W Cedar intersects

1619ΔLarson S A (o)
1619½ Black T H
1637 Vacant
1641 Vacant
1642 Asaro Andw
Racho Manuel
Zottolo Jos
1645 Benoso Moises
1647 Fyffe Elmer
1661 Hirth Herman (o)
1669 Pilolla Vito Rev

W Date intersects

1711 Perrone Anthony
1721 Armendariz Martin
1722 Oritano Vincent
1725 Gonzales John
1726 Giacolone Matteo
1741ΔLograsso Laurence (o)
1746 Cayton J L
Frey Theo
Harris H L
ΔRohde Edw plmbr
Russell W E
1758 Cocco Pete
1760 Ghio Dominic (o)
1762 Siros Chas
Wynes R D
1764 Rendino Francisco

Elm intersects

1812 Cunningham Russell
Ector C C
ΔSwain Mary Mrs (o)
1824Δ Tarantino Pietro
rear Busalacchi Antonio
1833 Harris A M Mrs (o)
1836 Gale Anna Mrs
1839 Sarguisa Jos
1840 Asaro Madeline
1843 Asaro Jos
Brancaleone Anthony
1857 Zolezzi Steph

Fir intersects

1907 Inacio Salvador
Kenniston Anthony
Olivera Antonio
1915 Santos Manuel
1918 Asaro Jos
1919 Carreo Frank
1920 Rebello Manuel
1922 Oliveri Jos
1924 Stagnaro Geo
1926 Balistrieri Antonino
1928 Busolacchi Cosimo
1929 Vacant
1931 Francisco Aurelio
1942 Vacant
1943 Bruner Mary Mrs (o)
1953 Benthal W L
1959 Di Blasi Saml barber
1965 Lopez Prisiliano

Grape intersects

2011 Massieu A L gro
2015 Poling C D
2033ΔBuonpensiero Anna Mrs
Corrao Jos
Daquisto Tony
2034 Schmucker Anna E (o)
2041 Schmalenberger W R
2043 Pinault Eugenia Mrs
2043½ McDermet V E
2044 **Eastwood Apartments**
Brooks Laura E
Burns J L
Gould E B
Hogan L T
Joffe L L
ΔRank E H (o)
Sterne H W
Stout C G
Turlington D C Mrs
2051 Gurano Peter
2053 Ballatore Albt
2054 Buono Jack (o)
2064 Gangitano Michl
2066 Di Cola Dominic
Sardina Jos
Sardina Pietro
2071 McPhee E S Mrs (o)

Hawthorn intersects

2118 Carpenter A A
2121ΔAnfuso Carmeleo
2130 Dalfio Salvatore
2133 Spinoli Dominic
2135 Buompensiero Salvator
2136 Bregante Anthony jr
2137 Campbell A B
2141 Canfield A E
2146ΔBregante Cath Mrs (o)
2154ΔBusalacchi Jos
2155ΔBenner R P (o)
Puccio Pietro
Trevisani Victor
2168 Stagnaro Paladino (o)

Ivy intersects

2201ΔNigro Victor
Oliveri Jas (o)
2203 Vacant
2215ΔMalavenda P V
2219ΔZolezzi J E
2233 Hill E E
2235 Giacalone Gina Mrs
2239 Breto Gus
2241 Vacant
2245ΔCollini Guiseppe (o)
2260ΔFoster and Kleiser Co outdoor adv

Juniper intersects

2303ΔSanfilippo Dominico (o)
2312 Lococo Pasquale (o)
2314ΔNeill J A (o)
2316 Chamberland J H
2317ΔCrivello Mariano (o)
2326 Parmigiani Beatrice Mrs (o)
2328 Parmigiani Rocco
2333 Montijo Francis
2343 Pizzo Saml
2345 Case C B
2348ΔQuinn W S (o)
2349 Austin C R
2350 Bolin Dewey
2351 Palmer Margt Mrs
2353 Batson R V
ΔMacDonald H H
Murray E R
Nosari E E
2355 Galbrith J B
2357 Sharpton W G
2358ΔSchaniel Nicholas
2363 Brown Jos
2365ΔYoung L O

Kalmia intersects

2416ΔNavarra Carlo (o)
2429ΔPalmer E W (o)
2441 Quinci Paul (o)

Laurel intersects

2518 Sanfilippo Andw
2520 Sanfilippo Peter
2532 Maugeri Salvatore
2540 Crivello Jack

Maple intersects

2601 Petersen Alf
2603 Ranney G P
2619ΔKenyon Arth (o)
2620 Neurerburg Maude Mrs (o)
2621ΔSmith D F
2629 Lawrence A W (o)
Schultz E K
2630 Guiglimenti Anthony
2636 Vacant
2638ΔBryan Marion
2639ΔHusband R F
2640 Kropp L H
2642 Vacant
2653 Hunter W A
2655ΔHass W A
2657 Wussow E R
2664 Rhein Theo (o)
2666ΔFowler M G Mrs
2669ΔRemick J K (o)

Nutmeg intersects

2703 Webb Hazel
2705ΔJones V M Mrs (o)
2715 Walters G L Mrs
2723 James Orval
2727ΔBarber J S W
2730 Middlebrook H Caroline (o)
2732ΔHavens Pauline Mrs (o)
2741ΔMay John (o)
2744ΔMiddlebrook L R Mrs (o)
2753ΔTraggardh R M Mrs (o)
2756 Jones W L (o)
2768 Germo D H
2773ΔSimmons E S Mrs (o)

Olive intersects

2811ΔDay F H
2816 Allen Beatrice Mrs (o)
2818 Hummel R J
2830 Griffits Mollie Mrs (o)
2840ΔHowell S W (o)
2864ΔRodefer Ethel Mrs beauty shop
Tetlow Ida Mrs (o)
2869ΔChamberlain F H

Palm intersects

2930 Morrison R F
2939 Mitchell Beatrix Mrs (o)
2940 Bibb R V
2954ΔDecker H L
2955ΔJulien J D
2964ΔNorris J R
2965 Webster M D Mrs

Quince intersects

3002ΔJumper F F (o)
3018 Clarke Annette M
3040ΔAtchison T N
3062 Ulery L M
Wood M A Mrs
3066 Green W J
3068 Brazil V W

Redwood intersects

3225ΔYale A W (o)
3242 Vacant

Sassafras intersects

3319ΔRicen E M
3320 Adams Pauline Mrs (o)
3321ΔSulis Agatha L (o)
3330ΔMiller R G
3343ΔWosk L D
3344 Ross J L
3345 Fox Angie L
3347 Whitmore F R (o)
3364 Heimer R T
3366ΔDorgan L T
3370ΔTopping F C

Thorn intersects
Upas intersects

3504ΔSteadman O J (o)
3515 Seigleman Saml
3517 McCusker G C
3528ΔSmith R M (o)
3531ΔKendrick J L
3535ΔMacLennan Donald
3538 Bowling Herbt
3545ΔWilson Louise F

Vine intersects
Glenwood dr intersects
Chalmers intersects

3615ΔFleming E G (o)
3652 Williamson Mona Mrs
3661 Gray G B
Grigsby J R Mrs
3662 Starbeck R A
3663 Johnson J R
3667 Mayes L E
3669 Weeks C D
3670 Vacant
3677 Barnett E J (o)
3678 Adams H D
3680 Klingenberg R D
3685 Nitschke Gustav (o)
3686 Evans S C
Staley D S
3687 Vacant

Wellborn begins
Winder begins

TP	Adjoining	Source
-	✓	San Diego Directory Co.

GLENWOOD DR 1938

GIRARD AV—Cont
7872ΔMacBratney Kyle optom
ΔOlson A B jwlr
7874ΔBradaric Steve restr
7875 Watanabe H K fruits
7877 Granada Theatre
7880ΔGiuffre Jos shoe repr
Shannon F W shoe shiner
ΔThompson Peter liquors
7881ΔIller's Inc women's clo

Wall begins

7882 Bray C M gro
7884 Bray C M meats
7888 Higdon C A notions
7906 Arcade Building
Baird L P barber
Betts Arth tailor
ΔClark & Ypma beauty shop
Hill R E real est
ΔLazelle H G phys
7906½ΔCotsones Geo confy
7912ΔPatz T M gro
7915ΔLipe J T phys
ΔParker T A phys
7916ΔMartin E A drugs
7920ΔMehas G E restr
7921-25ΔSmith J F dry gds
7927ΔWestern Union Telegraph Co
7929ΔAndrews M L Mrs beauty shop
7931 Vacant
7933 Ballam G E Mrs antiques

Prospect intersects

8002 Vacant
8004 Vacant
8008 Standish Leita Mrs restr
8045 Vacant
8047 Vacant

Coast blvd intersects

ft of La Jolla Athletic Park

GLADIOLA (Pacific Beach)—East from Pendleton, 2 n of 2300 Beryl

GLEN ROAD (Encanto)—North from 550 Kenwood

GLENDALE AV—North from 2550 F to Broadway

811ΔSimmons W W
812 Davidson A C (o)
821 Riffel Chas
822 Amstein Adolf Rev (o)
826 Thayer E F (o)
827 Lewis Louis
835 Yenrich Noah (o)
836ΔSheetz Louis
841 Derby G M (o)
845 Carl J W

E intersects

912 Nosler A M (o)
925 Eastman Goldie Mrs (o)
927 Vacant
942 Hopkins C R

Broadway intersects

GLENFIELD—Southeast from 4300 Manzanita dr

3136 De Koven S H (o)
3148ΔHochart G H (o)
3154ΔVanderpool Louis (o)

Manzanita dr intersects

GLENWOOD (Pacific Beach)—East from 4100 Dalton, 1 n of Rosewood

GLENWOOD DRIVE — West from 3570 Union

1500 Snorf J E
1500½ Sickler Chas
1502 Norstrom Paul
1504 Stafford Mary Mrs
1506 Ramsey Edmund

State intersects

1602 Kershner E F (o)
1605 Tenbroek H A (o)
1610ΔMercurio Mary Mrs (o)
1616ΔDaly J G (o)
1617 Wood Jessie Mrs
1624 Beckett Aubrey (o)
1630 Barrett M A Mrs
1633 Welch Lee (o)
1702 Severance Cassell
1704 Bruce F D
1708ΔBenner C A (o)
1712ΔSherman L J Mrs
Wagner C F
1716 Guerin John
Mooney M C
1716½ΔCousins F L
1720 Holmes J D
1720½ Kay H L
1722ΔTheis D A
1722½ Smith L J
1724ΔGoodson H M
1724½ McDonough S P

GLOBE (North San Diego)—North from 1 blk s of 3500 Bisbee

GLORIA—South from Franklin av bet S 48th and S 49th

307ΔVinyard F A (o)
325ΔKnox V C (o)

GOLDEN GATE DRIVE (Mission Cliffs)—East from 700 Madison av to Campus av

1111ΔFay S A (o)

Delaware av ends

1205ΔHall S F Mrs (o)
1211ΔStebbins L M Mrs (o)

Harvey rd begins

1219ΔBeale E W (o)
1229ΔNorwood G J (o)
1235ΔStanton L A Mrs (o)
1240ΔGerken H J
1245ΔPfanstiel J G

Maryland intersects

1403ΔCorbin D E
1404ΔNewsom B L Mrs (o)
1412ΔFarrell N J
1413ΔHaw H H (o)
1419ΔRadcliff H L (o)
1420ΔLutton W H
1429ΔWoodard J M
1430ΔShankland B L (o)
1433ΔMcElroy A J Mrs
Wilson S A Mrs (o)
1443 Fitzpatrick W C
1444ΔRumbaugh H K (o)

Cleveland av ends

1529ΔBush J F
1538ΔHewes S B

Campus av intersects

4501ΔMason S E (o)

GOLDEN PARK AV (La Playa)—North from 1 blk s of 3300 Lucinda

820ΔShropshire W B (o)
845ΔMorton F F Mrs (o)

Lucinda intersects

GOLDFIELD (North San Diego)—Northeast from 400 Georgia

2703 Wemple R T (o)
2727ΔGeorgia E G (o)
2731ΔLong T S (o)
2747 Warner E J (o)
2748 Ackert C M (o)
2753 Briggs C S (o)
2765ΔWalruff E A (o)

Ashton intersects

2811 Garvey C B (o)
2819 Crawford T O (o)
2827 Gillespie Louise Mrs (o)
2835ΔShelton M J (o)
2843 Hedge W A (o)
2851 Barclay Josephine Mrs (o)
2863 Key Rowan (o)

Napier intersects

GOLDFINCH—North from 3050 Horton av bet Hawk and Falcon

3205ΔBown G A
3220 Shepard F V
3242 Vacant
3254ΔMalone L T
3255 Stokes T M

Thorn intersects
Upas intersects

3411ΔMcFeaters C P
3421ΔStevens W P (o)
3437ΔPinnell R L
3447ΔStevenson H R
Wakefield R R
3451 Meyers J H (o)
3457ΔCotton W O

Hawk intersects

3740ΔBoyle B F (o)
3748 Melton G L

Sutter intersects

3752 Tarbell G E
3760 Coulton J W
3768ΔWilbur W J C
3769 Erlenborn O P (o)
3775 Wright A F
3776ΔHyams D J
3781ΔBurns J E
3784ΔWalton E A (o)
3792ΔPeterson W L
3795 Arnold L E Mrs (o)

Bush intersects

3801ΔMentle E L Mrs (o)
3809 Gibbs H E
3817ΔSheldon Alice
3820 Vacant
3820½ MacBride B M Mrs (o)
3825ΔMcCarty J E
3828 Vacant
3831ΔFelt R B (o)
3834 Cate David (o)
3837ΔHill H J dentist (o)
3838ΔMetz W J Rev
Stockton Helene Mrs (o)
3842ΔTombler M C Mrs
3901ΔForth H C
3904ΔShukraft J W
3907ΔGoldnamer S C (o)
3910 Vacant
3911 Enholm Chris (o)
3920ΔMcKay A E Mrs (o)
3921ΔThomas M E Mrs (o)
3933ΔDonlevy Clara Mrs
3934 Babcock R E
3936ΔCash Lily M (o)

Douglas intersects

3951 Knudsen A E meats
ΔVermillion F J gro
3952ΔEdwards E D
3953 Cash L A
Mark Grace Mrs
McKay Wm
Overholt R E
3957ΔMcPherren M L chiropractor
3962 Ellenrose Apartments
Burton G E
Cesario Max
Dick H R
Donahue Nellie E
Dunfee Delia Mrs
Herrill E R Mrs
Lupien J P
O'Connor W J
Ray Jewel Mrs
Smith H W
Sweeney H F
3965 Finwall G J
3967 McAtee J O
3970ΔGoldfinch Apartments
Austin M B Mrs
Black Anne
Bugg Beatrice Mrs
Bugg W L
Clary W H
French Laura Mrs
Hulburd Wm
Johnson Mattie Mrs
Lewis Marjorie
Purdy A C Mrs
Raney C O
Reeves T C
3971 Mahone W P
3974 City Fire Dept Sta No 8
3975ΔNagle D B (o)
3977 McDonough V I Mrs clo clnr

INDIA ST 1938

1910½ΔNicolosi Saml mattress mfr
1912ΔKelley Lndy Co
1917 Sparacino Max barber
1919 Civic Theatre
1921ΔMisuraco Anthony radios
1933 Corrao Peter
1943 Lococo Peter
1949 Sardino Thos (o)
1950 Kelley Lndy Co garage
1953 D'Angelo Angelo liquors
1969ΔD'Angelo Angelo
1970 Johnston Jas billiards

Grape intersects

2008 Mungie Anthony
2010 Crivello Fred
2012 Del Anglio Pietro
2032 O'Connell C J 2d hd furn
2034 Gangitano Michl shoe repr
2036 Vacant
2038 Croft Jeanette restr
2042 Avilez Ventura
2044 Weber Geo billiards
2058ΔDewey F I gas sta
ΔLee Andw auto repr
2065 Cohn Rosie
2067 Hurtado Adolfo
2069 Guadanys Giovanni

Hawthorn intersects

2101 Whitehouse L W
2102 Nicolay Theo gas sta
2107 Sido Bartolo
2111ΔStagnaro Steph
2115 Vacant
2119 Bregante J J
2130ΔDuffy M J Mrs
ΔMacKintosh A H
2138 Vacant
2140 Etter I B
2141 Roiz Henry
2144 Greene L T
2146 **Sequoia Court**
Vella John
2148 Strazzulla Don
2150 Badilla Frank
2157ΔSan Diego News Co
2159 WPA Sewing Project

Ivy intersects

2202 Asaro Andw (o)
2206 Vacant
2270ΔHusband R F gas sta
ΔThomey J G auto repairing

Juniper intersects

2304 Zolezzi Angelo (o)
2306ΔZolezzi Giovanni
2307ΔSafeway Stores Inc
2313 Vacant
2314 Lane A P
2315-17 Women's and Professional Unit of WPA
2316ΔAlioto John
2328 Piranio Pete (o)
2329ΔSzalinski Frank (o)
2345ΔPhilipsen Laura Mrs real est
2347 Lutz C L
2349 Vacant
2352 Denison W H mattress mfr
2355ΔLutz C L auto repr
2361 Vacant
2367ΔWicker N O drugs

Kalmia intersects

2401 Vail I T gas sta
2402 McDonough V I Mrs clo clnr
2420ΔCordilioni Benedict (o)
2444 Asaro Andw
2446 Sardo Saml (o)
2458ΔFrontiera Bartola (o)
2466 Liuzzi Jas

Laurel intersects

2504 Crist Marie E
2508 McKenzie Rodney
2513 Nelson K G
2518 Theodore J S
2528 Mellos G J
2530 Culwell O L
2532 Tuma R D
2540 Mawson Harry
2544 Millen Arth
2548ΔLuizzi Nick (o)
2554ΔSabatini Dominic (o)
2566 Kennelly H J
2568ΔHaley H B (o)

Maple intersects

2602 Rowe M M (o)
2615 Medley Margt Mrs
Reinke P E V
2622 Cardani E C
2624Δde Necochea J E
2628 Johns E J
2630ΔMoran J D (o)
2657 Embler L F
2659 Hawks J B
2663ΔKenyon V V Mrs (o)

Nutmeg intersects

2701 Harris L B Mrs
2742 McNeece J F (o)
2742½ Kitchen H E
2747 Horton E J
2764 Jones J H photo engr (o)

Olive intersects

2801 Vacant
2804 Gardner Steph (o)
2805 Wallin C M
2815 Gascoigne Thos
2828 Cicalo John
2828½ Basile W W
2840ΔCicalo John gro
2840½ Vacant
2848 Vacant
2848½ Shumaker Carl
2849 Rauscher E W (o)
2867 Henning A T Mrs
2869 Bondwin Albt

Palm intersects

2903 Vacant
2905 Grindl Antone
2905½ Downey E J
2907 Vacant
2909 Vacant
2915 Booty Mary J
2921 Sloan W P
2921½ Vacant
2923ΔSharp P T
2927ΔHart F May (o)
2932½ Aubert M A Mrs (o)
2932 Canepa Gravani
2934 Astmann Irvin
2936 Vacant
2940ΔBisby C F Mrs (o)
2942 Vacant
2944 Short Cecil
2945ΔSchnell A P
ΔSchumacher Emma Mrs (o)
2952 Beard J H
ΔFinnegan Virginia Mrs
Goularte H C Mrs (o)
Scuito P G
2955 Taunt M H

Quince intersects

3002ΔRenner Ida (o)
3002½ Hogan J L
3009ΔSilva Jos
3014 Thoman E L
3016 Webb Irvin
3016½ Vacant
3020ΔBay View Apartments
Hogue H H
Hunkapillar Bemen
Kennedy Frank
3040 Shirreff W H
3042 Chase C S
3044 Smith Bessie
3044a Formella Stanley
3044½ Vermilya J W
3046 Welsh Douglas
3048 Dravoso Jos
3053 Whitney O L
3054 Grady M E Mrs
3056ΔLeClair E L Mrs gro
3058 English W R
3060 Green E V

Redwood intersects

3114 McIntire T C
3116 Uran P A
3141 Goldie Isabel Mrs
3153 Utter W A
3167 Hughdahl Birger
3171 Vacant

Spruce intersects

3232ΔAmerican Clnrs
Montgomery R M
3256 Castaneda Candido
3260 Martinez Diego
3265 Vacant

Sassafras intersects

3325 Bentz J H
Brothers Geo
ΔTuffley R L (o)
3341 Plesierre Manuel
3341½ Homberg H R
3343 Seaser S J
3343½ Watkins W C
3345 Herchold Walter
3347 Garrett H E

Thorn intersects

3460a Bradley A M
3460b Hagen Wilbur
3460c Boyajin Paul
3460d Holden G F
3462 Loven R E
3462½ Riley J H
3464 Boyer Ernest
3466ΔDingeman F J jr phys (o)
3468 Allen R J
3472 Griswold W J
3472½ Hislop E F

Upas intersects

3512 Dougherty Patk
3519ΔLamoreaux P W (o)
3529ΔWilcox R J
3536 Englehart J R
3537ΔLacey D S trusses
3538 Maxwell E A
ΔShumate June Mrs
3540ΔCampbell J A (o)
3541 Madero Antoinette Mrs
3549ΔMcIntosh Christine Mrs

Vine intersects
Glenwood dr intersects
Walnut av intersects

3616 Tarver Jules (o)
3620ΔPage S M Mrs curios
3642 Baxter F W barber
3649ΔKelly S L plmbg supps

Chalmers intersects

3661ΔGreen B C gas sta
3662 Mohr R B
3664 Kane Henry
3667 Vacant
3675 Haley Linnie Mrs gro
Hamilton Maxie
3682 Kutzke Karl
3684 Wordsworth Fred
3688 Himel E P
3690 Callear J A
3692 Vacant
3697ΔHarrington T M Mrs gro
3698 Martyn V E
ΔMcPherson Susie Mrs

Winder intersects

3701ΔRobinson Maud Mrs
3702ΔLoring A P design studio
ΔLoring and Co
ΔWallen H F furn mfr
3711ΔStallings Castella Mrs (o)
3719 Burgsten R E (o)
3731ΔSmith C H Mrs (o)
3735ΔBecker John
3741 Bunn B M
3745ΔGenoris Geo
Parker Philip
3749 Vacant
3779ΔMeserve S C (o)

Andrews intersects

3792ΔCannon R Mamie

INDIANA—North from 1800 E Upas

3503ΔBurgster J B (o)
3514ΔThackery W E
3515 Armin K D Mrs
3517 Lemon L M
3524ΔFoster Frank (o)
3528ΔArnold Rosalie
3537ΔBreazeale W W
3538 Leslie Malcolm
3541ΔEdson M B Mrs
3544 Isele C J
3546ΔShaw W E
3547ΔScott Gilfillan music tchr
3548ΔHoleman K B
3549ΔConwell H F Mrs
3551 Brown J A Mrs

PACIFIC BLVD 1938

OSBORNE—Cont
2120 Vacant
2160 Herar L F

OSPREY—East and n from Sunset Cliffs blvd to Cornish dr
4435ΔHansen M T Mrs (o)
4468ΔWilhoit J W

OSTEND COURT (Mission Beach)—East and w from Mission blvd, 20 n of Amusement Center
718ΔCulley G O
723 Edgerton L D
724 Lynch T J
724½ Sanders Louise Mrs (o)
727 Vacant
Mission blvd intersects
807 Cowan W W
810 Charlot A E
813 Vacant
814 McDonough Helen Mrs
815 Vacant
817 Harris G B
818 Black R R
822 De Vol Pauline Mrs
823 Vacant
825 Lilley G A
825½ Martin P J
826 Robinson J R
829 Bullock H M
829½ Bullock J C
830 Nelson Gus
Bayside walk intersects

OTAY (Encanto) — North from 700 65th
708ΔGibian Eric
709ΔSmith Robt
710 Roberts G C
712 Conklin G A Mrs (o)

OTSEGO DRIVE — North from 450 W Walnut av

OTTILIE PLACE (East San Diego)—East from 51st to 52d, 1 s of Orange av

OUTLOOK DRIVE (La Jolla)—East from s end of Cabrillo av

OWEN (La Playa)—West from 500 San Antonio av
2939ΔJohnson M G
Rosecrans intersects
3120ΔStrawn A E Mrs (o)

OZARK, NORTH (Encanto) — North from 4920 Imperial av
206ΔKingston A B (o)
212 McLaughlin Delbert
218 Palmer R L (o)
219 Vacant
222 Vacant
314 Boyle P A W (o)
315 Vacant
319ΔSmith G S (o)
323 Carse Wm
335ΔPerry A M coml artist (o)
ΔPerry E E (o)

OZARK, SOUTH (Encanto) — South from 4920 Imperial av
199 Llewys A S J Mrs (o)
Holly dr intersects
201 Nickerson E D (o)
201½ Nare S O
245 Montijo B G
259ΔSmutney Louis (o)
264 Helton D S
265 Fahlen Bertha Mrs
329 Morrison G A jr
329½ Morrison Danl
336 Morrison G A (o)

PACIFIC AV (Pacific Beach) — East from 4100 Ocean blvd
1102 Himes T I
1111 MacAllister J H
ΔZlac Rowing Club
1112 Smith D A
1120 Arnold D A
rear Vacant
1145ΔMitchell K I Mrs (o)
1173ΔDiamond N W (o)
1175 Diamond E E Mrs (o)
McGlashan C E Mrs
Everts intersects
1284 Crimm Virgil
Fanuel intersects
1312 Barlow J H
1314 Burnette C M (o)
Gresham intersects
1405 Dean Elza (o)
1560ΔYork G W (o)
Ingraham intersects
Jewell intersects
1754ΔEaton L K Mrs (o)
Kendall intersects
1821ΔFavel C H (o)
1824 Vacant
Sequoia intersects
Lamont intersects
1914 Fernstrom L G
1916 Vacant

PACIFIC BLVD — North from 900 W Market, 2 w of Kettner blvd
ft of Santa Fe Wharf
City Fire Dept Sta No. 16
ΔInternational Longshoremen's Assn Local No 389
San Diego & Coronado Ferry terminal
ΔUnited Water Taxi Co
ΔSouthern Commercial Co
1331 Vacant
Ash intersects
1405ΔStandard Stations Inc gas sta
1445ΔRutsch H A gas sta
Beech intersects
1505ΔUnion Service Stations gas sta
1533ΔCivic Center Cafe
1535 Laurenzo J V (o)
rear Vacant
1569 Vacant
1571 McFarland W A (o)
Cedar intersects
1615 Vacant
1625ΔYuma Merchants Express Co
1631 Makris Christ restr
1635 Romero R B
1647 McCormick M H
McCormick W H
1655 Bonansea John
Castaneda John
1729 Gomez Manuel
1747ΔHaulman L W welder
Elm intersects
1801 Shelton W H
1825 Ruiz Julio (o)
ΔRuiz Julius
1833 Giacalone Gaetano
1889 Tucker John
1893 Pavkovich Nich
1905ΔVinyard F A cbtmkr
1917ΔBuompensiero John (o)
Buompensiero Mateo
1925 Vacant
1943 Tarantino Thos
1971ΔSanfillipo Lorenzo
Grape intersects
2045ΔBaldwin G L oils
2065ΔFerris & Joerndt oil products
Hawthorn intersects
Ivy intersects
2272 Shaw C H gas sta
Juniper intersects
2305 Etter I B gas sta
ΔSeaside Oil Co
2318ΔButane Ltd gas equip mfrs
2373 Vacant
Olive intersects
Laurel intersects
2483ΔWilshire Oil Co
2521 Friedhof S B restr
2535ΔMiller B E gas sta
2665ΔErickson H A photog
2775 Vacant
Olive intersects
2780ΔMunicipal Airport
ΔUnited Air Lines Transport Corp
ΔWestern Air Express Corp terminal
2830ΔAirtech Flying Service Ltd
Palm av intersects
2905 Jones Alf auto repr
ΔStackhouse H J gas sta
2930 Lindberg Field
ΔRyan Aeronautical Co airplane bldrs
ΔRyan School of Aeronautics
ΔSan Diego Aero Marine Radio and Navigation Sch
Slatter R L Mrs restr
U S Air Navigation Division of Facilities
U S Air Regulation Division
U S Airport Office
U S Weather Bureau Airport Sta
3302ΔConsolidated Aircraft Corp
3305 Rio Grande Oil Inc
ΔShipkey & Pearson Inc oil
3355ΔHancock Oil Co of Calif
ΔLambing-Murphy Oil Co
3359ΔHancock Oil Co serv sta
Thorn intersects
3401ΔMcAnally C F restr
3535ΔWest A E gas sta
3641 Patillo Americo
Bean begins
3682ΔRichfield Oil Co
3702 Gonzalez Maria Mrs
3714ΔMosley A G
3721 Glock F M
Rogers L B
3726 Stanley L S
3733 Rogers L B restr
3733½ Benson R N
3738 Stanley N J (o)
rear Stanley A A
3743ΔTarr A E gas sta
Harasthy begins
3753ΔBarlow & Crawford gas sta
3787ΔJohnson C A oil distr
Taylor J L gas sta
3788ΔPeterson H H genl contr
rear Anderson Jens
Clayton intersects
3803ΔHippe H P restr
3821 Coleman M B Mrs
Pickins Jos
3831ΔKeen K V Mrs restr
Sutherland intersects
3853 Copeland Wm confy
3881 Central Meat Markets Inc
Moore A H fruits
ΔVan's Mkt gro
3885ΔSan Diego Tile Co
3895ΔSheffield E F vet surg
Noell intersects
3911ΔStrobel Willie restr
3923 Little R W ornamental plaster
3925 Parks F E (o)
3939 Baker G B gas sta
3955ΔScott H R restr
3957 Piggly Wiggly of San Diego Inc gro
3959ΔWhite G G drugs
3963 Humpty Dumpty Stores Inc gro
3985ΔDiederichsen Arth nurserymn
Wright intersects
Bandini intersects
4090 Smileage Co Ltd gas sta
4105ΔArbud Investment Co
ΔPeterson Lumber & Finance Co
ΔPeterson Realty Co
4137 Pitzer W F restr
4143 Wallace W R florist

UPAS/COLUMBIA 1938

326 Moore John
332 Griswold C N
338 Smithart Alton
340 McGowan N J

Brant intersects

405 Ferrari Ambrose (o)
411 Rosendahl Martin (o)
416 Gosting G G
417 Wilson Wm
422 Schwenkmeyer J C
425ΔTraxler V H
431 Vitek Jos
535ΔBrouwer C J

UPAS—East from 3400 1st av

120 Vacant

2d av intersects

206ΔBrown W J (o)
209ΔStearns S K Mrs (o)
243ΔChoate Rufus (o)

3d av intersects

306 Hazard E S Mrs (o)
307 **Fashion Court Apartments**
Goodwin O T
309 Morton B A
311 Chandler J H
313ΔAngel F B W Mrs (o)
315ΔWeare G C
317 Stokes Susan G
319 Poppenberg R E
320ΔKnudtson W M
322ΔMiller P H

4th av intersects

419 Kirven V E
428ΔDunn W T
430ΔMurphy L H Mrs
438 Vacant
440ΔZempel Wilma E

5th av intersects

510 **Estralita Apartments**
ΔBooher C J
ΔBrandon Isabelle Mrs
ΔFeaster Dick
ΔHill L A Mrs
ΔJohnson O O Mrs
ΔLinholm S C
Morris Elma
ΔSmith H M
515 Vacant

6th av intersects

624ΔMcCrady J M (o)

7th av intersects
Vermont intersects

1202 Barley E E
1202½ Vacant
1212ΔCallas E P
1234 Lockwood F M
1238ΔStorm A V (o)
1256ΔBrown A C (o)
1262ΔWinter C W
1270 Metts Paul
1282 Rabinowitz Max
1290ΔBriggs W L (o)

Richmond intersects

1404ΔMetts J C (o)
1414ΔStorey G E (o)
1420ΔHarlan Dale (o)
1428ΔDale H H gro (o)
1440ΔHouse N C (o)

Albert intersects

1506ΔHarbaugh O S (o)
1512ΔJohnson H C (o)
1520ΔBrothers L P Mrs (o)

Herbert intersects

1602ΔWansley R M
1610 Lint K C
1612ΔStanford D E
1614 Watson J A
1616ΔChamberlin Mabel Mrs
1618 Vacant
1620 Vacant
1622 Vacant
1626 Crawley A D Mrs
1628ΔHopper E G (o)
1632ΔRichardson Ivabelle Mrs
1632aΔBaranceanu Belle
Goldschlager Abram
1632b Sharp M L Mrs
1632c Berenson Eleanor Mrs
1632d Wuest A M Mrs
1634aΔLedingham Mary
1634b Forrest J E
1634c Vacant
1634dΔSimons Eleanor Mrs
1642 Vacant
1644ΔAdams M E
1646 Ketchum C E
1648 Donatelli V E
1652ΔNelson J E
1654 Vacant
1656ΔWilcox M K Mrs
1658 Gamble C N

Park blvd intersects

1714 Seifert F W
1716 Madden R W
1718 Willman C H jr
1720ΔWilson Edith B
1726 Dyer W L
1726½ Stahel Roland
1728 Carhart C E
1728½ΔList F V
1730ΔThompson R P
1730½ Ballard E A Mrs
1732½ΔFord J C
1734 Bishop Julia E
1734½ΔAnderson R J (o)
1736 Sweeney D J
1736½ΔKimball L P
1738 Munger M T
1738½ Will A J
1740ΔHemphill H A dancing tchr

Indiana intersects

1800ΔMartin C F

Georgia intersects
Florida intersects

2044ΔTetley J W

Alabama intersects

2102ΔLos Angeles Times
Powell P C (o)
2114ΔKingsley M P
2124ΔMurphy R E
2126ΔBridgford H H (o)

Mississippi intersects

2212ΔWortman E C (o)
2222ΔPeart M B Mrs
2228 Davies C W (o)

Louisiana intersects

2306ΔDavis F H
2318ΔArcher M B Mrs
ΔArcher S D
Diethelm Herbt
2328 MacIntosh J A (o)

Texas intersects

2426ΔWillard F H jr
2436ΔFolsom J H tennis racket repr

Arizona intersects

2516 Canyon Robt
2518ΔErickson E O (o)

Arnold intersects
Villa ter intersects

2602ΔBaisch J G (o)
2612 Frisbie H L
2618ΔGrant Robt (o)
2620ΔBest C L
2628ΔStookey M F Mrs (o)

Pershing av intersects

2704ΔFleming M K
2718 Stork Lydia B (o)
2728ΔAlexander M A Mrs (o)
2738ΔHeyer H A

28th intersects
Utah intersects

2832ΔWalker A O
2853ΔSmyth H C Mrs (o)
2873ΔKrull C W (o)
2875 Morey G L

Granada av intersects
29th intersects

2905ΔRyan Marc (o)
2911ΔSullivan D J (o)
2917 Pendelton C H (o)
2924 Baker T F furn
2925 Marshall C V Mrs (o)

Dale intersects

2959 Babek J P gas sta
Mohrman Jos auto repr
2969ΔOberg Enoch gro
2975 McDougall Myrtha Mrs
2981ΔSaleski M M Mrs beauty shop
2983 Henson T E restr

30th intersects

3002ΔHarrington W H
3012 Weimberg Morris
3016 Hullt A J
3022ΔTinkham M J
3025 Kirkland C H Mrs (o)
3026 Dean L N batteries
Lynn H D gas sta
Mattingly E B seeds
3028 Magee Luther barber
McKee Gussie Mrs beauty shop

Ray intersects

3040 Skelley T L auto repr
3060ΔSkelley T L

Grim av intersects

3065 Smetana Anton
3074ΔNiedermayer H J
3075 Harrell J H

31st intersects

3108 Peters Louis
3114 Dyer Hugh
3127 Faust C L (o)

Herman av intersects

3162ΔLauritzen I L
3174 Chrones Geo

32d intersects

3215 Vacant
3218 Hilrath J B
ΔSteetle H W
3224 Vacant
3231 Bartholmew A J

Bancroft intersects

3254 Vacant
3271ΔPowell E S
3274ΔTurner G F

33d intersects

3305ΔPacker G I Mrs
3316ΔMoreland C B
3317 Schutt E G
3324 Heron P H

Felton intersects

3344 Haynes L A
3376ΔPreibisius L J (o)
3380ΔAdams R L
3386ΔMoore E M (o)

Boundary intersects

UPAS, WEST — West from 3400 1st av

102 Carlisle W C
104 Vacant
106 Albach W H
108 Ross E J Mrs
120 Rood R E Mrs
122 Miles Florence Mrs
124ΔKunkel J T Mrs
126ΔLivesey J E
142 Spencer J C
144 Fagan Mary Mrs
146 Querin Edw
148 Kerth J H

Front intersects
Albatross intersects

336 Fernald Mabel Mrs
410ΔWhite W D (o)
729ΔKein E E
741 Van Keuren J O
810ΔBristol M C
820ΔCannon J H (o)
845 Razzeto Chas (o)
850ΔRemmers J H (o)

Goldfinch intersects
Hawk intersects

1315 Hopkins T C

Union intersects

1506 Laroe Jos
1508ΔRossman W L
1510ΔWickham V A
1512ΔGoodwin S G

Columbia intersects
India intersects

UPLAND (Encanto) — East from 1600 60th

6038 Swanson Jos (o)

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VINE ST 1938

VIEW PLACE (Normal Heights) —North from Adams av, 1 e of 39th

4718 Bennett J N (o)
4732 Higley M S
4733 Beebe J L
Packer P J
4734 Coleman C W

VIEW POINT DRIVE — North from 2050 W Columbia

VIKING WAY (La Jolla)—North from 1850 Torrey Pines rd to Newport ter

1801ΔRose R C (o)
1802ΔIgelstroem John (o)
1821 Vacant
1857ΔBurnham C M Mrs
ΔWier J L
1874 Shea Margery Mrs
1919 Wilson E C
1956ΔHutchinson C S Mrs (o)
7981ΔNicholas J Q
7988ΔZeigler H M Mrs

VILLA DRIVE (Loma Portal) —North from 2100 Chatsworth blvd

2510 Ostrom A W (o)
2536 Cutler D R (o)

VILLA TERRACE—North from 2600 E Upas

3420ΔTurpie W A (o)
3428 Bennett J N
ΔBennett W J bldg contr (o)
3438 Connery E M Mrs (o)
3439ΔJewkes J W (o)
3446 Overcash B F (o)
3447ΔAnderson E O (o)

Myrtle av intersects

3504ΔPozner H A
3512ΔHall W J (o)
3513ΔCarson W P (o)
3521ΔWilson F H (o)
3522 Thomas J N
3527 Fulton R L
3528 Lickert Danl
Pierce C L
3535ΔRutherford R L
3536 Renger Henry
3540ΔKnotts Jos (o)
3542 Dernberger Oliver
Rice Clara S
3544ΔEneboe W J
3546ΔStraubinger Philip
3552 Marvin Dora Mrs
3559ΔNeale C E (o)
3567ΔHoffman A J (o)
3576ΔRobinson E H (o)
3584ΔGhio E A jr (o)
3585ΔHeatherly Maynard (o)
3593ΔWinke A H (o)

Dwight intersects

3602ΔTyson W L (o)
3603ΔHall W R vending mach (o)
3611ΔSpringer L W (o)
3612 Dorner Ernest
3617ΔBath B T (o)
3620 Henke H C (o)
3623 Lakin L H Mrs
3625 Mann H F
3626 Vacant
3626½ Mueller Barbara Mrs (o)
3628 Faas Monica Mrs
3629ΔLa Fleur W A
3630ΔHines L H
3635 Anderson A F (o)
3636 Di Giulio Paul
3639ΔBastian B H
3644 Coykendall R W
3645ΔWhitten B C
3650 Timmerman W C
3650½ Buysman V E
3655ΔAllen W G (o)
3661ΔHenderson A E Mrs CS pract (o)
3662 Devich N R (o)
3667ΔBeebe Carr
3670 Siddall Frank
3674 Vacant
3675 Row R C (o)
3676 Prater Chas
3693ΔBailey L L (o)
3694 Miles R S (o)

Landis intersects

3704ΔDeem Bliss (o)
3705 Welin Eric (o)
3714 Vacant
3719ΔStewart Blanche Mrs (o)
3720ΔSergent E L
3725ΔPeery C F
3730 Van Dort Thos (o)
3735 Brennecke Minnie Mrs (o)
3736ΔPollard A H Mrs (o)
3738ΔFolsom H M jr
3745ΔMineah L E (o)
3746 Rush E T (o)
3748 Benedict J R
3750 Wright K E
3751 Newton E R (o)
3752ΔLucke L E (o)
3761ΔBuis J W (o)
3762ΔDavison M C Mrs
3764 Hoehn R P
3766 Moyer H I
3767 Gault W W (o)
3768 Perry W A
3770ΔSteele A M (o)
3772 Hicks Carl
3775 Goldsmith C T (o)
3776 Jordan H E
3783ΔFreeberg O E
3785 Vacant
3788ΔBrown J F
3794ΔBowie C G Mrs (o)

Wightman intersects

3803ΔMager Edwin (o)
3806 O'Meara Kath Mrs (o)
3808 Tatnen A E
3810 Sykes Dwight
3811 Vacant
3812 Cunningham Anna Mrs
3814ΔSmith Palmer (o)
3815 Bieders Frank
3817 Love J M
3819ΔBean A H
3830 Smith A A Mrs
3887ΔField B H (o)

University av intersects

VINE—West from 3550 Union

1405 Vacant
1405½ΔWade Henry
1417ΔCarpenter B P (o)
1421 Federation of State Societies
ΔMcKinney J H (o)
1449ΔPorter J E

State intersects

1501ΔMuehleisen Adolph (o)
1516ΔGates P E (o)
1524 Likes E K Mrs (o)

Columbia intersects

1611ΔGlasson W J (o)
1629 Greene E K

India intersects

VINE COURT — East from ½ blk w of 750 S 29th

VIOLA (North San Diego) — East from 2200 Morena blvd

VIOLET — Southeast from 4050 Manzanita dr

2511 Ritz C W
2518ΔHaley D P (o)

Sycamore dr intersects
Pepper dr intersects

2547 Erny F F
2560 Lewis J W
2571ΔDresser J D (o)
2576 Wolthorn A H

Poplar intersects

2622ΔBaltes E G (o)
2625 Hedger B F
2631ΔSeymour C R (o)
2643 Blankenburg A F (o)
2646ΔBrown B F
Copeland Leta (o)

Poppy pl intersects
Manzanita dr intersects

VIRGINIA (La Playa) — North from 1 blk s of 3550 Dudley, 2 e of Catalina blvd

1790 Vacant

VIRGINIA WAY (La Jolla) — Northeast from 7600 Girard av, 1 s of Torrey Pines rd

1120ΔKessling A F (o)
1178ΔNewman H A (o)
1182ΔDexter M A
1186ΔMiller H L Mrs
1190ΔBarber P P (o)

High av intersects

1201ΔEaton Mary (o)
1221ΔJensen W E
1224ΔNicol Duncan (o)
1235 Page Emily (o)
1236ΔWilliamson A H (o)
1245ΔJudd M A Mrs (o)
1246ΔSmith F M (o)
1252ΔEdwards Grace (o)
1257ΔParkhurst E H Mrs (o)
1260 Hicks Clara K (o)
ΔMoulton Frances (o)
1263ΔCollerd G R
1271ΔShellhorn B L (o)
1275ΔPlatt Emma (o)
1285 Vacant
1287ΔBrandt E S R
1299ΔPepys H F (o)

Ivanhoe av intersects

1301ΔPowell Arnold (o)
1304ΔWilkie G W
1314ΔTaft E R (o)
1321ΔStephens R H Mrs (o)
1324 Vacant
1328ΔHutchinson J R (o)
1338ΔAdams Val (o)
1345ΔMorse J L (o)
1356 Johnson Carl
1361ΔKrell Eric (o)
1364ΔAustin C L

Exchange pl intersects

1400ΔSchuman Alice Mrs
1411ΔMason Mary
Mason Walt
1414 Vacant
1419ΔVickers A C Mrs (o)
1436 Remington J D Mrs (o)
ΔRothwell L K Mrs
1437ΔBrown M E Mrs (o)
1440ΔCurtis Frazier (o)
1454ΔWernham G T (o)
1461ΔPutnam A T Mrs (o)
1475 Tinker U W

Prospect pl intersects

1522ΔBinlliff M B Mrs
1533 Vacant
1540ΔJohanson J G (o)

VISTA (Kensington Park) — North from 4260 Madison av

4503 Lundy W C (o)
4508 Newcomb Mae Mrs (o)
4511ΔMcClary D B (o)
4519ΔDaly M M Mrs
4520 Deming R B (o)
4525 Wilson D E (o)
4533 Cook H I (o)
4540 Rivers R A
4543 Williams J R
4549ΔRyberg S A (o)
4560ΔPower E W
4566 Denison F E
4576ΔCross F W (o)
4580 Thacher L E
4591 Watters C G
4596 Fitch A J (o)
4597 Lee Leon (o)

Madison av intersects

4603 Learner J L
4604 Wuebbens E P
4608ΔDanner John (o)
4609ΔPelletier E L (o)
4615 Carskadon J W
4616ΔRobison G H (o)

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WALNUT AVE W 1938

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VOLTAIRE—Cont
4969ΔGray Orvel
4970 Vacant
4972 Hogan M J
4984 Cope J B meats
ΔIdeal Modern Mkt
4985ΔLinneen Jeanne Mrs liquors
4986 Allen C E
4987 Vacant
4989 Karrow R B beauty shop
4991 Mairot Frank
4991½ Klosterman E J
4999 Lloyd E E restr

Bacon intersects

5000ΔOwen Oliver E Co
5005ΔTreahy W E gas sta
5017 Schofield Wm (o)
5030 Smith Dorothy Mrs
5045 Cutting C C (o)
5066 Bailey Helena Mrs
Lawrence W C
McClure Mabel Mrs
ΔPalmer J R (o)
5073 Voshell R E
5075 Neill M E Mrs
5077 McFarland C W
5079 Paradise Court
Smith Maria R
5081 Bellingham Godfrey
5083 Watt Oliver
5085 Kernaghan F W

Abbott intersects

5109 Vacant
5111 Vacant
5113 Vacant
5115 Hegberg Gunnard
5117 Bradley Wm
5117½ Wonderland Courts
Colquhoun A A Mrs (o)
5119 Vacant
5134ΔMelcher J P (o)
5143 Vacant
5147 Bowers E K
5151 Hewitt W B
5153 Vacant
5155 Hewitt L M (o)

West Point Loma blvd intersects

WABASH AV—North from 1 blk s of Estrella Park and n from 3750 Estrella pl
3662 Whitstone Dow
3668 Barberi Richd (o)
3678 Hitesman W C

Landis intersects

3720 Weed O D
3738ΔNelson W A (o)
3752 Puryear I S

Wightman intersects

3824 Rousse Osea
3824½ Reed R T
3825 Reaser J K (o)
3832 Hart F A
3842ΔLee C H (o)
ΔPeters R A
3850ΔWormington E W
3858 Minnick H T
3865 Bradshaw E Y
3867 Field H B
3871 Knight S H gas sta

University av intersects

3914 Johnston H C
3930ΔGraham H E (o)
3944ΔHotchkiss R S

Lincoln av intersects

4002 Woodson R H
4007 Fields Fritz
4015ΔRemington T E
4018 Bryant G R
4022ΔOswalt J H chiropractor (o)
rear Vacant
4023ΔSprings G R (o)
4029 Santos T L
4032 Bahu A B
4035 Richmond G A
4036 Donald Ernest
Martin C E (o)
4039 Otsuka Hirosue
4044ΔCasell Ira
Phillips Mary Mrs (o)
4045ΔWilliams C A (o)
4050ΔRoberts W G
4051 Goodwin W R (o)
4060 Jones Chas
4061 Masters F E
4068 Sacco Saml
4074 Alessio Rose Mrs (o)
4077 Stephenson Thelma Mrs
4082ΔAlessio John

Polk av intersects

4102 Kirk B H (o)
4103 Wiese G W
4109ΔFarris A M (o)
4110 Danna A P Mrs
4115ΔLinley C A
4120 Brown Florence (o)
4128ΔMorris S A
4133 Farina J S (o)
4134 Haggard P T
4140ΔSolomon C B
4141 Vacant
4148 Burbee J S Mrs
Walcott G B
4151ΔKeeley R W
4156 Pitman Saml
4157 Poehme Chas
4164ΔRovai Assunta Mrs (o)
4167ΔJensen J M (o)
4172 Snodgrass L L (o)
4174ΔRyan E B Mrs (o)
4175 Clapper R L (o)
4189 Skeie Theo

WABASKA DRIVE (Loma Portal)—
3714ΔMorris J R

WADDELL TERRACE (Normal Heights) — North from Suncrest dr, 1 e of Boundary
4834ΔMoore G R (o)
4837ΔMcLouth B F jr
4839ΔPease A B (o)
4840 Sweetman Eliz Mrs

WALL (La Jolla) — East from 7879 Girard av, 1 s of Prospect
1002 La Jolla Public Library
1019 Bornowski Frank chiropractor
1026ΔNoakes D W restr
1027ΔDennstedt Bonnie L beauty shop
1028ΔClancy Josephine Mrs beauty shop
1030ΔRinehart's Cleaners and Dyers
1032ΔFerguson K M lawyer
1033ΔMatlaw A P clo clnr
1034ΔGordon Ruth M pub sten
Postal Telegraph Co
1035 Vacant
1037ΔPendlebury Chas tailor
1039 Vacant
1041ΔZimmerman R F plmbr
1044ΔSecurity Trust & Savings Bank of San Diego
1047ΔJones B F liquors
1049ΔAdams Realty Co
1051ΔBlue Seal Lndy

Herschel av intersects

1113ΔStephen-Hassard Q M dentist
1115ΔShepherd T L office
1117ΔCarter W C osteo
ΔHoogbruin L P osteo
1118ΔSmith M R Mrs real est
ΔWells J R real est
1119ΔShepherd R F Mrs interior decorator
1120ΔDorr F R real est
1122 Steckler Jos
1123 Rose R C real est
ΔStimson F L Construction Co
1124 Kavanaugh Sarah Mrs
1125ΔWhite G C
1140ΔPost Office

Ivanhoe av intersects

WALLACE (Old Town)—Northeast from 2800 Davis
4090ΔOld Mission Packing Corp

Juan intersects

4104 Moss T E
4105 Young J W
4109 Stokes Bernice Mrs
4115 Hoy T H
4119 McDonald Wm
4121 Wirch M G Mrs
4124 Serrano Tony
4136ΔPresidio Hills Golf Course

WALLACE COURT—North from National av, 1 e of 39th
912 Cartledge Geo (o)
927ΔJohnson F C
931ΔBrook S R (o)

WALNUT AV—East from 3500 1st av
100ΔBrinton F L Mrs (o)
115 Brooke Arth
ΔRainwater J J Mrs
Witman W C
Worley John
140ΔDay H B (o)

2d av ends
3d av intersects

303ΔRidout L C (o)
306ΔBarker N E jr (o)
328ΔPutnam Anne R (o)
335ΔFletcher Ed (o)

4th av intersects

418 Vacant
420ΔChristopherson E H phys
ΔSharp R G phys
430ΔSpaeth F J (o)

5th av intersects

WALNUT AV, WEST — West from 3500 1st av
111ΔBrust M S (o)
117ΔFlint J K Mrs (o)
130 Dean E H Mrs (o)
Troup J T

Front intersects

204ΔFisher J W (o)
205 Jenkins B F
211ΔFay W S (o)
230ΔMcDowell Mary J (o)
246 Case N B Mrs (o)

Albatross intersects

315ΔKendall J M (o)
321ΔMcVey Margt M
605 Taylor W F

Hawk intersects

1021 Johnson G H
1025ΔJones N N

Ibis intersects
Jackdaw intersects
Union intersects

1504ΔDennis J T
1512ΔLee C T (o)
1616ΔBriggs M P (o)
Lenier Hans
1717 Davis H M

WALTON PLACE—East from Ohio bet Monroe and Madison av
3057ΔBenedict R W
3060 Darling W F
ΔFiedler J E (o)
3061 Ellison W M
3064 Hearn Harold
3069 Lang C W (o)
3070 Brockmeyer E F
3074 Paul C V
3074½ Vacant
3076ΔHenderson E L (o)

WARD ROAD (Normal Heights) —(To Camp Kearney via Murphy Canyon)—East from Cherokee av to Madison av
3716 Erwin C B
3728 Haynes A G Mrs (o)
3736ΔBraly M C Mrs (o)
3745 Bodensteiner H H (o)

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KETTNER BLVD 1933

802 Benbough H L Co whse

E intersects

Broadway intersects

B intersects

1202 Bekins Van & Stge Co
Dona Mfg Co novelties
Dunnigan C O mfgs agt
Goldsberry O B mfrs agt
Hills Bros Coffee Inc
Lasselle J R mfrs agt
Norbom L E mfrs agt
Temple C C notary public
1254 Vacant
1262 Brackenbury W L auto repr
1268 Vacant

A intersects

1302 Kealey J F restr
1314 Motor Hdw & Equip Co whse
1372 Anderson Ray Inc autos

Ash intersects

1404 Rosas Wm
1406 Vacant
1408 Vacant
1420 Harris J E Mrs
1436 Cesena Frank
1442 Myers Jose
Torres Jose
1470 Vacant
1472 Vacant

Beech intersects

1516 Hercules Oil Co
1532 Mondaca Jesus
1548 Balestrieri Anna Mrs

Cedar intersects

1614 Canning G W auto glass
Dickinson J W auto wrecker
1648 Canepa John (o)
1650 Ghio Battisto

Date intersects

1702-12 Electrical Products Corp signs
1718 Vacant
1719 Tasso Vincenzo
1729 Carniglia Gemma Mrs
1731 Dentone Jos (o)
1745 Valluone J B (o)
1753 Bregante Gerolamo (o)
1760 Consolidated Building Specialties Co
1765 Corona Jos (o)
1770 Jackson & Blane
1780 Asbestos Products Co
1781 Carniglia John (o)

Fir intersects

1902 Vacant
1907 Cornelia Augustine (o)
1915 Hardy M P Mrs (o)
1929 Berardine Jos (o)

Grape intersects

2044 Vacant
2054 Strazzulla Dominic jr
2055 Zolezzi Angelina Mrs
2056 Ghio John (o)
2066 Castagnola Felice (o)
2071 Ghio Augustine (o)

Hawthorn intersects

2101 Owens Hattie Mrs restr
2112 Blanchard Ray auto repr
Stewart & Sanders gas sta
2115 Sanders Fredk
2119 Pacific Beverage Co
2136 Benton Roof & Paint Co
2145 Ruiz Felice
2151 Canepa Lorenzo
2167 Miranda John
2169 Vacant
2171 Acosta Peter
2173 Felley Frances Mrs
2175 Garcia Jos
2177 Badilla Frank

Ivy intersects

2220 Dickinson J C used cars
2227 Bautista S S
2228 Higgins E B Mrs (o)
Higgins J C Mfg Co iron and brass founders
2229 Bautista J A
Hernandez F Z
2230 Utech Annie Mrs
2251 Cresci Gaetano
2253 Asaro Jos

Juniper intersects

2308 San Diego Macaroni Mfg Co
2321½ Zolezzi S G (o)
2327 Massa Laurie (o)
2328 Cunningham J P
Hernandez Santiago
Ruiz Adolph
Sanchez Vivian
Wilder L H
2330 Lucier Louis
2345 Polestini Louis
2347 Farada Jos
2349 Gonzales Juana Mrs
2368 Standard Furniture & Mattress Co

Kalmia intersects

2400 Cordtz Robt Co outdoor adv
2401 San Diego Fuel Co
2419 Castagnola Louis (o)
2433 Rankin J B
2435 Vacant
2443 Navarro Carlo
Sanfilippo Antonio (o)
2498 Hazards' Air Port Diner

Laurel intersects

2521 Young Otto (o)
2528 Hazard R E Contracting Co
2552 Quaker State Oil Co

Maple intersects

2503 Maudlin Geo
2605 Rozzell John
2607 Vacant
2609 Drew Robt
2611 Butson J H
2621 Vacant
2651 Murphy J F
2653 Vacant
2680 Barth Foundry & Machine Co
2690 Seibert S R mach

Nutmeg intersects

2700 Shanley J F (o)
Special Service Flooring Corp
2753 Torres Manuel

Olive intersects

2805 Ghio Matteo (o)
2806 Thiesen Theo
2808 Murrell F I
2812 Waite W W gro
2815 Zolezzi J B (o)
2825 Massa Benedetta Mrs (o)

Palm intersects

2941 Peters V B
2942 Meilleur W A (o)
2953 Gordon Frank (o)
2962 Leesman G J (o)

Quince intersects

3002 Fouts Emma Mrs
3017 Vacant
3019 Hillier Victoria
Mason Mary
Mason & Hillier restr
3040 Vacant
3041 La Paz Fred
3042 Clark R T
3043 Hess R B
3045 Seward O G

Redwood intersects

3105 Koehler Amelia Mrs (o)
3109 Feiser Milo
3165 Ace Trading Co

Spruce intersects

3205 Thompson J D gas sta
3242 Millan Saml
3245 Morgan Nancy Mrs
3247 Vacant

Sassafras intersects

3300 Hamilton Bessie Mrs restr
rear Vacant
3304 Choate Milton
3308 Bentrall A W
3338 Crable F C
3340 Hudgens C J
3342 Blakley Harry
3344 Jenkins Merl
3346 King L J jr
3348 Peterson A C
3370 Soares Manuel
Soares Uzbia Mrs

Thorn intersects

3441 Brown J D (o)
3444 Sanchez Manuel
3452 Benn Michl
3455 Wilson Jas
3465 Lewis John (o)
3466 Rodriguez Antonio

Upas intersects

3527 Eckley J T
Losch W S

Vine intersects

3550 Solomon Jacob gas sta
3553 Thomas E F
3575 Fire Station No 20

Walnut av intersects

3600 Century Lumber & Mill Co
3605 Carr R H
3607 O'Kennedy D P
3609 White Fred
3611 Middleton Milton
3619 Puterbaugh Frank
3631 Peugh L L
3637 Nielsen Alice Mrs (o)

Chalmers intersects

3663 Reynolds P A chiropractor (o)
3667 Taylor G D (o)
Taylor W E (o)
3667½ Perrigo D B Mrs
3669 Holloway G F
3674 Wallace W H gas sta
3679 Thompson A R
3681 Beers W I
3683 Murray Eliz Mrs
Murray J L Mrs
3695 Vacant

Winder intersects

3702 Glirstein Walter
McFarland B A Mrs (o)
3730 Peterson T D (o)
3744 Bauerle W J
Koehl G J (o)
Lightening Machine Co
3747 Palomar Lndy

Andrews intersects

3765 Vacant
3767 Vacant
3779 Silence T E (o)
3785 Chandler E B (o)
3794 Ruggles V P Mrs
3796 Nelson Carl
3797 Fowler E W (o)

McKee intersects

3809 Dowd O F
3821 Kentner E O
3831 Inglett W B
Jackson W R
3833 Dunlap Harry
Dunlap O H
3838 Tichacek J T
3841 Debrow C E (o)
3847 Scott J R (o)
3865 Taylor J F

Pringle intersects

KING (North San Diego) — Southeast from 750 Lieta

KINGSLEY (Loma Portal) — Northwest from 2950 Rosecrans

3021 Renwick W C
3022 Engel Herman
3030 Hartford E W (o)
3035 Duggan N S

Locust intersects

3104 Holtam J W (o)
3111 Hardy H J
3130 Roehl W F (o)

Evergreen intersects

KINGSTON COURT (Mission Beach)—East and w from Mission blvd, 8 n of Amusement Center

714 Savage E A Mrs
718 Jensen W E

Mission blvd intersects

809 Dillon Jesse
810 Vacant
812 Vacant

CALIFORNIA ST 1933

47th intersects

C, WEST—West from 1100 1st av, 1 n of Broadway
102 Western Auto Supply Co
104 Vacant
106 Vacant
108 Dunham Douglas cigars
110 Wright H E restr
111 Vacant
112 Applegate J R bail bonds
132 Bagby J W gas sta
Chappell C H auto repr
Roethel E L radiator mfrs

Front intersects

202 Vacant
206 Vacant
212 Hotel Lubin
216 Vacant
218 Goetz Carl tailor
Goetz Mary Mrs cigars
224 Michael R M Mrs restr

Union intersects

301 Dixon Jimmy autos
342 Ponder C E used cars

State intersects

402 Davies Motors Inc used car dept
443 Pacific Transfer Van & Truck Co
444 Maggini Livio vulc
rear Miller Louis auto lndry
446 Dodge Shop The auto reprs

Columbia intersects

516 Hotel Rosslyn
Lyon E C
530 Billings A L Mrs restr
540 Lillard A C vulc

India intersects

CABLE (Ocean Beach)—Northeast from 3900 Pescadero av
1550 Vacant
1554 Bisbee R M
1558 Hoyt C E
1562 Vacant
1566 Brown Audrey Mrs
1592 May F J

Del Mar av intersects

1626 Harris R W

Coronado av intersects

1676 Boulay Wm (o)
1684 Crawford J E (o)
1690 Wolff V J

Santa Cruz av intersects

1720 Vacant
1722 Kerridge C J
1727 Mlinarich Jos
1735 Malin Wm
1737 Vacant
1743 Marshall John

Del Monte av intersects

1756 Vacant
1766 Carter C W
1768 Vacant
1776 Phifer C A Mrs
1778 MacBride Geo
1779 Michels R E (o)
1780 Hartvigsen H H

Narragansett av intersects

1821 Davis A E Mrs (o)
1844 Vacant

Niagara av intersects

1852 Perry W H (o)
1856 Hubbell Oliver
1857 Vacant
1859 Stevens Everett
1862 Vacant
1869 Berkheimer J L

Newport av intersects

1909 Sixth Church of Christ Scientist
1911 Tipp L A
1919 Webster H T (o)

Cape May av intersects
Saratoga av intersects
Santa Monica av intersects

2070 Darnell M M Mrs (o)
2076 Vacant
2090 Clark Philip

Brighton av intersects

2101 Askew B E
2111 O'Donald H N
2120 Gade W C
2121 Michael M H
2124 Anderson D L
2125 Carter T A
2130 Shadbolt G L
2131 Smith C T

Long Branch av intersects

2143 Hudson E C
2149 Creswell O N (o)
2154 Sullivan I A Mrs (o)

Muir av intersects

2180 Vacant
2181 Vacant

Voltaire intersects

CABRILLO AV (La Jolla)—North from 1 blk s of 1300 Pearl

CAJON WAY—North from 5400 Madison av
4526 Gibbins J B (o)
4536 Pickrell Clyde (o)
4541 Bigelow J M Mrs (o)

CALHOUN (Old Town)—Northwest from 4050 Harney
2650 Knabe F L
2706 Glasser D W gro
2734 Vacant

Wallace intersects

3226 Parkinson F M

CALIFORNIA—North from 800 W Market to Witherby
1216 Collaso Feliciano
1220 De la O Perfecto
1222 Vacant
1224 Vacant

A intersects

1332 Miller Ray
1372 Norsworthy B J

Ash intersects

1445 Ojeda Jose
1447 Luke F A

Beech intersects

1506 Fernandez Jos
Monguia Jos
1516 Asaro Jos
1560 Vacant
1564 Allen L J junk
1568 Vacant

Cedar intersects

1612 Daleo Jos
1616 Scott Marilla Mrs (o)
1616½ Bolliver Mary Mrs
1620 Currigio Jos
1620½ Crivello Peter
Jiacalone Peter
1632 Pearson Everitt
1634 Vacant
1636 Vacant

Date intersects

1804 Stillson F B (o)
1808 Riddell H W
1824 Golden State Oil Co
1842 Parianio Salvatore (o)
1848 Ferrari Jas

Fir intersects

1930 Vacant
1932 Bologna Pietro (o)
1940 DeMaggio Sebastiano (o)
1954 Vacant

Grape intersects

2049 Bartoe O E
2070 Gonzales Frank

Hawthorn intersects
Ivy intersects

2206 Reles Sabaro
2208 Vacant
2214 Vacant
2220 Vacant
2224 Roiz Ignacio (o)
2230 Gonzales E M
2232 Asaro Andw (o)
2244 Pontecorvo Jesus (o)
2246 Reichert F F
2246½ Vacant
2250 Salmon Tarquino (o)
2272 Salmon Joaquin
2280 Petrich Emma Mrs

Juniper intersects

2325 Hernandez Saturino
2337 Figueroa Margarito (o)
2375 Lopez Jos

Kalmia intersects

2403 Vacant
2416 Duenez Theo
Estrada Clemente
2424 Gomez Antonio
2430 Salceda Lucio
2440 Cortez Andw

Laurel intersects

2554 Stagnaro Bartoe (o)
2560 Stagnaro Antoinette Mrs (o)
2572 Esquival Francisca Mrs

Olive intersects

2801 Murphy J E
2808 Vacant
2902 Vacant
2929 Hensley Jessie Mrs
2941 Vacant
2970 Beers S F
Winston John (o)

Quince intersects

3005 Castagnola Angelo (o)
3015 Busco John (o)
3043 Castro Luciano

Redwood intersects
Spruce intersects
Thorn intersects

3449 San Diego Lead Products & Mfg Co
Talbot Frank battery mfr (o)

Upas intersects
Vine intersects
Walnut intersects

3566 Vatis Saml
3607 Hartman C J
3619 Salcedo Miguel
3625 Stanton John (o)
3645 Ibec R A Mrs

Bean intersects
Chalmers intersects
Winder intersects

3719 Sylvia Jos
3721 Broun Jos
3727 Vacant
3729 McComas Sylvester
3731 Vacant

Andrews intersects

3751 Barlow's Long Island Service Station
3779 Thompson N O auto repr
3781 Disler Al billiards
3785 White & Espe drugs
3787 Selby M B Mrs (o)
3787½ Vacant
3789 White G G phys
3789½ Vacant
3791 Bryenton F V barber
3793 Jackson W R restr
3795 Dunlap O H gro
3795½ Espe H T

McKee intersects

3801 Dilley Jennie M restr
3805 Gilbert W S
San Diego Motor Inn
3810 Fry J B gas sta
3811 Baine Edna M (o)
3817 Hupp Rhea
3819 Harsha M E Mrs

Clayton intersects

3821 Babbitt F A
3827 Vacant
3831 Webber C H (o)
3835 Andrews Theo
3836 Clay C M Mrs real est (o)
Clay Chas mfrs agt

Pringle intersects

3856 Dyckman D B whol baker
3870 McCoy Henry tourist camp
3873 Bay View Camp auto pk
Holland J A gro
Solari Frank (o)

Sutherland intersects
La Jolla av begins

3917 Gillelen Frank
Gilligan Henry
3919 Abbott W G
3929 Denton D L

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COLUMBIA ST 1933

2773 Simmons C J (o)

Olive intersects

2811 Kirby L R
2816 Carbray Jas
2818 Vacant
2830 Griffiths Mollie Mrs
2840 Howell S W (o)
2864 Tetlow Ida Mrs (o)
2869 Kelley D T

Palm intersects

2915 Gerish W J jr
2930 Morrison R F (o)
2940 Stewart Wellington
2954 Daily J W (o)
2955 Turner H A (o)
2964 Davis R T (o)

Quince intersects

3002 Jumper F F
Schenman E V Mrs (o)
3018 Barker Steph
3020 Adams Pauline Mrs
3030 Creese R A (o)
3040 Saville Henry
3062 De Vore G H
3064 Wood H A
3066 Green W G
3068 Loughlin Elwood
Laughlin P J

Redwood intersects

3225 Yale A W

Sassafras intersects

3330 Miller R G

Thorn intersects
Upas intersects

3504 Steadman O J (o)
3515 Waimon I J
3517 Vacant
3528 Smith R C
3531 Brown J M
3535 Eversoll D B
3538 Stacy Earl (o)
3545 Melzner A B

Chalmers intersects
Glenwood dr intersects
Vine intersects

3652 Boyden Donald
Seiferd Charlotte Mrs (o)
3655 Vacant
3661 Callear J A
3662 Vacant
3667 Vacant
3669 McClure Myrtle Mrs
3670 Freeman Henry
3677 Adkins Q R (o)
3680 Klingenberg R D
3686 Culbert H F

Winder intersects

3707 Worthen H B pntr (o)
3708 MacLennan Donald
3710 Pack F K bldg contr
3712 Fielder H C
3719 Vacant
3720 McCollom W M
Slead Barbara M
rear Hansen A P (o)
3736 Black Jeremiah
3744 Stenger Geo (o)
3746 Schill Frank
3748 Archer Frank
3775 Spears T B

Andrews intersects

COLUMBIA WEST—(See Titus)

COLUMBINE (East San Diego)—Southeast from 4275 Manzanita dr

2716 Fine H L
2723 Wellman W F
2843 Bertolucci H C
2927 Cable I W (o)
2933 Dee W R
2939 Mitchell Beatrix Mrs (o)

Quince intersects

3014 Krum J H

Poplar intersects

3021 Minnis T T (o)
3029 Lowell Wm
3032 Smith Theo
3038 Spears G W

Pepper dr intersects

COLUSA (North San Diego)—North from 2 blks s of 5600 Gaines

COMMERCIAL (Changed from N)—East from 9th, 1 s of Imperial

1610 Vacant

17th intersects

1721 Becerra Vincente
1726 Gastro Juan
1738 Hartgray Edw
1745 Batron Ramona Mrs
1746 Martinez Marcelino
1747 Rodriguez Pedro

18th intersects

1848 Sanchez Antonio

19th intersects

1924 Sawyer Fredk

20th intersects
21st intersects
22d intersects

2226 Richeson T W lndy tray mfr
2246 Guerrero Miguel
2248 Willard W H (o)
2250 Clark C D
2260 Maxon Jennie Mrs (o)
Schultz H W
2278 Donahue J S
2284 Eder Michl (o)

24th intersects
Harrison intersects

2416 Carlston Langdon (o)
2422 Ramirez Norberto
2430 Buenrostro Peter
2434 Thomas Robt
rear Parker R H
2438 Dahms G A (o)
2444 Smith Thos
2450 Vacant
2452 Gastelum Frances Mrs
2458 Hallan M J (o)
2462 Baldibia Santiago
2470 Towles Gertrude Mrs
rear Davenport Louise Mrs
2472 Bianco Domenic

Ocean View blvd begins
25th begins

2501 Hale R B gas sta
2514 Vacant
2516 Saldovar A J
2518 Workman Margt Mrs
2530 Tobadisto Lucio
2552 San Diego Rug Factory
2554 Moon F B
2562 Scully Rosa Mrs
2563 Costelloe Margt H (o)
2564 Currier H L
2566 Vacant
2568 Vacant
2570 Gylling Maren Mrs (o)
Lederer John elec contr
2581 Giles R H bldg contr

Franklin av begins
Dewey begins
26th intersects

2606 Watts Walter (o)
2612 Lobello Ross
2616 Wilson Marcus
2617 Wilcox C H
2619 Tellez M G
2624 Washington John
2627 Wallace Will
2630 Rogan Geo (o)
2634 Moore Jas
2636 Vacant
2638 Jackson Lucile Mrs
2640 Vacant
2640½ Vacant
2646 Vacant
2651 Vacant
2656 Estes Ernest (o)
2659 Vacant
2665 Romero Rudolph
2673 Bloess Caroline Mrs iron wks

27th begins
Evans intersects
Hensley intersects

2762 Dobbs M E Mrs
2765 Hollins Thos gas sta

28th intersects

2831 Castro De Mecho
2843 Sparza Albt
2863 Jensen O F (o)
2867 Storey Eliz Mrs (o)
2872 Woodbey G W Rev
2873 Head Myrtle Mrs

29th intersects

2905 Vacant
2907 Vacant
2909 Vacant
2915 Larroque Mercedes Mrs (o)
2926 Davis Henry (o)
2927 Zuniga Raula
2930 Salcedo M A (o)
2934 Johnson Edw
2936 Savala Mary Mrs
2940 Lopez Antonio
2946 Oakley Henry
rear Downing Ella Mrs (o)
2947 Vacant
2948 Waters John (o)
2951 Sanchez Melquides
2970 Johnson Geo (o)
2978 Clara Gabriel (o)

30th intersects

3001 Thompson Grain and Milling Co
3020 Sanchez Silviano
3029 Vacant
3038 Williams Wm
3039 Gastro Adolpho
3048 Peyron John
3052 Carter Martin
3058 Brown G B
3060 De Bose B J
3064 Buono John
3074 Pacheco J B
3094 El Granito Springs Bottling Co

31st intersects

3170 Sims Anderson
3182 Nunez Peter
3184 Pargo Refugio

32d intersects

3215 Harper Karl
3219 Vacant
3221 Huff Richd
3227 Lounsbury Hattie Mrs
3243 Hamilton Abner
Wimberly Frank
3345 Vacant

Bancroft intersects

COMMONWEALTH AV—North from 3500 Ivy

2240 Beckett R B (o)
2255 Schultz C P (o)
2281 Baker W L (o)

Juniper intersects

2324 Williams R S
2337 Smith C A
2408 Catterson Lionel (o)
2412 Heath M J E Mrs
2416 Dodson O L
2430 Walker J H (o)

CONCORDA (La Playa)—North from 3500 Talbot

CONDE (Old Town)—Northeast from 2450 Kurtz

2454 Meza Felix (o)
3878 Clayburn Wm
3886 Bailey L W
3920 Riley J A Mrs (o)
3938 Contreras Henry (o)

CONGRESS (Old Town)—Northwest from 3950 Witherby

2375 Fremont Park
Fremont School

Conde intersects

2422 Catechetical School
Shannon Caroline P (o)
2422½ Contreras John
2453 Almanerz Louis (o)
2462 Espinoza Manuel
Schoberg Allen
2466 Vacant

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GLENWOOD DR 1933

7870 Vacant
7871 Girard Hotel
7872 Vacant
7873 Knoepp M G radio
7875 Rineharts Cleanitorium
7877 Granada Theatre
7879 Lloyd W L real est
Shumaker E M Mrs real est
7880 Johnson P S radio
Little G W shoe shiner
Wood B E shoe repr
7881 Chessman G W art gds
7882 Humpty Dumpty Grocery
7884 Solomon Louis meats
7886 Solomon Louis
7888 Lindstrom Gus variety store

Wall intersects

ne cor Wall Public Library La Jolla Branch
7890 Fleet G D confr
7906 **Arcade Building**
Baird L P barber
Baird Mildred Mrs beauty shop
Dill J E real est
Kramer R M Mrs drsmkr
Lazelle H G phys
7910 Johnson Andw & Son gro
Patz T M meats
7911 La Jolla Librry Art Gallery
7915 Parker T A phys
7916 Matthaei P L drugs
7920 Mehas Alex restr
7921 Betts Arth tailor
Zimmerman R F plmbr
7925 Smith J F dry gds
7927 Western Union Telegraph Co
7929 Fenn's Inc ice cream
7931 Adams Val photog
7939 Vacant

Prospect intersects

8002 Barlow W H clo clnr
8004 Vacant
8008 Fulton Robt restr
8039 Vacant
8045 Vacant
8047 Jameson C F

Coast blvd intersects

GLADIOLA (Pacific Beach)—East from Pendleton, 2 n of 2300 Beryl

GLEN ROAD (Encanto)—North from 550 Kenwood

GLENDALE AV—North from 2550 F to Broadway

811 Roxburgh G R
812 Davidson A C (o)
821 Hicks K H
822 Lassam J H
826 Thayer E F
827 Davidson J C
835 Yenrick Noah (o)
836 Brannan L T
841 Derby G M (o)
845 Vacant

E intersects

912 Johnson Johannah Mrs
925 Eastman Goldie Mrs (o)
927 Beckstrom Andw (o)
942 Skinner Saml (o)

Broadway intersects

GLENFIELD—Southeast from 4300 Manzanita dr

3136 De Koven S H (o)
3148 Hochart G H (o)
3154 Vanderpool Louis (o)

Manzanita dr intersects

GLENWOOD (Pacific Beach)—East from 4100 Dalton, 1 n of Rosewood

GLENWOOD DRIVE—West from 3570 Union

1500 Vacant
1502 Begg Ellis
1504 Bigelow G C
1506 Starkey R G

State intersects

1602 Kershner E F (o)
1605 Tenbroek H A (o)
1610 Mercurio Jos
1616 Daly J G (o)
1624 Vacant
1630 Green L L
1633 Dibble Pearl Mrs
1702 Vacant
1704 Schanze H A
1712 Sherman A B
1716 Walsh E M
1716½ Vacant
1720 Harrison W E
1720½ Chavers Anthony
1722 Vacant
1722½ Warden D H
1724 Abbott C L
1724½ Scott Thos

GLOBE (North San Diego)—North from 1 blk s of 3500 Bisbee

GLORIA—South from Franklin av bet S 48th and S 49th

307 Vinyard F A (o)
325 Knox Beulah Mrs (o)

GOLDEN GATE DRIVE (Mission Cliffs)—East from 700 Madison av to Campus av

Delaware begins

1202 Watts Ethelbert (o)
1205 Hall S F Mrs
1211 Stubbins L M Mrs (o)

Harvey rd begins

1219 Tomkns C F (o)
1229 Deputy E C
1235 Stanton W J
1240 Warner T H
1245 Pfanstiel J G (o)

Maryland intersects

1403 Roberts G D
1404 Newsom R P (o)
1412 Hague W M
1413 Haw H H
1419 Gilbert G A (o)
1420 Brown T M (o)
1429 Logsdon R O (o)
1433 McElroy A J Mrs
Wilson S A Mrs (o)
1443 Baker A S plstr contr (o)
1444 Rumbaugh H K (o)

Cleveland av intersects

1538 Barbachano R S
4501 Mason S E

GOLDEN PARK AV (La Playa)—North from 1 blk s of 3300 Lucinda

820 Shropshire W B (o)
845 Morton E K

GOLDFIELD (North San Diego)—Northeast from 400 Georgia av

GOLDFINCH—North from 3050 Horton av bet Hawk and Falcon

3220 Shepard F V
3242 Ryan T C
3254 Organ W H
3255 Grayson C D jr

Upas intersects

3421 Griest W P
3437 Toussaint R B
3447 Turner T A
3451 Meyers J H (o)
Stevenson H R
3457 Remmers J H

Hawk intersects

3644 Pisani Alessandro (o)

Sutter intersects

3748 Boyle B F
3752 Collins H T (o)
3760 Coulter J W
3768 Wilbur W J C
3769 Erlenborn O P (o)
3775 Wright A F H (o)
3776 Bowman C C
3781 Hansen C F
3784 Walton E A
3792 Peterson W L
3795 Arnold L E Mrs (o)

Bush intersects

3801 Mentle E L Mrs
3809 Torrey A C
3817 Sheldon Benj (o)
3820 Payne V L Mrs
3820½ MacBride A C (o)
3825 McCarty J E
3828 Tyler L A jr
3831 Ward C D (o)
3834 Vacant
3837 Hill H J dentist
3838 Townley Marion A (o)
3842 Porter J M
3901 Van Wagenen E S Mrs
3904 Haden J F
3907 Beetle E N Mrs (o)
3910 Kilmer O P (o)
3911 Enholm Chris (o)
3920 McKay J R (o)
3921 Thomas A E (o)
Thomas J E
3933 Donlevy J C (o)
3934 Everson C M Mrs
3936 Cash Lily M (o)

Douglas intersects

3951 McCready & McMillan billiards
3952 Vacant
3953 Bennett B R
Verhaege A K
3957 Vacant
3962 **La Tour Apartments**
Alexander C L Mrs
Bode Helen M
Donahue Nellie E
Dunfee Delia Mrs
Green Ellen
Haigh E D Mrs
Herrill E R Mrs
Herrill Gilbert
Plate C F
Vien G F Mrs
3965 Thomas J P
3967 Kilday B E
3970 **Goldfinch Apartments**
Chesebrough F G
Duty R W
Hettick H M
Manss M E Mrs
Russ F A Mrs
Tausche A L
Van de Veire Edw
3971 Cooley H L
3974 Fire Dept Sta No 8
3975 Nagle D B (o)
3977 McDonough H L clo clnr
3981 Wlodarsky Felix barber (o)
3983 Vacant
3987 Agan M J Mrs
Scott Harriet Mrs
Touhey M H Mrs
3989 Safeway Stores Inc gro

Washington intersects

4003 Litot J B
Wilson R H dentist
4004 MacMarr Stores gro
4010 Mission Hills Garage
4011 Piggly Wiggly of San Diego Inc gro
Williams Andw Meat Co
4012 Chitwood J R (o)
4019 Hagen Conrad bakery
4020 Dick J A
4021 Great Atlantic & Pacific Tea Co
4027 Brown Emma Mrs (o)
4030 Lagerberg C E
4031 Harshaw O W
4035 Parsons B G Mrs
4038 Reese F M
4046 Flores Bernabe

Ft Stockton dr intersects

4053 Kierstead J W
4054 McLaughlin W V
4061 Boulay M H Mrs
4062 Brown F W (o)
4068 Sullivan A B
4069 Beale M W (o)
4070 Hall W L

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INDIA ST 1933

INDIA—Cont
1534 Vacant
1536 Vacant
1546 Taix Ernest whol baker
1549 Thormahlen Camille Mrs
1551 Vacant
1553 Vacant
1555 Vacant
1557 Vacant
1558 Hollingsworth A J iron wks
Stewart C D horseshoer
1561 Vacant
1564 Vacant
1565 Vacant
1572 Catania Santo gro

Cedar intersects

1601 **Middletown Auto Court**
McNary J R
1604 McDonough H L clo clnr
1608 Anna Kath Mrs
1616 Canapa Anthonio
1624 Carniglia J B
1628 Mierlot Olive Mrs
1629 Kurkowski Antony
1631 Frontero Saml
1632 Doran Manuel
1635 Campbell Alice Mrs
1640 Vacant
1643 Vacant
1645 Jensen B L auto repr
1646 Whitlock C P auto repr
1654 Edmisten W H 2d hd gds
Weisgerber Chas cbtmkr
1655 Merkel Jos plater
1665 Wilson Bessie Mrs

Date intersects

1702 Rein J A dry gds
1704 Bernardini Tony gro
1710 Chiappi J A
rear Marco Emilio
1712 Marlina Fred
rear Farro Andw
1720 Zolezzi Italo
1730 Brito Abel
1731 Tingley A J 2d hd gds
1735 Tait Emil gro
1738 Lagallo Isabel Mrs
rear Lopez Frank
1740 Adamo Antonio barber
1742 Adamo Nick shoe repr
1743 Cunningham Herbt poultry
1744 Vacant
1752 Zolezzi Aug (o)
1753 Mattera Antonio gro

Elm intersects

1804 Zolezzi Steph (o)
rear Lopez Michl
1823 De Santi Bartolo (o)
1823½ Vacant
1824 Georggin Andw
1826 Balestrieri Antonio (o)
1828 Piranio Peter
1837 Nelson S A taxidermist
1839 Guerra Frank
1843 Gilbert John barber
1843½ Vacant
1844 Shell Service Inc gas sta
1845 Cicalo John gro

Fir intersects

1909 Bransby D C drugs
1910 Pirnie Donald mattress mfr (o)
1912 Kelley Lndy Co
1917 Sparacino Max barber
1919 Vacant
1921 Stout Mary J restr
1933 Rodriguez Jesus
1943 Romaro John
1949 Sardina Thos
1950 Kelley Lndy Co garage
1953 De Angelo Angelo gro
1955 Aylesbury A J meats
1969 Corrao Peter
1970 Bohemian Distributing Co malt syrup

Grape intersects

2008 Cruz Jos
2010 Crivello Anoforo
2012 Ygnacio Leon
2034 Ortday Paul vulc
2036 Chapman L V shtmtlwks
Corrao Jos restr
2042 Atkins H L
Kelley G M
2044 Fashion Cleaners
2058 Lee Andw gas sta
2065 Bernardi John
2067 Urtado Adolfo
2069 Grossi Guiseppe

Hawthorn intersects

2101 Vacant
2102 Schreiber L W gas sta
2107 Vacant
2111 Stagnaro steph
2115 Cocca A M
2119 Linn Robt
2130 Duffy M J Mrs
2138 Hansen O M
2140 Laws F R
2141 Roiz Henry
2144 Benine A R
2146 Deese D E
2150 Vacant
2157 Vacant
2159 Vacant

Ivy intersects

2202 Vacant
2270 Diepholz Herman auto repr
Houghton & Evans gas sta

Juniper intersects

2307 MacMarr Stores gro
2311 Vacant
2312 Vacant
2314 Lane A P
2315 Vacant
2316 Gonzales Frank
2317 Vacant
2329 Szalinski Frank (o)
2345 Philipsen Johannes (o)
Philipsen Laura Mrs real est
2347 Lutz C L
2349 Cozine V S
2354 San Diego News Co
2355 Lutz C L auto repr
2361 Safeway Stores Inc gro
2367 Wicker N O drugs

Kalmia intersects

2401 Boss A R gas sta
2402 McDonough H L clo clnr
2444 Asaro Antonio
2446 Sardo Saml
2458 Fonteria Bartolo (o)
2466 Luizzi Jas (o)

Laurel intersects

2504 Theodore J S
2508 Vacant
2518 Madruga J F (o)
2528 Smith J L
2530 Cleveland D C
2532 Vacant
2540 Thurston Dorothy Mrs
2544 Hall J A
Reams J L
2548 Tennesen Andw
2554 Sabatini Dominic
2566 Haverkamp H D
2568 Haley G A (o)
Haley H B

Maple intersects

2602 Rowe M M
2615 Adair G E
2622 Fayes Wm
2624 de Necochea Carolyn Mrs (o)
2630 Vacant
2630½ Hudson Irene Mrs
2657 Kazezski Stanley
2659 Hawks J B
2663 Kenyon Thos

Nutmeg intersects

2701 Shaw Chas
2742 McNeece J F
Spillar Lon
2742½ Mara Eunice Mrs
2747 Simms F B
2760 Vacant
2764 Jones J H photo engr (o)

Olive intersects

2801 Allen B H Mrs
2804 Gardner Steph (o)
2805 Vacant
2815 Vacant
2828 Vacant
2830 Quinci Paul (o)
2849 Reber Otto
2867 Clements Lennie Mrs
Kenney Ann Mrs
Thomas R W (o)
2869 Rice Earl

Palm intersects

2903 Vacant
2905 Grimdl Anton (o)
2905½ Vacant
2907 Shaw C S
2909 Vacant
2915 Booty Mearl Mrs
2921 Wood Edna Mrs
2923 Kirkpatrick M T
2927 Hart T May (o)
2932 Woods J P (o)
2934 Diaz Thos
2936 Cooper T H
2940 Bisby W W (o)
2944 Beard J H
2945 O'Dell J G
2952 Goularte H C Mrs (o)
Hansen Harry
Olivera Frank
Roiz Ulpino

Quince intersects

3002 Renner Ida Mrs (o)
3009 Silva Jos
3014 Vernielya J W
3020 **Bay View Apartments**
3040 West A A clo clnr
3042 Chase C S shoe repr
3042a West A A
3044 Shloton A L
3044a Warila E F
3046 Vacant
3048 Bennett Lester
3053 Vacant
3054 Dann J F
3056 Le Clair Eliz Mrs gro

Redwood intersects

3114 McIntire T C
3116 Turner D M
3141 Goldie Isabel Mrs
3153 Meyer Rae
3167 Vacant
3171 Bateman J B gas sta

Spruce intersects

3232 A-1 Cleaners & Dyers
Duggan Philip
3256 Griffith R L
3265 Dawson J H garage
Stowell C A Trucking Co

Sassafras intersects

3325 Tuffley R L
3341 Wilson John
Wilson Vera Mrs
3341½ Torrante Thos
3343 La Ferte L G
3343½ Mayes Lois
3347 Garrett H E (o)

Thorn intersects

3462 Dingeman F J phys
3462½ Garnett Geo
3464 Clarke W E
3466 **El Francisco Apartments**
Dingeman F J (o)
3468 Lemon R F
Reissman J E
3472 Reissman J E restr

Upas intersects

3512 Dougherty P D
3514 Barham E G
3519 Lamoreaux P W (o)
3537 Lacey D S trusses (o)

Vine intersects
Glenwood dr intersects
Walnut av intersects

3616 Tarver J E (o)
3620 Page S M Mrs
Page S M & Son curios
3642 Baxter F W barber
3649 Vacant

Chalmers intersects

3661 Camp India auto camp
McNally G H
3662 Mercuro John
3664 Williams H K
3667 Belcourt W F drugs
3675 Sheinberg Sam gro
3682 Vacant
3684 Wordsworth Fred
3688 Godbout E L
3690 Vacant
3692 Massingill M E Mrs real est
3697 Harrington T M Mrs gro

UPAS/INDIA 1933

1652d Eves J W
1634 Levy C A
McNall N J Mrs
1634a McAuliff H C
1634d Granger Annie
1642 Vanderlip Harold
1644 Joslin E F (o)
1646 Kenyon D E
1648 Frost Naomi Mrs
Screaton J R
1652 Neutroid Products Co
1656 Broderick W S (o)
1658 Downs T J

Park blvd intersects

1714 Vacant
1716 Madden P D
1718 Thompson E E
1720 Webster M D Mrs
1726 Fannin Ethel Mrs
1726½ Boone J D
1728 Vacant
1728½ Malmsten V A
1730 Thompson R P
1730½ Ballard E A Mrs
1732½ Anderson R J (o)
1734 Blair C F
1734½ Manley K R
1736 Bishop Julia
1738 Vacant
1740 Hemphill H A dancing tchr (o)

Indiana intersects

1800 Hillyer Curtis (o)

Georgia intersects
Florida intersects

2044 Baker D N
Barber C L

Alabama intersects

2114 Frosios J M (o)

Mississippi intersects

2124 Rocco H M (o)
2126 Munro J F
2222 Eaton M E
2228 Woodward F H

Louisiana intersects

2306 Smith Roscoe
2318 Williams F J (o)
2328 MacIntosh J A (o)

Texas intersects

2426 Willard F H jr (o)
2436 Byrnes G F

Arizona intersects

2516 Skeels E L
2518 Hamill J H jr

Arnold av intersects
Villa ter intersects

2612 Frisbie H L
2618 Vacant
2620 Grant Robt (o)
2628 Stookey Lewis (o)

Pershing av intersects

2704 Kleitsch Otto phys (o)
2718 Stork Anna Mrs (o)
2728 Alexander M A Mrs (o)
2738 Vacant

28th intersects
Utah intersects

2832 Walker A O (o)
2853 Smyth H C Mrs (o)
2873 Krull C W
2875 Coons E B

Granada av intersects
29th intersects

2905 Vacant
2911 Sullivan D J
2917 Pendleton C H
2924 Humpty Dumpty Stores gro
2925 Marshall C B Mrs (o)

Dale intersects

2926 Vacant
2959 Belcher F C auto repr
Faust C L gas sta
2965 Larsen L F meats
2969 Oberg Enoch gro
2975 Cavanaugh N P Mrs
2981 Hill E J barber
2983 Kincheloe Gussie beauty shop

30th intersects

3002 Tinkham M J
3012 King L M Mrs drsmkr
3016 Vacant
3022 Larsen L F
3025 Kirkland C H Mrs
3026 MacMarr Stores gro
3028 Milam R M clo clnr

Ray intersects

3032 Dean L N batteries
Lynn H D gas sta
3040 Baker Edw auto repr
3060 Hammon Dora Mrs

Grim av intersects

3065 Park Richd
3074 Badger H A
3075 McGregor Asenath Mrs (o)

31st intersects

3108 Conchin A J
3114 Vacant
3127 Faust C L

Herman av intersects

3162 Vacant
3174 Chrones Geo

32d intersects

3215 Cord L B Mrs
3218 Barrows W T
3224 McChristy B B

Bancroft intersects

3254 Carmichael Leonora Mrs
3271 Reed Wm
3274 Wade D C

33d intersects

3316 Moreland C B
3317 Gregory W L
3324 Heron P H (o)

Felton intersects

3376 Prelbisius L J (o)

Gregory intersects
Boundary intersects

UPAS, WEST—West from 3400 1st

102 Vacant
104 Holt N L Mrs
106 Putnam R D
108 Bowen M A
120 Vacant
122 Ballantine H H (o)
124 Vacant
126 Bell E S Mrs
142 Dickey Ruth S
144 Sulis Agatha L
146 Kerth J H (o)
148 Wadsworth H H

Front intersects
Albatross intersects

336 Vacant

Brant intersects

410 Byrne Gerald

Union intersects

1506 Bannon P D
1508 O'Brien Dorothy Mrs
1512 Wickham V A

Columia intersects
India intersects

1711 Peters C A Mrs

UPLAND (Encanto)—East from 1600 60th

6038 Swanson Jos (o)

UPSHUR (La Playa) — West from 1050 Shafter, 2 e of Rosecrans

2936 Ball E A Mrs

Rosecrans intersects

3011 Cardosa J H

URBAN AV—East from Elizabeth, 1 s of Woolman av

UTAH (University Heights)—North from 2850 E Upas

3411 Robinson A H
3412 Markel J A (o)
3419 Upjohn R T
3422 Brogle J P (o)
3429 Merry W L
3430 Kaidel J T
3436 Long F J
3437 Zierke E C Mrs (o)
3441 Short Henry (o)
3443 Harris Robt
3446 Vacant

Myrtle av intersects

3501 Vacant
3502 Lykins C G (o)
Lykins L H
3511 Shell G R
3512 Moskowitz Max (o)
3519 Dewing E H
3520 Botkin C A Mrs (o)
3526 Smith T F
3529 Claypool L E
3536 Bennett Jessie M (o)
3537 Moore H J (o)
3543 Cummins C C (o)
3544 Stivers E H (o)

Capps intersects

3552 Lewis C E
3553 Fowler C C Mrs
3562 Wirick C R Mrs
3568 Hicks Lawson
3569 Carter W F
3576 Matlick R E
3577 Marvel A D (o)
3580 Johnson Anna C
3583 Dawson J S (o)
3592 Sylvis Amanda Mrs
3593 Robinson R F

Dwight intersects

3605 Corn T J
3610 Davis M H
3611 Romero C S music tchr
3619 McDaniel Irene Mrs
3620 Schiller Nathan
3628 Fife J M Mrs (o)
3629 Johnson Rosa L
3635 Cope M B
3640 Clarke F J
3644 Lowe Anna Mrs
3645 Dahl H A
3665 Shell C M (o)

Landis intersects

3702 Cole W B (o)
3705 Rafferty Myra Mrs
3709 Parsons E W
3710 Lindsey H S (o)
3720 Munro G JJ (o)
3721 Caldwell H K
3726 Vacant
3727 Adams J S
3732 Link L J (o)
3736 Vacant
3737 McKee C W (o)
3747 Holmes H T
3748 Mussey R E gro (o)

Gunn intersects

3753 Harris R E
3765 Horton F M (o)
3770 Jefferson School
3775 Barrows J R
3787 Salisbury R A
3795 **Silvergate Masonic Temple**

Wightman intersects

3805 Fuller R M (o)
3815 Heimburge Max (o)
3821 Kibler N W (o)

University av intersects

3919 Towers Clarence
3920 Ayes M M (o)
rear Vacant
3921 Beyman C E
3927 Puntney F M
3928 Lee E J
3930 Weimer S V (o)
3933 Parazette J B
3935 Honaker Kenneth (o)
3937 Nevegold R W
3940 Kayton G D
rear Castle G A
3941 Vacant
3945 Oneil Frank
3946 Kirtley E B gro
rear Vacant
3947 Sandon A C (o)
3950 Gamble F O
3953 Scholz J L (o)
3956 Byrne D O
3960 Brink S B
3963 McLeish D M
3967 Sorenson R P (o)
3970 Coppard P A (o)

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VINE ST 1933

4144 Shubert Fred
4145 Fitzgerald Isabel Mrs (o)

Hayes av intersects

4149 Richardson J A
4150 Gill W C
4151 Weiner Benj (o)
4152 Bower E J (o)
4154 Howard M A Mrs (o)
4176 Cruickshank Stewart (o)
Grant David

VERONA COURT (Mission Beach)—East and w from Mission blvd, 7 s of Pacific av

702 Turner H K (o)
711 Starr A L
722 Troop W F
724 Brown M A
728 Lasher J S
729 Vacant
730 Bonham Le Roy
Meyer C F
733 Vacant
735 Vacant

Mission blvd intersects

804 Liftchild Chas (o)
811 Hill C R (o)
821 Vacant

Bayside walk intersects

VESTA—Southwest from 3900 Acacia

1701 Harris C M gro
1702 McLaughlin Arth
1703 Salvation Army Hall

Birch intersects
Cottonwood intersects

2129 Vacant
2131 Pulliam C E

VIA DEL NORTE (La Jolla)—West from 6100 La Jolla blvd

203 Rubicam M A Mrs

Avenida Cortez intersects

301 Fay Jessie Mrs

Vista de la Mesa intersects

315 Turner H D (o)

La Jolla blvd intersects

VICTORIA (El Cajon Extension)—Changed to 69th

VIEW AV (La Jolla)—North from 1200 Bird Rock av

VIEW PLACE (Normal Heights)—North from Adams av, 1 e of 39th

4718 Bennett J N (o)
4732 Vacant
4733 Nicholls GD
4732 Roone Annie Mrs

VIEW POINT DRIVE—North from 2050 West Columbia

VIKING WAY (La Jolla)—(Formerly Hillside dr)—North from 1850 Torrey Pines rd to Newport ter

1821 Foote G F (o)
7479 Ferguson W M
7956 Hutchinson P H (o)
7979 Vacant
7981 Vacant
7988 Rose W J (o)

VILLA DRIVE (Loma Portal)—North from 2100 Chatsworth blvd

2510 Vacant
2536 Cutler D R (o)

VILLA TERRACE—North from 2600 E Upas

3420 Turpie W A
3428 Bennett J N (o)
Bennett W J
3438 Bishop Winifred
3439 Coahran W R (o)
3446 Overcash Frank
3447 Anderson E O

Myrtle av intersects

3504 Cowling W S
3512 Hall W J (o)
3513 Carson W P (o)
3521 Carleton E F (o)
3522 Houston Herman
3527 Flint P S
3528 Phelps Harold
3535 Edwards H J
3536 Renger Henry
3544 Manson J H
Thelan Wm
3552 Knotts Jos (o)
3559 Neale C E
3567 Hoffman A J (o)
3568 Anderson Inga Mrs
3576 Robinson E H (o)
3584 Ghio E A (o)
3585 Heatherly Maynard
3593 Winke A H (o)

Dwight intersects

3602 Tyson W L (o)
3603 Beale E W
3611 de Cigaran Vincent
3612 Weaver F E
3617 Bath B T
3620 Keen C L Mrs
Stringer Cath Mrs
3623 Vacant
3625 Cowie J M
3628 Landt L H
Mueller Barbara Mrs
3629 Pierce P M (o)
3635 Barber E C Mrs
3636 Baugher Claude (o)
3639 Bailey Paul
3645 Whitten Herbt
3650 Gill Jas (o)
3655 Humble E H (o)
3661 Henderson A E Mrs C S pract
3662 Finnegan J J
3667 Sexton Lucy Mrs
3674 Wilson Eva Mrs
3675 Treantafeles Harry (o)
3676 Bellhoff Albt
3693 Bailey L L (o)
3694 Trask Ida Mrs
Potter K H

Landis intersects

3704 Deem Bliss (o)
3714 Torbert J JJ (o)
3719 Stewart Blanche Mrs (o)
3720 Bickerton W B
3725 Peery C F
3730 Merrill E R (o)
3735 Vacant
3736 Vacant
3738 Pollard R H
Pollard Virginia (o)
3745 Heston Carl bldg contr
3746 Schlager Jos
3748 Hudson R L
3750 Lucke L E
3751 Newton E R
3752 Forbes J S
3761 Buis J W (o)
3762 Davidson Clyde
3766 Ash Kath Mrs
3767 Gault W W (o)
3768 Seaman L S
3770 Steele A M (o)
3775 Goldsmith C T (o)
3776 Gordon Henry
3783 Freeberg O E (o)
3788 Sundberg Edw
Sundberg R M
3794 Bowie C G Mrs (o)
Bowie E J

Wightman intersects

3803 Mager Edwin (o)
3806 O'Meara Kath Mrs (o)
3811 Vacant
3812 Everts H S
3814 Holtman John
3815 Vacant
3817 Vacant
3819 Brown M F
3830 Thomas L S
3887 Benson Henry

University intersects

VINE—West from 3550 Union

1405 Cox Howard
1417 Carpenter B P (o)
1421 McKinney J H (o)
1449 Oates P A
Stallard W B
Stallard & Oates bldg contr

State intersects

1501 Muehleisen Adolph
1516 Gates A E
1524 Likes Nell Mrs (o)

VINE COURT—East from ½ blk w of 750 S 29th

VIOLA (North San Diego)—East from 2200 Morena blvd

VIOLET—Southeast from 4050 Manzanita dr

2511 Ritz C W (o)
2518 Haley D P (o)

Sycamore dr intersects
Pepper dr intersects

2710 Furlong G W Mrs
2721 Elliott G H
2738 Vacant

Manzanita dr intersects

2825 Hedger B F
2831 Seymour C R
2843 Blankenburg G A (o)
2846 Kelak R R

Poppy pl intersects

VIRGINIA (La Playa)—North from 1 blk s of 3550 Dudley, 2 e of Catalina blvd

VIRGINIA WAY (La Jolla) (formerly College)—Northeast from 7600 Girard av, 1 s of Torrey Pines rd

1176 Kessling A F
1178 Corthals C C (o)
1182 Lynes Robt
1186 Smith F M

High av intersects

1190 Vacant
1245 Cameron N B Mrs (o)
1252 Edwards Grace
1257 Parkhurst E H Mrs
1263 Wylie W H
1267 Perce R W
1285 Williamson Arth
1287 Christie C L
1299 Pepys H F (o)

Ivanhoe av intersects

1304 Vacant
1324 Chapman Florence
1328 Hutchinson J R (o)
1342 Butts W M
1345 Morse J L
1350 Vacant
1352 Vacant
1361 Miller Harvey jr
1364 Crowell H H (o)

Exchange pl intersects

1400 Barlow A H
1411 Mason Walt (o)
1414 Vacant
1436 Vacant
1437 Hall F J (o)
1440 Curtis Frazier
1454 Wernham G T (o)
1461 Putnam S O
1475 Tinker U W

Prospect pl intersects

1522 Flint Helena (o)
1533 Vacant
1540 Slater Ann Mrs (o)

VISTA (Kensington Park)—North from 4260 Madison av

4503 Jordan Madeleine M
4510 Shadburn A C
4511 McClary D B (o)
4519 O'Neil J T
4525 Rothert W F
4531 Williams J R
4540 Dodge L H
4546 O'Neil M J (o)
4549 Ryberg S A (o)
4566 Denison F E
4576 Le Couter H G (o)

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WALNUT AVE W 1933

3720 Batterson J L
3738 Cox J B
Nelson W A (o)
3752 Puryear O R Mrs (o)

Wightman intersects

3824 Diez Hesouse
3824½ Tieri Camillo
3825 Reaser J K
3832 Whitlatch Wm
3842 Lee C H
3850 Wormington E W
3858 Vacant
3865 Snodgrass Carl
3867 Danna Anna Mrs
3869 Hill H H auto repr
3871 Taplin G O gas sta

University av intersects

3902 Harrington Alvin gro
3914 Dodson B E Mrs
Olson Kenneth
rear Evans S B Mrs
3926 Jones-Graham Nursery
3930 Harrington Alvin

Lincoln av intersects

4002 Muelheisen E F
4018 Baldwin Ida Mrs
4022 Oswalt J H chiropractor
rear Knowlen H W
4023 Springs G R (o)
4029 Adkinson J L
4032 Skinner W D (o)
4035 Sanders Jas
4036 Martin C E (o)
4039 Oriental
4044 Phillips Monroe
4045 Willams C A (o)
4050 McManning Lucy Mrs
4051 Goodwin W R (o)
4060 Jones C H (o)
4061 Stone Harry
4068 Edmonds Benj
4074 Alessio Rose Mrs (o)
4077 Vacant
4082 Dreesen Wm

Polk av intersects

4102 Kirk B H
4103 Scovel W H
4109 Anderson J E (o)
4110 Taylor O C
4115 Jones J B
4120 Brown Caroline D (o)
4128 Shirley Inez Mrs (o)
4133 Quinci Vito (o)
4134 Pearson Chas
4140 Solomon C B
4141 Machholz Edw
4148 Penner J D
4151 McCoy Jos
Smith Ernest
4156 Lucas W J
4157 Shephard Paul
4164 Rovai Assuna Mrs (o)
Rovai Louis
4167 Jensen J M (o)
4172 Maher J J
4174 Ryan E B Mrs
4175 Streff T N (o)
4189 Hoffner B J (o)

Orange av intersects

WABASKA DRIVE (Loma Portal)—

3714 Miller G T

WADDELL TERRACE (Normal Heights)—North from Suncrest dr, 1 e of Boundary

4837 Vacant
4839 Pease A B (o)
4840 Woods Jennie Mrs

WALL (La Jolla)—East from 7879 Girard av, 1 s of Prospect

1002 La Jolla Public Library
1003 Chessman G W
1025 Hassard Q M dentist
1026 Vacant
1028 Vacant
1030 Unity Society of Practical Christianity br
1031 Vacant
1032 Welfare Shop
1033 Matlaw A P clo clnr
1034 Wells John K Inc real est
1035 Kirshbaum Louis tailor
1037 Hunter L G Mrs restr
1039 Butler B H furn
1041 La Jolla Light (weekly)
1044 La Jolla National Bank
1049 Oliver F W lawyer
1051 La Jolla Guarantee Building-Loan Assn

Herschel av intersects

1109 Vacant
1111 Stimson F L bldg contr
1113 Shepherd T L office
1115 Rogers M B Mrs drsmkr
1117 Carter W C osteo
Hoogbruin L P osteo
1119 Shepherd Ruth Mrs interior dec
1122 Steckler Jos
1123 Nicholas Richmond ins
1124 Vacant
1125 Vavant
1128 Vacant
1134 Smith C R Mrs drsmkr
1140 Vacant

Ivanhoe av intersects

WALLACE (Old Town)—Northeast from 2800 Davis

4090 Old Mission Packing Corp

Juan intersects

4104 Moss T E
4105 Vacant
4109 Vacant
4115 Vacant
4119 Vacant
4134 Serrano L A (o)
4136 Presidio Hills Golf Club

WALLACE COURT—North from National av, 1 e of 39th

912 Cartledge Geo (o)
927 Wilson Wm (o)
931 Brook S R (o)

WALNUT AV—East from 3500 1st av

100 Brinton F L Mrs (o)
115 Anderson J H
Brown J H
Butters W S
Hanson R H
140 Day H B (o)

2d av ends
3d av ends

303 Ridout L C (o)
306 Barker A T Mrs (o)
328 Putnam Annie R (o)
335 Fletcher Ed (o)

4th av intersects

418 Moriarty E M Mrs
420 Christopherson E H phys
Sharp R G phys
430 Bartlett W E

5th av intersects

WALNUT AV, WEST — West from 3500 5th

111 Brust M S (o)
117 Flint J K Mrs (o)
130 Dean E H Mrs (o)
Hunter B B

Front intersects

204 Fisher J W (o)
205 Vacant
211 Fay W S
Hartung E W
230 McDowell M J Mrs (o)
246 Case N B Mrs (o)

Albatross intersects

315 Kendall J M (o)
321 McVey Margt (o)
605 Taylor W F

Hawk intersects

1021 Cary Frances R (o)
1025 Lundin John (o)

Ibis intersects
Jackdaw intersects
Union intersects

1390 Cook H A
1504 Vacant
1512 Meyer F W (o)
1717 Davis H M

WALTON PLACE—East from Ohio bet Monroe and Madison av

3057 Allen H B
3060 Fiedler J E (o)
3061 Hay Lena Mrs
3064 Fahsel F G (o)
3069 Lang C W (o)
3070 Brockmeyer E F (o)
3074 Kimrough C E

WARD ROAD (Normal Heights) (To Camp Kearney via Murphy Canyon)—East from Cherokee av to Madison av

3716 Pickett G D
3720 Eddy C C
3728 Haynes Alice G (o)
3736 Braly M C Mrs (o)
3752 Vacant
3760 Tripp J F (o)
3767 Zarneke Wm
3768 Marshall G E
3773 Caum Russell
3778 Ireland Velma Mrs nurse
3786 Grant F F

38th intersects

3816 Tyrrell Oscar (o)

WARNER (La Playa)—West from 650 Silver Gate Av

WARRINGTON (Ocean Beach)—Northeast from Wildwood rd, 1 w of 1700 Chatsworth blvd and ne from 3800 Tennyson

1740 Timmons J K (o)
2120 Chadwick R W

WASHINGTON (Misson Hills)—East from 4000 1st

105 Mission Dry Cleaners
109 Myers J E
120 Wheeler E M Mrs
121 McCarty F W (o)
126 Stallard W W
128 Dievendorff M D
130 Wibeck A O
132 Caswell W D

3d av intersects

302 Miller H T used cars
317 Allen J L auto top mfr
Gower N C auto pntr
Rouse B B garage
330 **Casa de Ora Apartments**
Askew W E Mrs
Gleason J M
Grady C V
Hudnall J H N
Kimbrell L O
Murphy M P
Roth J M
Walter J E
William Margt
336 Womans Exchange
342 Fourth & Washington Florists
345 Union Serv Sta

4th av intersects

412 Perry N F Mrs kinesopath (o)
422 Hutchings A H Mrs florist
427 Norell R M Mrs beauty shop

5th av intersects

512 Vacant
630 Alexander D S C
632 Pre-Mixed Concrete Co Inc
836 Brown Truman
840 Webb G A (o)
842 Randall I W

9th av intersects

910 Burkholder C L Mrs (o)
912 Stewart Edw
936 Vacant

WASHINGTON, WEST (Mission Hills)—West from 4000 1st

100 Prentice B H gas sta
110 Vacant
112 Wallick C N drugs

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KETTNER BLVD 1927

Phone, Franklin 5546 444 Spreckels Bldg., 121 Broadway

KENSINGTON DRIVE—Cont
4608 Wheeler F I
4609 Stuber J C
4612 Woodworth W H
4615 Brandis A E
4620 Johnston C W
4621 Vacant
4626 Howley J J
4627 Peterson H N
4632 Eckert W J
4638 Rand U Z
4641 Vacant
4643 Konieczny J C
4647 Spurbeck G H
4648 Vacant
4651 Vacant
4670 McDermott Lawrence
4676 Klicka Fredk
4680 Goodwin E C
4684 Anderson A J
4685 Fulton Frank

Adams av
4719 Summer J H
4720 Kemp H J
4725 Ohliger C E
4726 Sonnabaum J R
4732 Sachtleben C F
4733 Hale W P
4738 Vacant
4740 Kimball T L
4741 Greaves C S
4745 Parkhill E E Mrs
4750 Belfort L E
4756 Martin F C
4757 Kahrs Frank
4760 McCune W A
4769 Lawrie W S B
4771 Vacant

Jefferson dr
4817 Arthur R S

Sussux dr
Canterbury dr
4867 Vacant
4876 Kiskadden W E
4885 Longsworth C R

Westminster ter
4910 Vacant
4921 Stoddart Geo
4925 Vacant

Sussux dr
Norfolk ter
Rochester rd
5010 Vacant
5011 Manzek R H

Hilldale rd

KENT AV (Pacific Beach)—North from bay, 2 west of 4100 Grand av

KENWOOD (Encanto)—East from Glen rd, 2 south of Radio dr

Glen rd
Not open to Tyrant
Merlin dr
59th
Iona dr
60th

KETTNER BLVD—North from 700 W Market, 4 blks south of Broadway
615 Rea Bernardina
619 Robles Jno
Robles Encarnacion
621 Mendez A G
625 Vacant
629 National Biscuit Co

G
F
802 Benbough Furn Co warehouse

E
Broadway
C

B
1202 McClintock Storage Warehouse Co
Reed R W tires
Russell Parachute Co

A
1306 Vacant
1312 Vacant
1314 Vacant

Ash
1406 Reese Oscar
1420 Billings G W
1436 Cesena Ramona Mrs
1442 Delgado Jesus
1456 Hollis Willie Mrs
1470 Galupi Tony
1472 Avilez Ventura

Beech
1508 Garcia Jos
1516 Hercules Oil Co
1532 Tarantino Jos
1548 Jiacolone Peter

Cedar
1610 Warner G M
1614 Hall Woodworking Co
1648 Canepa Jno
1650 Vacant

Date
1718 Farcia Jos
1719 Tasso Vincenzo
1745 Vattuone Givo
1753 Bregante Gerolimo
1765 Corona Jos
1781 Carniglia Jno

Fir
1907 Carnigla Augustine
1915 Hardy Minnie Mrs
1929 Berardini Jos

Grape
2054 Zolezzi Italo
2055 Cordilano Benedicto
2056 Ghio Jno
2066 Castagnola Felice
2071 Ghio Augustino

Hawthorn
2112 Stackhouse H J gas sta
2115 Flammini Jos
2131 Conyno Lorenzo
2136 Benton Roof & Paint Co factory
2151 Gaetano Lugalla
2167 Martinez Mateo
Quinones Natividad Mrs
2169 Vacant
2177 Giamanco Carlos
2177 Rodriguez Pedro

Ivy
2201 Adams-Henry Co tea and coffee
2227 Canepa Andw
2229 Sanfilippo Mariano
2251 Cresci Gaecano
2253 Milanese Andw

Juniper
2308 S D Macaroni Mfg Co
2321 Zolezzi Steven
2327 Massa Lazzaro
2328 Carrillo Felix
2345 Calletano Piro
2347 Siragusa Jos
2349 Miranda Juan
2367 Pressley Wm
2368 Standard Mattress & Furn Inc

Kalmia
2400 Lagrasso Lorenzo
2419 Castagnola Luigi
2433 Miranda Saml
2435 Garcia F A
2443 Navarra Carlo
Sanfilippo Antonio

Laurel
2521 Young Otto
2528 Hazard R E Contracting Co

Maple
2605 Vacant
2607 Vacant
2609 Cartright Wm
2611 Vacant
2621 deNecochea J M bldg contr
2623 Vacant
2629 Garcia Piedad
2651 Zivin F M
2653 Nosker Geo
2680 Barth Foundry & Machine Wks
2690 Hensley & Siebert mach

Nutmeg
2700 Special Service Flooring Co
2739 Vacant
2741 Garcia Jose
2753 Ramirez Louis

Olive
2805 Ghio Mateo
2808 Tobin A W
2812 Le Clair Bert gro
2815 Zolezzi Jno
2825 Massa Louis

Palm
2941 Tipton Susan Mrs
2942 Meilleur W A
2953 Gordon Frank
2962 Leesman G J

Quince
3002 Parker A L
3017 de Necochea E J
Mallon Mary M
3019 Richard F E
3040 Oyler Blanche Mrs
3041 Allen C L
3043 Seward O G
3045 Latimer J T

Redwood
3105 Koehler Amelia Mrs
3111 Van Arum Jno

Spruce
3205 Thompson J D gas sta
3242 Vukich Lale
3245 Ogle N S
3247 Phillipson Edw

Sassafras
3300 Modern Construction Co genl contrs
Roberts Jno
Union Warehouse & Storage Co
Wilson W H bldg matl
3370 Duggins Russell
Soars M B

Thorn
3441 Brown J D
3455 Vacant
3465 Lewis Jno

Upas
Vine
Hancock begins
3550 Church Walter Super Service

Walnut av
3600 Century Lumber & Mill Co
3605 Taylor H J
3611 Asaro Jos
3619 Lopez Jos
3631 Boggona Jos

Chalmers
3663 Reynolds P A chiro
3667 Taylor Bros sht mtl wks
3679 Sherman Dorothy Mrs
3681 Vacant
3683 Vacant
3695 Vacant

Winder
3702 McFarland B J
3730 Peterson T D drug mfr
3744 Koehl G J
3747 Palomar Laundry

Andrews
3779 Vacant
3785 Vacant
3797 Fowler E W.

Main 2165 614 ELECTRIC BLDG., 861 SIXTH ST.

CALIFORNIA—Cont

Quince
3005 Ghio Domingo
3015 Busco Jno

Redwood
Spruce
Sassafras
Thorn
Upas
Vine
Walnut av ends
Kurtz begins
3625 Stanton Jno
3637 Stuhr Nels
3645 Quintero Angel

Chalmers ends
Bean ends
Winder ends
3719 Vacant
3721 Hart C D
3729 Vacant
3731 Vacant

Anderson ends
3751 Long Island Service Station

Harasthy ends
Moore begins
3779 Stanton P A auto repr
3781 Vacant
3783 Walker L T gro
3785 Five Points Realty Co
3787 Henkel F W E
Selby Mary Mrs
3789 Henkel F W C phys
3791 Bryenton Frank barber
3793 Thurston G O restr
3793½ Green S P
3795 Green S P gro

McKee ends
3801 Stahl & Hatch restr
3810 Robertson W M gas sta
Thompson O M tires
3811 Cornell G H
3817 Rule R E cix eng
3819 Harsha M E Mrs
Webber C H

Clayton ends
3831 Taylor R B
3835 Gibbs Lyda Mrs
Johnson I M bldg contr
3836 Casteel W G

McNealy ends
3873 Bay View Auto Camp
Birkett Geo
Carswell Ethel Mrs gro
Solari Frank

Sutherland ends
La Jolla av begins
Stone ends
3917 Harmon J W
3919 Dutcher C E

Noell ends
3929 Brown Geo
3930 Kohl C N
3931 Lyons S P

Henry
3965 Vacant
3971 Dick Jane

CALLE DE LA PLATA (La Jolla Shores)—Northeast from Torrey Pines rd
—— Soderberg A U

CALUMET AV (La Jolla)—North from 300 Colima

CAMINO DE LA COSTA (La Jolla)—West from 5800 La Jolla blvd
—— Pilcher R E
—— Weltsie R B
6006 Jackson W R
6211 Johnson Ellen nurse
McCormick W L
6219 Stebbins C W

CAMINO DEL RIO (Old Town)—East from junction of Hickory, Taylor and Morena blvd, up Mission Canyon

mi e Old Town Bridge S D Auto Camp

CAMPUS AV (Mission Cliffs)—Northwest from 4100 Park blvd

Park blvd
4124 Smith A E Mrs
4132 Rosie W S
4140 Sautter EF
4144 Church of the New Jerusalem
rear Wentworth W D
4156 Curtis G M

Tyler av
4204 Clayton A M Mrs
4220 Manny Adelaide Mrs
Waugh Bessie
4226 McLoughlin Mary Mrs
4242 Sparks Apts
Sparks H J
Moore W H
Perry E E
4268 Boughton Helen
4270 Torrey Apartments
Barnes H E
Belliss W B Rev
Cord Louise
Eis L R
Lorenz G E
Olsen K O
O'Neil Isabel Mrs
Seigel H J
Smith F L
Stehlik Steven
Stipek F J
Wilson A C
Wooden Mildred A

Van Buren av
4320 Gransmore Anna J nurse
Haycock A J S Mrs
Johnston C C
Kyle R R
Smolan Morris
4330 Hogge F W
4340 Wilder A A
4344 Cooper Isabel
rear Watkins Lillian Mrs
4346 Dodge E S
4352 Neale C E
4360 Ator C T
4368 Boldman O L
4370 Killion M A Mrs
4378 Vacant
4386 Beach I E jr

Meade av
4400 Tloersch A M
4412 Olson A C
4415 Philip J M
4418 Cannegieter F H
4421 Kelley P D
4424 Jones E G Mrs
4429 Mitchell Barnett
4432 Hitt Julia Mrs
4450 Warden H C
4451 Beck A M Mrs
4453 Gillett J A
Greer V H
4454 Arnett W C
4455 Vacant
4457 Scovel W H
4458 Westfall G B
4459 Douglas A E
4460 Roth W C
4461 Upp L J
4463 Powell E H
4464 Bruce Anna Mrs
4467 Ruplinger P L
4472 Sorenson O C F
4476 Jones M A
4478 Simmons F T
4481 Rockwood E A Mrs
4494 Wilder L A
4495 Holladay M P

Monroe av
4502 Williams R M
4510 Vacant
4514 Vacant
4519 Andersen Carl
4520 Widbin E C
4527 Ogle E E
4528 Bennett Theo
4532 Mayhew E L
4534 Goodsell J D
4536 Seaman Thos
4537 Krape E B
4540 Vacant
4544 Newsom R P
4545 Green J O
4548 Hampton E K
4553 Young Margt E
4554 Dart H L
4560 Jacob E C
4561 Charroin A B
Charroin June Mrs, artificial flowers
4562 Bloomberg G M
4563 Tefft L T
4565 Stevenson J E
4570 Singletary L B Mrs
4572 Boughton R W
4573 Arnold E E Mrs
4574 Vacant
4577 Huston W S
4578 Swalm C C
4582 Capelle C F
4583 Vacant
4585 Vacant
4587 Vacant
4589 Vacant
4591 Hennig H A

Madison av
4605 Revere Apartments
Loucks E WMrs
Pontius K L Mrs
Williams C R
Williams J L
4616 Wall C E
4617 O'Brien J B
4617½ Dryer Melvin
4618 Sykes C S
4619 Durbin H C
4619¼ Bingham Myrtle
4621 Fisher B P
4621½ Ryder C H
4624 Barney M G Mrs
4627 Ryder M D
4628 Carter Belle Mrs
4634 Farleigh D L
4637 Hackett A L
4638 Klein Markus
4640 Caldwell C C
4647 Benger Wm
4653 Bristol K V Mrs
Kennedy G L
Trench F P
4654 Vacant
4655 Maxwell L B Mrs

Golden Gate dr
4661 Sunderhauf Agnes Mrs

Adams av

CCAMULOS (Ocean Beach)—Northeast from 4300 Montalvo

CANON (La Playa)—Northwest from 3 blks south of 1100 Rosecrans
2710 Hovden K Co fish canners

Shafter
2829 Mitchell Frank

Scott
2910 Tavares Joaquin
2911 McConaughy Helen Mrs
2935 Nunez Dominguez
Texeria Jos

Rosecrans
3009 Leonard & Son gro
Leonard G P

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CHALMERS/KETTNER BLVD 1927

CERRO GORDO AV—North from G, 1 East of 27th
727 Thomas Edw
732 Becker P A
750 Becker J F
835 Whitmoyer L S

CHALCEDONY (Pacific Beach)—East from 4800 Ocean blvd
Ocean blvd
Allison
Bayard
Cass
Dawes
Gresham
Haines
1564 Christensen P C
Ingraham
Kendall
Lamont
1829 Rounds E R
1838 De Frenn Ferdinand
1984 Brachmann F E
Noyes
nw cor Martinez Conception
Olney
Pendleton
Quincy
Randall
Pico

CHALMERS—Southwest from 3700 State
State
Columbia
India
1809 Petrich Paul
1823 Vacant
1831 Bandimor Ernest
Kettner blvd
California

CHAMBERLAIN COURT (Ocean Beach)
2209 Haskins F A Mrs
2211 McCool Ernest
2211½ Vacant

CHAMOUNE AV (East San Diego)—North from 4550 Quince
Quince
3049 Baker J W
3067 Clark C E
Redwood
3128 Kinbrell L O
3134 Vacant
3148 Seely O M
3207 Fillpot M E Mrs
3222 McCormick R L
Thorn
3311 Tudor E S Mrs
3315 Athey S L
3319 Vacant
3340 Vacant
3352 Hinkley D H
3427 Cullymore A P
3430 Ruiz Raymond
3438 Kelley A S
3493 Howe J C
Myrtle av
3554 Kiel W L
3555 Whitney F W
3562 Kiel C J
3576 Faulkner O W
3578 Rafailovich Nich
Dwight
3606 Rose E U
3610 Vacant
3612 Vacant
3614 Vacant
3641 Clements Saml
Wilkins C E
3657 Kelly T L
3663 Jamison J G
3671 Clark Minnie Mrs
3680 Vacant
3681 Hostetler C L
3686 Geissler E E
3687 Taylor R M
3691 Vacant
3696 Lough J H
Landis
3701 Vacant
3705 Lovell A A Mrs
3706 Ferguson Wm
3711 Phillips Edgar
3721 Finacom G V
3722 McFarland D A
3725 Acarrier L M
3733 Kellogg I R
rear Adams H J
3736 Thoren Adolphe
3738 Stevenson W L
3743 Lyon Anna Mrs
3744 Ramier L M
3746 Walker J L
3747 Vacant
3750 Chamoune Apartments
Silvey Wm
Waldrep Kelvin
Wedding F A
3751 Fraser I A Mrs
3757 McGregor E B
3758 Allen P B
3762 Sigler David
3766 Solomon M E Mrs
3769 Beamer A E
3777 Schultz C C
3778 Getz G F
3784 Veblen A A
3791 Newell Jas
Wightman
3803 Vacant
3803 Johnson Fred
3811 Shannon E J Mrs
3816 Murray Lloyd
3820 Osborne Margt Mrs
3821 Button F G
3827 Scrivner Jas
3828 Graser M E
Roobol Cornelius
3830 Graser W A
3837 Ensign Stanley
3838 Taylor Emanuel
3845 Wineland Saml
3849 Vacant
3850 Lester C J
3851 Downing C M
McLeod Priscilla Mrs
3854 Fleetwood T E
3860 Greenidge Frank
3869 Forbes N L
3878 Legg C R
University av
4009 Dinsmore I W
4019 Ferron S V Mrs
4022 Shepherd Jas
4029 Stark Freda Mrs
4030 Creekmur A S
4035 Chambers J D
4038 Peveler D C
4041 Kelly H A
4042 Goad C N
4047 McInnes S W
4050 Vacant
4051 Skinner H W
4058 Aubolee M O
4059 Davenport Bernice
4061 Marshall W J
4066 Patton G H Mrs
4068 Duffett Belle Mrs
4073 Connet O M
4078 Hatfield J A
4082 Smith R G
4087 Sims Ruth Mrs
4093 Brownell N L
Polk av
4110 Bower E M
4118 Sargent A H
4122 Vacant
4134 Hunter J W
4143 Crew W S
4154 Vacant
4157 Magee H H
4158 Pleasant C D
4163 Davis M T Mrs
4165 Angle Bruce
4172 Williams Lora
4175 Nichols A J
4176 Buckles C A
4181 Werner Margt Mrs
4182 Vacant
4195 Holman W H
Orange av
4207 Bacon A E Mrs
4218 Ensign Dewey
4220 Tiller Henwood
4226 Tabeling Fred
4227 Hotchkiss Paxton
4232 Zimmerman Walter
4233 Barnes C M
4242 Perrine C H Mrs
4250 Aigro A C
4258 Jenkins C D Mrs
4261 Morton E H
4269 Bishop Walter
4277 Williams Walter
El Cajon av
4315 Roberts J G
4322 Hinkle D M
4324 Satterlund Charlotte Mrs
4332 Colbert W W
4334 Vacant
4358 Vacant
4371 Merritt W E
4374 Hart A L
4382 Smith J W
Norwood

CHANTECLER AV (Encanto)—East from S 66th, 1 South of Detroit av

CHAPMAN PLACE (Roseville)—East from 3550 Del Mar av

CHARLES (La Playa)—West from 1 blk East of 750 Silver Gate av
3552 Vasquez A H Mrs
3625 White Ross
3628 Johnson J S

CHATSWORTH BLVD (Ocean Beach)—East from 1450 Catalina blvd
Catalina blvd
Pescadero av
Orchard av
Del Mar av
Byron
Coronado av
Dickens
Wildwood rd
Goethe
Jarvis
Ridge rd
Arlington dr
Macauley
La Cresta dr
Oliphant
1921 Heath T T
Wawona dr
Poe
Quimby
2080 Daily Market gro
Jaeger H R
2089 Munson Chester
Tennyson
Voltaire
Terrace walk
2335 Point Loma High School
Alcott
Browning
2500 Bridges A S
Curtis
Dumas
2601 Georgia A R
2608 Fenton H G
Elliott
Freeman
2702 Fenton Laura E

"FROST OAK FLOORING IS BEST"

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COLUMBIA PL 1927

Y - COMMUNITY MAUSOLEUM - CREMATORY - COLUMBARIUM

COLUMBIA—Cont
1529 Smith N H Mrs
1530 Villasenor Fernando
1531 Cox Jas
1542 Vinole Frank
1543 Murray A M Mrs
1544 Gonzalez Tony
1545 Higgins C D
1547 Vacant
1549 Brannigan Anna Mrs
1555 Phillips G P
1557 Latoni Mark
1558 Fire Station No 6

Cedar

1619 Larson S A
rear Cooley Lester
1629 Romero Jesus Mrs
1639 Cantos Theo
1641 Turner Amanda Mrs
1642 Rose S D
Sarafino T O
1647 Andrews Geo
1658 Asaro Saml
Ferro Andw
1668 Gacalone Tony
1669 Rabagliati Sylvester Rev

Date

1711 Ball Chester
Murillo Josefa Mrs
1721 McGrath J F
1722 De Santi Leo
1725 Patron N G
1726 Giacalone Mateo
1746 Hine Lupe
1758 Lopez Presiliano
1760 Ghio Dominic
1762 St Ann's Clinic
Rivera Guadalupe

Elm

1812 Swain Chas
1824 Balatore Albt
1833 Harris H G
1836 Warfield A K
1839 Filleppina Thos
1840 Cavalleri Wm
1843 Affleck R W
1857 Busalacchi Jos
1891 Fish Geo

Fir

San Filippo Apartments
1907 Asaro Nicholas
Carro Frank
Giecalone Frank
1915 Vacant
1919 Silvas Manuel
1920 Castagnola Angelo
1922 De Vita Nick
1924 Barbaro Emile
1926 Ghio Enrico
Latson F C
1928 Sarde Salvator
1929 Vacant
1931 Vacant
1942 Zolezzi Silvio
1943 Koch G F C
1953 Crivello Frank
1959 Pitcher H B
1965 Rankin J B

Grape

2027 Lawson Jno
2033 Piro Dominic
2034 Schmucker C L
2041 Hoopes C M
2041½ Buttemer Guy
2043 Penult Antoine
2044 Eastwood Apartments
Crawley Geo
Gamble S W
Johnson T H
Kuntz R F
McGuire Stephen
Peters J J
Scriver S A
Wiswell H V
2051 Giamarinaro Jos
2053 Vacant
2071 Davis Ralph
McPhee Emma Mrs

Hawthorn

2118 Ghio E J
2121 Giecalone Ignacio
2130 Gangitano Vito
2133 Davenport R L
2135 Case R T
2136 Bregante Antony jr
2141 Sneff G L
2146 Bregante Antony
2154 Svejda Jas
2155 Benner R P
Coburn Mary Mrs
Davis Earl
2168 Stagnaro Paladino

Ivy

2201 Olivera Jas
2203 Nigro Victor
2215 Borja Carlos
2219 Bent M A
2233 Hobson J C
2235 Bedwell W G
2239 De Conza Pedro
2241 Superior Overall Lndy
2260 Foster & Kleiser Co adv

Juniper

2303 Sanfilippo Dominic
2312 Becker C S
2314 Neill J A
2317 Crivello Mariano
2326 Vacant
2333 Osborn C E
2343 Martin O W
2345 Larson W A
2348 Quinn W S
2349 Haug A W
2350 Stewart Lena Mrs
2351 Hines Paul
2353 Clavert Claude
McDonald H H
Nielsen A C
White G W
2355 Vincent W H
2357 Miller R C
Pierson H B
2358 Schaniel P F
2363 Beare Arth
2365 Tinkham H L

Kalmia

2429 Palmer E W
2441 Fern A J
Otis O O
2445 Sheehy Jno

Laurel

2540 Herman Fred

Maple

2601 Roche E J Mrs
2603 Vacant
2620 Updegraff Maude Mrs
2629 Bogart N I
2630 Rehin Theo
2636 Vacant
2638 Vacant
2639 Davidson W B
2640 Dickinson J C
2655 Lillicrap A E
2664 Malander May Mrs
Martin F A C
2666 Vacant
2669 Hesse R F Mrs

Nutmeg

2703 Goodell Helen
2705 Jones F H
2715 Walters G L Mrs
2727 Smith C W
2730 Perkins H T
2732 Middlebrook E S Mrs
2744 Middlebrook R P
2753 Traggardh J G
2756 Jones W L
2768 Germo D H
2773 McGregor J G

Olive

2816 Lopez C M
2818 Fisher G W
2830 Griffits Mollie Mrs
2840 Howell S W
2864 Tetlow Ida Mrs
2869 Westmoreland Lawman

Palm

2930 Morrison R F
2940 Morrison W N
2954 Daily J W
2955 Turner H A
2964 Davis R T

Quince

3002 Jumper F F
3018 Clarke A M Mrs

Redwood
Spruce

3225 Yale A W
3242 Munson R E
3267 Popenoe J W

Sassafras
Thorn
Upas

3504 Steadman O J
3515 Vacant
3517 Hawkins Harold
3528 Downey T C
3531 Jameson Eulalia Mrs
3535 Hill Robt
3538 Stacey Earl
3545 Kinney I N

Vine
Walnut av
Chalmers

3651 Flint Lucy Mrs
3652 Taylor C C
3661 Eber J B
Large M E Mrs
3662 Van Syckle Myron
3667 McClure Myrtle Mrs
3670 Taylor T W
3677 Wyeth Lucy S
3680 Williams J L
3686 Vacant

Winder

3707 Worthen H B
3712 Pack F K
3720 Mack G F
rear Hansen Alf

Wellborn
West Columbia

COLUMBINE—(East San Diego) Southeast from 4275 Manzanita dr

2716 Nicholson E W
2915 Arguello T O
2927 Mainz Jno
2933 Vacant
3020 Copsey Lumin
3038 Luckenbill Michl
3257 Vacant

COLUSA—(North San Diego) North from 2 blks south of 5600 Gaines

Yuma
Gaines
Riley
Lauretta
Florentia
Linda Vista rd

COMMONWEALTH AV—North from 3500 Ivy

2240 Tully E F
2255 Schultz C P
2281 Baker W L
2338 Vacant
2348 Pritchard J D
2408 Welton Jack
2412 Heath M J Mrs
2416 Hale M B
2430 Walker J H

CONCORD—(La Playa) North from 3500 Talbot

Talbot
Hill
Trumbull
Ullman
Yell

CONDE—(Old Town)—Northeast from 2450 Kurtz

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GLENWOOD DR 1927

Phone, Franklin 5546 444 Spreckels Bldg., 121 Broadway

GIRARD AV—Cont
7858 Conway Jane F art gds
Dickson Pauline real est
Post F S
7860 Burgar O E jwlr
Rolfe J Le B optom
7862 Little Shop The womens wear
7868 Fay F A baker
Robbins A F
7870 McCartney G A real est
7872 Gafner W F meats
Safeway Stores gro
Solomon L G fruits
7875 Learner J L tailor
7877 Granada Theatre
7879 Davis R V Mrs Confy
First Trust & Savings Bank
7880 Berenson S W shoes
7882 Humpty Dumpty gro
7884 Kimoshito S fruits
Kino S fruits
7886 Stephenson Irene Mrs
7888 Giamini Anna Mrs restr
Wall
ne cor La Jolla Public Library
7906½ Arcrade Building
Tetley A R confy
7910 Fuelscher D & Son gro
Patz I M meats
7912 Murray Drug Co
7915 Eastman W R phys
Parker T A phys
7920 Mehas Alex restr
7921 Zimmerman R F plmbr
7925 McCan C W bicycles
7927 Western Union Telegraph Co
7929 Vacant
7931 Tebbetts A M beauty parlor
7939 Sanchez Wm men's furngs
Prospect
8008 Vacant
8045 Vacant
8039 Vacant
8047 Ford A L Mrs
Coast blvd

GLADIOLA (Pacific Beach)—East from Pendleton, 2 north of 2300 Beryl

GLEN RD— (Encanto)—North from 5500
Kenwood

GLENDALE AV—North from 2550 F to Broadway
812 Perry W T
822 McCormick Edw
826 Thayer E F
827 Marshall Jno
835 Yenrick Noah
836 Gartner L W
841 Bailey Vera
842 Skinner Saml
845 Davidson J C
E
912 Nosler A M
925 Eastman Goldie Mrs
927 Beckstrom Andw
Broadway

GLENFIELD—(E S D)—Southeast from 4300 Manzanita dr
3148 Sorenson A M
3152 Vacant
3154 Vanderpool Louis

GLENWOOD—(Pacific Beach) East from 4250 Dalton

GLENWOOD DR—West from 3570 Union
1500 Bishop J A nurse
Campbell W W
Hanna R C
1502 Fuller S W
1504 Vacant
1506 Ryan J R
State
1602 Vacant
1610 Toms T B
1616 Daly J G
1624 Vacant
1630 Benner C A
Terry C P
1633 Likes J E
1712 Vacant
1716 Vacant
1720 Vacant
1720½ Vacant
1722 Vacant
1722½ Bull F G
1724 Vacant
1724½ Vacant
India

GLOBE—(N S D)—North from 1 blk south of 3500 Bisbee

GLORIA—South from Franklin av bet S 48th and S 49th

GOLDEN GATE DR—(Mission Cliffs)—East from 700 Madison av
Massachusetts
Rhode Island
New York
1111 Pfanstiel J G
Delaware
1202 Blondin A M Mrs
1205 Hall F E
Harvey dr
Maryland
1433 Wilson S A Mrs
Cleveland av
1529 Stevers I L Mrs
1538 Vacant
Campus av

GOLDEN PARK AV — (La Playa) North from 1 blk south of 3300 Lucinda
720 Shropshire W B
945 Morton E K

GOLDFIELD—(N S D)—Northeast from 400 Georgia av
George av
Spencer av
Marion av
Jennie av
Michigan av
Margaret av
Anna av
Isabel av
De La Hunt av
Ellen
Bisbee
Tempe
Naples

GOLDFINCH—North from 3050 Horton av
Redwood
Spruce
Thorn
Fairfield dr
Upas
3437 Hartley E B
3447 Stevenson H R
3451 Meyers J H
3457 Loeber H L
Walnut av
Brookes av
Pennsylvania av
3748 Maack Kate Mrs
3752 Martin Eug
3760 Weitekamp A H
3768 Sikes C P
3769 Dorr G H
3775 Wright A F H
3776 Vacant
3781 Marvin F L
3784 Walton E A
3792 Kipp V S
3795 Waldmann M A Mrs
Bush
3801 Mentle E L Mrs
3809 Torrey A C
3817 Sheldon Benj
3820 Wright Leonard
3825 Schoettler H J
3828 Ross J O
3831 Smith J A
3834 Millon J P
3837 Sprinkle C G
Ward C D
3838 Bair E H
3842 Sutherland E R Mrs
3874 Fire Station No 8
3901 Hill Alonzo
3904 Christian M E Mrs
Haden J F
3907 Needham H P
3910 Hall S A Mrs
3911 Enholm Christopher
3920 McKay J R
3921 Thomas A E
3933 Maher E T
3934 Ash Luella Mrs
Joerndt M M
3936 Cash Lilly M
Douglass
3951 Tichy F S
3952 Parse L R Mrs
3962 La Tour Apartments
Bernhart Peter
Bissett Harry
Blodgett F C
Bowers E K
Elwood Robt
Gallagher S T Mrs
Irwin M R
La Tour Kath Mrs
Nolan P A
Smith Roscoe
Williams E E Mrs
3965 English G A
3967 Weitz F W
3970 Goldfinch Apartments
Bottles G N Mrs
Christinsen A B Mrs
Garrett H S
Horning J C
McNatt C J
Mills Frank
Robbins S E Mrs
Smith C J
Switzer J N
Thompson C G
3971 Jones C A
3975 Nagle D B
3977 Egolf Iliene Mrs clo clnrs
3981 Wlodarsky Felix barber
3983 Vacant
3987 Henseleit Frieda Mrs
Reichardt E C
Washington
4005 Hobby P C Mrs
4007 Finch E S
4011 Evans T M
4012 Chitwood J R
4019 Holmstrom A W Mrs
4020 Dick J A
4027 Hanks G A
4030 Smith F J
4031 Neill H W
4035 Harshaw O W
4038 Morgan Aline
4046 Ramage N O
Ft Stockton dr
4053 Boulay O W
4054 Markham K S
4061 Savage C C
4062 Coulter C H
4068 Meachum M J
4069 Beale M W
4070 Denniss A F

TP	Adjoining	Source
-	✓	San Diego Directory Co.

INDIA ST 1927

INDIA—Cont
1933 Lockett A P
1943 Asaro Jake
1949 Marino Jos
1950 India Street Garage
1953 Camacho Jesus
1969 Alioto Jno
1970 Hughes Jennie Hrs
Hughes & Owens restr

Grape
2008 Dicola Domencio
2010 Asaro Andw
rear Dicola Domencia
2012 Puentes Jose
2030 Vacant
2034 Vacant
2044 Cascade Laundry
2054 Vacant
2058 Lee & Collier gas sta
2065 Vacant
2067 Dicola Nicholas
2069 Toso Jno

Hawthorn
2101 Allen W J
2102 Schreiber & Sorci gas sta
2107 Oswell Jackson
2111 Stagnaro Steph
2115 Cervantes F T Mrs
2119 McCormick W J
2130 Duffy M J Mrs
McIntosh A H
2138 Scripter Arch
2140 Holtz S R
Lucia A L
2141 Hefti Balthasar
2144 Harman Theo
2146 Matthews F D
2150 Vacant
2157 S D Coffee Co

Ivy
2202 Vacant

Juniper
2307 Heller's Inc gro
2311 Goodall Edw meats
2313 Vacant
2314 Ivara Fredk
2315 Vacant
2317 Vacant
2329 Szalinski Frank
2345 Hanson Jno
2347 Philipsen Johannes
2352 Vacant
2354 Vacant

Kalmia
2401 Larry & Leonard gas sta
2466 Liuzze Jno

Laurel
2504 Klaus A J
2508 Nelson Clarence
2518 Madruga J F
2528 Stern L O
2530 McKenna Geo
2532 Bakehorn L M Mrs
2540 Johns L L
2544 Thurston A D
2548 Enoch Warren
2554 Martinez Anastasio
2566 Darling Jas
2568 Haley G A
Haley H B

Maple
2601 Rowe M M
2615 Orosco Antonio
2630 Jett's Staff Studio artificial stone
2630½ Hudson Irene
2657 Henderson Thos
2659 Garrett W R
2663 Kenyon Thos

Nutmeg
2701 Cheney R L
2742 Vacant
2747 Kiser I M Mrs
2760 Vacant
2764 American Engraving Co.
Jones J H
Sunset Photo Studio

Olive
2801 Zinke Ethel Mrs
2805 Carbary Jas
2815 Allen Beatrice H
2828 Massa Stephano
2830 Ghio Angelina Mrs
2849 Vacant
2867 Thomas G A
2869 Swenson H E R

Palm
2903 Conrad H J
2905 Grindl Anton
2905½ Clark R W
2907 Vacant
2909 Shindler Chas
2927 Hart F May
2932 Cooper T H
Wood J P
rear Creech R E
2940 Bisby W W
2942 Kissinger J L
2944 Miller Wm
2945 Immel Theresa Mrs
Schumacher Emma Mrs
2952 Goularte Helen Mrs
Vermilya J W
2955 Brown Leonardo

Quince
3002 Renner Ida Mrs
3009 Stevenson W A
3014 Renner Ida Mrs gro
3016 Henry Myrtle B
3020 Bayside Apartments
Brugger Arth
Eckley Jos
Losch Wilbur
Smith Geo
Spink Fred
3040 Valenzuela Philip
3042 Foster F E
3042a Beal Howard
3044 LeClair Bert
3044a Wellman R S
3046 Fisher C W
3048 Armstrong Harvey
3053 Nielsen E M
3054 Dann J F
3056 May Emil restr

Redwood
3114 Carpenter E S
3116 Krug I M Mrs
3141 Duncan Isabelle Mrs
3153 Nommels B H mantels
3159 Yule W A C gas sta
3172 Simpson G W

Spruce
3256 Vacant
3260 Fields Wm

Sassafras
3325 Manny Herbt
Taft M H
3328 Concrete Bldg Tile Co
3341 Decker C F
3343 Terry Arth
3345 Gross Wallace
3347 Armstead Roy
Garrett H E
3349 Christian W P

Thorn
Upas
3519 Dickerman Beatrice B
3537 Lacey D S drugs

Vine

Walnut av
3616 Tarver Jules
3620 Mitchell S M Mrs gro
3642 Baxter F W barber
3647 Cordtz Robt Co bill posters

Chalmers
3661 Haeusgen C F gas sta
3662 Smith F L
3664 Yoder A C
3667 Belcourt W F
Belcourt's Pharmacy
3675 Burnaugh R L meats
Sheinberg Saml gro
3684 Williams L J
3688 Aber J K
3690 Peck H E
3692 Massingill M E Mrs real est
3697 Harrington T M Mrs
3698 McPherson D S

Winder
3701 Jones W H
3711 Vacant
3719 Tobey C W
3731 Smith C H Mrs
3735 Strada L C

Andrews
3779 Meserve S C
3791 Vacant

McKee
Keating

INDIANA—North from 1800 E
Upas

Myrtle av
3503 Burgster J B
3515 Colt E I
3517 Lemon D M
3524 McCarthy M B
3526 Leblanch Henry
3528 Vacant
3538 Marsh Mary
Mead Adena
3541 Brill Jno
3544 Ulrich W D
3547 Robinson F W
3549 Tiberend Earl
3551 Brown J A Mrs
Brown Mabel
3554 Young G B Rev
3559 Rowe Gilbert

Cypress av
3604 Johnson R C
Werle Jno
3605 Schoenhoven A G
3611 Davis Mattie Mrs
3613 George T L Mrs
3621 Burckhalter M E
3622 Driver S D
3623 Coslet Miles
3624 Driver Rex
3627 Bierhower J E
3630 Liitt C A
3633 Black M E Mrs
3634 Wilkins G W
3636 Frary M T Mrs
3637 Rawlings J E
3638 Brannon M E Mrs
3640 Bleecker W G
3641 Johnston A W
3646 Ames Walter
3653 Brunet Felix
3660 Torres J T
3662 Herrick J B
3664 Carder Nancy Mrs
3665 Giovanni Enrico
3667 Reeder L B
3668 Fernandez-McGregor Luis
3669 Stevenson O H
3672 Porak R O
3681 Steg-Kemper Wm
3683 Sallee Herbt
3683½ Heffernan W A
3685 Bastian J J
3688 Henry W A
3689 Belarde Albt
3694 St John H E Mrs
3695 Keller C B Mrs
3697 Nelson R D
3704 Hall Jno
3710 Zinsitz J A
3712 Melzer A D
3714 Lawson M G Mrs
3716 Penter M A
3718 Roult M A Mrs
3719 Trapani Antonio
3720 Carl M C Mrs
Thomas D M Mrs
3721 Savin A J
3725 Parker I L

UPAS/COLUMBIA 1927

3026 Dean L N batteries
Heller's Inc gro
Molloy J J auto repr
Weitzel F L gas sta
3028 Vacant
3040 Hill A G & Son auto repr

Grim av

3060 Hill A G
Hill A W
3065 Ashenberg H H
3074 Ray J M
3075 McGregor Asenath Mrs

31st

3112 Boone J L
3114 Bridge N H
3127 Faust C L

Herman av

3162 Nelson C H
3174 Vacant

32d

3218 Reilly F V
3224 Schlachter O A
3254 Pratt Edmund

Bancroft

3264 Wilcox H C

33d

3316 McQueen Wm
3317 Pagett A G
3324 Heron P H

Felton
Gregory
Boundary

UPAS—WEST—West from 3400 1st

102 Vacant
104 Vacant
106 Vacant
108 Vacant
142 Eckhart P B
144 Sweeney Chas
146 Vacant
148 Moore C G

Front
Albatross

336 Zwiener J F

Brant

410 Byrne Gerald

Curlew
Dove
Reynard way
Eagle
Goldfinch
Hawk
Ibis
Jackdaw
Horton av
Union
State
Columbia

1508 Hart Wm
1510 Simpson F E

India
Kettner blvd
California

UPLAND—(Encanto) East from 1600 60th

6038 Swanson Jos

UPSHUR—(La Playa) West from 1050 Shafter, 2 east of Rosecrans

2936 Ball H M
Brown Jos

URBAN AV—East from Elizabeth, 1 blk south of Woolman av

U T A H—(University Heights) North from 2850 E Upas

3411 Vacant
3412 Isaac L N
3419 Upjohn R T
3422 Brogle J P
3429 Michel Lawrence bldg contr
3430 Gruebele J G
Kaidel J T
3436 Evans F A
3437 Zierke W J
3443 Bellows J A

Myrtle av

3500 Botkin A S
3501 Dooley W S
3511 Shell G R
3519 Irwin H L
3520 Botkin T M
3526 Clare W M
3529 Harris Phil
3536 Bennett Jessie M
3537 Moore H J
3543 Anderson T C jr
3544 McCall E F

Capps

3552 Comes A E
3553 Fowler M T
3562 Parker G D
3565 Shell C M
3569 Carter W F
3576 Matlick R E
3577 Marvel A D
3580 Reynolds J R
3583 Bennett C L
Seely R S
3592 Rehkopf A H
3593 Walradt Mary Mrs

Dwight

3605 Ault D L
3610 Compton Wayne
3611 Romero C E
3619 McDaniels J A
3620 Sanclemente F V
3628 Fife David
3629 Hansel Scott
3635 Buby A B
Higgins R W
3640 Clarke F J
3644 Silvernail F J
3645 Irwin J E Mrs

Landis

3702 Cole W B
3705 Rafferty M E Mrs
3709 Parsons E W
3710 Lindsey H S
3720 Monroe G J
3721 Lee J B
3726 Higgins J T
3727 Greenwood Paul
Greenwood Paul Co real est
3728 Noble H J
3733 Ludwig E M Mrs
3736 Herfurth W F
3737 McKee C W
3747 Schnell J W
3748 Mussey R E gro

Gunn

3753 Brown H O
3765 Horton F M
3775 Foote H W
3787 Gant R D

Wightman

3805 Fuller R M
3815 Heimburge Max
3821 Kibler N W
3840 Allender M W Mrs

University av

3912 Swarts Edw
3919 Scott W B
3920 Dodge W D
3921 Fitzel Roy
3927 Bowen J W
3928 Stafstrom G A
3930 Weimer S V
3933 Campbell Agnes Mrs
3935 Fayant A E Mrs
3937 Vincent Fred
3940 Merritt E A
3941 McClintock W A
3945 Hause W E
3946 Peabody G H gro
3947 Sandon A C
3950 Pritchett L E
3953 Townsend R S
3956 Byrne D O
Byrne M E Mrs
3960 Brink S B
3963 Loeser Philip
3967 Sorenson R P
3970 Coppard P A
3975 Tout W H
3978 Priday C W
3979 Smith H J
3984 Cadwell J W bldg contr
3985 Ellis W L
3993 Camp Carmalo
3994 Kennedy B F

Lincoln av

4004 Best F A
4011 Phillips G A
4012 Bent R J
4019 Tichenor L S
4020 Knabb J E
4026 Rogers Walter
4027 Downs F F
4028 Greer Bert
4035 Hancock Eliz Mrs
4036 Peterson Bergette Mrs
4043 Achilles D F
4044 Epler J E
Huebner S J
4045 Gerth W F
4054 Saunders H S
4055 Wiemeyer W J
4060 Hicklin R F
4061 Miller H B
4067 Herrick C I
4070 Dike R S
4077 McGuire F J Mrs
4078 Fleming W F
4085 Volz L P
4086 Fish H O
4091 Fair A L
4096 Williamson J I

Polk av

4103 Simmonds J D
4104 Ely R D Mrs
4109 Harmon C S
4112 Arnold J H
4115 Rotert H W
4120 Chilcote R B Mrs
4121 Williams S S
4122 Manlove M D
Trant E F
4127 Randall A J
4128 Oates F W
4132 Vacant
4135 Smith G G
4140 Dyer D C
4141 Murphy R S
4144 Whitelock A L
4149 Howell L M Mrs
4152 Edwards Geo
4153 Webster H G
4158 Vacant
4166 Vacant
4168 Vacant

Howard av

4211 Godder Chas
4213 Marsh Jas
4219 Gallagher L T
4225 Wiley A B
4235 Klinkert Hugo

El Cajon av

4315 Ellison J C
4319 Coats F S
4320 Weidner Adam
4329 Woodward E C
4330 Boynton J C
4346 McMahon Jas
4354 Morrow W J
4361 Evers F L
4368 Shaw W B
4369 Martin L D
4370 Doan W S
4375 Haydu Frank
4378 Burner R D
Hochart H J
4381 Voise H W
4386 Jennings A A
4396 Vacant

1123 Orange Avenue, Coronado, Calif. CORONADO

3785 Freeberg O E
3788 Love D H
3794 Bowie C G Mrs
Wightman
3803 Mager Edwin
3803 Mayer Edwin
3806 O'Meara Cath Mrs
3811 Thompson M A
3812 Riddell R P
3814 Smith P C
3819 Wilkins F E
3830 Roberts H L
3887 Bates W H
University av

VINE—West from 3550 Union
1501 Muehleisen Adolph
State
Columbia
India
Kettner blvd
California

VINE COURT—East from ½ blk west of 750 S 29th

VIOLA—(North San Diego) East from 2200 Morena blvd

VIOLET—East San Diego) Southeast from 4050 Manzanita dr
2511 Ritz C W
2518 Bivins O E
2710 Ostrander C H
2843 Sutton C R

VIRGINIA—(La Playa) North from 1 blk south of 3550 Dudley, 2 east of Catalina blvd
Charles
Jennings
John
Inez
Talbot

VIRGINIA DRIVE
2728 Dahl Henry

VISTA—(Kensington Park) North from 4260 Madison av
4620 Veblen Harold
4639 Hooke W H
4641 Stark C W
4650 Wilson S S
4655 Vacant
4658 Southworth E L
4665 Vacant
4666 Vacant
4670 Vacant
4722 Walters E E
4723 Drommerhousen F W
4726 Crunert Oscar
4729 Vacant
4730 Ballinger J I
4754 Kearney C A Mrs
4911 Peace Wm

VISTA PLACE—(University Heights) North from 2875 Copley av
4924 Rogers R L
4928 Peabody Kenneth
4931 Crosslend H G
4937 Sutton E W Mrs
4950 Carmichael Ralph
4953 Jamieson L A
4960 Lemen I M Mrs
4966 Hurlbut C L
4970 Chamberlain F H
4871 Vacant
4974 Heise H J
4991 Turtoy H H

VISTA DE LA MESA—(La Jolla) North from La Canada, 1 west of 5900 La Jolla blvd

VISTA DEL MAR AV—(La Jolla) North from Palomar, 1 west of 6400 La Jolla blvd
Rosemont
6507 Ripley Mary Mrs
6509 Vacant
Kolmar
6613 Mahon W J
6641 Brown Frances W
6643 Warsing Larry
6661 Lewis R R cement contr
Gravilla
6701 Vacant
6704 Vacant
6717 Vacant
6721 Vacant
Westbourne
Belvedere
Surfton pl
Arenas
Sea Lane
7346 Tanton T O Mrs
Marine

VOLTAIRE—(Roseville) Northwest from 2200 Rosecrans
Locust
Evergreen
Willow
Plum
Clove
Udal
Capistrano
Chatsworth blvd
Villa dr
Warrington
Worden
Wells
4094 Ware Arabelle
San Clemente
4103 Upham Robt
4118 Caseman E L
4119 Smith W O
4130 Skinner M W printer
4145 Bayne B V
4184 Cunningham Mary Mrs
Catalina blvd
4201 Caseman E L real est
Hartman D M real est
3212 Roll Louis
Mendocino blvd
4363 Nilsson G F
Bolinas
4415 Hayden V T
4420 Stalnaker H D
4447 Vacant
Soto
Guizot
4505 Fiske C N
4521 Hubbell O E
4524 Rice C E
4525 Smith Jas
Etiwanda
Seaside
4567 Agan Eamma B
4570 Hendricks E L
4573 Stamper W J
Froud
4605 Swarts Wilfred gas sta
4606 Pierce J A
4621 Solano Gustavo
4635 Vacant
4643 Albrecht Jacob
4649 Woodruff G T
4694 Gene & Tom's Service Station
Ebers
4712 Northern H L
4721 Chase Harlon
4725 Crapo R R
4733 Robyns Wm
4736 Grenfell R P
4444 Bosmyer C A
4747 Neal L E Mrs
4749 Gilpin G E
4752 McLeod R F jr
4755 Julian C H
4760 Douglass Paul
4775 Vacant
4776 Armstrong W S
4783 Hammer Mary Mrs
4795 Way C A gro
De Foe
4804 Vacant
4805 O'Connell Margt
4815 Vacant
4816 Cantwell W C
4826 Wallace Estelle Mrs
4827 Simpson H M
4838 Hardy C B
4840 Vacant
4843 James A P
4851 Shepherd A C
4859 Vaughn B W
4862 Edgar W J
Hamilton S B bldg contr
4865 Wetmore O D
4867 Wetmore O D jr
4876 Smith S C
4883 Vacant
4893 Heller's Inc gro
4896 Kierstead P A gas sta
Cable
4903 Vacant
4904 Tinsley E C drugs
4915 Hawnes Minnie B
4917 Speer L M
4921 Donnelly J J
4928 Deuel W W
4933 Gaber S V
4941 Harris E J
4948 Swaffer C J
4955 Vacant
4956 Goldberg Saml bldg contr
4957 Vacant
4959 U-Ban-O Chili Con Carne Co
4969 Hendrix J O
4972 Donelly M E
4984 Eighmey M G
4985 Vacant
4987 Hengstler Henry artist
4989 Komins Lavena Mrs gro
Komins Saml
4991 Van Wagenen D B phys
4991½ Mairot Louis
4999 Hughes J B real est
Bacon
5000 Rittehouse J A real est
5017 Moran Geo
5030 Howard Geo
5045 Schofield Wm
Abbot
5109 Wonderland Court
5111 Vacant
5113 Vacant
5115 Vacant
5117 Austin Clair
5119 Vacant

WABASH AV—(East San Diego North from 1 blk south of Estrella Park and north from 3750 Estrella pl
Estrella pl
Olive
Quince
Redwood
Victoria av begins
Thorn
Haller
Myrtle av
Vancouver
Dwight
3662 Fisk H W
3668 Reynolds S A
3678 Fisk G D
Landis
3720 Glasenapp E A
3752 Barnes Roy

ELECTRIC LAUNDRY

TP	Adjoining	Source
-	✓	San Diego Directory Co.

WALNUT AVE W 1927

WABASH AV—Cont
Wightman
3824 Newman J J
3824½ Powers P K
3825 Glena F R
3832 Carr H P
3842 Lee C H
3858 Schieferstein M A Mrs
3869 Hill H H auto repr
3871 Abbott R W real est
University av
3902 Holmes W H gro
Liberty Food Co
3914 Price C A
3914½ Evans W H
3930 Milz Julia Mrs
Milz L A
Lincoln av
4002 Muehleisen W H
4018 McDaniel D C
4022 Oswalt J H
Windsor W J
4023 Springs G R
4029 Weidman M G
4035 Wyckoff C L
4039 Jones D E
4044 Brunner Wm
Holbrook L R
4045 Williams C A
4049 Weed J A
4050 McManning Lucy Mrs
4053 Hermiston Jno
Wier T P
4060 Jones Chas
4068 Edmonds Benj
4074 Alessio Dominic
4074½ Alessio Frank
4077 McGuire Eugenai Mrs
Polk
4102 Gordon J A
4110 Lorain A W
4112 Vacant
4120 Brown Caroline D
4128 Howes C M
4133 Quinci Vito
4134 Millard H C
4140 Solomon C B
4141 Frazier E C
4148 Penner J D
4151 Noel A J
4156 White C T
4157 Squires S W
4160 Dunkel C E
4171 Jensen J M
4172 Lewis Earl
4174 Mielke R R
4175 Streff T N
4189 Elrod V I Mrs
Orange av

WADDELL—(Normal Heights) East from 4750 31st

WALL—(La Jolla) East from 7900 Girard ave 1 south of Prospect
1023 Mehas Peter
1025 Baird L P barber
1026 Pacific Tel & Tel Co
1028 Vacant
1030 La Jolla Country Club
La Jolla Land & Improvement Co
Taylor S E office
1031 La Jolla Journal
1035 Dailey H Ruth pub sten
1037 Hunter L G Mrs restr
1039 La Jolla Music Store
1041 La Jolla Light
1044 Curtis Effie L
1046 Chatham W D
1053 Wall Street Furn Co
Herschel av
1117 Danielson H E
1121 Mitchell Grace T
1122 Grimes M R
1124 Porter O E
1125 Quincey V E
1128 Requa L H
1134 Arnott Harry
1140 Prall R A
Ivanhoe av

WALLACE—(Old Town) Northeast from 2800 Davis
Midway dr
Buell
Anderson
Kurtz
Hancock
Moore
Jefferson
Congress
San Diego av
4030 Llucia Dolores Mrs
Calhoun
Juan
4101 Chavez Juana Mrs
4104 Vacant
4124 Serrano L A
Sunset blvd
Whitman
Chestnut
Hickory
Ft Stockton dr
Pine
Cherry
San Diego river

WALLACE COURT—North from National av 1 east of 39th
912 Cartledge Geo
927 Wilson Wm
931 Robinson Harry
951 Novotny Ernest

WALNUT AV—East from 3500 1st
100 Brinton F L Mrs
115 Butters E E
140 Day H B
2d
3d
306 Barker A T Mrs
Barker T E
328 Putnam Elbert
335 Fletcher Ed
4th
420 Sharp R G phys
Woods D K phys
430 Hunt P E
5th

WALNUT AV—WEST—West from 3500 1st
111 Brust M S
117 Flint M C
130 Retsloff C O
Front
204 Fisher J W
205 Vacant
211 Vacant
230 McDowell Sarah J
Albatross
246 Case N B Mrs
315 Kendall J M
321 McVey M T Mrs
Curlew
Otsego dr
Dove
Bear dr begins
605 Taylor W F
Eagle
Falcon
Reynard way
Goldfinch
Hawk
1021 Stahel Roland
1025 Lundin Jno
Ibis
Jackdaw
Kite
Lark
Union
State
1605 Tenbrock H A
1617 Wood Percy
Columbia
1717 Davis H M
India
Kettner blvd
California

WALTON PLACE—East from Ohio, bet Monroe and Madison av
3057 Lawrence F C
3060 Fiedler J E
3061 Vacant
3064 Smith C A
3069 Lang C W
3070 Brockmeyer E F
3074 Henderson E L

WARD ROAD—(Normal Hts) (To Camp Kearny, via Murphy Canyon) East from Cherokee av at Madison av
3716 Vacant
3717 Mitchell Arva Mrs
3720 Steele Jno
3728 Haynes Alice G
3736 Braly Clark
3738 Vacant
3747 Farley E E
Irwin E M trucking contr
3752 McClure L W
3759 Vdemza Michl
3760 Marshall G E
3767 Terrell Bert
3768 Monson C E
3773 Palmer O J Mrs
3778 Glenn T W
3786 Seaman W K
3812 Michelson D M

WARNER—(La Playa) West from 650 Silver Gate av

WARRINGTON—(Ocean Beach) Northeast from Wildwood rd 1 west of 1700 Chatsworth blvd and northeast from 3800 Tennyson
nw cor Wildwood rd
Mundy Talbot
Ridge rd
Arlington dr
Tennyson
2120 Chadwick R W
Udal
Voltaire
Whittier
Xenophon
Yonge
Zola
Alcott
Browning
Curtis
Elliott
Nipoma
Gaviota
Esperanza
Bodega

WASHINGTON—EAST — (Mission Hills) East from 4000 1st
105 Mission Dry Cleaners
109 Myers J E
120 Johnson R A
121 McCarty F W
126 Johnson A G
Ossin J J
128 Vacant
130 Vacant
132 Vacant

APPENDIX H
Site Photographs

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 1:

View: Looking south at the Site.

Photo shows the entrance to the Site, including the guard shack.

PHOTOGRAPH 2:

View: Looking south at the Site.

Photo shows the parking lot at the Site.

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 3:

View: Looking west at the Site.

Photo shows a wooden shed at the Site that houses cones, a vacuum, and other supplies.

PHOTOGRAPH 4:

View: Looking southeast at the Site.

Photo shows a drop inlet storm drain near the Site boundary.

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 5:

View: Looking northeast along the northwest Site boundary along Vine Street.

Photo shows Vine Street and I-5 in the background.

PHOTOGRAPH 6:

View: Looking southeast along the southwest Site boundary.

Photo shows railroad tracks and a drainage swale.

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 7:

View: Looking southwest from the eastern portion of the Site.

Photo shows the boundary between the rental car facility and the Site.

PHOTOGRAPH 8:

View: Looking northwest along the northeast Site boundary.

Photo shows the eastern portion of the Site along Kettner Boulevard.

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 9:

View: Looking southwest from southeast of the Site.

Photo shows the car wash, drums, and fuel AST adjoining the Site to the southeast. The AST is approximately 25 feet southeast of the Site boundary.

PHOTOGRAPH 10:

View: Looking northwest from the Site.

Photo shows the adjoining Rush Press facility which formerly was occupied by a battery manufacturer.

APPENDIX H - SITE PHOTOGRAPHS

SITE: Proposed Vine Substation, San Diego, California
DATE: Site reconnaissance conducted on 28 March 2014

PHOTOGRAPH 11:

View: Looking west from northwest of the Site.

Photo shows groundwater monitoring wells related to the Honeywell (former Baron-Blakeslee) property adjoining northwest of the Site.

PHOTOGRAPH 12:

View: Looking northeast from southwest of the Site along Pacific Highway.

Photo shows the former Vine Street thoroughfare to Pacific Highway. The Site is located in the background beyond the railroad tracks.

ATTACHMENT 4.8-B: WATER QUALITY CONSTRUCTION BEST MANAGEMENT PRACTICES MANUAL

MANUAL

BEST MANAGEMENT PRACTICES MANUAL FOR WATER QUALITY CONSTRUCTION

Geosyntec Project No. SW0186

December 2010, Rev 2- Geosyntec Consultants
Revised July 2011, San Diego Gas & Electric Environmental Services Department

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Why Is There A Need for This Manual?

Sempra Energy's Environmental Policy states in part, "Sempra Energy believes in treating the Earth's resources with respect. We are committed to protecting and conserving the environment and the health and the safety of our employees, our customers, and the diverse communities in which we operate and provide service." Therefore, Sempra Energy companies will:

- Meet applicable environmental laws, regulations, and permit requirements.
- Join customers, civic leaders and other community leaders in providing sound and responsible stewardship of our environment.
- Incorporate appropriate environmental management and compliance in strategic planning and operational decisions."

Municipalities (Cities, Counties, and Special Districts) have passed storm water ordinances intended to protect storm sewer systems and receiving water bodies from sediment, chemical, and biological pollutants. These ordinances require storm water Best Management Practices (BMPs) for construction projects and construction activities that disturb soil. Due to the numerous municipalities in the San Diego Gas & Electric (SDG&E) service territory, there is a need to consolidate the various municipal BMP requirements for consistent and cost effective construction practices. This manual has been written to supplement the operational procedures of SDG&E to meet the municipal storm water ordinance requirements within SDG&E's service territory. Municipal storm water ordinances include prohibitions regarding erosion, sedimentation and discharge of other pollutants without reference to soil disturbance area and include construction "like" activities that include construction or operation and maintenance activities that can impact the municipal storm water conveyance systems. These activities include saw cutting, potholing, trenching, excavation (including trench and excavation dewatering) and stockpiling. Therefore, this BMP manual is applicable to the above construction and construction "like" activities, including field operations and maintenance activities, regardless of soil disturbance area or its location. This manual is also applicable to construction "like" activities at SDG&E facilities, such as Construction & Operations (C&O) facilities, supplementing the Facility Storm Water Management Plan (SWMP) or Storm Water Pollution Prevention Plan (SWPPP) BMPs.

Construction or demolition activities that include any land disturbance of one (1) acre or more are subject to storm water control regulations in the California Construction General Storm Water Discharge Permit (CGP) established by the California State Water Resources Control Board (SWRCB) Order No. 2009-009-DWQ. This CGP has many new requirements compared to the previous permit (Order No. 99-08-DWQ) and requires electronic submittal of the Notice of Intent (NOI), risk assessment, site map, project specific SWPPP, and annual report requirements. Projects subject to the CGP must establish a project-specific construction site risk level based on the site-specific sediment discharge risk and the site's receiving water risk. These two factors are used to determine the project risk, which is assigned as Risk Level 1, 2, or 3 for traditional (non-linear) projects or Type 1, 2, or 3 for linear underground/overhead (LUP) projects. CGP requirements are more stringent for higher Risk Levels or Types. The CGP established numeric discharge limits for turbidity and pH for Risk Level/Type 2 and 3 sites. All projects risk levels/types must implement minimum BMPs and perform visual monitoring in accordance with the CGP. In addition, the CGP has specific certification requirements for those that prepare SWPPPs (i.e., "Qualified SWPPP Developers") and those that implement requirements in the field (i.e., "Qualified SWPPP Practitioners").

The purpose is to update the manual and BMP details to reflect requirements of the new California Construction General Storm Water Discharge Permit (CGP) (California State Water Resources Control Board (SWRCB) Order No. 2009-009-DWQ), which became effective on July 1, 2010 as well as to update information related to SDG&E operations and activities.

Many of the construction activities of SDG&E are linear in nature, unique to utility work, and do not correspond to typical large development project BMPs. There is a continuing need to tailor typical BMPs to utility type work and utility work crews. This manual incorporates the above mandates of Sempra Energy's Environmental Policy. The manual is the result of surveying the available governmental, association, and industry sources of construction BMPs, and the selection and editing of BMPs appropriate to SDG&E construction activities and personnel.

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A Note Regarding Impacts to Construction Cost and Scheduling

It is important for a project's or activity's budget and schedule to include BMP selection, implementation and maintenance costs and time horizons into the design and construction of a project. It is also important that there is a mechanism to hand-off the BMP portion of a project to the appropriate SDG&E Operations and Maintenance Department for final stabilization and post-project permanent BMP maintenance (including final and post-construction costs). A project's field Environmental Representative will be able to assist in estimating and incorporating these costs and scheduling considerations into the project or construction activity.

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BMP PROGRAM OVERVIEW

Water Quality Construction BMP Manual

The purpose of this Water Quality Construction BMP Manual (Manual) is to provide standardized BMPs to reduce or eliminate pollutants in runoff from SDG&E construction projects and construction activities for water quality protection. This Manual applies to SDG&E's construction projects and activities that disturb soil. This manual also applies to SDG&E's contractors performing such work as part of their contractual obligations. SDG&E's service area encompasses approximately 4,000 square miles of diverse terrain from Southern Orange County to the Mexican border. Many of SDG&E's projects and work activities throughout the service area are subject to coverage under the National Pollutant Discharge Elimination System (NPDES) CGP and its conditions, and/or local municipal storm water ordinance requirements. Because of the breadth of jurisdictions and requirements that apply to SDG&E's utility construction projects and activities, this Manual has been developed to provide a consistent approach to water quality management to be applied by SDG&E and their contractors throughout the SDG&E service area.

Most construction projects performed by SDG&E are linear projects which are often short term, and are low impact on narrow corridors of land. Many of the BMPs presented in this Manual have used the best and most practical pollution prevention features from several sources, such as the SWRCB, the California Stormwater Quality Association (CASQA), local municipalities, and California Department of Transportation (Caltrans) BMP Manuals, that have been modified to integrate into our utility construction activities but are also compliant with the applicable regulations and ordinances.

This Manual is organized into three main sections:

- BMP Program Overview.
- BMP Selection and Implementation.
- BMP Details.

The BMP Details section is divided into four functional BMP categories:

- Sediment Controls.
- Waste and Materials Management Controls.
- Non-Storm Water Discharge Controls.
- Erosion Control.

Within each of these categories, specific information, including "What," "When," "Where" and "How" to implement the BMP, plus maintenance and inspection information, are provided for each BMP. Pictures and diagrams are also provided for many of the BMPs for easy reference. Photographs provided in this Manual have been primarily obtained from URS Corporation, Geosyntec Consultants, California Department of Transportation (Caltrans), CASQA, and SDG&E.

The Manual is a tool designed to assist with the identification of BMPs appropriate for use on a construction or activity site. The Manual provides guidance to SDG&E for meeting regulatory water quality requirements for utility construction and maintenance activities that involve disturbance of soil. The BMP selection process provides users with guidance for the selection of typical BMPs that may apply to standard SDG&E construction activities. During BMP selection, the users of this Manual should take into account the benefits and limitations of each of the BMPs considered in the context of the site conditions. Finally, BMP success is contingent not only on appropriate selection and implementation, but also on the coordination and communication between project management, Field Environmental Representatives, and the field construction teams.

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Utility Type Projects

Most SDG&E projects are very different from commercial or residential developments, building sites, and Caltrans projects. Many SDG&E projects are smaller, short term, and impact narrow corridors of land. SDG&E projects are constantly progressing along the route. Often, SDG&E projects are in the right-of-ways of streets or along SDG&E utility corridors that must be maintained to ensure safe access to gas and electric lines and where temporary BMPs are initially installed for a short period of time during construction, followed by soil stabilization BMPs as necessary.

Training Program

Training for construction storm water pollution prevention and control is part of SDG&E's overall Water Quality Pollution Prevention Program. All applicable company employees and contractors hired by the company have the responsibility to comply with environmental laws, regulations, and permit requirements. Training for the prevention of environmental-related incidents is conducted for applicable SDG&E employees who perform any operation or activity that has the potential to cause a pollutant to be released into the environment, including construction activity. Records are maintained as to when employees have received this training and instruction.

Contractor responsibilities, including environmental training of their employees, are specified in the terms and conditions of the contract between SDG&E and the contractor.

Applicable employees should know and contact their local Field Environmental Representatives for support and guidance on any aspects of the training program.

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BMP SELECTION AND IMPLEMENTATION

General Protocol BMP

To select BMPs that are appropriate for a given project, the following steps should be followed:

Step 1 – In the project's design phase, identify "Permanent" or "Structural" BMPs required by the local municipality or the CGP. These BMPs are often stated in the requirements as "Post-Construction" or "Permanent" BMPs.
Step 2 – Identify construction activities and the associated pollutants and issues of concern
Step 3 – Evaluate site conditions and select applicable BMPs
Step 4 – Implement, monitor, and maintain the BMPs

Step 1 – Identify "Permanent" or" Structural" BMPs required by Local Municipalities and/or the SWRCB General Construction Storm Water Permit.

Municipalities may have a Standard Urban Stormwater Mitigation Plan (SUSMP) or equivalent, and other requirements such as a requirement for conformance with the California Green Building Standards Code (CalGreen Code). These Plans and Codes may require:

- Permanent stabilization of exposed soil surfaces and slopes to minimize erosion and sedimentation. Stabilization structures and/or the planting of vegetation may be required.
- Matching post-construction runoff to pre-construction runoff, utilizing the 85th percentile storm event to reduce the risk of impact to the receiving water's channel morphology and provide some protection of water quality.
- Use of Low Impact Development (LID) practices. LID practices are environmentally sustainable practices that benefit water supply and contributes to water quality protection. Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility or outfall, LID takes a different approach by using site design and storm water management to maintain the site's pre-development runoff rates and volumes. LID practices include; Impervious surface reduction & disconnection; bio-retention facilities or rain gardens, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements.

Step 2 – Identify Activities, Pollutants, and Issues of Concern

The second step in BMP selection is to identify the construction activities, the associated potential pollutants, and the local issues of concern. Construction activities may include saw cutting, potholing, trenching, excavation, stockpiling of soil, grading and grubbing, new access road construction, paving, or other activities with the potential to impact storm water and non- storm water discharges. Pollutants of concern may include: sediment; petroleum products such as fuel, oil, and grease from vehicle and equipment operation; paving materials such as concrete and asphalt components; other materials used or stored on site, such as pesticides, herbicides, fertilizer, detergents, paint, adhesives, and solvents; and project wastes such as litter, debris, hazardous wastes, and liquid wastes. The local issues of concern may include:

- Proximity to sensitive receiving waters (environmentally sensitive areas or Clean Water Act Section 303(d) listed water bodies, particularly those meeting the criteria for "sediment sensitive" receiving waters identified in the CGP, example: Upper Newport Bay
- Local regulatory requirements influencing BMP selection, or timing of BMP implementation.

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Step 3 – Evaluate Site Conditions and Select BMPs

To assist in BMP selection, this Manual presents BMPs that are anticipated to be most applicable to utility construction projects and construction activities. Most SDG&E utility projects are unique in that they are typically very short-term, low impact on narrow corridors of land, and have minimal exposure of soil or transportable materials at any one time to storm water. The selector should consider any project-specific requirements or factors such as BMP effectiveness, cost, availability, feasibility, and suitability for the site. For example, important site conditions to consider include the amount of soil disturbance, anticipated weather conditions, soil type and erodibility, flow path length, and slope of exposed soil. Selected BMPs can and should be modified to suit the scope of the project and site conditions.

Table 1 presents guidelines for BMP selection and implementation at a construction site. Table 2 presents a BMP selection worksheet for utility activities. These implementation guidelines and selection worksheet can be used to select BMPs for a specific project or construction activity. Finally, a selector may discover a better BMP for their situation not listed in Tables 1 or 2. The Environmental Services Department encourages creative and practical pollution prevention techniques. These new techniques can be shared with others to support the water quality goals of the region.

Step 4 – Implement, Monitor, and Maintain the BMP System

It is important that selected BMPs be implemented in a sequence that maximizes protection of water quality, be monitored regularly for effectiveness and be maintained as necessary throughout the project. Appropriate BMPs must be implemented year round. Additional BMPs will be implemented when needed, and/or when a storm event is forecasted or occurs. Table 1 presents a suggested schedule for BMP implementation and sequencing. Steps in this schedule should be reviewed for each project as applicable. All BMPs should be monitored and inspected regularly and particularly before and after rain events, or in compliance with the frequency specified in the CGP, if applicable. BMPs should be maintained during a project in accordance with the procedures outlined in the BMP Details Section.

BMP Installation Contractors and BMP Material Suppliers

Construction crews will implement most BMPs. This Manual identifies some SDG&E utility activities and operations that may require outside contractors to install the applicable BMPs. As needed, please consult with the Environmental Services Department, Water Quality for the most current contractor listings and contractual arrangements.

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BMP SELECTION AND IMPLEMENTATION

Table 1
BMP SELECTION AND SEQUENCING GUIDE

Step No.	Description	What to Do	BMP Options (see Table 2 for BMP activities)
1.	Design Stage and Before Construction	Contact the Field Environmental Representative early, at the beginning of a project, and provide him/her with the project information on the current environmental project information form. This information will allow the Environmental Department to identify environmental concerns such as, but not limited to, permitting requirements, potentially required structural BMPs, and the identification of endangered species and/or impaired water bodies that must be avoided or mitigated. As another example, before construction, it may be necessary to evaluate, mark, and protect important trees and associated rooting zones, unique areas (e.g., wetlands), and other areas to be preserved.	Local SUSMP, CalGreen Code, or General Construction Storm Water Permit requirements 4-01, other user-defined BMPs
2.	Site Access Areas (construction entrances, roadways, equipment parking areas)	Stabilize site entrances and access roads if applicable prior to earthwork.	1-07, other user-defined BMPs
3.	Storm Drain/Drainage Inlet Protection	Install inlet protection at down-gradient inlets that project runoff/tracking might impact.	1-06, other user-defined BMPs
4.	Perimeter Sediment Control	Install perimeter sediment controls (silt fence, fiber rolls, etc.) as applicable prior to soil disturbing activities. Install additional runoff control measures during construction as needed.	1-02, 1-03, 1-04, 1-05, other user-defined BMPs
5.	Material and Waste Storage Areas	Prepare staging areas and material storage and disposal areas, as applicable, to reduce run-on and runoff. Install perimeter control, obtain clean-up materials, plastic covers for stockpiles, etc. prior to storing materials on site.	2-01 through 2-08, 1-08, other user-defined BMPs
6	Drainage Control and Run-on Diversion	Install run-on controls to direct run-on around or through the site to minimize erosion in addition to sediment control measures.	4-01 through 4-13, other user-defined BMPs
7.	Earthwork (trenching, excavation, grading, surface roughening, grubbing)	Begin excavation, trenching, or grading after installing applicable sediment and runoff control measures. Install additional control measures as work progresses as needed.	1-01 through 1-08, other user-defined BMPs
8.	Surface Stabilization (temporary and permanent seeding, mulching)	Apply temporary or permanent soil stabilization measures as applicable on all disturbed areas where work is delayed or completed.	4-01 through 4-08, other user-defined BMPs

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Table 1 (continued)
BMP SELECTION AND SEQUENCING GUIDE

Step No.	Description	What to Do	BMP Options (see Table 2 for BMP activities)
9.	Construction and Paving (install utilities, buildings, paving)	Implement applicable control practices as work takes place.	3-01 through 3-9, other user-defined BMPs
10.	Final Stabilization and Landscaping	Stabilize open areas as applicable. Remove temporary control measures and install final stabilization controls appropriately (topsoil, trees and shrubs, permanent seeding, mulching, sod, riprap)	3-07, 4-03, 4-04, other user-defined BMPs

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BMP SELECTION AND IMPLEMENTATION

Table 2
BMP SELECTION WORKSHEET FOR UTILITY ACTIVITIES

Utility BMP No.	BMP Options	Construction						Maint. and Repair				
		Overhead Electric	Underground Electric	Potholing	Underground Gas	Boring/Directional Drilling	Pipe Spans	Gen. Maint. and Repair	Inspect and Repair	Tree Trimming	Veg. Control	Other
Section 1 Sediment Controls												
Choose from one or more of the following BMP options when applicable:												
BMP 1-01	Scheduling											
BMP 1-02	Silt Fence											
BMP 1-03	Fiber Rolls											
BMP 1-04	Gravel Bag Berm											
BMP 1-05	Sand Bag Barrier											
BMP 1-06	Storm Drain/Drainage Inlet Protection											
BMP 1-07	Tracking Controls											
BMP 1-08	Stockpile Management											
BMP 1-09	Sediment Basin											
BMP 1-10	Sediment Trap											
BMP 1-11	Check Dam											
BMP 1-12	Active Treatment Systems (ATS)											
Other-User Defined	BMP Description:											
Section 2 Waste Management and Material Controls												
Choose from one or more of the following BMP options when applicable:												
BMP 2-01	Material Delivery and Storage											
BMP 2-02	Material Use											
BMP 2-03	Spill Control											
BMP 2-04	Solid Waste Management											
BMP 2-05	Hazardous Materials/Waste Management											
BMP 2-06	Contaminated Soil Management											
BMP 2-07	Sanitary/Septic Waste Management											
BMP 2-08	Liquid Waste/Drilling Fluid Management											
Other-User Defined	BMP Description:											

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Table 2 (continued)
BMP SELECTION WORKSHEET FOR UTILITY ACTIVITIES

Utility BMP No.	BMP Options	Construction						Maint. and Repair				
		Overhead Electric	Underground Electric	Potholing	Underground Gas	Boring/Directional Drilling	Pipe Spans	Gen. Maint. and Repair	Inspect and Repair	Tree Trimming	Veg. Control	Other
Section 3 Non-Storm Water Discharge Controls												
Choose from one or more of the following BMP options when applicable:												
BMP 3-01	Dewatering Operations											
BMP 3-02	Paving Operations											
BMP 3-03	Vehicle and Equipment Washing											
BMP 3-04	Vehicle and Equipment Fueling											
BMP 3-05	Concrete/Coring/Saw cutting and Drilling Waste Management											
BMP 3-06	Dewatering Utility Vaults											
BMP 3-07	Over-Water Protection											
BMP 3-08	Paint Removal Control											
BMP 3-09	Temporary Stream Crossing											
BMP 3-10	Clear Water Diversion											
Other-User Defined	BMP Description:											
Section 4 Erosion Control and Soil Stabilization												
Choose from one or more of the following BMP options when applicable:												
BMP 4-01	Preservation of Existing Vegetation											
BMP 4-02	Temporary Soil Stabilization (General)											
BMP 4-03	Hydraulic Mulch											
BMP 4-04	Hydroseeding											
BMP 4-05	Soil Binders											
BMP 4-06	Straw Mulch											
BMP 4-07	Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats											
BMP 4-08	Dust (Wind Erosion) Control											
BMP 4-09	Diversion Berms and Drainage Swales											
BMP 4-10	Velocity Dissipation Devices											
BMP 4-11	Slope Drains											

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Table 2 (continued)
BMP SELECTION WORKSHEET FOR UTILITY ACTIVITIES

Utility BMP No.	BMP Options	Construction						Maint. and Repair				
		Overhead Electric	Underground Electric	Potholing	Underground Gas	Boring/Directional Drilling	Pipe Spans	Gen. Maint. and Repair	Inspect and Repair	Tree Trimming	Veg. Control	Other
BMP 4-12	Streambank Stabilization											
BMP 4-13	Soil Preparation											
Other-User Defined	BMP Description:											

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BMP DETAILS

The previous section provides details for the selection and implementation of BMPs for the most common utility construction activities. Once the BMP objectives are defined, it is necessary to identify the category or categories of BMPs that are best suited to meet each objective.

A category is a grouping of BMPs related in how they prevent pollution. The four categories are:

- **Section 1 – Sediment Controls**
- **Section 2 – Waste Management and Material Controls**
- **Section 3 – Non-Storm Water Discharge Controls**
- **Section 4 – Erosion Control and Soil Stabilization**

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Section 1 – Sediment Controls

Why Are Sediment Controls Needed?

Sediment controls are needed to provide a secondary or back-up mechanism to erosion control techniques to prevent sediment discharges from a site. Erosion controls are designed to prevent erosion (the detachment of soil particles from the surface by rain, flowing water or wind), whereas sediment controls are designed to trap soil particles once dislodged by rain, flowing water, or wind. Sediment particles (soil/dust) from construction, operations, and maintenance (construction like) activities can be transported to a different location by wind or water flow. Once these particles have become detached, they can be transported by wind or runoff to water bodies where they can cause damage to aquatic life by burying the animals or plants or reducing oxygen and/or sunlight that is necessary for their survival. Soil particles can also carry other damaging pollutants with them. Displaced sediment from these activities is therefore considered a pollutant by water quality regulatory agencies.

What are Sediment Controls?

Sediment controls include any method that aids in trapping soil particles after they have been detached and moved by wind or water. Sediment controls are usually passive systems that rely on filtering or settling the particles out of the water or wind that is transporting them. The sediment that has accumulated by the BMPs can be redistributed as excess soil on the construction site. Sediment controls are most effective in retaining sediment on site when used in combination with erosion control BMPs. Sediment Controls presented in this Manual include the following:

- BMP 1-01 Scheduling
- BMP 1-02 Silt Fence
- BMP 1-03 Fiber Rolls
- BMP 1-04 Gravel Bag Berm
- BMP 1-05 Sand Bag Barrier
- BMP 1-06 Storm Drain/Drainage Inlet Protection
- BMP 1-07 Tracking Controls
- BMP 1-08 Stockpile Management
- BMP 1-09 Sediment Basin
- BMP 1-10 Sediment Trap
- BMP 1-11 Check Dams
- BMP 1-12 Active Treatment Systems (ATS)

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What

Scheduling consists of the planning of soil disturbance activities to avoid periods of rain whenever practical.

When

Scheduling of soil disturbance activities must be considered year-round.

Where

All construction and "construction like" operations and maintenance sites where soil disturbance activities take place.

How

Use the following measures as applicable:

- Consider scheduling major soil disturbing activities or activities near environmentally sensitive areas (e.g., adjacent to water bodies) during prolonged periods when no rain is forecast.
- Monitor the weather forecast for seasonable and unseasonable rain events. Obtain weather information from the National Weather Service at
  - www.srh.noaa.gov/
- Print and maintain copies of forecasts to document decisions related to inspections and BMP implementation for projects subject to the CGP.
- Appropriate sediment controls are required year round. Always be prepared to deploy additional erosion and sediment control and soil stabilization BMPs as needed. Off site sediment discharges can occur because of unseasonable rain, vehicle tracking, unanticipated wind, and non-storm water discharges.
- Sequence work to minimize soil-disturbing activities during forecasted rain events.
- Limit disturbed soil area to the amount of acreage that can be protected prior to a forecasted rain event.
- Stabilize disturbed soil areas as soon as practical, and always prior to a forecasted rain event (See Section 4, Soil Erosion BMPs for soil stabilization methods).
- Protect environmentally sensitive areas, such as drainage channels, streams, and natural watercourses.
- When rain is forecast, adjust the construction schedule to implement soil stabilization and sediment controls on all disturbed areas prior to the onset of rain.

Maintenance and Inspection

- Review applicable scheduling and sequencing of construction activities throughout the project or activity to minimize the total area of exposed soil and the exposed soil exposure time.
- Inspect erosion and sediment controls prior to and after each storm event, and routinely throughout the construction and/or clean-up activity. If inspections warrant construction BMP changes, amend the schedule accordingly.

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Pictures

Corresponding CASQA Fact Sheet

Fact Sheet EC-1

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What

Silt fences are temporary linear sediment barriers made of permeable fabric that lets water through but prevents the majority of sediment from passing through. Silt fences also act by intercepting and slowing the flow of sediment-laden runoff and allowing sediment to settle from the runoff before water leaves the construction site.

When

- Silt fences are designed to intercept sheet flows to moderately concentrated flows.
- Generally, silt fences shall be used in conjunction with soil stabilization source controls up slope (see Section 4) to provide effective control, particularly for steep slopes, and slopes adjacent to water bodies or Environmentally Sensitive Areas (ESAs).
- Consider BMP 1-03 "Fiber Rolls" for minor slopes or perimeter sediment control on flat or slightly sloped areas.

Where

Silt fences are placed:

- Below the toe of exposed and erodible slopes.
- Down-slope of exposed soil areas.
- Around temporary stockpiles.
- Along streams and channels.
- Along the perimeter of a project.
- Consider BMP 1-03 "Fiber Rolls" for small stockpiles and perimeters of areas with shallow slopes.

How

- Construct silt fences with a setback of at least 3 feet from the toe of a slope in areas suitable for temporary ponding or deposition of sediment. Where a 3-foot setback is not practical, construct as far from the toe of the slope as practical.
- Construct the length of each reach (length of fence) so that the change in base elevation along the reach does not exceed one-third of the barrier height; each reach should not exceed 500 feet. The last 6 feet of the reach should be turned up slope.
- The maximum length of slope draining to the silt fence should be 200 feet or less.
- Excavate a trench approximately 6 inches wide and 6 inches deep to place the bottom of the silt fence into, ensuring that is not wider or deeper than necessary.
- Key-in, or bury the bottom of silt fence fabric in the trench and tamp into place. If it is not feasible to trench along the slope contour, use sand bags or backfilling to key in the bottom of the fabric.
- Install fence posts at least 12 inches below grade on the down slope side of trench.

- **Silt fences should not be used to divert water. Silt fences should not be considered for installation below slopes steeper than 1:1 (vertical: horizontal) or that contain a high number of rocks or loose dirt clods unless the rocks are removed and erosion and soil stabilization controls (Section 4) are used up slope.**

Maintenance and Inspection

- Repair or replace split, torn, slumping, undercut or weathered fabric. Note that fabric may need to be replaced when installation is required for more than 5 to 8 months due to limited durability.

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Maintenance and Inspection (cont.)

- Inspect silt fences prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Remove accumulated sediment when it reaches one third of the barrier height. Removed sediment shall be incorporated in the project at appropriate locations or disposed of in accordance with federal, state and local requirements.
- Silt fences that are damaged and become unsuitable for the intended purpose shall be removed and disposed of and replaced with new silt fence barriers or other applicable control.
- Remove silt fence when no longer needed and after up-gradient areas are permanently stabilized. Fill and compact post-holes and the anchor trench, remove sediment accumulation, and work the surface of the fence alignment to blend with adjacent ground.

Pictures

Silt fence installed with at least a 3 foot setback from the toe of an erodible slope. Note that use is combined with fiber rolls and serves as perimeter control.

Corresponding CASQA Fact Sheet

Fact Sheet SE-1

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What

A fiber roll (straw waddle) consists of straw, flax or other similar materials that are rolled and bound into a roll. The fiber roll lets water through but prevents the majority of sediment from passing through. Fiber rolls also act by intercepting and slowing the flow of sediment-laden runoff and allowing sediment to settle from the runoff before water leaves the construction site. In sensitive vegetation areas, only certified weed-free rice straw is to be used.

When

Fiber rolls are used for sheet flow or where flows are slightly to moderately concentrated.

Where

Fiber rolls are generally placed on the face of slopes at regular slope intervals to intercept runoff, reduce flow velocity, release the runoff as sheet flow and provide sediment removal.

- May be used along the top, face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- Fiber rolls are appropriate for perimeter site control or along streams, channels, storm drain inlets, or around stockpiles to intercept sediment-laden storm water and non-storm water runoff.

How

Installation

- Locate fiber rolls on level contours spaced in accordance with the CGP requirements for LUP Type 2 & 3 and Risk Level 2 & 3 sites as follows:

Slope Grade	Spacing (sheet flow length not to exceed)
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

- In non-paved areas, stake fiber rolls into a trench that is the width of the roll and one-third the depth of the roll (2- to 4-inch deep trench).
- Drive stakes into fiber rolls at a minimum of 4-foot intervals.
- If more than one fiber roll is placed in a row, fiber rolls should be overlapped and not abutted together.

Removal

- When used in a permanent application, fiber rolls can be left in place.
    - Permanent fiber rolls are typically encased with a biodegradable material.
    - Note that removal can result in greater soil disturbance.
- When used for a temporary application as storm drain inlet protection or stockpile control for example, the fiber rolls should be removed at the completion of the construction cleanup activity in that area.
    - Temporary fiber rolls are typically encased with plastic netting that does not biodegrade.
    - Remove fiber rolls only when up gradient areas are stabilized and/or pollutant sources are no longer a hazard.

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How (cont.)

- Remove fiber rolls before vegetation becomes too mature to avoid unnecessary soil and vegetation disturbance.
  - If fiber rolls are removed, collect and dispose of fiber roll and sediment accumulation as appropriate in accordance with federal, state and local requirements. Trapped sediment may be incorporated into the construction site. Fill and compact holes, trenches, depressions, or any other ground disturbance to blend with adjacent ground.
- Note that the cost of disposal of wet fiber rolls may be more expensive than dry fiber rolls.

Maintenance and Inspection

- Repair or replace spilt, torn, unraveling, or slumping fiber rolls.
- Inspect fiber rolls if rain is forecasted and perform maintenance as needed.
- Inspect fiber rolls prior to and after each rain event, and daily during extended rain events throughout the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Do not use fiber rolls containing polyacrylamindade or other flocculants. Use is considered "active treatment" and is subject to ATS requirements of the CGP (see BMP Detail 1-12).

Pictures

Fiber rolls as perimeter control.

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Pictures (cont.)

Fiber roll installation on the face of a slope.

Corresponding CASQA Fact Sheet

Fact Sheet SE-5

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What

A gravel bag berm consists of at least a single row of gravel bags that are installed end-to-end to form a barrier across a slope to intercept runoff.

When

Use gravel bag berms:

- When needed to reduce storm water flow velocity, release the runoff as sheet flow, and provide some sediment removal.
- Gravel bag berms can also be used when flows are moderately concentrated and when it is desirable to filter sediment in runoff. Gravel bag berms are generally more permeable than sand bags.

Where

- Ditches, swales, and storm drain inlets
- Gravel bag berms are also appropriate for perimeter site control or along streams, channels, storm drain inlets, or around stockpiles to intercept sediment laden storm water and non-storm water runoff.
- Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- Gravel bags may be implemented with other BMPs to maximize sediment containment.
- Sand bag barriers should be used in cases where it is desirable to block and pond flows (BMP 1-05 "Sand Bag Barrier").

How

- When used as a linear control for sediment removal:
  - Install along a level contour.
  - Turn ends of gravel bag row up slope to prevent flow around the ends.
  - Generally, gravel bag barriers are used in conjunction with temporary soil stabilization controls up slope to provide effective control.
- When used for concentrated flows:
  - Stack gravel bags to required height. When the height requires 3 rows or more, use a pyramid approach.
  - Upper rows of gravel bags shall overlap joints in lower rows.
- Construct gravel bag barriers with a setback of at least 3 feet from the toe of a slope. Where a 3-foot setback is not practical, construct as far from the toe of the slope as practical.

Maintenance and Inspection

- Perform routine inspections of gravel bag berms prior to and after each storm event, and daily during extended rain events throughout the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Reshape or replace gravel bags as needed.
- Repair washouts or other damage as needed. Note that bags may need to be replaced when installation is required for more than 6 months due to limited durability.
- Inspect gravel bag berms for sediment accumulations and remove sediment when accumulation reaches one-third of the berm height. Removed sediment shall be incorporated in the project at appropriate locations or disposed of in accordance with federal, state and local requirements.

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Maintenance and Inspection (cont.)

- Remove gravel bag berms when no longer needed and when feasible, recycle gravel fill. Remove sediment accumulation, and clean, re-shape, and stabilize the area. Removed sediment shall be incorporated in the project at appropriate locations or disposed of in accordance with federal, state and local requirements.

Pictures

Gravel bags and fiber rolls used as perimeter sediment controls.

Gravel bags used as perimeter control.

Corresponding CASQA Fact Sheet

Fact Sheet SE-6

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What

A sand bag barrier is a temporary linear sediment barrier consisting of at least one row high of sand bags placed end-to-end, designed to intercept and slow sediment-laden storm water and non-storm water runoff. Sand bag barriers allow sediment to settle from runoff before water leaves the construction site. Sand bag barriers tend to block and pond storm water flows.

When

- During construction or operation and maintenance activities in streambeds when the contributing drainage area is small.
- To capture and detain non-storm water flows.
- When site conditions or activity sequencing require adjustments or relocation of the barrier to meet changing field conditions and needs during construction.
- To temporarily close or continue broken, damaged or incomplete curbs.

Where

Sand bag barriers are used:

- To divert or direct flow away from disturbed slopes or create a temporary sediment basin.
- Where flows are moderately concentrated, such as ditches, swales, and storm drain inlets to divert and/or detain flows.
- Along the perimeter of a site, vehicle and equipment fueling and maintenance areas, chemical storage areas, or stockpiles.
- Below the toe or down slope of exposed and erodible slopes.
- Parallel to streams, channels, and roadways.
- Across channels to serve as a barrier for utility trenches or provide a temporary channel crossing for construction equipment, or to reduce stream impacts.
- Caution – do not use sand bag barriers in traffic areas or other areas where potential flooding is possible. Consider use of BMP 1-03 "Fiber Rolls" or BMP 1-04" Gravel Bag Berms."

How

- When used as a linear control for sediment removal:
  - Install along a level contour.
  - Turn ends of sand bag row up slope to prevent flow around the ends.
  - Generally, sand bag barriers shall be used in conjunction with temporary soil stabilization controls up slope to provide effective control.
- When used for concentrated flows:
  - Stack sand bags to required height. When the required height is three rows or more, use a pyramid approach. Upper rows of sand bags shall overlap joints in lower rows.
  - Construct sand bag barriers with a setback of at least 3 feet from the toe of a slope. Where a 3-foot setback is not practical, construct as far from the toe of the slope as practical.

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Maintenance and Inspection

- Perform routine inspections of sand bag barriers prior to and after each storm event, and daily during extended rain events throughout the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP. Repair washouts or other damages as needed.
- Note that bags may need to be replaced when installation is required for more than 6 months due to limited durability.
- Inspect sand bag barriers for sediment accumulations and remove sediments when accumulation reaches one-third the barrier height.
- Remove sand bags when no longer needed and when feasible, recycle fill. Remove sediment accumulation, and clean, re-grade, and stabilize the area. Incorporate removed sediment at appropriate project locations or disposed of in accordance with federal, state and local requirements.

Pictures

Sand bags used as perimeter control.

Corresponding CASQA Fact Sheet

Fact Sheet SE-8

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What

A BMP or a combination of BMPs used at storm drains or other drainage inlets to protect against the discharge of sediment-laden storm water and non-storm water runoff from construction or operational and maintenance activities. The BMP slows or ponds the storm water flow, giving the sediment time to settle out before discharge to the storm drain.

When

This BMP is required on all construction projects and operation and maintenance sites when sediment laden surface runoff may enter a storm drain inlet and/or drainage to watercourses. Do not construct when runoff will result in ponding into road traffic or onto erodible surfaces or slopes, or overflow onto the sidewalk.

Where

At downstream storm drain and/or drainage inlets that have the potential to be impacted by construction or "construction like" operation and maintenance activity, site storm water run-off, or non-storm water discharges.

How

- Identify all downstream storm drain inlets or drainages that have the potential to receive runoff or non-storm water discharges from construction activities.
- Where a storm drain or drainage inlet is on or at the bottom of a slope, a series of small check dams (i.e., gravel bag berms) constructed at intervals along the slope may be required to slow the runoff. See BMP 1-11.
- Select appropriate protection and construct inlet protection based on the configuration of inlets at the site.
- Some municipalities require removal of BMPs from storm drains within 72 hours of a rain event (e.g., City of San Diego requires removal of inlet protection in the case that 0.25 inch or greater of rain is predicted). Consult with your project Field Environmental Representative for local requirements.
- Remove inlet protection devices at the end of the construction period, or when the inlet can no longer be impacted by the project or activity.

Maintenance and Inspection

- Perform routine inspections of BMPs prior to and after storm event, and daily during extended rain events throughout the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- During inspections:
  - Inspect bags, silt fence, or filter fabric for holes, gashes, and snags.
  - Check gravel bags for proper arrangement and displacement.
  - Remove the sediment behind the barrier when it reaches one-third of the barrier height. Removed sediment should be incorporated in the project or disposed of in accordance with federal, state and local requirements.

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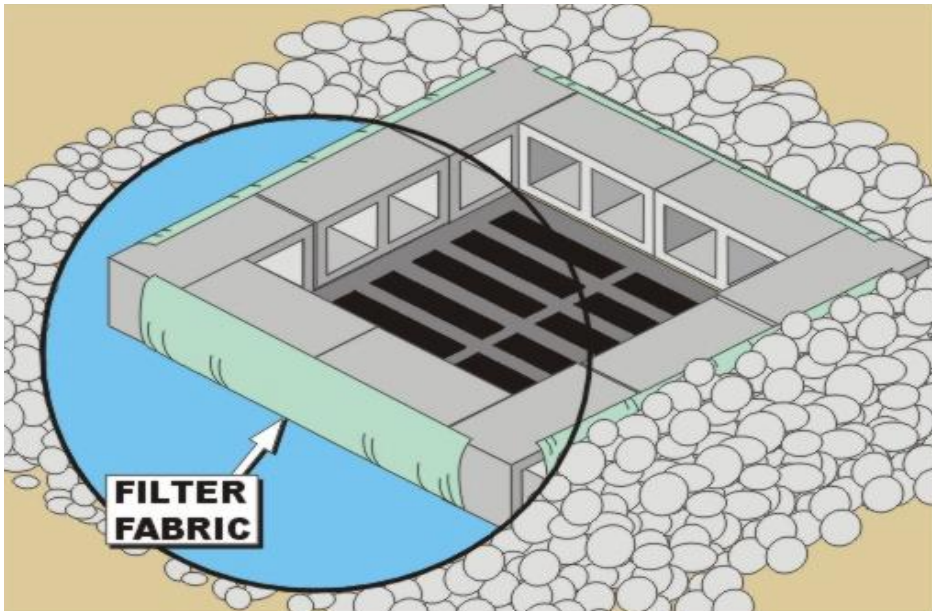
Pictures



Block and gravel-type inlet protection.

Inlet protection that blocks flow, preventing non-storm water discharges from entering drain.

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Pictures (cont.)

Gravel bag inlet protection.

Inlet protection using fiber rolls and filter fabric.

Corresponding CASQA Fact Sheet

Fact Sheet SE-10

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What

Tracking controls consist of constructed/manufactured steel plates (rumble plates) or gravel. Tracking controls reduce offsite tracking of sediment and other pollutants by providing a stabilized entrance at defined soil disturbance activity site entrances and exits with materials that aid in removing sediment from vehicles, especially their tires or tracks. Controls can also consist of providing methods to clean-up sediment or other materials to prevent them from entering a storm drain, such as sweeping or vacuuming. Tracking controls can also include implementing tire washing.

When

- Stabilized entrances/exits should be implemented on each soil disturbance site having a defined entrance/exit consisting of soil which terminates into a paved roadway or substantial paved surface. Stabilized entrances/exits are in addition to other applicable BMPs.
- Daily sweeping or vacuuming should be implemented when sediment is tracked from the site onto public or private paved roads, typically at points of site exit.
- Install and implement tire washing when the above methods are not adequately controlling track-out.

Where

Use stabilized entrances and/or sweeping (and tire washing, if needed) at construction and "construction like" operations and maintenance activity sites:

- where dirt or mud is tracked onto public roads;
- adjacent to water bodies;
- where poor soils are encountered, such as soils containing clay; and
- where dust is a problem during dry weather conditions.

How

<u>Stabilized Entrances</u>

- Limit the points of entrance/exit to the construction or operations and maintenance site by designating combination or single purpose entrances and exits. Require all employees, subcontractors and others to use them. Limit speed of vehicles to control dust.
- Where feasible, grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment-trapping device before discharge (see BMP 1-10).
- Design stabilized entrance/exit to support heaviest vehicles and equipment.
- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions.
- Use of constructed or constructed/manufactured steel plates with ribs for entrance/exit access is allowed.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 12 inches deep, or place aggregate to a depth recommended by a geotechnical engineer. A crushed aggregate greater than 3 inches but smaller than 6 inches shall be used.

<u>Street Sweeping and Vacuuming</u>

- Inspect potential sediment tracking locations routinely.
- Visible sediment tracking should be swept or vacuumed as needed. Manual sweeping is appropriate for small jobs.

How

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(cont.)

- For larger projects, it is preferred to use mechanical sweeping methods that collect removed sediment and material.
- If not mixed with debris or trash, incorporate the removed sediment back into the project or dispose of in accordance with federal, state and local requirements.

Tire Washing

- Design wash rack to support the heaviest traffic loads.
- Provide a turnout or doublewide exit to avoid traffic from entering through the tire washing area.
- Design a drainage ditch to route all rinse or wash waters from the tire washing area to a sediment trapping device (see BMP 1-10) to prevent any wash runoff from leaving the site.
- Hoses should be equipped with automatic shutoff nozzles.

Maintenance and Inspection

Stabilized Entrances

- Inspect routinely for damage and assess effectiveness. Remove sediment and repair if the stabilized entrance/exit is clogged with sediment.
- Perform routine inspections of BMPs, prior to and after storm events, and daily during extended rain events throughout the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the CGP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Where tracking has occurred on roadways, sweeping should be conducted the same day. Water should not be used to wash sediment off the streets, unless necessary. If water is used, it must be captured, preventing sediment-laden water from running off the street or site.
- Keep all temporary roadway ditches clear.

Street Sweeping and Vacuuming

- Inspect silt fences prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect all site paved access roads daily and remove any sediment or other materials on the roads by vacuuming or sweeping daily, as needed, and prior to any rain event in accordance with the CGP Risk Levels 2 & 3 requirements.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- After sweeping is finished, properly dispose of sweeper wastes.

Tire Washing

- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect rack and/or sediment trap system routinely for damage and assess effectiveness. Remove accumulated sediment to maintain system

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performance.

Pictures

Manufactured metal plates knock dirt off vehicle tires before exiting a site.

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Drive through wheel wash before exiting a site.

Corresponding CASQA Fact Sheet

Fact Sheets TC-1, TC-2, TC-3, and SE-7

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What

Stockpile management consists of placing temporary BMPs, such as secured covers, over the piles, and/or placing berms, silt fences, fiber rolls, sand/gravel bags or straw bale barriers around the perimeter of stockpiles. Soil stabilizers/binders may also be used to augment stockpile management (BMP 4-05).

When

Use this BMP when construction projects or operation and maintenance activities require stockpiled soil, waste materials, and/or paving materials. Protection of stockpiles must be implemented whenever there is a potential for transport of materials by a water source or by wind.

- Construction and waste material stockpiles require protection from rain and wind at all times unless actively being used (protect during non-activity). Projects with SWPPPs require protection at the end of each day.

Where

Stockpiles at construction and "construction like" operation and maintenance activity sites, protecting against both run-on and run-off.

How

One or more of the following options may be used to manage stockpiles and prevent stockpile erosion and sediment discharges for storm water and non-storm water runoff/run-on.

  - Stockpile may be returned to the excavation if precipitation is forecast.
  - Sufficient BMP materials for temporary stockpile protection should be available onsite. Select cover materials or methods based on anticipated duration.
  - Protect stockpiles from storm water run-on and sediment runoff from the stockpiles using a temporary perimeter sediment barrier such as berms, silt fences, fiber rolls, sand/gravel bags, or straw bale barriers, as appropriate.
  - Cover stockpiles to prevent erosion. Note that the CGP requires that inactive stockpiles be covered. Where feasible, cover/protect stockpiles using a soil binder, according to BMP 4-05. Alternately, secure stockpiles with covers such as Visqueen weighted down with gravel bags, or sand bags. Plastic should be properly re-used or disposed of properly. Note the CGP discourages the use of plastic materials for cover when more sustainable alternatives can be used.
  - Stockpiles may be hauled off or temporarily stored in a protected location off site.
- Keep stockpiles organized and surrounding areas clean.
- Protect storm drain inlets, watercourses, and water bodies from stockpiles, as appropriate.
- Implement dust control practices as appropriate on all stockpiled material.

- **Stockpiles should be covered, stabilized, or protected prior to the onset of precipitation.**

Maintenance and Inspection

- Repair and/or replace covers, and perimeter containment structures as needed.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.

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Pictures

Stockpile covered with plastic and secured with large rocks.

Silt fence used for stockpile perimeter control.

Corresponding CASQA Fact Sheet

Fact Sheet WM-3

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What

Sediment basins are temporary basins formed by excavation or by constructing an embankment to temporarily detain sediment-laden runoff, allowing sediment to settle out before water leaves the site. The CGP specifies that sediment basins be designed per the CASQA fact sheet SE-2, therefore, this BMP provides general guidance and the CASQA handbook reference.

When

Sediment basins are appropriate:

- If sediment-laden water may enter a drainage system or watercourse.
- If areas are disturbed during the rainy season, in association with dikes, temporary channels, and pipes to convey runoff from disturbed areas.
- To construct before land disturbance, when feasible.
- In conjunction with erosion controls.

Where

Sediment basins are suitable on larger projects with sufficient space for the basin, and should be considered:

- Where maintenance is possible year-round.
- Within property limits, and where failure will not result in loss of life, building damage, or interruption of public roads or utilities.
- At the outlet of disturbed areas draining generally between 5 and 75 acres, evaluated on a site-specific basis.
- Where post-construction detention basins are required.

How

Design the sedimentation basin in accordance with CASQA fact sheet SE-2.

- In general, the basin depth must be no less than 3 feet, not including freeboard, which includes a sediment storage zone and a settling zone of at least 1 and 2 feet deep, respectively.
- Include features to accommodate overflow or bypass flows that exceed the design storm event.
- Utilize rock, vegetation, or other erosion control measures to protect the basin inlet, outlet, and slopes against erosion.
- Continuous fencing should be provided around the sedimentation basin to prevent unauthorized entry.

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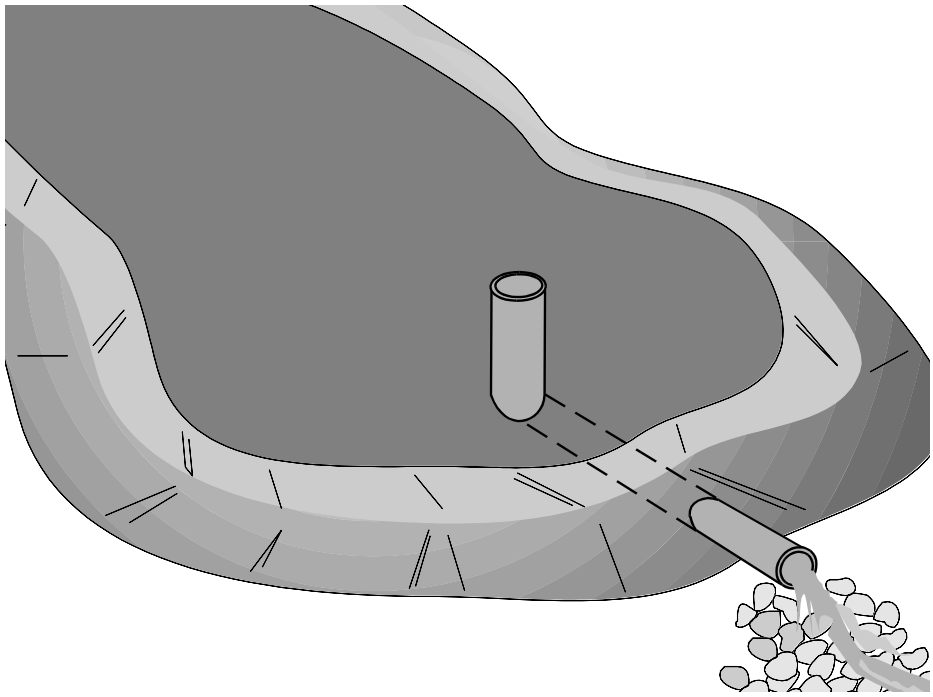
Maintenance and Inspection

- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect basin banks for seepage and structural soundness.
- Check inlet and outlet structures, spillway, and fencing for damage or obstructions. Repair damage and remove obstructions as needed.
- Remove accumulated sediment when it reaches 1/2 of the basin height or in accordance with the SWPPP requirements. Removed sediment shall be incorporated into the project appropriately or disposed of in accordance with federal, state and local requirements.
- Remove accumulation of any vegetation during every inspection.
- Remove standing water from the basin within 72 hours after accumulation to prevent the production of mosquitoes.
- Completely remove basin when no longer needed. Remove sediment accumulation. Fill and compact excavation, any fencing post-holes and anchor trench, and blend the surface with the adjacent ground.

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet SE-2

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What

Sediment traps are small, temporary containment areas where sediment-laden runoff is detained, allowing sediment to settle from the runoff before water leaves the site. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area, and usually have a gravel outlet. Sediment traps only remove large and medium-sized soil particles and require upstream erosion control.

When

Sediment traps are appropriate:

- If the drainage area is less than 5 acres.
- If sediment-laden water may enter a drainage system or watercourse.
- Construction or operation and maintenance activity occurs in small drainage areas with no unusual drainage features, and short-duration construction activities.
- To construct before land disturbance, when feasible.
- In conjunction with upstream erosion controls.

Where

Sediment traps are suitable on sites with sufficient space to allow for infiltration and sediment settling, and should be considered:

- Outside the area being graded, but as near as practical to sediment producing areas, with access for maintenance.
- At the perimeter of a site, at one or more locations where sediment-laden runoff is discharged offsite, to a storm drain or watercourse.
- Around or upslope from storm drain inlet protection measures.
- Within property limits and where failure will not result in loss of life, building damage, or interruption of public roads or utilities.

- **Should not be located in streams unless properly permitted with regulatory agencies. Consult with the Field Environmental Representative.**

How

- Design the sediment trap per referenced engineering standards or local grading ordinance.
- Trap side slopes should be 1:3 (vertical: horizontal) or flatter.
- Trap should be sized to accommodate a settling zone and sediment storage zone with recommended minimum volumes of 67 yd^3/acre and 33 yd^3/acre of contributing drainage area, respectively, based on 0.5 inch of runoff volume over 24 hours. Larger or multiple traps may be required to accommodate specific rainfall, soil, or site conditions.
- Traps with an impounding levee greater than 4.5 feet tall, measured from the lowest point of the impounding to the highest point of the levee, and traps capable of impounding more than 35,000 ft^3, should be designed by a California Registered Civil Engineer.
- The outlet pipe or open spillway must be designed to convey anticipated peak flows.
- When an earth or stone outlet is used, the outlet crest elevation should be at least 1 foot below the top of embankment.
- When a crushed stone outlet is used, the crushed stone or gravel should meet AASHTO M43, size No. 2 or 24, or its equivalent.

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How (cont.)

- Clear any vegetation under the embankment and pool area.
- The compacted embankment fill material must be free of roots, vegetation, oversize, or other objectionable material.
- When a riser is used, all pipe joints must be watertight, and at least the top 2/3 of the riser should be perforated with 0.5-inch diameter holes spaced 8 inches vertically and 10 to 12 inches horizontally.
- Utilize rock, vegetation, or other erosion control measures to protect the trap outlets against erosion.
- Fencing should be provided around the trap to prevent unauthorized entry.

Maintenance and Inspection

- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect trap banks for seepage and structural soundness.
- Inspect outlet structures, spillway, and fencing for any erosion, damage, or obstructions. Repair damage and remove obstructions as needed.
- Remove accumulated sediment when it reaches one third of the trap capacity. Removed sediment shall be incorporated in the project appropriately or disposed of in accordance with federal, state and local requirements.
- Remove accumulation of any vegetation during every inspection.
- Water suitable for mosquito production may stand in the sediment trap, particularly if subjected to daily non-storm water flows. Remove standing water from the trap 72 hours after accumulation.
- Remove trap when no longer needed. Remove sediment accumulation, fill and compact excavation, any fencing post-holes, and blend the surface with adjacent ground.
- BMPs that require dewatering shall be continuously attended during dewatering. Dewatering BMPs shall be implemented at all times during such activities.

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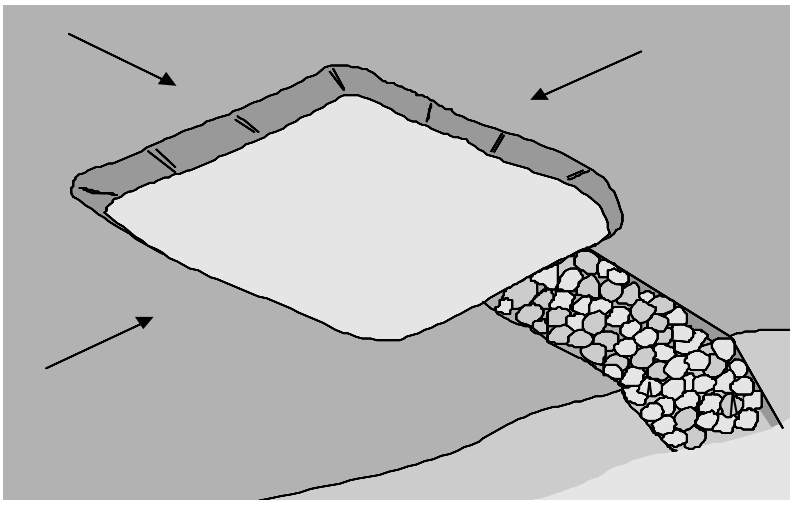
Pictures



Corresponding CASQA Fact Sheet

Fact Sheet SE-3

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What

Check dams are small barriers constructed of rock, logs, gravel bags, sandbags, fiber rolls, or other suitable materials, placed across a swale or drainage ditch. Check dams create small pools and reduce the effective slope of the channel, reducing scour and erosion by reducing flow velocity and increasing residence time within the channel. Check dams promote sediment trapping.

When

Check dams are appropriate:

- If sedimentation should be promoted behind the dam.
- If erosion protection is desired in small intermittent channels and temporary swales.
- During the establishment of grass linings in drainage ditches or channels.
- If grade control is desired or required.

Where

Check dams should be considered:

- In small open channels that drain 10 acres or less.
- In channels to reduce slope and storm water runoff velocities.
- In temporary ditches where the short length of service does not warrant establishment of erosion-resistant lining.

Check dams should not be used:

- **In streams or in channels with flow between storm events.**
- In channels that are already grass-lined, unless erosion potential or sediment-laden flow is expected. Installation of check dams may damage vegetation.

How

- Do not construct check dams with straw bales or silt fence, since concentrated flows quickly wash out these materials.
- Check dams reduce the capacity of the ditch or swale. Alternative BMPs or an increased swale or ditch size may be necessary or the size of the ditch or swale may need to be increased to prevent overtopping.
- Maximum slope and velocity reduction is achieved when the toe of the upstream dam is at the same elevation as the top of the downstream dam. The center section of the dam should be lower than the edge sections (at least 6 inches), acting as a spillway, so that the check dam will direct flows to the center of the ditch or swale.
- The check dam should be installed along a level contour and should completely span the ditch or swale to prevent washout.
- Install the first check dam approximately 16 feet from the outfall device and at regular intervals based on slope gradient and type.
- Check dams should be placed at a distance and height to allow small pools to form between each check dam.
- For multiple check dam installation, backwater from a downstream check dam should reach the toe of the upstream check dam.
- High flows (typically a 2-year storm or larger) should safely flow over the check dam without an increase in upstream flooding or damage to the check dam.

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How (cont.)

- Rock check dams are usually constructed of 8 to 12 inch rock placed individually by hand or mechanically, but never dumped. The rock used should be large enough to stay in place given the expected channel flow. Abutments should be extended 18 inches into the channel bank. Rock can be graded such that smaller diameter rock (2 to 4 inches) is located on the upstream side of larger rock, increasing residence time.
- Log check dams are usually constructed of 4 to 6 inch diameter logs installed vertically, and embedded at least 18 inches into the soil, and can be bolted or wired.
- See BMP 1-03 for installation of fiber roll check dams. Fiber rolls should be trenched in, backfilled, and firmly staked.
- Gravel bag and sand bag check dams are constructed by stacking bags across the ditch or swale. Gravel bags and sand bags used to construct check dams should conform to the requirements of BMP 1-04 and 1-05, respectively. Tightly abut bags and stack in a pyramid fashion no higher than 3 feet. Upper rows shall overlap joints in lower rows.
- Manufactured products used to construct check dams should be installed in accordance with the manufacturer's instructions, and typically requires trenching or anchoring.
- If grass is planted to stabilize the ditch or swale, the check dam should be removed when the grass has matured, unless the slope of the swale is greater than 4 percent.

Maintenance and Inspection

- Check dams require extensive maintenance following high-velocity flows.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Replace missing, damaged, or degraded rock, bags, rolls, etc.
- If the check dam is used as a grade control structure, sediment removal is not required as long as the system continues to control the grade.
- Sediment can be re-suspended during subsequent storms or removal of the check dam. Remove accumulated sediment when it reaches 1/3 of the barrier height, and prior to permanent seeding or soil stabilization. Removed sediment shall be incorporated in the project at appropriate locations or disposed of in accordance with federal, state and local requirements.
- Water suitable for mosquito production may stand behind check dams, particularly if subjected to daily non-storm water flows. Remove standing water from the dam 72 hours after accumulation.
- Remove check dam and accumulated sediment when no longer needed.

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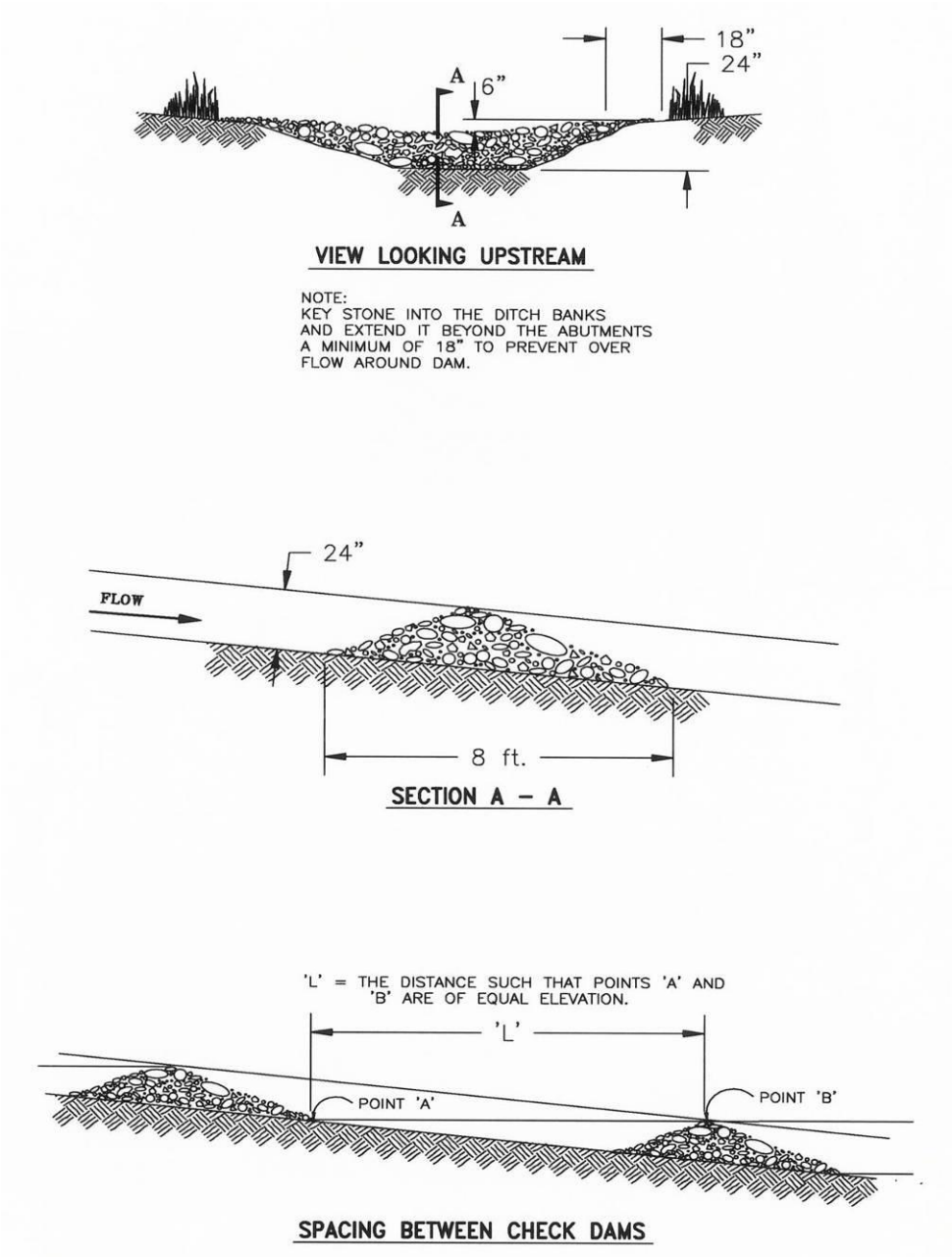
Pictures



Corresponding CASQA Fact Sheet

Fact Sheet SE-4

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What

Active Treatment Systems (ATS) reduce turbidity of runoff by introducing chemicals to storm water through direct dosing or an electrical current to enhance flocculation, coagulation, and sediment settling. Coagulants and flocculants include inorganic salts and polymers which enhance sediment settling and removal and reduce turbidity. The CGP has specific requirements for ATS. Only general guidance for ATS is provided in this BMP; additional details are provided in the CASQA Handbook.

Limitations:

- **Specific permit requirements or mitigation measures such as RWQCB 401 Certification, U.S. Army Corps of Engineers 404 permit, and approval by the California Department of Fish and Game supersede the guidance in this BMP.**
- If numerical water quality standards are mentioned in any permits, testing and sampling may be required. Streams listed as 303(d) impaired for sediment, silt, or turbidity, are required to conduct sampling to verify that there is no net increase in sediment load due to construction activities.

When

ATS should be used when a rigorous combination of drainage control, erosion control, and sediment control BMPs are not effective or are not anticipated to be effective based on site soil types (e.g., fine grained or highly erosive soils), proximity to sediment-sensitive receiving waters, and/or other site constraints. Phasing and limiting active areas of disturbance should be considered prior to use of an ATS.

Where

ATS should be considered where turbid discharges to sediment and turbidity sensitive waters cannot be avoided using traditional BMPs.

How

- **ATS should be implemented in accordance with the guidance provided in the CASQA Handbook.**
- **Dischargers choosing to utilize chemical treatment in ATS must also follow all guidelines of the CGP Attachment F – Active Treatment System Requirements.**

Maintenance and Inspection

- ATS must be operated and maintained by experienced personnel meeting CGP training requirements at all times during treatment operations. Visual monitoring for proper performance shall be performed daily and recorded in a data log. The project data log shall include the name, phone number, and training documentation of the person responsible for operating and monitoring ATS.
- Requirements for ATS shall include but are not limited to operational and compliance monitoring, toxicity monitoring for batch and flow-through treatments, numeric effluent limit compliance, operator training, implementation of standard BMPs, and proper sediment removal and disposal.

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Pictures

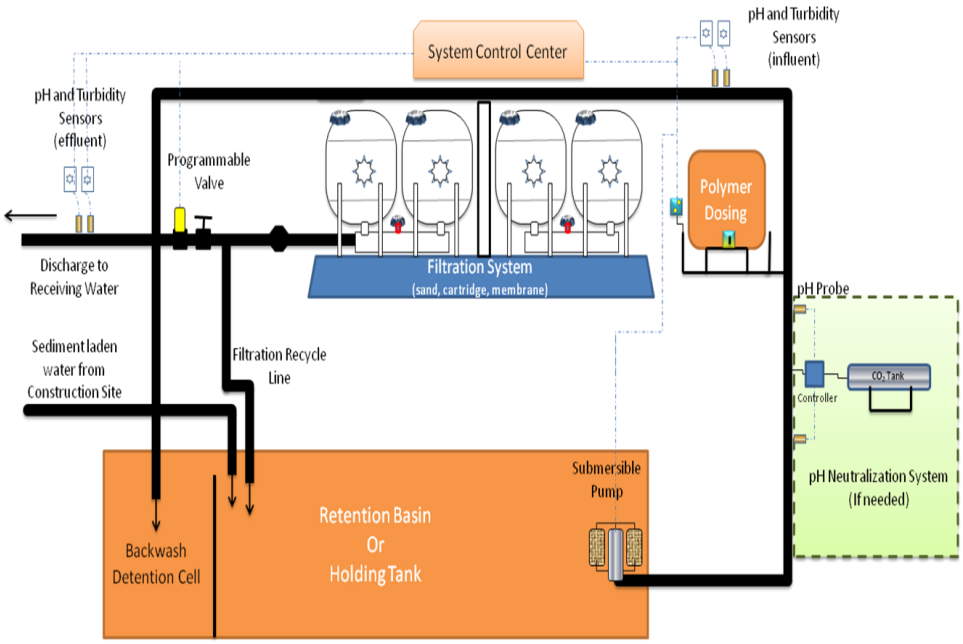

Figure has been adapted from Port of Seattle response to Washington Dept. of Ecology Action Order 2948

Corresponding CASQA Fact Sheet

Fact Sheet SE-11

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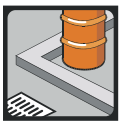

Section 2 – Waste Management and Material Controls

Why Are Waste Management and Material Controls Required?

Federal, state and local laws, regulations, ordinances and permits prohibit the discharge of contaminated storm water to storm drains, drainages, and surface waters. Pollutants such as litter, paint, solvents, fuel, lubricants and demolition wastes, can be transported by runoff from a construction site. These BMPs address pollutants associated with material use and waste management to ensure that all pollutants are properly managed and are not discharged to storm drains, drainages, and surface waters.

What are Waste Management and Material Controls?

Waste Management and Materials Controls are source control BMPs that reduce or prevent contact between wastes and/or materials and storm water. Waste Management and Materials Controls presented in this Manual include the following:

- BMP 2-01 Material Delivery and Storage
- BMP 2-02 Material Use
- BMP 2-03 Spill Control
- BMP 2-04 Solid Waste Management
- BMP 2-05 Hazardous Materials/Waste Management
- BMP 2-06 Contaminated Soil Management
- BMP 2-07 Sanitary/Septic Waste Management
- BMP 2-08 Liquid Waste/Drilling Fluid Management

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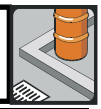

What

Material Delivery and Storage Controls are procedural BMPs controlling the delivery and storage of construction materials, supplies and wastes so that storm water run-on and run-off and non-storm water discharges do not contact the material or wastes.

When

This BMP is applicable when it is necessary to store materials at a construction or operations and maintenance site, and does not apply to materials and supplies stored on trucks that are driven on site and off site daily.

Where

All construction or operations and maintenance activity sites where construction material is delivered or stored and has the potential to be contacted by storm water.

How

Use the following BMP measures as appropriate:

- Only store the minimum amount of material that is needed for the job.
- Locate storage areas away from storm drain inlets, drainage systems, and watercourses to prevent storm water run-on from reaching the materials.
- If practical, store materials in enclosed storage containers such as cargo containers.
- Store materials on impervious surfaces or use plastic groundcovers and berms on bare soil to prevent spills or leakage from contaminating the ground.
- For known hazardous materials, keep materials covered using plastic or other waterproof materials.
- Store chemicals in water tight containers with appropriate secondary containment systems or in a storage shed to prevent contaminated run-off/run-on from leaving storage areas.
- Keep an adequate supply of spill kit materials nearby.
- Ensure that qualified personnel are available when hazardous materials are delivered to ensure proper delivery and storage in a designated area.
- Material Safety Data Sheets (MSDS) should be made available on-site for all materials stored that have the potential to come in contact with storm water.
- When a storage area is no longer needed, return it to original condition.
- Bagged materials such as cold patch, concrete mix, and other materials with the potential to pollute runoff should be placed on pallets and covered during non-working days and prior to and during rain events.

Maintenance and Inspection

- Repair or replace covers, containment structures, or perimeter controls as needed to ensure proper function.
- Perform Routine BMP inspections of labels on containers and designated delivery and storage areas.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.

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Pictures

Materials are covered and neatly stored within a curbed area.

Corresponding CASQA Fact Sheet

Fact Sheet WM-1

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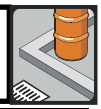

What

Material Use is a procedural BMP that controls the amount or use of materials, chemicals and/or hazardous substances stored onsite and minimizes their potential for contact with storm water run-on or runoff or by non-storm water discharges.

When

Apply the Material Use BMP when the following materials are used or prepared on site:

- Pesticides (herbicides, insecticides, and biocides).
- Fertilizers and soil amendments.
- Detergents.
- Petroleum products such as fuel, oil, and grease.
- Asphalt and other concrete components.
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds.
- Mastic, pipe wrap, primers, and paint.
- Concrete compounds.
- Welding material.
- Other materials that may be detrimental if released to the environment.

Where

All construction and operations and maintenance activity sites that utilize the above materials.

How

- Only use products or materials onsite that have been approved through the SDG&E Product Approval process.
- Reduce or eliminate use of hazardous materials on site when practical. Contact your Field Environmental Representative for additional information.
- Do not remove the original product label; it contains important safety and disposal information. Use the entire product before disposing of the container.
- Thoroughly dry empty latex paint cans, used brushes, paint rags, absorbent materials, and drop cloths. These dry wastes may be disposed of with other construction debris.
- When possible, mix paint indoors, otherwise use secondary containment structures. Do not clean paintbrushes or rinse paint containers into a street, gutter, storm drain, sanitary sewer or watercourse.
- Dispose of any paint thinners, residue, and sludge that cannot be recycled as hazardous waste (see BMP 2-05). For water-based paint, clean brushes to the extent practical, and rinse into a concrete washout pit or temporary sediment trap. Do not allow liquid to discharge to a storm water conveyance system. For oil-based paints, clean brushes to the extent practical and filter and reuse thinners and solvents.

- If possible, recycle residual paints, solvents, non-treated lumber, and other materials.
- **Do not over-apply fertilizers, pesticides, and soil amendments. Prepare only the amount needed. Strictly follow the recommended usage instructions.**

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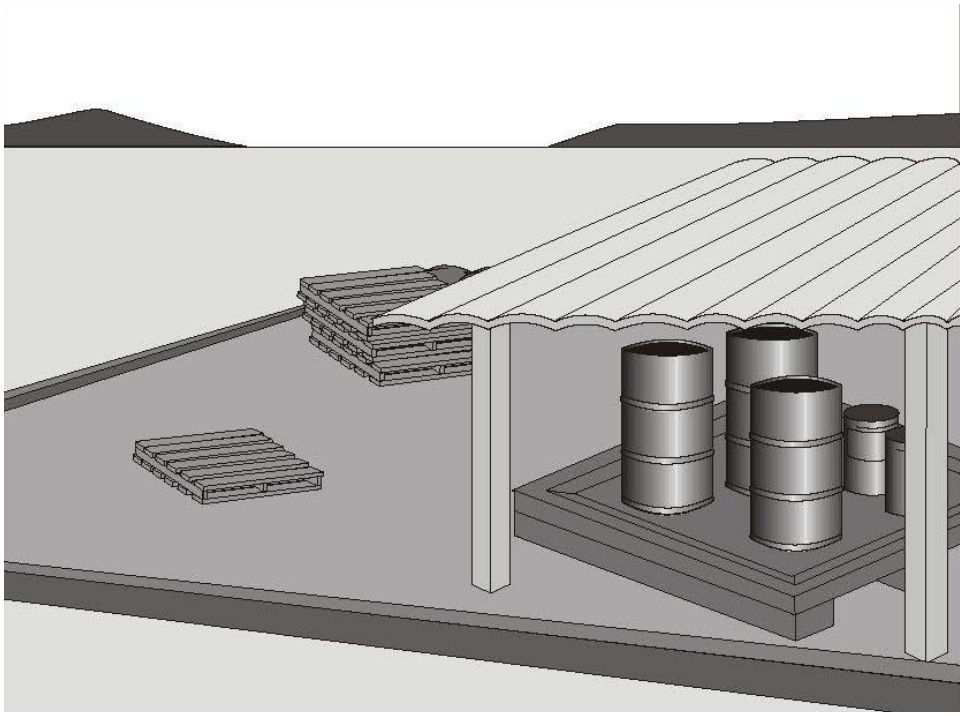
How (cont.)

- For termiticide applications (termite control pesticide) refer to CASQA Fact Sheet WM-2 "Material Use." Note that termiticide can only be applied when it is done in accordance with all applicable federal, state and local labeling requirements and in no case shall it be applied in a manner that would result in either a direct or indirect (e.g., drift) discharge to waters of the US or state.
- Keep an ample supply of spill cleanup material near use areas. Instruct employees in spill cleanup procedures.

Maintenance and Inspection

- Spot-check employees and contractors regularly throughout the job's duration to ensure appropriate practices are being employed.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable).

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet WM-2

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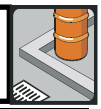

What

Spill Control is a procedural BMP used to control, contain, and clean-up spills on site so that storm water run-on and runoff and non-storm water discharges do not become contaminated.

When

This BMP applies to all personnel present at construction and operations and maintenance activity sites at all times. Spill control procedures are implemented anytime chemicals (liquid or solid form) and/or hazardous materials and/or wastes are handled, used or stored. A single handling, use, or storage of a hazardous material or waste is sufficient to trigger this requirement. Such substances may include, but are not limited to fuels, lubricants, solvents, fertilizers, pesticides, herbicides, soil binders, coolants, paints, and sewage.

To the extent that work can be accomplished safely, spills of materials or chemicals shall be contained and cleaned up immediately.

Where

All construction and operations and maintenance activity sites where chemicals and/or hazardous materials and/or wastes are handled, used, or stored.

How

- Install and maintain spill control and cleanup kits in areas where any chemicals and/or hazardous materials and/or waste are handled, used and/or stored.
- Construction Supervisor, Crew Foreman, or Facility Supervisor and sufficient onsite personnel should be trained in spill control to address potential spills on the site.
- Only staff trained on spill response procedure should be used to control spill.
- If the spill is a threat to life or the environment, or other emergency situation where emergency medical support, fire department response, or outside assistance is needed, ***immediately*** call the **911** Operator and the local emergency response agency (usually the local fire department). Then, promptly call **Service Dispatch (Trouble) @ (619) 725-5100** and your supervisor.
- For all spills ***immediately*** notify the acivity and site supervisor ***and***/or the Field Environmental Representative and describe the spill and current situation. The Field Environmental Representative will make any required regulatory agency notifications per Environmental Standard (ES) G7841 and the Company's Release Reporting Scenario Guidance available on the Environmental Services Department website.
- If possible, and if you have proper training and personal protective equipment, stop the flow of the spill. If it can be done safely, contain the spill to a confined area. Containment may be able to be accomplished with:
    - Earthen berms
    - Sand bags
    - Absorbent booms
    - Absorbent socks

  Containment material on site as part of the Spill Kit should reflect site characteristics. For guidance, request assistance from the Field Environmental Representative.
- To the extent that it doesn't compromise cleanup activities, spills shall be covered and protected from storm water run-on/-off during rain events.

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How (cont.)

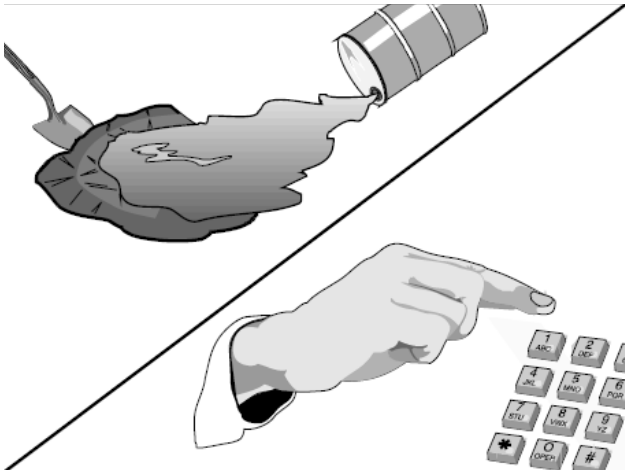
- Immediately clean the impacted area, and properly dispose of any impacted materials.
  - Spills shall not be buried, except as necessary for immediate interim containment purposes. Spilled material and impacted burial material must be removed as soon as possible after proper control and containment and properly disposed of.
  - Use absorbent materials on spills to thoroughly clean up the material to the maximum extent possible. Spills shall not be diluted with water or other liquid for purposes of mitigating the spill (the solution to pollution is not dilution). When it is necessary to use water or other liquid for final cleaning and decontamination of a spill, the water or other liquid shall not be allowed to enter storm drain inlets, drainages, or watercourses, and shall be collected and disposed of properly. Coordinate disposal of these wastes with the Field Environmental Representative.

    Used clean up materials, contaminated materials, and recovered spill material shall be stored and disposed of in accordance with federal, state and local regulations and BMP 2-05 "Hazardous Materials/Waste Management."

Maintenance and Inspection

- Perform routine inspections to verify that spill control clean-up materials are located near material storage, unloading, and use areas prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable).

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet WM-4

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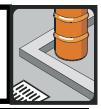

What

Solid Waste Management is a procedural BMP used to minimize site non-hazardous solid waste generation, and control the contact of site non-hazardous solid waste with storm water or non-storm water runoff.

Examples of potential solid wastes requiring management control BMPs include, but are not limited to:

- Concrete, cement, asphalt rubble, masonry brick/block.
- Vegetation debris, general trash, and materials used to transport and package construction materials.
- Steel and scrap metals, pipe, electrical cuttings and equipment parts.
- Hazardous Materials/Waste Management is covered in BMP 2-05.

When

During all phases of construction or operations and maintenance activities

Where

These BMPs should be used on all construction projects and operations and maintenance activities that generate solid waste.

How

- Practice good housekeeping and keep site clean.
- Use dry methods for site cleanup such as sweeping, vacuuming and hand pick-up.
- Designate a waste storage area on site. If a designated waste storage area is not feasible, remove wastes from the site regularly.
- Prohibit littering by employees, contractors and visitors.
- Trash receptacles with lids or weatherproof covers should be available on site and/or on construction vehicles.
- Cover or close lids of all waste containers at the end of each day and prior to rain.
- Protect wastes from being washed away by rain, storm water run-on, or other waters (irrigation, water line breaks, etc.).
- To prevent storm water run-on from contacting stored solid waste (stockpiled materials) use berms, secondary containment, covered dumpsters/roll-offs or other temporary diversion structure or measures (BMP 1-08 "Stockpile Management").
- For materials with the potential for spills or leaks, stockpile the material on impervious surfaces or on plastic groundcovers to prevent spills or leaks infiltrating the ground.
- Do not hose out or clean out dumpsters or containers at the construction site.
- Prevent solid waste and trash from entering and clogging storm drain inlets.
- As practical, incorporate any removed clean sediment and soil back into the project.

Maintenance and Inspection

- Collect site trash regularly, especially before rainy or windy conditions. Perform routine inspections of site, including storage areas, dumpsters, stockpiles and other areas where trash and debris are collected prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable).Close trash can lids and dumpster covers at the end of each day and before rainy or windy conditions.

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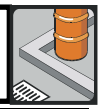

Corresponding CASQA Fact Sheet

Fact Sheet WM-5

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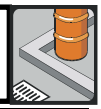

What

Hazardous Materials/Waste Management is a procedural BMP for the use, control, containment, and disposal of hazardous materials and waste. This BMP is to be used in conjunction with SDG&E Environmental Standard (ES) G 8724 Hazardous Materials/Waste Management.

Examples of potential hazardous materials and waste requiring management control BMPs may include, but are not limited to:

- Petroleum products such as oil, fuel, grease, cold mix, and tar.
- Glues, adhesives, and solvents.
- Herbicides, pesticides, and fertilizers.
- Paints, stains, and curing compounds.
- Other hazardous or toxic substances.

When

Use this BMP during all phases of construction or operations and maintenance activity when the activity involves the storage and use of hazardous materials, or the generation of hazardous waste byproducts.

Where

All applicable construction and operations and maintenance activity sites where hazardous materials are used and/or hazardous waste is generated. A single instance of handling, use, or storage of a hazardous material or waste is sufficient to trigger this requirement.

How

Hazardous materials and hazardous wastes shall be managed in accordance with the following procedures:

- Only use products or materials onsite that have been approved through the SDG&E Product Approval process.
- Minimize the amount of hazardous materials stored at the site and the production and generation of hazardous waste at the site.
- Cover or containerize and protect from vandalism and exposure any hazardous materials and hazardous wastes.
- Clearly mark all hazardous materials and hazardous waste containers per the ES. Place hazardous waste containers in watertight storage sheds for hazardous waste containers. Alternately, use secondary containment systems, but watertight storage sheds are preferred when hazardous waste containers are stored at the construction site.
- Hazardous materials and hazardous waste containers must meet DOT type and specifications per the ES. The containers must be closed (hand tightened) during activity hours and securely tightened during non-activity hours.
- Stockpiled cold mix should be placed on and covered with plastic.
- Mixing of waste materials is strictly prohibited.
- Storm water that collects within secondary containment structures must be inspected prior to being discharged to ensure no pollutants, oil sheens or non-stormwater discharges are present.
- Spills cannot be discharged to the environment from secondary containment (see BMP 2-03 “Spill Control”).

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How (cont.)

- All secondary containment systems for hazardous materials or hazardous wastes must be able to hold the volume of the largest container in the storage area and, if uncovered, sufficient additional capacity for storm events. A general rule of thumb for Southern California is that the additional containment volume for an anticipated rain event can be approximated by adding at least an additional four inches (a 4-inch rain) to the height of the containment sized for the entire waste volume of the largest container (Based on the Los Angeles Area 10 year, 24 hour precipitation frequency and a 24-hour manned facility). However, even within Southern California, this varies by the geographic region precipitation frequency and the hours of operation of the facility (containment inspection frequency). Consult with your Field Environmental Representative for determining the minimum volume required for the specific situation and geographical location.

- Hazardous waste must be segregated from other solid waste and stored and disposed of properly according to the ES. **Only company approved vendors with current contracts in place will be used to manage or dispose of hazardous wastes.**
- In addition to following this BMP and ES G8724, employees or contractors are responsible for compliance with federal, state, and local laws and regulations regarding storage, handling, transportation, and disposal of hazardous waste.

Maintenance and Inspection

- Routinely inspect the covers on hazardous material storage areas for tears or flaws and repair as necessary. Drums and drum storage areas are to be inspected at least weekly and the results recorded on an inspection log.
- All secondary containment systems for hazardous materials or hazardous wastes must be able to hold the volume of the largest container in the storage area and, if uncovered, sufficient additional capacity for storm events. A general rule of thumb for Southern California is that the additional containment volume for an anticipated rain event can be approximated by adding at least an additional four inches (a 4-inch rain) to the height of the containment sized for the entire waste volume of the largest container. Check with your Field Environmental Representative in the event you are unsure whether sufficient secondary containment exists for any facility.
- Inspect BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable) to ensure that no hazardous materials or waste are improperly left exposed to storm water. Immediately initiate repairs related to a storm event and no later than within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event.

Corresponding CASQA Fact Sheet

Fact Sheet WM-6

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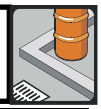

What

Contaminated Soil Management is a procedural BMP for the control of contaminated soils, or soils suspected of being contaminated, that are encountered during site activities. Importation of fill shall also be managed in accordance with G8755 Import Fill Materials for Large Projects (>100 Cubic Yards), Projects within Coastal Zone, and Environmentally Sensitive Areas.

When

This contaminated soil management BMP should be used whenever soil is imported for fill, soil contamination is suspected, or when contaminated soil is encountered during construction or operation and maintenance "construction like" activities. Construction crews should be vigilant when projects are located in highly urbanized or industrial areas or in highway or roadway right-of-ways.

Where

All construction or "construction like" activity sites, but especially construction and operation and maintenance sites in urbanized or industrial areas where soil contamination may have occurred because of spills, illicit discharges, and leaks from underground storage tanks. Contaminated soils may also be encountered during digging and trenching activities on highway and roadway right-of-ways.

How

Contaminated soil (including soil import that may be contaminated) should be managed in accordance with the following procedures:

- Identify contaminated soil by looking for the following:
  - Soil that is discolored, black, gray, white; or
  - Soil that has an unusual odor, such as, petroleum, acid, alkaline, sewage, solvent, or any other chemical smell.
- If any potentially contaminated soil is detected, immediately discontinue the activity and contact the project's Field Environmental Representative.
- The CGP requires that the discharger sample and test contaminated soils to ensure proper handling and notify the appropriate local, State and federal agencies, as well as the appropriate Regional Water Board if there is a reportable release event. A reportable release is a discharge or release of oil, hazardous materials or wastes, hazardous substances or chemicals in quantities that may be harmful to the public health. This includes non-stormwater discharges of any kind into the stormwater conveyance system.
- Contaminated soils must also be managed properly per SDG&E Environmental Standards (ES). See ES G8729; G8724; and G8755.

Maintenance and Inspection

- Inspect all imported fill for contamination per Environmental Standard G8755.
- Perform routine inspections of digging and trenching operations during construction and operation and maintenance activities looking for contaminated soils in addition to normal BMP inspections prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Immediately initiate repairs related to a storm event no later than within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- All contaminated soils must be managed properly in accordance with applicable federal, state, and local laws and regulations.

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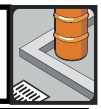

Corresponding CASQA Fact Sheet Fact Sheet WM-7

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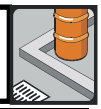

What

Sanitary/Septic Waste Management is a procedural BMP for the control of sanitary/septic wastes. Sanitary/Septic waste is domestic (human) waste.

When

When construction or operation and maintenance site location requires onsite sanitary/septic waste portable toilets, or hand wash/rinse stations, or shower units.

Where

All applicable construction and field operations and maintenance sites.

How

Sanitary/septic wastes shall be managed in accordance with the following procedures:

- Incorporate into regular safety meetings the education of employees, contractors, and suppliers on:
  - Potential dangers to humans and the environment from contact with sanitary/septic wastes due to bacteria, viruses, and parasites.
  - Approved sanitary/septic waste storage and disposal procedures.
- Use only reputable, licensed sanitary/septic waste facility providers and haulers for sanitary facilities (portable toilets, hand wash stations, shower units) and their transportation to and from the construction site.
- Ensure that sanitary facilities are equipped with secondary containment to prevent discharge of pollutants to the storm water drainage system or receiving water.
- Sanitary facilities should be located away from drainage systems and watercourses, minimizing the likelihood of leaks or spills contaminating waterways.
- Sanitary facilities should be located away from highways and roadways to avoid vehicles colliding with the sanitary units.
- When subjected to high winds, risk of high winds, or risk of vandalism, sanitary facilities shall be secured to prevent overturning.
- Sanitary wastewater should not be buried or discharged, except to a properly permitted sanitary sewer discharge facility. A permit may be required from the local Sanitation District.
- Temporary sanitary facility's holding tanks shall be emptied by a licensed waste hauler prior to transport.

Maintenance and Inspection

- Perform inspections of sanitary facilities and BMPs routinely prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Ensure that sanitary/septic facilities are maintained in good working order and routinely serviced by a licensed service.
- When servicing of portable sanitary facilities is conducted, wash/rinse water shall, not be allowed to runoff and shall be collected and disposed of properly in accordance with federal, state, and local requirements.

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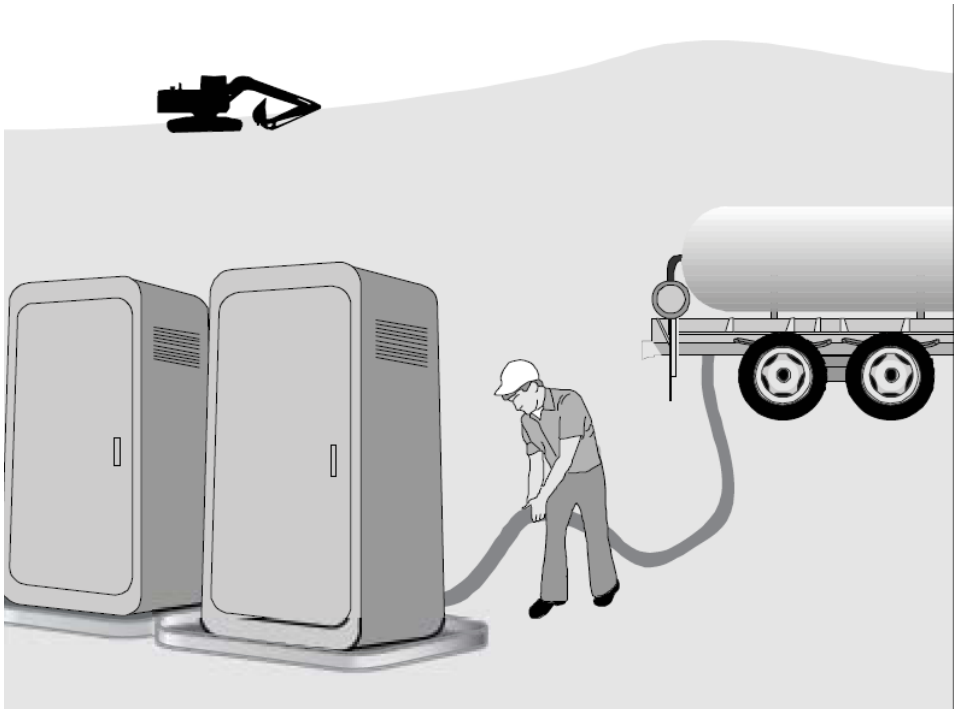
Pictures



Corresponding CASQA Fact Sheet

Fact Sheet WM-9

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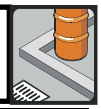

What

Non-hazardous Liquid Waste/Drilling Fluid Management is a procedural BMP for managing non-hazardous liquid wastes on a construction or operation/maintenance activity site.

Hazardous liquid wastes, including water with an oily sheen, should be managed using BMP 2-05 "Hazardous Materials/Waste Management."

Dewatering operations, and concrete slurry residue should be managed according to BMP 3-01, and BMP 3-05, respectively.

Non-hazardous Liquid wastes include, but are not limited to:

- Drilling slurries/muds and fluids, and waste water and rinse water without an oil sheen (including pressure washing).
- Dredging spoil, and non-storm water liquid discharges that do not have discharge permits.

When

Liquid waste management is applicable when construction projects and operations and maintenance activities generate any non-hazardous liquid byproducts, residuals,, or wastes.

Where

All applicable construction and operations and maintenance sites where non-hazardous liquid waste is present.

How

- Vehicle and equipment cleaning using water is discouraged on site. If washing is required for safety or for the work, utilize BMP 3-03 "Vehicle and Equipment Washing."
- Drilling residue and drilling fluids should be disposed of in accordance with federal, state and local requirements. Coordinate the disposal of these wastes with your Field Environmental Representative.
- Wastes generated as part of a construction, operation, or maintenance procedure, such as water laden with dredged material and drilling mud should be contained and not allowed to flow into drainage channels, storm drains, or receiving waters.
- Contain non-hazardous liquid wastes in a controlled area and manner, such as a lined pit, lined roll-off bin with a sealed bottom, or a portable tank.
- Storage tanks used for collecting and settling non-hazardous water shall be routinely checked for leaks and to ensure they are not overfilled.
- Piping used to connect storage tanks shall be routinely checked to ensure connections are secure and not leaking.
- Containment devices must be of sufficient quantity or volume to completely contain the liquid wastes generated and, if uncovered, any additional volume needed for anticipated precipitation. A general rule of thumb for Southern California is that the additional containment volume for an anticipated rain event can be approximated by adding at least an additional four inches (a 4 inch rain) to the height of the containment sized for the entire waste volume. Contained material must be routinely removed and properly disposed of in accordance with federal, state and local requirements.

- **Do not locate containment areas or devices where accidental release of the contained liquid can threaten health or safety, or discharge to watercourses, storm drain system, or to a water body.**
- Capture all liquid wastes running off a surface including wash water and rinse water from cleaning walls or pavement, including pressure washing.

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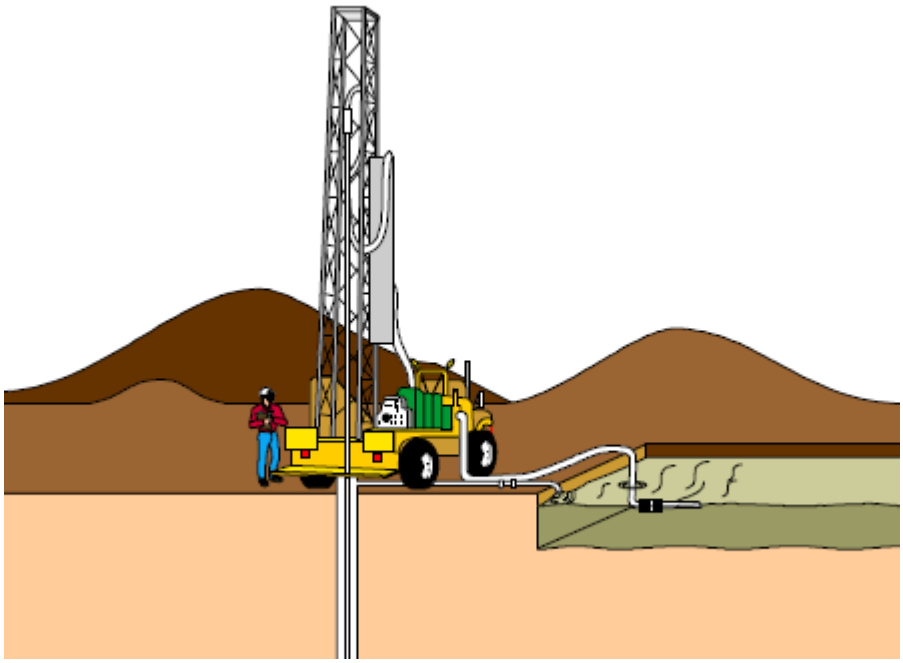
How (cont.)

- If the liquid waste is sediment laden, use a sediment trap (see BMP 1-10) or capture in a containment device and allow sediment to settle.
- Disposal of liquid wastes are subject to specific laws and regulations, or to requirements of other permits secured for the construction project. Contact your Field Environmental Representative for further information.

Maintenance and Inspection

- Remove deposited solids from containment areas and containment systems as needed, and at the completion of the project. Soil, dredged material and drilling mud to be transported offsite for reuse or disposal must first be profiled using chemical analysis. Liquid waste disposal may also need to be profiled prior to transportation and disposal. Contact the Field Environmental Representative as far in advance of the anticipated transportation need as possible.
- Inspect containment systems routinely for damage, and repair as needed.
- BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet WM-10

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Section 3 – Non-Storm Water Discharge Controls

What Is Non-Storm Water?

Non-storm water is any water that does not originate as rain or snowmelt, or is rain or snowmelt that has come into contact with pollutants caused by human activities at construction and industrial sites, and commercial and residential sites.

Why Are Non-Storm Water Discharge Controls Required?

Storm water conveyance systems (natural or manmade, wet or dry) are, by regulation, for conveying storm water or exempt or permitted non-storm water discharges only. Storm water conveyance systems eventually discharge to natural water bodies. Non-storm water, which may reach these storm water conveyance systems, may contain pollutants, such as sediment, that are harmful to the natural water bodies. Also, sediment from construction sites can clog storm water systems or reduce the volume of storm water that can be handled by the storm water system.

What Are Non-Storm Water Discharge Controls?

Non-Storm Water Discharge Controls include general site and operations BMP measures that minimize pollution of water. Non-Storm Water Discharge Controls presented in this Manual include the following:

- BMP 3-01 Dewatering Operations
- BMP 3-02 Paving Operations
- BMP 3-03 Vehicle and Equipment Washing
- BMP 3-04 Vehicle and Equipment Fueling
- BMP 3-05 Concrete/Coring/Saw Cutting and Drilling Waste Management
- BMP 3-06 Dewatering Utility Vaults
- BMP 3-08 Over-Water Protection
- BMP 3-09 Paint Removal Control
- BMP 3-10 Stream Crossings
- BMP 3-11 Clear Water Diversion

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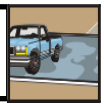

What

Dewatering Operations is a procedural BMP for controlling construction or operations and maintenance dewatering to assure regulatory compliance.

When

- This BMP is applicable when groundwater from an excavation, trench, or non-storm water from a pipeline hydrostatic test must be removed.
- When excavation/trench dewatering, also see Environmental Standard (ES) 104.0226.
- When dewatering hydrostatic test water, also see ES 104.0220.

- **This BMP is not Applicable to drilling mud or similar products used in drilling foundations (see BMP 2-08 "Non-hazardous Liquid Waste/Drilling Fluid Management")**
- **This BMP is not applicable to utility vault or sub-structure dewatering. For these applications, refer to the BMP 3-06 "Dewatering Utility Substructures and Vaults."**
- **This BMP is not applicable when the water is known, or suspected to be, contaminated. Under these conditions, contact your Field Environmental Representative.**
- **Water from dewatering operations cannot be discharged to the sanitary sewer, storm drain systems, drainages, creek beds (even if dry), or to water bodies without a permit. This prohibition includes groundwater dewatering to these conveyance systems or water bodies (groundwater may contain pollutants not easily detected except by analytical laboratory tests).**
- **Groundwater from excavation or trench dewatering or hydrostatic test water cannot be discharged to land without a permit or permit waiver. Groundwater and hydrostatic test water may contain pollutants not easily detected except by analytical laboratory tests.**
- Non-contaminated discharges of water from hydrostatic tests of new pipe utilizing potable water as a water source, reused for soil compaction and dust control, or reused for agricultural irrigation may be allowed to be discharged to land without a permit or under a permit waiver, depending on the local and regional regulatory requirements. Consult with your project Field Environmental Representative for permitting applicability prior to planning a discharge.

Where

All construction sites and operations and maintenance activity sites that require excavation or trench dewatering, or pipe hydrostatic test discharges.

How

Water generated by dewatering activities should be managed in accordance with the following procedures:

- If allowed by regulations, permit, or the regulating agencies, use the water for construction activities such as onsite soil compaction and dust control. If used for these applications, ensure that the water does not run-off to storm drain systems, drainages, creek beds (even if dry), or to water bodies.
  - The water may contain uncontaminated sediments, but the water must not be contaminated with other pollutants.

  Note: Discharge to land for site compaction, dust control or for infiltration (to groundwater) may require a permit or permit waiver to discharge from the Regional Water Quality Control Board (RWQCBs) and/or local jurisdictions (such as Flood Control District). Consult with your Field Environmental Representative.

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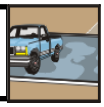

How (cont.)

- If allowed by regulations, permit, or the regulating agencies, water from dewatering, that contains only uncontaminated sediment, may be discharged to one of the following:
  - To land for infiltration (also see soil compaction and dust control above). In some locations, a permit may be required from the RWQCB and/or a local jurisdiction (such as a Flood Control District). Consult with your Field Environmental Representative. The permit may allow sediment without settling or filtration. The permit may specify limits on other pollutants, requiring sampling and analysis, and submittal of analysis results prior to discharge approval. If allowed by regulations, permit, or the regulating agencies, infiltrate to an appropriate landscaped, vegetated, or soil area. If used for these applications, ensure that the water will infiltrate and not run-off to storm drain systems, drainages, creek beds (even if dry), or to water bodies. Land owner permission to discharge to land for infiltration is required.
  - To the Sanitation or Wastewater District Sanitary/Industrial Sewer - Requires a permit or approval of the above wastewater authority. District may require sampling and analysis and a Batch Discharge application (application for a short-term discharge of a stated volume) prior to approval. District may set a numeric limit on the amount of acceptable sediment discharged. District may require a fee, dependent on discharge volume and pollutant load.
  - To Surface Water (including storm drains) - A RWQCB discharge permit is required and a local jurisdiction permit (such a Flood Control District permit) may be required. Consult with your Field Environmental Representative. The permit may specify limits on sediment and other pollutants, require sampling and analysis, and the submittal of analysis results prior to discharge approval. These permits take advanced planning.
    - A surface water (including storm drains) discharge permit may have a numerical limit on the concentration of Total Suspended Solids (sediment) that can be discharged and a restriction limiting an increase in turbidity of the receiving water. Other pollutants, such as Oil and Grease (O&G) and Total Petroleum Hydrocarbons (TPH) may also have stringent numerical limits. As a minimum, contaminant-free temporary storage (Baker tanks) may need to be provided until permit coverage is obtained and sampling and analysis can be completed. A properly sized sediment clarifier and petroleum hydrocarbon treatment may be required. The cost of this potential treatment for discharge to surface waters should be compared to the treatment cost of discharging to the sanitary sewer (if logistically feasible) before deciding on this discharge option.
- Transport for Disposal in a Vacuum Truck for Proper Disposal. This option is usually the most expensive option and only utilized when the discharge options above cannot be permitted or is otherwise infeasible.
- If a permit is obtained for discharge to a storm water or sanitary sewer system, conduct all dewatering discharge activities in accordance with permit requirements, including installation of appropriate BMPs.
- Dewatering records should be maintained in accordance with permit requirements.

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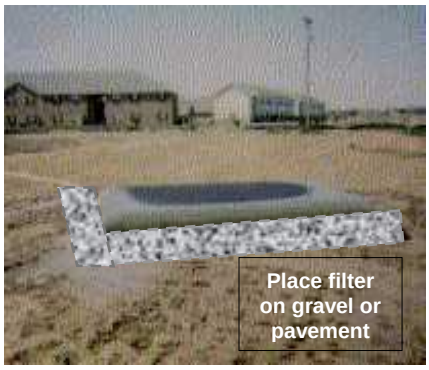
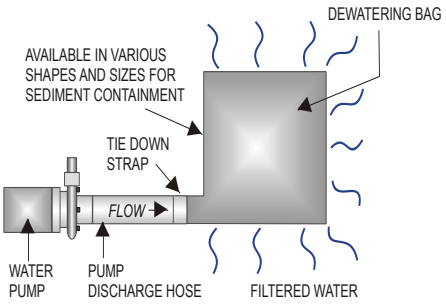
Maintenance and Inspection

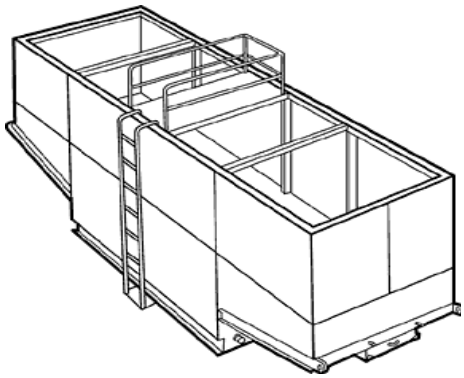
- Inspect pumps, hoses and all equipment before use to ensure they are in proper operating condition and free of contamination. Monitor dewatering operations to ensure it does not cause offsite discharge or erosion.
- Monitor the discharge for any change in characteristics (amount of sediment, oil sheen, color, etc.) that is not permitted. Stop the discharge immediately if there is a visual indication that the permit conditions are being exceeded.
- BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Sample dewatering discharges in accordance with permit requirements, if applicable.
- These operations and equipment should be made secure.

Pictures





Gravity Bag Filter



Weir Tank

Corresponding CASQA Fact Sheet

Fact Sheet NS-2

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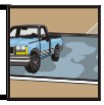

What

Paving Operations is a procedural BMP for controlling non-storm water discharges associated with pavement surfacing or resurfacing, patching, or pavement removal.

Paving Operations activities may typically utilize the following materials:

- Cold mix,
- Asphalt,
- Chip Seal, Seal Coat, Tack Coat, Slurry Seal, Fog Seal, and
- Portland Cement Concrete.

For pavement grinding, saw cutting, coring or drilling, refer to BMP 3-05 "Concrete/Coring/Saw cutting and Drilling Waste Management."

When

Use this BMP whenever paving operations are being conducted.

Where

All construction or operations and maintenance work sites that have paving activities.

How

Use the following methods as applicable:

- Protect storm drain inlets near work and down gradient of the area to be paved (see BMP 1-06 "Storm Drain Inlet Protection").
- If onsite mixing is planned, an area must be designated for conducting the mixing. This area should already be paved or made impervious (e.g., plastic or wood sheeting) and be located away from storm drain inlets, drainages, or watercourses.
- Minimize overspray of tackifying emulsions or placement of other paving materials beyond the limits of the area to be paved. Schedule the application of tackifying agents according to manufacturer's instructions regarding rain events.
- Use dry methods to clean equipment and conduct cleaning in accordance with BMP 3-03 "Vehicle and Equipment Washing."
- Material use and stockpiles are to be managed in accordance with BMP 2-02 "Material Use" and BMP 1-08, "Stockpile Management."
- Collect and remove all broken asphalt and concrete, recycle when feasible, and dispose of materials in accordance with local, state, and federal requirements.

- **Do not apply asphalt, concrete paving, seal coat, tack coat, slurry seal or fog seal if rain is expected during the application or curing period.**
- **Avoid if possible, the transferring, loading, or unloading of paving materials near storm drain inlets, drainages, or watercourses. If not possible, use BMP 1-06 "Storm Drain Inlet Protection."**
- **CGP Risk Level 2 & 3 projects, that construct concrete structures onsite or store concrete mixing materials onsite, are subject to pH Numeric Action Levels (Risk 2) or pH Numeric Effluent Limits (Risk 3) for those drainage areas of the project where the concrete construction or storage of concrete mixing or waste materials take place.**
- **CGP Type 2 & 3 projects are subject to pH Numeric Action Levels (Type 2) or pH Numeric Effluent Limits (Type 3) for active areas.**

Maintenance and Inspection

- Inspect and maintain equipment and machinery routinely to minimize leaks.

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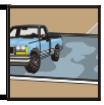

Maintenance and Inspection (cont.)

- Inlet protection BMPs prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.

Corresponding CASQA Fact Sheet

Fact Sheet NS-3

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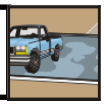

What

Vehicle and Equipment Washing is a procedural BMP for controlling vehicle and equipment washing on construction or operation and maintenance activity sites.

When

Onsite washing of vehicles and equipment on sites shall only be conducted when prior authorization has been received from the field Environmental Representative. Use this BMP on all sites when vehicle and equipment cleaning is being performed. Note that construction site vehicle and equipment washing is not typically performed on utility type construction sites unless required by safety considerations, or is necessary for work completion.

Where

Applicable to all construction and operation and maintenance sites where equipment or vehicles are washed.

How

Use the following methods as applicable:

- Use dry cleaning methods such as wiping down, rather than water washing vehicles or equipment.
- If onsite vehicle washing is authorized by the Field Environmental Representative, use the following general methods:
  - Vehicle and equipment washing must be located away from storm drain inlets, drainage systems, or watercourses.
  - Place secured impermeable liners, sand bags or another type of berm around storm drain inlets and drainage systems to prevent wash water from entering a storm inlet, drainage system or watercourse. Secured, impermeable liners are preferable to sand bags. Sand bags are preferable to gravel bags. Sand bags are preferable to gravel bags because they are less porous, and are much better at preventing water and pollutants from passing through the barrier.
  - Never discharge wash water to the storm drain system, drainages, watercourses, or water bodies.
  - Use as little water as possible. High-pressure sprayers may use less water than a hose.
  - Use a positive shutoff valve to minimize water usage.
  - Collect all wash and rinse water for proper disposal.

Maintenance and Inspection

Monitor employees and contractors through the duration of the construction project to ensure appropriate practices are being implemented.

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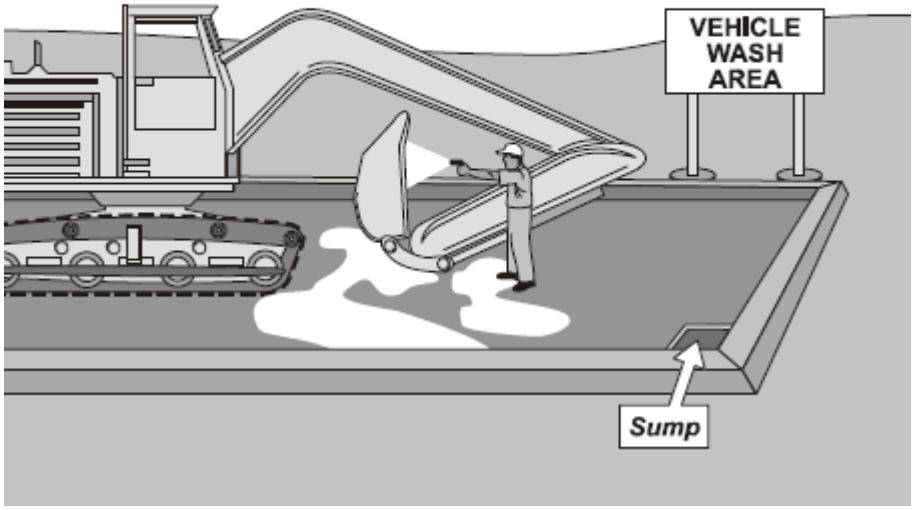
Pictures



Corresponding CASQA Fact Sheet

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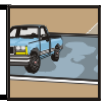

What

Vehicle and Equipment Fueling is a procedural BMP for controlling vehicle and equipment fueling at construction and operation and maintenance activity sites.

When

Use this BMP for construction and operation and maintenance activity sites when onsite fueling of vehicles and equipment, including handheld equipment, is planned or conducted.

Vehicle and equipment fueling, except for handheld equipment, is typically not done on a construction site. Onsite fueling of vehicles and equipment may be planned if it is impractical to send vehicles and equipment off site for fueling.

Handheld equipment is treated separately from other equipment. Handheld equipment includes those smaller, manually operated pieces of equipment such as trenchers, mowers, chainsaws, generators, and other equipment that need fueling during regular daily operation.

Where

All construction and operation and maintenance activity sites where vehicle and equipment fueling occurs.

How

- If practical, fuel vehicles and equipment off site.
- Mobile fueling equipment is the preferred equipment used for construction site fueling.
- Fuel storage and fueling areas should be located away from storm drain inlets, drainage systems, watercourses, and water bodies.
- All fueling will be conducted with the fueling operator in attendance at all times regardless if fuel nozzles are equipped with automatic shutoff features.
- Fuel tanks should not be "topped off."
- All fueling operators should have readily available spill containment and cleanup equipment and materials.
- Clean up spills immediately and properly dispose of contaminated materials.
- Properly store and dispose of rags and absorbent material used to clean up spilled fuel.
- Mobile fueling trucks and operators must have all necessary permits, licenses and training.

Maintenance and Inspection

- Check to ensure that there is an adequate supply of spill cleanup materials available.
- Perform routine inspections of designated fueling areas and inspect vehicles and equipment for leaks.
- Report all spills immediately to the project Supervisor ***and/***or the Field Environmental Representative.

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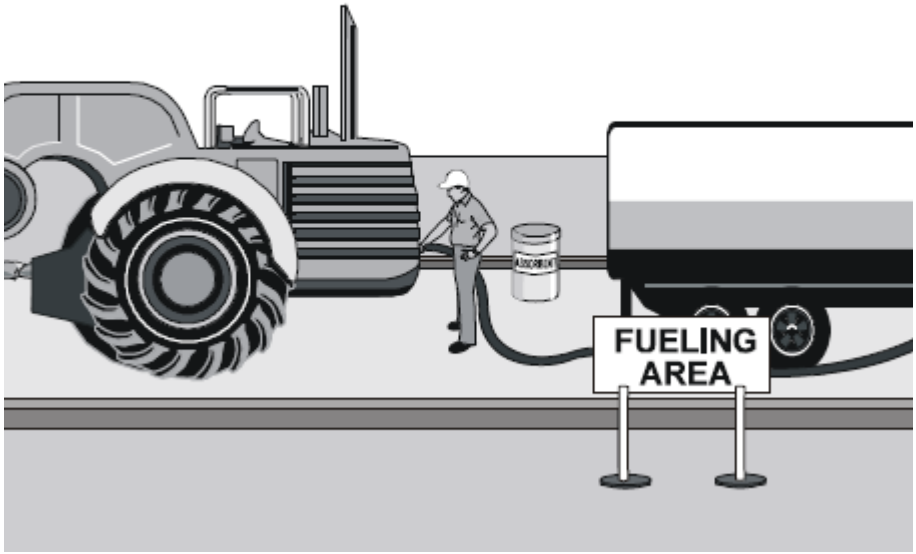
Pictures



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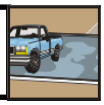

What

Concrete/Coring/Saw Cutting and Drilling Waste Controls are procedural BMPs for the proper management of liquid and solid wastes from concrete/coring/saw cutting and drilling activities.

For managing any concrete curing compounds, also use BMP 2-05 "Hazardous Materials/Hazardous Waste Management." For managing paving operations, use BMP 3-02.

When

Use this BMP at construction and operation and maintenance activity sites when the activity utilizes concrete and asphalt or when slurry or pavement/concrete wastes are generated by the activities, including:

- Saw cutting.
- Coring/drilling.
- Grinding, re-paving or patching.
- Encasing conduit in concrete.
- Tower footings.

Where

All construction and operation and maintenance activity sites where the above activities are conducted.

How

- Install storm drain protection at any down-gradient inlets that may be impacted by the activity per BMP 1-06 "Storm Drain Inlet Protection."
- Minimize the amount of water used during coring/drilling or saw cutting. During wet coring or saw cutting, use a wet vacuum to lift the slurry from the pavement as the coring or saw cutting progresses. Additionally, sand bag barriers or other containment should be used at nearby down gradient storm drain or drainage inlets per BMP 1-06 "Storm Drain Inlet Protection."
- If concrete residue remains after drying, the area should be swept in a timely manner and residue removed to avoid contact with storm water or entering a storm drain or water body via the wind. If concrete residue still remains, pressure wash the surface, with in-progress vacuum recovery of wash water to remove residual material.

- **Do not wash residue or particulate matter into a storm drain or drainage inlet or a watercourse or water body.**
- The following options should be used for concrete truck chute and/or pump and hose washout:
  - If available, arrange to use an existing concrete washout station. Upon entering the site, concrete truck drivers should be instructed about proper site practices.
  - **Concrete Washouts:** Washout stations can be: self contained concrete trucks; commercial portable washout stations (rent-a-washout); plastic lined temporary pits, or a bermed and lined area designed with sufficient volume to completely contain all liquid and waste concrete materials plus enough capacity for rainwater. The lining must be impervious (such as Visqueen with no holes or tears). The designated area must be located away from storm drain inlets, drainages, watercourses, or water bodies.
  - **Washout in Trench:** Manually rinse the concrete truck chute into the lined trench itself. Note that this practice is not allowed on CGP projects, where minimum BMPs in the permit require containment of concrete washout areas and prohibits discharge into the underlying soil or surrounding areas. Check with the Field Environmental Representative regarding site-specific applicability.

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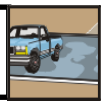

How (cont.)

- **Bucket Washout:** Manually rinse the chute into a wheelbarrow, plastic bucket or pail, and then empty the bucket into the concrete truck barrel or on top of the placed concrete within a trench or excavation. Prevent or protect against spillage, and clean up any spillage promptly.

- **CGP Risk Level/Type 2 & 3 projects, that construct concrete structures onsite or store concrete mixing materials onsite, are subject to pH Numeric Action Levels (Risk/Type 2) or pH Numeric Effluent Limits (Risk/Type 3) for those drainage areas of the project where the concrete construction or storage of concrete mixing or waste materials take place.**

Maintenance and Inspection

- Responsible personnel should ensure that all drivers of concrete trucks arriving onsite are instructed about proper project practices.
- Clean out designated washout areas as needed or at a minimum when the washout is 75 percent full to maintain sufficient capacity throughout the project duration. Add additional designated areas as necessary and available to maintain capacity.
- Any designated onsite washout areas must be cleaned out and all debris removed upon project completion. Dispose of concrete waste according to BMP 2-04 "Solid Waste Management."
- Inspect routinely, when washout activities are underway to ensure the integrity of the concrete washout lining and that the concrete washout does not overflow.

Corresponding CASQA Fact Sheet

Fact Sheet WM-10

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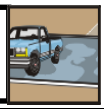

What Dewatering Utility Vaults is a procedural BMP for controlling water from dewatering utility vaults and underground structures. This BMP does not apply to trench, excavation or other general dewatering associated with construction activities, which is covered by BMP 3-01.

When This BMP is applicable whenever water must be removed from SDG&E utility vaults and underground structures.

Where All SDG&E utility vault locations.

How The discharge of clean water from dewatering of vaults and underground structures to the storm drain, drainages, or water bodies is allowed under the statewide General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters (Order No. 2006-0008-DWQ and NPDES No, CAG990002).

Discharges to land (e.g., vegetation, bare soil area) are not covered by this permit. A Waste Discharge Requirements (WDR) permit or waiver may be required by the local Regional Water Quality Control Board (RWQCB) for discharges to land. If a RWQCB does not have a general WDR or waiver for discharges to land, then the State Water Resources Control Board (SWRCB) General Permit for dewatering to land may apply. Consult with your Field Environmental Representative. Discharges to land also require the prior approval from the landowner.

General requirements for discharge under Order 2006-0008-DWQ/Permit Number CAG990002) are listed below:

- All vault dewatering discharges conducted by utility crews, including contractors, shall follow the latest version of SDG&E's Environmental Standards (ES) on Vault and Underground Structure Dewatering. For dewatering utility gas/electric vaults & underground structures follow ES http:/techdocs.sempra.com/doclib.nsf/docframe?openform&docno=G8718.
- Prior to discharge, the water in the vault shall be assessed in accordance with the requirements in the ES.
- A SDG&E-approved filter system with hydrocarbon removal capability is required to be used on the pump discharge for compliance assurance when dewatering to a surface water (drainage, gutter, storm drain inlet, or a water body).

- **If the water to be discharged is Clear Water as described in the ES, then the discharge to storm drains, drainages, or water bodies is acceptable as long as the discharge does not cause nuisance or harm to the environment.**
- Water discharged to the street, gutter, drainages, watercourses, or water bodies must be clean and clear, with no evidence of oil sheen and no chemical or sewage smell.
- The dewatering discharge must be monitored at all times during the discharge to ensure the discharge is "clean and clear" with no chemical or sewage odor. If the characteristics of the discharge change (i.e., color, smell, sheen), the discharge must be stopped immediately. In such an event call the Field Environmental Representative.
- Whenever possible, discharge the clean, clear water directly to the storm drain, drainage, or water body to avoid pre-existing pollutants in the discharge path. Pre-existing soil or contaminants in the path of the discharge (i.e., gutter) that can discolor/contaminate the discharge need to be cleaned up before discharging vault water.

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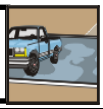

How (cont.)

- **The discharge from the filter system must be clean and clear at all times, and if not, the discharge must be stopped.**
- As a last resort, when the water, because of sediment or pollutant contamination, cannot be discharged to the environment, contact the project Field Environmental Representative for transport of the water in an approved manner (see the linked SDG&E ES from the previous page).

Maintenance and Inspection

- Implement applicable provisions of the ES.
- Inspect pumps, hoses, filter system and equipment before use and routinely when applicable activities are underway.
- Observe dewatering activities to ensure they do not cause erosion or discharge of potential pollutants.

Corresponding CASQA Fact Sheet

Not applicable. See also Fact Sheet NS-2, Dewatering Operations

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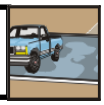

What

Over-Water Protection is a procedural and containment system BMP for protecting watercourses from overhead construction and maintenance and repair activities.

- Over-water construction and maintenance activities include, but are not limited to, chipping, grinding, scraping, welding/burning, painting, wrapping and coating of pipes and conduits.
- Watercourses (dry or wet) include drainages, creeks, streams, rivers, lakes and wetlands, bays, estuaries and oceans.

When

This BMP applies to projects when:

- Construction, maintenance or repair activities will be conducted above watercourses (dry or wet).

Prior to conducting over-water activities, check with the Field Environmental Representative for the possible need for permits with the appropriate local and state agencies. As an example, the design or installation of a containment system may itself impact the watercourse and require a permit, or the timing of the activity may impact wildlife breeding seasons, requiring a permit or preventing the activity during certain portions of the year.

Where

All construction or operation and maintenance activity above any portion of a watercourse.

How

Use the following measures as applicable:

- Containment systems must be properly designed and installed prior to the beginning of any operation that may impact a water body to prevent discharge of pollutants to surface waters, taking into account the construction or maintenance activity and factors such as wind, rain, etc.
- The work area should be kept clean of all trash and potential pollutants.
- Containment booms should be placed around the area of work as necessary to contain the discharge of potential contaminants such as oil and hydraulic fluid.
- Special attention should be given to existing and forecasted wind and weather conditions to prevent pollutant discharges to surface waters.
- Shrouds of appropriate material should be used to prevent paint overspray, welding slag, and other pollutants from entering surface waters. Shrouding may not be effective during periods of high wind.
- Shrouds should be large enough to adequately enclose or segregate the working area from surface waters. This may include a plywood barrier, Visqueen, and scaffolding to help prevent fugitive material from entering surface waters.
- Support structures such as scaffolding shall be used in conjunction with shrouding to withstand potential wind stress.
- Contaminated shrouding material and equipment shall be thoroughly cleaned or disposed of properly.

Maintenance and Inspection

- Inspect the containment systems, shrouds, and support structures prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable) to ensure their integrity and safety. Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event.

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Pictures

Corresponding CASQA Fact Sheet

Fact Sheet NS-14

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What

Paint Removal Control is a procedural BMP for protecting storm water and water courses from mark-out paint or graffiti paint removal activities.

When

Use this BMP when utility activities have used mark-out paint on surfaces and the paint is required to be removed by local jurisdictions or another authority, or when graffiti on company property is discovered and must be removed.

Where

Mark-out paint is usually used on road, sidewalk, and land surfaces to show the location of underground utility services. Graffiti on company property may have been painted on company fences or walls, buildings, walkways, curbs or other surface.

How

Use the following options to remove mark-out paint or graffiti:

- Use non-toxic, light degradable mark-out paint when possible.
- Avoid the use of chemical paint removers whenever possible. When chemical paint removers are required, only use products that have been approved through the product review process and utilize containment and wet vacuuming of material during the removal process.
- Hydro pressure wash.
- Dry abrasive blast/grinding.
- Wet abrasive blast/grinding.

Use one or more of the following methods to promptly and effectively contain and remove paint and residues in order to protect storm water sewers, drainages and watercourses:

- Dry sweep.
- Install storm drain inlet protection at down gradient inlets during hydro pressure washing, wet abrasive blasting, grinding, and chemical removal. Discharge of any wet or dry residuals or wash water to the drainage system is prohibited.
- Minimize the amount of water used during hydro pressure washing.
- Wet or dry vacuum.
- Use wet vacuum to lift the paint slurry from the pavement or surface as hydro pressure washing progresses or as soon as possible, and before the material has a chance to migrate from the work area.
- If wet vacuuming is not adequate to capture all wastewater from these activities, use additional containment (sand bags, booms, or other containment devices) methods as near the work area as possible to prevent the discharge to a street, gutter, storm drain/drainage inlet, or watercourse.
- If paint residue remains after drying, the area should be swept up and residue removed in a timely manner to avoid contact with storm water.
- If paint residue remains after sweeping, the area can be water washed, as long as the water containing the paint residue is contained near the work and wet vacuumed and not allowed to enter storm drain inlets or watercourses.
- All waste should be disposed of using the BMP 2-08 "Non-Hazardous Liquid Waste Management."

Maintenance and Inspection

- Inspect all containment systems to ensure proper placement prior to starting utility paint removal operations.
- Inspect equipment frequently and adjust as necessary to maximize efficiency and minimize water or other material use of the paint removal

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operations.

Corresponding CASQA Fact Sheet NA

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What

A stream crossing is a culvert, ford, or bridge placed across a waterway to provide access for construction or operations and maintenance activities. Utility stream crossings are not intended to maintain public traffic and project-specific permits may be required for use (see "Limitations"). The crossing design and construction allows safe access and reduces erosion and downstream sediment from vehicles.

The project Field Environmental Representative should be consulted for any permit requirements and for the stream crossing location.

The following types of stream crossing should be considered:

- **Culverts:** Appropriate to control erosion, but may cause erosion during installation/removal without appropriate BMP measures. Easily constructed and allows for heavy equipment loads.
- **Fords:** A ford is a streambed crossing alternative that involves crossing a waterbody at grade, on a hard surface maintained at the streambed bottom. Appropriate during dry weather and in arid areas in dry washes, ephemeral streams, and low-flow perennial streams. Ford crossings generally involve the placement of gravel or other non-erodible material to facilitate crossing and are appropriate for streams that would benefit from additional clean native or compatible gravel; for example, salmonid streams or rivers below reservoirs, and urban, channelized streams. Fords provide minimum sediment and erosion control in a stream channel and are most appropriate when the potential for stream channel erosion and dislodgement of sediment due to the addition of the material and traffic is low. A ford is the least expensive stream crossing, allows for maximum load limits, and offers very low maintenance. Fords may degrade water quality due to vehicle and equipment contact. Direct placement of gravel may be appropriate for short-term use. In addition, soil-confinement systems can also be used in low-flow intermittent stream crossings for ease with implantation and removal. Examples include:
  - Cellular Confinement Systems (CCS) crossings consist of three-dimensional cellular-type material placed on the streambed bottom and filled with rock or soil. CCSs are an effective option when used in conjunction with ford crossings because it is sufficient to support most construction equipment and is readily removable.
  - Articulated concrete mats (e.g., concrete blocks held together by steel cable or interlocking concrete blocks) can also be used for fording a stream. Articulated concrete mats can be used to harden the streambed for crossing. Gravel should be placed on the mats to fill in the voids between concrete blocks.
  - Gabion mattresses consisting of rock contained in rectangular, wire-mesh can also be used for constructing a hard driving surface. Gabion mattresses are strong and durable, flexible structures, and are easily constructed.
- **Bridges:** Appropriate for streams with high flow velocities, steep gradients, and where temporary restrictions in the channel are not allowed. Bridges are more expensive to design and construct, but provide the least streambed disturbance and waterway flow constriction.

What

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(cont.)

Limitations:

- Installation may cause a waterway constriction, which can obstruct flood flow and cause flow backups, washouts, and/or scouring.
- **Installation may require RWQCB 401 Certification, USACOE 404 permit and approval by the California Department of Fish and Game. If numerical water quality standards are mentioned in any permits, sampling and testing may be required.**
- Installation and removal will usually disturb the waterway, and may require dewatering or temporary stream diversion.
- Soil confinement systems used for stream crossings must be constructed in accordance with the manufacturer's specifications, and inspected and maintained for structural integrity.
- Gravel use in the stream for soil-confinement system crossings will require agency approval.
- Requires other BMPs to minimize soil disturbance during installation and removal.

When

Stream crossings are installed at sites when:

- Appropriate permits have been secured for activities and for the stream crossing.
- Construction or operation and maintenance equipment or vehicles need to frequently cross a waterway.
- Alternate access routes impose significant constraints.
- Crossing perennial streams or waterways without a stream crossing causes significant erosion.

Where

Stream crossings should be installed at all designated crossings of perennial and intermittent streams and in dry channels that may be significantly eroded by construction or operation and maintenance traffic at locations where:

- Erosion potential from the installation is low.
- Site runoff is not directed towards the crossing in a manner that promotes erosion of the crossing.

How

Minimum standards and specifications for the design, construction, maintenance, and removal of the structure should be established by a California Registered Civil Engineer, and for bridges, a California Registered Structural Engineer. The design flow and stability safety factor should be based on risk evaluation of overtopping, flow backups, or washout.

Construction and Use:

- Install sediment traps immediately downstream of the crossings to capture sediment. Sediment traps may also be required to be part of the crossing permit. For CCS ford crossings, the gravel depth should be 6 to 12-inches to support construction vehicular traffic. Clean, washed, angular or rounded gravel should be used with cellular-block confinement systems.

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- Avoid oil or other potentially hazardous materials for surface treatment.

How (cont.)

- Stabilize construction roadways, work area, and streambed bottom against erosion. Stream bed and bank stabilization, if necessary, may also be required to be part of the crossing permit.
- Construct during dry periods to minimize stream disturbance and reduce costs.
- Construct at or near the streambed elevation to prevent potential upstream flooding.
- Install erosion control BMPs to minimize erosion of embankment into flow lines.
- Any artificial obstruction placed within flowing water should only be built from material that will not introduce sediment or silt into the watercourse.
- Vehicles and equipment should not be driven, operated, fueled, cleaned, maintained, or stored in the wet or dry portions of a water body. Wetland vegetation, riparian vegetation, or aquatic organisms could be destroyed.
- The exterior of vehicles and equipment that will encroach on the water body should be maintained free of grease, oil, fuel, and residues.
- Drip pans should be placed under all vehicles and equipment placed over water bodies (e.g., bridges) when the equipment is planned to be idle for more than one hour.
- Disturbance or removal of vegetation should not exceed the minimum necessary to complete operations. Disturbed vegetation should be replaced with the appropriate soil stabilization measures.
- Riparian vegetation, when removed pursuant to the work provisions, should be cut off no lower than the ground level to promote rapid re-growth. Access roads and work areas built over riparian vegetation should be covered by a sufficient layer of clean river run cobble to prevent damage to the underlying soil and root structure. The cobble must be removed upon completion of project activities.

Maintenance and Inspection

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect prior to and after each storm event, daily during extended rain events during the construction and/or clean-up activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Check for blockage in the channel, sediment buildup or trapped debris in culverts, blockage behind fords or under bridges.
- Check for erosion of abutments, channel scour, riprap displacement, or other signs of erosion.

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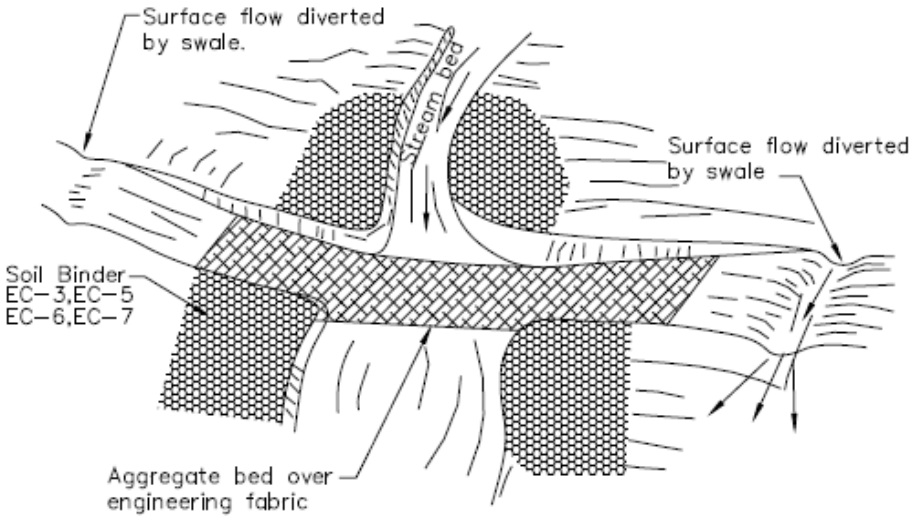
- Check for structural weakening of the crossings, such as cracks, and undermining of foundations and abutments.

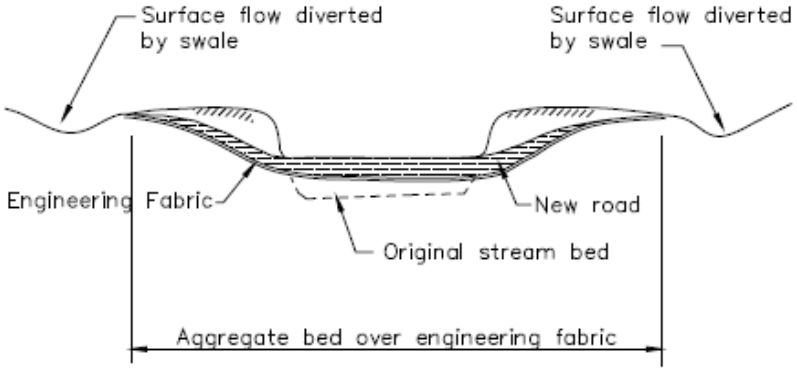
Maintenance and Inspection (cont.)

- Remove sediment that collects behind fords, in culverts, and soil confinement systems. Removal of undesirable sediment may be required to be part of the crossing permit.
- Replace lost or displaced support aggregate from inlets and outlets of culverts and soil confinement systems.
- With proper BMPs, remove temporary stream crossings promptly when it is no longer needed.

Pictures



Aggregate approch
1:5 (V:H) Maximum slope on road



TYPICAL FORD CROSSING
NOT TO SCALE

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Corresponding CASQA Fact Sheet Fact Sheet NS-4

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What

Clear water diversion is a system of structures and measures that intercept clear surface water runoff upstream of a construction project or operation and maintenance activity, transport it around the work area, and discharge it downstream with minimal water quality degradation. It encloses a construction area in a waterway and reduces sediment pollution from construction in, or adjacent to water. Structures commonly used as part of this system include diversion ditches, berms, dikes, slope drains, rock, gravel bags, wood, aqua barriers, cofferdams, filter fabric, or turbidity curtains, drainage or interceptor swales, pipes, or flumes.

Limitations:

- Diversion activities will usually disturb the waterway during installation/removal.
- Installation may require RWQCB 401 Certification, USACOE 404 permit and approval by California Department of Fish and Game. If numerical water quality standards are mentioned in any permits, sampling and testing may be required.
- Diversion activities may constrict the waterway, obstruct flood flows, and cause flooding or washouts. Diversion structures should not be installed without identifying potential impacts to the stream channel.
- Diversion or isolation activities are not appropriate in channels where there is insufficient stream flow to support aquatic species in the dewatered area or if they will disturb sensitive aquatic species.
- Diversion or isolation activities are inappropriate in deep water unless designed and reviewed by a California Registered Civil Engineer.
- Diversion or isolation activities should not completely dam stream flow.
- Dewatering and removal may require additional sediment control or water treatment.

When

Clear water diversions should be implemented when:

- Isolating construction or operations and maintenance activities is necessary within or near a water body to protect the water body from the activity. Applicable activities may include but are not limited to: stream bank stabilization, culvert, bridge, pier, or abutment installation. They may also be used in combination with other methods, such as clear water bypasses and/or pumps.

Where

- A clear water diversion is typically implemented where appropriate permits have been secured and work must be performed in a flowing stream or water body.
- Pumped diversions are suitable for intermittent and low flow streams.
- Excavation of a temporary bypass channel, or passing the flow through a flume with a trench excavated under it, is appropriate for the diversion of streams less than 20 feet wide, with flow rates less than 100 cubic feet per second.
- Clear water diversions incorporating clean washed gravel may be appropriate for use in fish spawning streams.

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How

In general:

- Where working areas encroach on flowing streams, barriers adequate to prevent the flow of muddy water into streams should be constructed and maintained. During construction of the barriers, stream muddying should be minimized.
- Diversion structures must be adequately designed to accommodate fluctuations in water depth or flow volume due to tides, storms, floods, etc.
- Equipment driven in a water body should be clean of petroleum residue, and water levels should be below the fuel tanks, gearboxes, and axles, unless lubricants and fuels are sealed such that water inundation will not result in pollutant discharges.
- Only excavation equipment buckets may reach out into the water body to remove or place fill. The main equipment body should not enter the water except as necessary to cross the stream to access the work site.
- Stationary equipment, such as motors or pumps located within or adjacent to a water body, should be positioned over drip pans.
- When any artificial obstruction is being constructed or maintained, sufficient water should at all times pass downstream to maintain aquatic life.
- Equipment should not park below high water marks unless allowed by permit.
- Disturbance or removal of vegetation should be minimized. Disturbed vegetation should be replaced with appropriate erosion control measures.
- Riparian vegetation, when removed pursuant to the work provisions, should be cut off no lower than the ground level to promote rapid re-growth. Access roads and work areas built over riparian vegetation should be covered by a sufficient layer of clean river run cobble to prevent damage to the underlying soil and root structure. The cobble must be removed upon completion of project activities.
- Drip pans should be placed under all vehicles and equipment placed structures over water bodies when the equipment is planned to be idle for more than one hour.
- Where possible, minimize diversion and encroachment impacts by scheduling construction during periods of low flow. Scheduling should also consider seasonal releases of water from dams, fish migration, and spawning seasons, and water demands due to irrigation.
- Construct diversion structures with materials free of potential pollutants such as soil, grease, or oil.

Several types of clear water diversions are detailed in the CASQA Handbook, each with different applications, design considerations, limitations, and inspection and maintenance requirements. These types of diversions include:

- Temporary Diversions and Encroachments
- Temporary Dry Construction Areas

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How (cont')

- Filter Fabric Isolation
- Turbidity Curtain Isolation
- K-Rail River Isolation
- Stream Diversions

The CASQA Handbook should be consulted for additional information for these clear water diversions.

Maintenance and Inspection

- Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly during the rainy season and at two week intervals in the non-rainy season to verify continued BMP implementation (e.g., or in compliance with the frequency specified in the CGP, if applicable).

Pictures

Corresponding CASQA Fact Sheet

Fact Sheet NS-5

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Section 4 – Soil Erosion Control

What is Erosion?

Erosion is the detachment of soil particles by water or wind. Erosion is a natural process that can be accelerated by construction activities such as grading and trenching. For example, when a site is cleared and grubbed, protective vegetation is removed and the disturbed soil is directly exposed to wind, rain, and flowing water.

Why is Erosion Control Required?

Water or wind can transport soil particles to water bodies where they can cause damage to, or destruction of, aquatic animals and plants by burying them or reducing oxygen and/or sunlight that is necessary for their survival. Erosion control is required by regulatory agencies to minimize the potential additional erosion and damage to the environment from construction activities.

What is Erosion Control?

Erosion Controls are methods used to protect the soil surface and prevent the soil particles from being detached and transported by rain, flowing water or wind. Erosion controls include limiting soil or vegetation disturbance to reduce erosion. Preservation of Existing Vegetation is an example of an Erosion Control BMP.

Soil Stabilization is the most widely used and most effective method of erosion control. Preventing or reducing erosion potential by directing or controlling drainage runoff, as well as preparing and stabilizing disturbed soil areas protects the exposed soil surface from rain and wind thereby preventing erosion. Diversion Berms and Drainage Swales is an example of an erosion control BMP that intercepts and conveys run-on around or through the project reducing erosion potential. Hydroseeding is also an example of an erosion control BMP that stabilizes the soil. Erosion control BMPs used in this Manual to direct or control runoff and/or stabilize soil include:

- BMP 4-01 Preservation of Existing Vegetation
- BMP 4-02 Temporary Soil Stabilization (General)
- BMP 4-03 Hydraulic Mulch
- BMP 4-04 Hydroseeding
- BMP 4-05 Soil Binders
- BMP 4-06 Straw Mulch
- BMP 4-07 Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats
- BMP 4-08 Dust (Wind Erosion) Control
- BMP 4-09 Diversion Berms and Drainage Swales
- BMP 4-10 Velocity Dissipation Devices
- BMP 4-11 Slope Drains
- BMP 4-12 Streambank Stabilization
- BMP 4-13 Soil Preparation

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What

Preservation of Existing Vegetation is a procedural BMP that maximizes the preservation of existing trees, shrubs, bushes, and grasses on a construction or operations and maintenance activity site.

When

This BMP is applicable to utility activities when there is existing vegetation.

Where

All construction and operations and maintenance activity sites where:

- There are areas on site where no activity is planned or will occur later.
- There are areas with vegetation that can be preserved to protect against soil erosion, such as on steep slopes, watercourses, and building sites in wooded areas.
- There are areas designated as ESAs, or where federal, state, or local government regulations require preservation, such as wetlands, vernal pools, marshes, etc.

How

Use the following measures as applicable:

- Preserve existing vegetation whenever possible.
- Identify areas to be preserved in the immediate vicinity of the construction or activity site, and mark as appropriate before clearing and grubbing or other soil disturbance activities.
- If necessary, contact the project Field Environmental Representative for any clarification regarding areas to be preserved.
- Whenever possible, minimize disturbed areas by locating temporary roadways to avoid stands of trees and shrubs and follow existing contours to reduce cutting and filling.
- Construction materials, equipment storage and parking areas should be located outside the drip line of any tree to be retained.
- Consider the impact of grade changes to existing vegetation and the root zone.
- Remove any markings, barriers, or fencing after project is completed.

Maintenance and Inspection

- Maintain the clearly marked limits of disturbance during construction to preserve vegetation.
- Inspect barriers regularly during construction.

Pictures

Vegetation to be preserved is marked and outside the work area.

Corresponding CASQA Fact Sheet

Fact Sheet EC-2

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What

Temporary Soil Stabilization is a procedural BMP utilizing protective materials to cover exposed soil, where the soil exposure is caused by construction or operation and maintenance activities. Materials may include hydraulic mulch and seeding, soil binders, straw, geotextiles, plastic covers and erosion control blankets.

Temporary soil stabilization BMPs and their associated materials include:

- BMP 4-03 - Hydraulic Mulch
- BMP 4-04 - Hydroseeding
- BMP 4-05 - Soil Binders
- BMP 4-06 - Straw Mulch
- BMP 4-07 - Geotextiles, Plastic Covers and Erosion Control Blankets/Mats

When

This BMP, and the situation appropriate BMPs listed above, is applicable when slopes are constructed or disturbed and/or where there are inactive soil disturbance areas that will not be worked for 14 days or more. The procedures are to be implemented after slope construction activity is complete and then prior to the onset of precipitation.

Where

- Slopes, soil stockpiles, and inactive disturbed soil areas.
- Soil binders (BMP 4-05) may be applicable to areas where there is light traffic that would minimize the effectiveness of other temporary soil stabilization BMPs.

How

- Sediment control BMPs used to break up the slope lengths, such as fiber rolls (BMP 1-03) or gravel bag berms (BMP 1-04) should be spaced in accordance with the CGP requirements (see installation for BMP 1-03 “Fiber Rolls”)
- Permanent erosion control shall be applied to areas deemed substantially complete during the project’s defined seeding season window.
- Refer to individual temporary soil stabilization BMPs for specific instructions for use (see BMP 4-03 through BMP 4-07).

Maintenance and Inspection

- Refer to individual temporary soil stabilization BMPs listed above for maintenance and inspection requirements.

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Pictures

Applying a tackifier using a trailer mounted pump and hose.

Applying soil stabilization manually in harder to reach areas.

Corresponding CASQA Fact Sheet

Fact Sheet EC-2

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What

Hydraulic Mulch is a procedural BMP for applying mulch to protect the soil surface from wind and rain erosion.

Mulch consists of a mixture of shredded wood fiber or other fiber in water and a stabilizing emulsion, or tackifier. The mulch is applied with hydro-mulching equipment (water mixture spraying equipment).

When

Hydraulic mulch is typically applied when a temporary soil cover is required for protection until permanent vegetation is established, or to disturbed areas that must be re-disturbed following a period of inactivity of 14 or more days.

Where

- To disturbed areas requiring temporary protection.
- Do not apply to active work areas where the mulch would interfere with or be destroyed by immediate earthwork activities or construction traffic. Consider using soil binders instead (BMP 4-05).

How

- Prior to application, roughen embankment and fill areas with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical and slope angle allows safe equipment operation. Track walking must be performed upslope so that equipment tracks traverse the slope horizontally along the slope.
- Avoid mulch over-spray onto the traveled way, sidewalks, lined drainage channels, and existing vegetation.
- Avoid use of mulch without a tackifier component, especially on slopes.
- Hydraulic Mulches:
    - Apply as liquid slurry using a hydraulic application machine (i.e., hydroseeder) at rates of mulch and stabilizing emulsion recommended by the manufacturer. Wood fiber hydraulic mulches are generally short-lived (only last a part of a growing season) and must be applied no less than 24 hours before rain events to dry and become effective.
        - Hydraulic Mulch with Binder (Matrix):
    - Apply a combination of wood fiber and/or paper fiber mixed with acrylic polymers as binders. Apply the mulch matrix as liquid slurry using a hydraulic application machine (i.e., hydroseeder) at rates recommended by the manufacturer. Hydraulic matrices must be applied no less than 24 hours before a rain event to dry and become effective.
        - Bonded Fiber Matrix (BFM):
    - Apply BFM using a hydraulic application machine (mulch and tackifier are pre-mixed in a single bag) in accordance with manufacturer's instructions. Do not apply immediately before, during, or after a rain event.
    - Note that cellulose fiber mulches alone may not perform well on steep slopes or in coarse soils.

Maintenance and Inspection

- Maintain an unbroken, temporary mulched ground cover throughout the period of construction when the soils are not being reworked. Inspect before expected rain and repair any damaged ground cover and re-mulch areas of exposed soil (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable).
- After any rain event, maintain all slopes to prevent erosion.

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Pictures

Applying hydraulic mulch.

Close-up of bonded fiber matrix

Corresponding CASQA Fact Sheet

Fact Sheet EC-3

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What

Hydroseeding is a procedural BMP for the application of vegetation seed in a protective mixture for both soil and seed. The seed then sprouts, providing vegetation that provides additional soil erosion control (holds the soil in place and shields the soil from erosion). Hydroseeding material typically consists of a mixture of fiber, seed, fertilizer, and stabilizing emulsion.

When

- When temporary protection is needed until permanent vegetation protection can be established. Temporary vegetation should not be used for more than 3 to 6 months.
- Avoid using hydroseeding during dry weather periods, unless supplemental irrigation is used.

Where

- Use on disturbed soil areas that must be re-disturbed following construction inactivity of 14 or more days.
- Avoid use of hydroseeding in areas where the BMP would be incompatible with site conditions. These conditions include:
  - Slopes steeper than 1:3 vertical: horizontal. Steep slopes are difficult to protect with temporary seeding.
  - Traffic areas, where construction or other traffic would prevent seed sprouting or vegetation growth. Consider using soil binders instead (see BMP 4-05).

How

- Hydroseeding can be accomplished using a multiple-step (with straw mulch) or a one-step process (mixed with hydraulic mulch, hydraulic matrix, or bonded fiber matrix). When the one-step process is used to apply the mixture of fiber, seed, etc., the seed rate shall be increased to compensate for all seed not having direct contact with the soil. Confirm with your project Field Environmental Representative the appropriate seed mix to be used.
- Prior to application roughen the slope, fill area, or area to be seeded with the furrows trending along the contours.
- Apply straw mulch as necessary to keep seeds in place and to moderate soil moisture and temperature until the seeds germinate and grow.
- Follow-up applications shall be made as needed to cover weak spots, and to maintain adequate soil protection.
- Avoid over-spray onto the travel way, sidewalks, drainage channels and existing vegetation.

Maintenance and Inspection

- All seeded areas shall be inspected for failures and re-seeded, fertilized, and mulched within the planting season, using not less than half the original application rates. Any temporary re-vegetation effort that does not provide adequate cover must be re-vegetated.
- After any rainfall event, maintain all slopes to prevent erosion.

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Pictures

Applying hydroseed.

Corresponding CASQA Fact Sheet

Fact Sheet EC-4

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What

Soil Binders is a procedural BMP for applying soil binder material to the soil surface to temporarily prevent water-induced erosion of exposed soils on construction or applicable operations and maintenance sites. Soil binders bind with the soil, creating a crust that sheds water and prevents the water erosion. Soil binders also provide temporary dust, wind, and soil stabilization benefits.

When

Soil binders are typically applied to disturbed soil areas that require short-term temporary protection.

Soil binders have the following application timing limitations:

- May not cure when low temperatures occur within 24 hours of application.
- Soil binders generally experience spot failures during heavy rain and may need reapplication after a storm.
- Some soil binders may not perform well during periods of low relative humidity.

Where

Soil binders can be used for any disturbed soil area. Soil binders can often be incorporated into the work so they may be a good choice for areas where grading activities will soon resume or that experience light construction traffic.

Soil binders have the following limitations for particular areas of application:

- Soil binders may not penetrate areas where soil surfaces are made up primarily of silt and clay, particularly when compacted.
- Soil binders may not hold up well in areas of heavy pedestrian or medium to heavy vehicular traffic.

How

Selection of soil binders should be approved by the project Field Environmental Representative after an evaluation of site-specific factors. Chemical soil binders must be on the SDG&E List of Approved Products. These approved soil binder products have low or no toxicity to aquatic organisms and wildlife and may not trigger the construction site sampling requirements of the CGP. Follow manufacturer's recommendations for application procedures and cleaning of equipment after use. Any onsite cleaning must use appropriate BMPs (BMP 2-02 "Material Use", 2-03 "Spill Control", 2-04 "Solid Waste Management", 2-08 "Liquid Waste/Drilling Fluid Management", and 3-03 "Vehicle and Equipment Washing").

- Prior to application, roughen embankment and fill areas. Track walking shall only be used where rolling is impractical.
- Soil binders should not be applied during or immediately before rain events. Soil binders must be applied no less than 24 hours before rain to cure and dry and become fully effective.
- Avoid over-spray onto paths, sidewalks, lined drainage channels, sound walls, and existing vegetation.

- **Do not apply soil binders to frozen soil, areas with standing water, under freezing conditions, or when the temperature is below 40ºF during the curing period.**
- More than one treatment is often necessary, although the second treatment may be diluted or have a lower application rate.
- For liquid agents:
  - Crown or slope ground to avoid ponding.
  - Uniformly pre-wet ground according to manufacturer's recommendations.
  - Apply solution under pressure. Overlap solution 6 to 12 inches.

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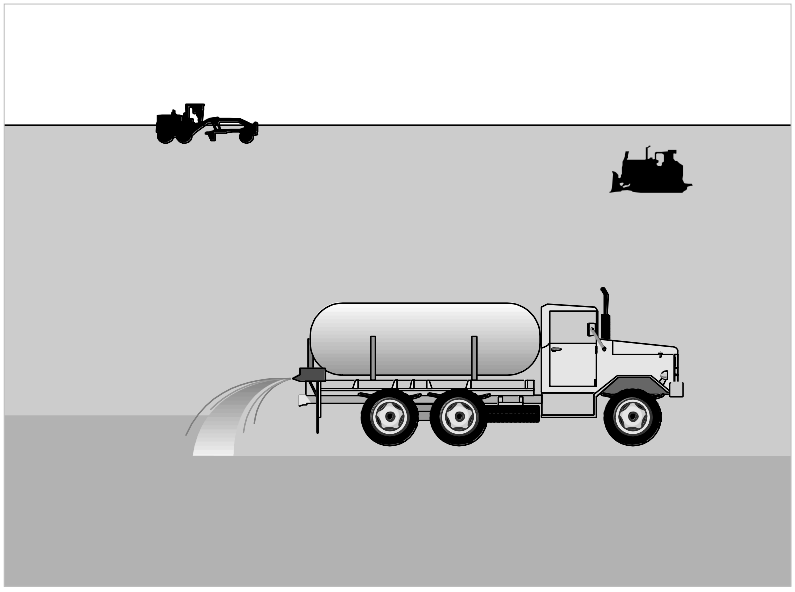
How (cont')

- Allow treated area to cure for the time recommended by the manufacturer; typically at least 24 hours.
- Apply second treatment before first treatment becomes ineffective, using 50 percent application rate.
- In low humidity, reactivate chemicals by re-wetting according to manufacturer's recommendations.

Maintenance and Inspection

- Reapplying the selected soil binder may be needed for proper maintenance. Traffic areas should be inspected routinely.
- After any rainfall event, maintain all slopes to prevent erosion.

Pictures



Corresponding CASQA Fact Sheet

Fact Sheet EC-5

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What

Straw Mulch is a procedural BMP for the application of a uniform layer of straw to exposed soil surfaces to protect exposed soil from rain and wind erosion. Straw mulch consists of straw, and may incorporate a tackifier emulsion for stabilization of the mulch when used for protecting sloped areas of exposed soil.

When

Straw mulch is used when:

- Temporary soil stabilization surface cover is needed on disturbed areas until soils can be prepared for re-vegetation and permanent vegetation is established.
- In combination with temporary and/or permanent seeding strategies to enhance plant establishment. Straw mulch typically lasts less than six months.

Limitation: There is a potential for introduction of weed-seed and unwanted plant material with straw. Certified Weed free rice straw must be used when it is important not to introduce unwanted plants.

Where

Application of straw mulch is applicable to flat areas of exposed soil and areas of exposed soil with gradual slopes.

How

Use tackifier to anchor straw mulch to the soil on slopes. Tackifiers act to glue the straw fibers together and to the soil surface, and the tackifier shall be selected based on longevity and ability to hold the fibers in place. Soil binders (tackifier) will generally experience spot failures during heavy rain events. A tackifier is typically applied at a rate of 125 pounds per acre. In windy conditions, the rates are typically 150 pounds per acre.

- Crimping, punch roller-type rollers, or track-walking may also be used to incorporate straw mulch into the soil on slopes. Track walking shall only be used where other methods are impractical.
- Avoid placing straw onto construction traffic ways, sidewalks, lined drainage channels, and existing vegetation.
- Straw mulch with tackifier shall not be applied during or immediately before rain events.
- Apply loose straw at a rate between 3,000 and 4,000 pounds per acre (lb/acre), either by machine using a straw blower or by hand distribution and provide 100 percent ground cover. Use a lighter application on flat surfaces and a heavier application on slopes.
- The straw mulch must be evenly distributed on the soil surface.
- Anchor mulch in place by "punching" it into the soil mechanically in lieu of using a tackifier. "Punching" of straw does not work in sandy soils.
- Methods for holding the straw mulch in place depend on the slope steepness, accessibility, soil conditions and longevity. If the selected method is incorporation of straw mulch into the soil, then proceed as follows:
    - A tackifier acts to glue the straw fibers together and to the soil surface. Selection of a tackifier should be based on longevity and ability to hold the fibers in place. Application of a tackifier is typically at a rate of 125 lb/acre and 180 lb/acre in windy conditions.
    - On very small areas, a spade or shovel can be used.
    - On soil slopes which are stable enough, and gradually sloped to safely support construction equipment without contributing to compaction and instability problems, straw can be "punched" into the ground using a knife-blade roller or a straight bladed coulter, known commercially as a "crimper."

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How (cont')

- On small areas and/or steep slopes, straw can also be held in place using plastic netting or jute. The netting shall be held in place using 11 gauge wire staples, geotextile pins or wooden stakes (BMP 4-07), "
- On small areas and/or steep slopes, straw can also be held in place using plastic netting or jute. The netting shall be held in place using 11 gauge wire staples, geotextile pins or wooden stakes (BMP 4-07, "Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats").

- Remove straw as necessary prior to permanent seeding or soil stabilization.

Maintenance and Inspection

- The key consideration in maintenance and inspection is that the straw needs to last long enough to achieve erosion control objectives.
- Reapplication of straw mulch and tackifier may be required to maintain effective soil stabilization over disturbed areas and slopes.
- After any rain event, inspect and maintain all slopes and straw mulch cover to prevent erosion.

Pictures

Straw mulch.

Corresponding CASQA Fact Sheet

Fact Sheet EC-6

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What

This Erosion Control and Soil Stabilization BMP is a procedural BMP for the installation of specific erosion control soil stabilization materials to control erosion from wind and water. These materials consist of:

- Geotextile blankets/mats,
- Plastic covers, and
- Natural/man-made material erosion control blankets.

Geotextiles are permeable fabrics typically made from polypropylene (plastic) or polyester that have the ability to protect the soil from erosion but are able to allow some water to reach and to drain the soil. Geotextile fabrics come in three basic forms: woven, needle punched, or heat bonded. Geotextiles also allow controlled rate and filtered drainage from a slope for slope moisture control, while providing slope reinforcement and protection.

Plastic Covers, such as Visqueen, are essentially impermeable and are used for immediate, temporary protection.

Erosion control blankets/mats are meant to protect exposed soil from wind and rain impact and reduce the speed at which water moves across the soil surface. These blankets can be made out of straw, coconut fiber, aspen fiber, jute, and polypropylene. Permeability varies according to material and material weave.

When

- Use blankets/mats when disturbed soils, especially on moderate to steep slopes, are difficult to stabilize or access. Due to wildlife concerns, consult with your project Field Environmental Representative for any restrictions on using these products on your project.
- Geotextile blanket/mats should be used when slope reinforcement may be required.
- Geotextile blankets/mats and natural fiber blankets/mats (depending on their permeability) are used when it is important to allow some water to reach the soil for seed germination or allow slope drainage for moisture control.

Where

- Blankets and mats are generally not suitable for excessively rocky sites or areas where the final vegetation will be mowed (because staples and netting can catch in mowers).
- Plastic results in 100 percent runoff, therefore, their use is limited to:
  - Covering small stockpiles.
  - Covering small graded areas for short periods, such as through an imminent storm event, until alternative measures may be installed.
  - Note the CGP discourages the use of plastic materials for cover when more sustainable alternatives can be used.

Blankets/mats should be used where there are:

- Steep slopes, generally steeper than 1:3 (vertical: horizontal).
- Slopes where the erosion hazard is high.
- Slopes and disturbed soils where mulches would need to be anchored.
- Disturbed areas where plants are slow to develop adequate protective cover.
- Channels with high flows.
- Channels intended to be vegetated.
- Slopes adjacent to water bodies or ESAs).

How

For blankets or mat materials, proper site preparation is essential to ensure complete contact of the blanket or matting with the soil.

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How (cont.)

- Grade and shape the area of installation.
- Remove all rocks, clods, vegetation or other obstructions so that the installed blankets or mats will have complete, direct contact with the soil.
- Prepare seedbed by loosening of topsoil.
- Seed the area before blanket installation for erosion control and vegetation. Seeding after mat installation is often specified for turf reinforcement. When seeding prior to blanket installation, all check slots and other areas disturbed during installation must be re-seeded. Where soil filling is specified, seed the matting and the entire disturbed area after installation and prior to filling the mat with soil.
- U-shaped wire staples, metal geotextile stake pins, or triangular wooden stakes can be used to anchor mats and blankets to the ground surface.
- Wire staples and metal stakes should be driven flush to the soil surface.
- All anchors should be 6 inches to 18 inches long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.
- Installation on slopes – Consult the manufacturer's recommendations for installation. In general, these will be as follows:
  - Begin at the top of the slope and anchor the blanket in a 6 inch deep by 6 inch wide trench. Backfill trench and tamp earth firmly.
  - Unroll blanket down slope in the direction of water flow.
  - Overlap the edges of adjacent parallel rolls 2 inches to 3 inches and staple every 3 feet.
  - When blankets must be spliced, place blankets end over end (shingle style) with a 6 inch overlap. Staple through overlapped area, approximately 12 inches apart.
  - Lay blankets loosely and maintain direct contact with the soil. Do not stretch.
  - Staple blankets sufficiently to anchor blanket and maintain contact with the soil. Staples shall be placed down the center and staggered with the staples placed along the edges.
- Blankets and mats must be removed and disposed of prior to application of permanent soil stabilization measures.
- For plastic sheeting, it is important for the entire stockpile or exposed soil area to be covered completely, and the plastic firmly anchored with anchor objects spaced evenly along the entire perimeter so that wind, or storm water run-on, does not uncover the stockpile. Suitable anchors are gravel bags, sand bags, hay bales, or other non-polluting objects that can be safely handled.

Maintenance and Inspection

- Areas covered with temporary soil stabilization should be inspected routinely and before and after significant forecasted storm events. Any failures should be repaired immediately. Areas covered with temporary soil stabilization should be maintained to provide adequate erosion control. Temporary soil stabilization should be reapplied or replaced on exposed soils when greater than 10 percent of the previously covered area becomes exposed or exhibits visible erosion.
- If washout or breakage occurs, re-install the material after repairing the damage to the slope or channel.

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Pictures

Several types of erosion control blankets.

Corresponding CASQA Fact Sheet

Fact Sheet EC-7

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What

Dust (Wind Erosion) control is a procedural BMP that consists of applying water or other dust suppressant to prevent or alleviate dust nuisance generated by construction and operations and maintenance activities.

When

- Dust control must be used whenever wind speed picks up dust and creates visual dust emissions. Dust control should be used at least initially on any project when exposed soil is subject to vehicle traffic and soil disturbance activities (e.g., dirt construction site, dirt access road traffic, grading, excavating, and soil stockpile generation, or soil removal from soil stockpiles).
- Dust control must be implemented in accordance with local air quality requirements.

Where

All construction and operations and maintenance activity sites where exposed soil is susceptible to wind erosion.

How

Use the following measures as applicable:

- Appropriate methods of applying dust control (water, chemical dust suppressant, or soil covers and the means to apply it) should be available for construction or operation and maintenance activity sites with the potential to create dust.
- Water applied for dust control should be applied evenly and in a manner that does not generate runoff.
- Dust control methods should be approved by the project Field Environmental Representative. A construction permit or an agency rule may require specific control procedures.
- Obtain prior approval to use any chemical dust suppressant from the project Field Environmental Representative. Dust suppressant chemicals must be on SDG&E's approved product list
- Non-potable water should not be conveyed in tanks or drainpipes that will be used to convey potable water, and there should be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances should be marked **"NON-POTABLE WATER – DO NOT DRINK."** Approval for use of all non-potable sources of water must be obtained from the project Field Environmental Representative.

- If reclaimed wastewater is used for dust control, the sources and discharge must meet California Department of Health Services water reclamation criteria and RWQCB requirements. Approval for use of reclaimed wastewater must be obtained from the project Field Environmental Representative.

Maintenance and Inspection

- Check areas protected to ensure coverage.
- Reapply water, chemical dust suppressants, or maintain soil covers as necessary to maintain their effectiveness.

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Pictures

Water being applied for dust control.

Corresponding CASQA Fact Sheet

Fact Sheet WE-1

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What

A diversion berm is a temporary berm of compacted soil used to direct runoff water to a desired location. A drainage swale is a shaped and sloped soil depression used to convey runoff to a desired location. Diversion berms and drainage swales divert off site runoff around the construction or operation and maintenance site, divert runoff from flowing onto stabilized areas and disturbed areas, and direct runoff into sediment basins or traps. A diversion berm or swale itself does not control erosion or remove or trap sediment from runoff.

Limitations:

- Diversion berms may create disturbed areas and become construction equipment barriers.
- Diversion berms must be stabilized immediately, adding cost and maintenance.
- Diverted storm water may cause downstream flood damage.
- Berms should not be constructed of easily eroded soils.
- Regrading the site to remove the berm may add cost.
- Other soil stabilization and sediment controls such as check dams, plastics, and blankets may be needed to prevent erosion in newly graded berms and swales.
- Sediment accumulation, scour depression, and/or persistent non-storm water discharges can result in standing water suitable for mosquito production.

When

Diversion berms and drainage swales are suitable for use, individually or together, where runoff needs to be diverted from one area to another. These BMPs may be used:

- To direct runoff away from disturbed areas or at the top of slopes.
- To convey surface runoff down sloping land.
- To divert runoff towards a stabilized watercourse, drainage pipe, or channel.
- To intercept runoff from paved surfaces.
- To divert sediment laden runoff into sediment basins or traps.

Where

Diversion berms and drainage swales should be considered:

- At the top of slopes to divert run-on from adjacent or undisturbed slopes.
- At bottom and mid-slopes to intercept sheet flow and convey concentrated flows.
- Below steep grades where runoff begins to concentrate.
- Along roadways and facility improvements subject to flood drainage.
- Berms should not be used for drainage areas greater than 10 acres or along slopes greater than 10 percent. For larger drainage areas, more permanent drainage structures should be built in accordance with local requirements.
- Drainage areas more than 5 acres should not drain to a temporary drainage swale. For larger drainage areas, use berms, or more permanent drainage structures should be built in accordance with local requirements.

How

Berms and swales should not adversely affect adjacent properties and must conform to local floodplain management regulations. Obtain written

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How (cont.)

authorization from property owner to divert runoff onto another property.

- Care must be applied to correctly size and locate berms and drainage swales.
- Conveyances and outlets should be stabilized.
- Size to control flow velocity based on evaluation of the erosion risk, soil types, overtopping, flow backups, washout, and site drainage flow patterns.
- Install permanent berms and swales early in the construction process.

Diversion Berms:

- Compact all berms and provide positive drainage to an outlet.
- All berms should have 1:2 (vertical: horizontal) or flatter side slopes, and minimum 18-inch height, and minimum 24-inch top width. Wide top widths and flat slopes are usually needed for construction traffic crossings.
- Runoff should be conveyed to a sediment trapping device when the berm channel or the drainage area above the berm are not adequately stabilized.
- Temporary stabilization may be achieved using seed and mulching for slopes less than 5 percent and either riprap or sod for slopes greater than 5 percent. Stabilization should be completed immediately after installation/placement.
- If riprap is used to stabilize the channel formed along the toe of the berm, the following typical specifications apply:

Channel Grade	Riprap Stabilization
0.5 - 1%	4 inch Rock
1.1 - 2.0%	6 inch Rock
2.1 - 4.0%	8 inch Rock
4.1 - 5.0%	8 to 12 inch Riprap

- The riprap, recycled concrete, etc. should be pressed into the soil with construction equipment.
- Filter fabric may be used to cover berms in use for long periods.
- Construction activity on the earthen berms should be kept to a minimum.

Drainage Swales:

Standard engineering design criteria for small open channel and closed conveyance systems should be used. Unless local drainage design criteria state otherwise, drainage swales should be designed as follows:

- Place drainage swales above or below, not on, a cut or fill slope.
- Swale bottom width should be at least 2 feet, and the depth of the swale should be at least 18 inches. The swale side slopes should be 1:2 (vertical: horizontal) or flatter.
- Drainage swales should be at a grade of at least 1 percent, but not more than 15 percent.
- The swale must not be overtopped by the peak discharge from a 10-year storm, irrespective of the design criteria above.

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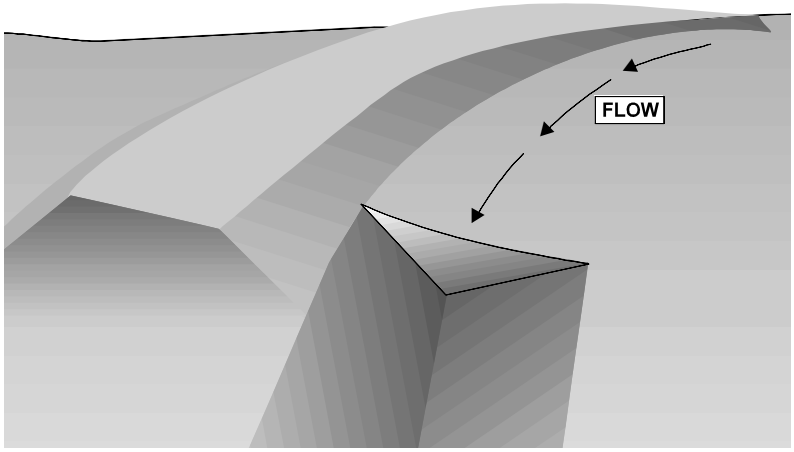
How (cont.)

- Remove all vegetation and other objectionable materials and compact the fill material along the swale path.
- Stabilize all swales immediately after installation/placement. Seed and mulch swales with slopes of less than 5 percent and use riprap or sod for swales with slopes between 5 and 15 percent. For temporary swales, geotextiles and mats may provide immediate stabilization.
- Irrigation may be required to establish sufficient vegetation to prevent erosion.
- Do not operate vehicles across a swale unless a stabilized crossing is provided.
- Permanent drainage facilities must be designed by a California Registered Civil Engineer.
- At a minimum, the drainage swale should conform to predevelopment drainage patterns and capacities.
- Construct the drainage swale with a positive grade to a stabilized outlet.
- Provide erosion protection or energy dissipation measures if the flow out of the drainage swale can reach erosive velocity.

Maintenance and Inspection

- Inspect berms and drainage swales dams prior to, daily during, and after each storm event, and routinely throughout the construction activity (e.g., weekly, or in compliance with the frequency specified in the CGP, if applicable).
- Inspect BMPs subject to non-storm water discharges daily while the discharges occur.
- Inspect ditches and berms for washouts and erosion. Repair riprap, damaged linings, or soil stabilizers, and linings as needed.
- Inspect channel linings, embankments, and beds of swales and berms for erosion and accumulation of debris and sediment. Remove accumulated debris and sediment as needed. Removed sediment shall be incorporated in the project at appropriate locations or disposed of in accordance with federal, state and local requirements.
- Temporary conveyances should be completely removed as soon as the surrounding drainage area has stabilized or at the completion of construction.

Pictures



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Corresponding CASQA Fact Sheet Fact Sheet EC-9

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What

Velocity dissipation devices are composed of rock, riprap, grouted riprap or concrete rubble, placed at the outlet of a pipe, channel, or waterbar to prevent scour and erosion caused by concentrated high velocity flows. There are many types of dissipation devices.

Limitations:

- Large storms or high flows can wash away the outlet protection and leave the area susceptible to erosion.
- Sediment captured by the outlet protection may be difficult to remove without removing the protection.
- Outlet protection may negatively impact the channel habitat.
- Grouted riprap may break up in areas of freeze and thaw.
- With inadequate drainage, water may build up behind and break grouted riprap.
- Sediment accumulation, scour depression, and/or persistent non-storm water discharges can result in standing water suitable for mosquito production.

When

Velocity dissipation devices are suitable when discharge velocities and energies at the outlets of culverts, conduits, waterbars, or channels are sufficient to erode the next downstream reach.

Where

Velocity dissipation devices should be considered:

- At outlets of pipes, drains, culverts, slope drains, diversion ditches, swales, conduits, channels, waterbars, etc.
- At outlets located at the bottom of mild to steep slopes.
- At discharge outlets that carry continuous water flow.
- At outlets subject to short, intense water flows, such as flash floods.
- At points where lined conveyances discharge to unlined conveyances.

How

Depth of flow, roughness, gradient, side slopes, discharge rate, and velocity should be considered in the outlet design. Compliance to local and state regulations should be considered, particularly while working in environmentally sensitive streambeds.

- Determine the apron length and rock size gradation using the discharge pipe diameter and estimated discharge rate table below. Select the longest apron length and largest rock size suggested by the pipe size and discharge rate. Recommendations for rock size and length of outlet protection mat should be considered minimums. Use sound, durable, and angular rock.
- Where flows are conveyed in open channels such as ditches or swales, use the estimated discharge rate for selecting the apron length and rock size. Flows should be the same as the culvert or channel design flow but never less than the pear 5 year flow for temporary structures planned for one rainy season, or the 10 year peak flow for temporary structures planned for two or three rainy seasons.
- Install filter fabric, riprap, grouted riprap, or concrete apron at selected outlet. Install filter fabric or well-graded filter layer beneath the riprap apron. Riprap aprons are best suited for temporary use during construction. Grouted or wired riprap can minimize maintenance.
- Rock outlet protection is usually less expensive and easier to install than concrete aprons or energy dissipaters, and serves to trap sediment and reduce flow velocities.

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How (cont.)

- Carefully place riprap to avoid damaging the underlying filter fabric.
  - Rock 4 to 6-inches may be carefully dumped onto the filter fabric from a maximum height of 12 inches.
  - 8- to 12-inch rock must be hand placed onto filter fabric, or the filter fabric may be covered with 4 inches of gravel, and the rock may be dumped from a maximum height of 16 inches.
  - Rock greater than 12 inches shall only be dumped onto filter fabric protected with a layer of gravel with a thickness equal to one-half the D_{50} rock size, with the dump height limited to twice the gravel protection layer thickness.
- Align apron with receiving stream and keep straight throughout its length. If a curve is needed to fit site conditions, place it in the upper section of the apron.
- Outlets on slopes steeper than 10 percent should have additional protection.

Pipe Diameter (in)	Discharge (ft^3/s)	Apron Length (ft)	Min. Riprap D_{50} Diameter (in)
12	5	10	4
	10	13	6
18	10	10	8
	20	16	12
	30	23	16
	40	26	8
24	30	16	8
	40	26	12
	50	26	16
	60	30	8

Maintenance and Inspection

- Inspect velocity dissipation devices prior to and after each rain event, and daily during extended rain events throughout the construction activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect BMPs subject to non-storm water discharges daily while the discharges occur. Minimize standing water by removing sediment blockages and filling depressions.
- Inspect apron for displacement of the riprap and damage to the underlying fabric. Repair fabric and replace riprap that has washed away. If riprap continues to wash away, consider using larger material.
- Inspect for scour beneath the riprap and around the outlet. Repair damage to slopes or underlying filter fabric immediately.
- Temporary devices should be completely removed as soon as the surrounding drainage area has been stabilized or at the completion of construction.

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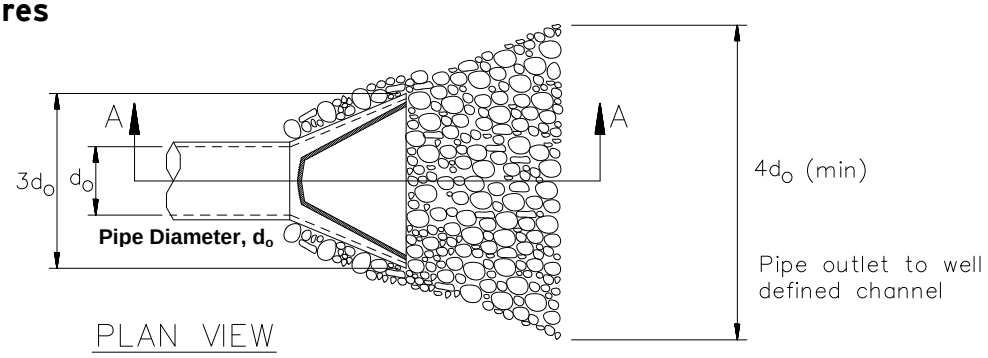
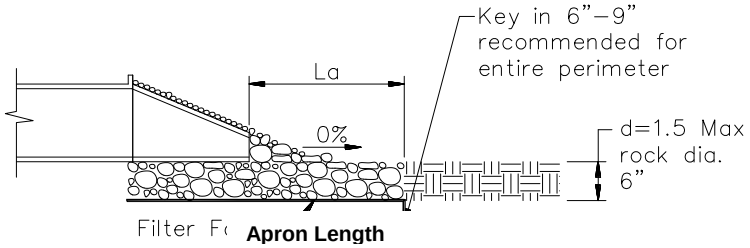
Pictures



PLAN VIEW



SECTION A–A

Corresponding CASQA Fact Sheet

Fact Sheet EC-10

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What

A slope drain is a pipe used to intercept and direct surface runoff or groundwater into a stabilized watercourse, trapping device, or stabilized area. Slope drains are typically used with diversion berms and drainage ditches to intercept and direct surface flow away from slope areas to protect cut or fill slopes. Slope drains prevent storm water from flowing directly down the slope by confining the runoff into an enclosed pipe or channel. The slope drain may be installed as a rigid pipe, such as corrugated metal, a flexible conduit, or a lined terrace drain with a top of a slope inlet and a bottom of a slope outlet.

Limitations:

- Slope drain sizing, installation, and maintenance is critical to minimize the potential for failure. Severe erosion may result when slope drains fail by overtopping, pipe separation, or other signs of erosion.
- Dissipation of high flow velocities at the pipe outlet is required to avoid erosion.
- Sediment accumulation, scour depression, and/or persistent non-storm water discharges can result in standing water suitable for mosquito production.

When

Slope drains are suitable when:

- Concentrated runoff flow must be conveyed down a slope.
- Drainage is needed for top of slope diversion dikes or swales.
- Drainage is needed for top of cut and fill slopes where water can accumulate.
- Emergency spillway is required for a sediment basin.

Where

Slope drains should be considered where:

- The drainage area is less than 10 acres per slope drain. For larger areas, use a rock-lined channel, or subdivide into areas of 10 acres or less, with each area is treated as a separate drainage.
- Drainage areas exceeding 10 acres must be designed by a California Registered Civil Engineer and approved by the agency that issued the grading permit.

How

- Permanent structures included in the project plans can often serve as construction BMPs if implemented early. However, the permanent structure must meet or exceed the criteria for the temporary structure.
- Slope drains and inlets must be securely attached to the slope and must be adequately sized to carry the capacity of the design storm and associated forces.
- Outlets must be stabilized with riprap, concrete, or other type of energy dissipater, or directed into a stable sediment trap or basin.
- Debris racks are recommended at the inlet. Debris racks are barriers used to collect debris that is too large to pass through the inlet. Debris racks located several feet upstream of the inlet can usually be larger than racks at the inlet, and thus provide enhanced debris protection and less plugging.

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How (cont.)

- Safety racks are also recommended at the inlet and outlet of pipes to prevent a human body or animal from washing into the pipe and/or becoming trapped.
- Size to convey at least the peak flow of a 10-year storm. The design storm is conservative due to the potential impact of system failures. The pipe size may be computed using the Rational Method or a method established by a local municipality. Higher flows must be safely stored or routed to prevent any offsite concentration of flow or erosion.Maximum slope generally limited to 1:2 (vertical: horizontal) as energy dissipation below steeper slopes is difficult.
- Direct surface runoff to slope drains with interceptor dikes. Top of interceptor dikes should be 12 inches higher than the top of the slope drain.
- Slope drains can be placed on or buried beneath the slope surface.
- As a guide, temporary slope drains should not be sized smaller than shown in the following table:

Minimum Pipe Diameter (inches)	Maximum Drainage Area (Acres)
12	1.0
18	3.0
21	5.0
24	7.0
30	10.0

- Recommended materials include metal, plastic, or concrete pipe, either corrugated or smooth wall. The following types of slope drains are common:
  - Rigid Pipe: Also known as a pipe drop, the pipe usually consists of corrugated metal pipe or rigid plastic pipe. The pipe is placed on undisturbed or compacted soil and secured to the slope surface or buried in a trench. Concrete thrust blocks must be used when warranted by the calculated thrust forces. Collars should be properly installed and secured with straps or watertight collars.
  - Flexible Pipe: The pipe consists of a flexible tube of heavy duty plastic, rubber, or composite material. The tube material is securely anchored to the slope surface. The tube should be securely fastened to the metal inlet and outlet conduit sections with metal straps or watertight collars.
  - Section Downdrains: The section downdrain consists of a pre-fabricated, section conduit of half round or third round material, and performs similar to a flume or chute. The pipe must be placed on undisturbed or compacted soil and secured into the slope.
  - Concrete-Lined Terrace Drain: This concrete channel drains water from a slope terrace to the next level. These drains are typically specified as permanent structures and should be designed according to local criteria. If installed early, they can be construction slope drains.

How

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(cont.)

When installing slope drains:

- Install perpendicular to slope contours.
- Compact soil around and under entrance, outlet, and along length of pipe.
- Securely anchor and stabilize pipe appurtenances into soil.
- Check to ensure that pipe connections are watertight.
- Protect areas around inlet with filter fabric. A flared end section installed at the inlet will improve flow into the slope drain and prevent erosion at the pipe entrance. Use a flared section with a 6-inch minimum toe plate to help prevent undercutting. The flared section should slope towards the pipe inlet.
- Protect outlet with riprap or other energy dissipation device. Protect outlet of slope drains using a flared end section when outlet discharges to a flexible energy dissipation device.

Maintenance and Inspection

- Inspect slope drains prior to and after each storm event, and daily during extended rain events throughout the construction activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect BMPs subject to non-storm water discharges daily while the discharges occur. Minimize standing water by removing sediment blockages and filling depressions.
- Inspect outlet for erosion and downstream scour. If eroded, repair damage and install additional energy dissipation measures. If downstream scour is occurring, it may be necessary to reduce flows being discharged into the channel unless other preventative measures are implemented.
- Insert inlet for clogging or undercutting. Remove debris from inlet to maintain flows. Repair undercutting at inlet, and if needed, install flared section or riprap around the inlet to prevent further undercutting.
- Inspect pipes for leakage. Repair leaks and restore damaged slopes.
- Inspect slope drainage for accumulations of debris and sediment. Remove sediment from entrances and outlets as required. Flush drains as necessary; capture and settle out sediment from discharge.
- Ensure water is not ponding onto inappropriate areas (e.g. active traffic lanes, material storage areas, etc.).
- Pipe anchors must be checked to ensure that the pipe remains anchored to the slope. Install additional anchors if pipe movement is detected.

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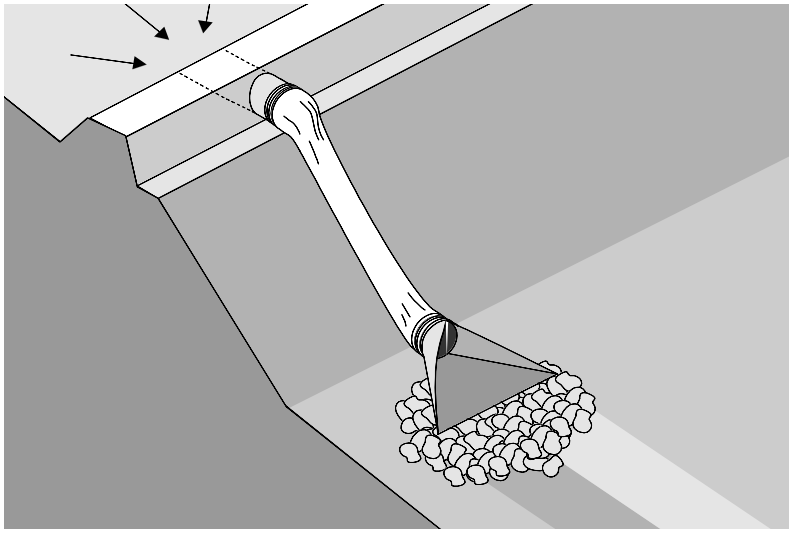
Pictures



Corresponding CASQA Fact Sheet

Fact Sheet EC-11

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What

Streambank stabilization includes measures to reduce the discharge of sediment from streambanks with exposed or disturbed soil, or unstable banks. Streambank stabilization measures include preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextiles and mats, berms, and drainage swales, velocity dissipation devices, and slope drains. Streambank sediment controls include silt fences, fiber rolls, gravel bag berms, rock filters, and K-rail barriers, and padding. Each of these measures have different applications, limitations, and maintenance requirements for use as streambank stabilization.

Stream channels, streambanks, and associated riparian areas are dynamic and sensitive ecosystems that respond to changes in land use. Streams on the 303(d) list and listed for sediment may require numerous measures to prevent any increases in sediment load to the stream.

General streambank stabilization limitations:

- **Specific permit requirements or mitigation measures such as RWQCB 401 Certification, U.S. Army Corps of Engineers 404 permit and approval by the California Department of Fish and Game supersede the guidance in this BMP.**
- If numerical water quality standards are mentioned in any of these and other related permits, testing and sampling may be required. Soil disturbance activities in watersheds having streams listed as 303(d) impaired for sediment, silt, or turbidity, may require sampling to verify that there is no net increase in sediment load.

When

When construction or operations and maintenance activities occur within stream channels and associated riparian areas.

Where

Streambank stabilization procedures apply to all construction projects and operations and maintenance activities that disturb or occur within stream channels and their associated riparian areas.

How

Planning should account for: scheduling; avoidance of wet in-stream construction; minimizing disturbance and construction time period; selecting crossing location; and selecting equipment.

- **Construction and operation and maintenance activities should be scheduled according to the relative sensitivity of the environmental concerns and will be different when working near perennial streams vs. ephemeral streams.**
- Minimize disturbance by using pre-disturbed areas, selecting the narrowest crossing location, limiting vehicle crossing trips, and minimizing the number and size of work areas. Plan work areas at least 50 feet from the stream channel.
- Avoid steep and unstable banks, highly erodible or saturated soils, or highly fractured rock.
- Select a project or work site that minimizes disturbance to aquatic species or habitat.
- Select equipment that reduces the amount of pressure exerted on the ground surface (less than 5 or 6 pounds per square inch where possible.

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Maintenance and Inspection

- Inspect streambank stabilization BMPS prior to and after each storm event, and daily during extended rain events throughout the construction activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Inspect BMPs subject to non-storm water discharges daily while the discharges occur.
- Inspect and repair equipment (for damaged hoses, fittings, and gaskets, etc.).

Pictures

Cobble or gravel armor used for streambank stabilization.

Corresponding CASQA Fact Sheet

Fact Sheet EC-12

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What

Soil preparation/roughening involves assessment and preparation of surface soils for BMP installation. This includes soil testing (for seed base, soil characteristics, or nutrients), or roughening surface soils by mechanical methods (including sheepsfoot rolling, track walking, scarifying, stair stepping, and imprinting) to prepare soils for additional BMPs or to break up sheet flow. Soil preparation can also involve tilling topsoil to prepare a seed bed and/or incorporation of soil amendments to enhance vegetative establishment. Various roughening techniques on slopes can result in a significant erosion reduction as compared to smooth slopes.

Limitations:

- Preparation and roughening must take place prior to installing other erosion controls (such as hydraulically applied stabilizers) or sediment controls (such as fiber rolls) on slope faces.
- In cases where slope preparation is minimal, erosion control/revegetation BMPs that do not require extensive soil preparation (such as hydraulic mulching and seeding applications) should be employed.
- Consideration should be given to the type of erosion control BMP that follows surface preparation, as some BMPs are not designed to be installed over various types of tillage/roughening.

When

- Soil preparation is most effective when used in combination with erosion controls. Soil preparation (i.e. tilling, raking, and amendment) is essential to proper vegetative establishment, and suitable in combination with any soil stabilization method, including rolled erosion control products (RECPs) or sod.
- Soil roughening is suitable for use as a complementary process to soil preparation for controlling erosion, and is not intended to be used as a stand-alone BMP. Soil roughening should be used with perimeter controls, additional erosion control measures, grade breaks, and vegetative establishment for maximum effectiveness. Soil roughening is referred to as track walking (sometimes called imprinting) a slope, where treads from heavy equipment run parallel to the slope contours and create terraces. Roughening is intended to only affect surface soils and should not compromise slope stability or overall compaction.

Where

Soil preparation should be considered:

- Where vegetation is desired.

Soil roughening should be considered:

- Along any disturbed slopes, including temporary stockpiles, sediment basins, or compacted soil diversion berms and swales.
- Roughening should be used in combination with hydraulically applied stabilization methods, compost blankets, or straw mulch; but should not be used in combination with RECPs or sod because roughening is intended to leave terraces on the slope.

How

Minimal materials are required unless amendments and/or seed are added to the soil. Most soil roughening/preparation can be done with standard construction equipment.

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How (cont.)

Soil Preparation

- Where appropriate, soil should be prepared to receive the seed by disking or scarifying the surface to eliminate crust, improve air and water infiltration and create a more favorable environment for germination and growth.
- Based on soil testing, apply additional soil amendments (e.g. fertilizers, additional seed) to the soil to help with germination.

Cut Slope Roughening

- Stair-step grade or groove the cut slopes steeper than 1:3 (vertical: horizontal).
- Use stair-step grading on any erodible material soft enough to be ripped with a bulldozer. Slopes consisting of soft rock with some subsoil are well suited to stair-step grading.
- Make the vertical cut distance less than the horizontal distance, and slightly slope the horizontal position of the "step" in toward the vertical wall.
- Do not make individual vertical cuts more than 2 feet or 3 feet high in soft or rock materials, respectively.
- Groove the slope using machinery to create a series of ridges and depressions that run across the slope on the contour.

Fill Slope Roughening

- Place on fill slopes with inclinations steeper than 1:3 (vertical: horizontal) in lifts not to exceed 8 inches, and ensure that each lift is properly compacted.
- Ensure that the slope face consists of loose, uncompacted fill 4 to 6 inches deep.
- Use grooving or tracking to roughen the face of slopes, if necessary.
- Do not blade or scrape the final slope face.

Roughening for Slopes to be Mowed

- Slopes which require mowing should be flatter than 1:3 (vertical: horizontal).
- Roughen these areas to shallow grooves by track walking, scarifying, sheepsfoot rolling, or imprinting. Excessive roughness is undesirable when mowing is planned.
- Space grooves less than 10 inches apart, and not less than 1 inch deep, and perpendicular to the direction of runoff (parallel to the slope contours).

Roughening with Tracked Machinery

- Limit roughening with tracked machinery to soils with a sandy textural component to avoid undue compaction of the soil surface.
- Operate tracked machinery up and down the slope to leave horizontal depressions in the soil. Do not back-blade during the final grading operation.

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How (cont.)

- Seed and mulch roughened areas as soon as possible to obtain optimum seed germination and growth.

Maintenance and Inspection

- Inspect BMPs prior to and after each storm event, and daily during extended rain events throughout the construction activity (e.g., weekly, or in compliance with the frequency specified in the project specific SWPPP, if applicable). Initiate repairs related to a storm event within 72 hours of identifying the problem or as soon as possible but prior to the next predicted storm event, per the CGP.
- Check the seeded slopes for signs of erosion such as rills and gullies. Fill these areas slightly above original grade, then reseed and mulch as soon as possible.

Pictures

Sheepsfoot used for soil preparation

Corresponding CASQA Fact Sheet

Fact Sheet EC-15

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REFERENCES

CASQA, 2009. California Stormwater Quality Association Stormwater Best Management Practice Handbook Portal: Construction, November 2009. https://www.casqa.org.

Sempra Energy, December 2002. Water Quality Construction Best Management Practices Manual.

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APPENDIX A DEFINITIONS AND ACRONYMS

ATS	Active Treatment Systems
Base	Construction and Operations Center
BFM	Bonded Fiber Matrix
BMP	Best Management Practices
Caltrans	California Department of Transportation
CASQA	California Stormwater Quality Association
CGP	California Construction General Permit
ES	Environmental Standard
ESA	Environmentally Sensitive Area
gpm	Gallons per minute
lb/acre	Pounds per acre
LID	Low Impact Development
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board – there are nine Water Boards located throughout California that are responsible for enforcing water quality standards within their individual boundaries.
SDG&E	San Diego Gas & Electric
SUSMP	Standard Urban Storm Water Mitigation Plan
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board – The State Board is responsible for protecting and preserving water quality and water rights in California.
Watershed	The total land area that contributes water to a river, stream, lake, or other body of water. Synonymous with drainage basin.
WDR	Waste Discharge Requirements

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NOTES

NOTES

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4.9 HYDROLOGY AND WATER QUALITY

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			✓	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f) Otherwise substantially degrade water quality?			✓	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				✓
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Cause inundation by seiche, tsunami, or mudflow?			✓	

4.9.0 Introduction

This section describes the existing surface and groundwater hydrology, use, and quality, as well as the potential for erosion and flooding in the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) area. It also describes the potential impacts from construction, operation, and maintenance of the Proposed Project to these resources. The Proposed Project will implement a Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan, which are both required by law. The Proposed Project will also follow SDG&E's Water Quality Construction Best Management Practices (BMP) Manual. As a result, the Proposed Project will result in a less-than-significant impact to hydrology and water quality.

4.9.1 Methodology

Hydrology and water quality in the Proposed Project area were evaluated through a reconnaissance-level survey and review of the following:

- water quality studies and Environmental Impact Reports from other projects in the area,
- city and county general plans,
- United States (U.S.) Geological Survey 7.5-minute series quadrangle maps,
- online geographic information system sources, and
- aerial photographs of the Proposed Project area.

The San Diego Regional Water Quality Control Board's (RWQCB) Water Quality Control Plan for the San Diego Basin (Basin Plan) was reviewed to ensure compliance with state and local regulations. Federal Emergency Management Agency (FEMA) maps were referenced to determine the location and extent of flood zones.

4.9.2 Existing Conditions

The regulatory requirements and overall existing hydrologic conditions of the Proposed Project are described in the following subsections.

Regulatory Background

Federal

Clean Water Act

The Clean Water Act (CWA) (Title 33 of the U.S. Code [U.S.C.] Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the U.S. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water.

Clean Water Act Section 402

The National Pollutant Discharge Elimination System (NPDES) program was established in 1972 to control discharges of pollutants from defined point sources (33 U.S.C. § 1342). The program originally focused on industrial-process wastewater and publically owned treatment works. In 1987, Section 402 of the CWA was amended to include requirements for five separate categories of storm water discharges, known as Phase I facilities. Phase I facilities include the following:

- facilities already covered by an NPDES permit for storm water,
- facilities that engage in industrial activities,
- large municipal separate storm drain systems that serve more than 250,000 people,
- medium municipal separate storm drain systems that serve between 100,000 and 250,000 people, and
- facilities that are considered significant contributors of pollutants to waters of the U.S.

The U.S. Environmental Protection Agency (EPA) issued a final rule for Phase II discharges in August 1995. Phase II storm water discharges include light industrial facilities, small construction sites (i.e., less than five acres), and small municipalities (i.e., populations of less than 100,000 people).

In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. On August 19, 1999, the State Water Resources Control Board (SWRCB) reissued General Permit for Stormwater Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ) and, later that year, amended the permit to apply to sites as small as one acre.

On September 2, 2009, the SWRCB adopted Order No. 2009-0009-DWQ (Construction General Permit), which reissued Water Quality Order 99-08-DWQ for projects disturbing one or more acres of land, or that are part of a common plan of development or sale that disturbs more than one acre of land where the rainfall erosivity waiver does not apply. The new permit became

effective July 1, 2010, whereby all existing dischargers and new dischargers are required to obtain coverage under the new permit by submitting Permit Registration Documents.

The Construction General Permit requires the implementation of a SWPPP, which must be prepared before construction begins and kept on site throughout the construction process. In accordance with the Order No. 2009-0009-DWQ, the SWPPP must include:

- identification of pollutant sources and non-storm water discharges associated with construction activity;
- specifications for BMPs that will be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and other temporary work areas;
- calculations and design details, as well as BMP controls for site run-on;
- BMPs used to eliminate or reduce pollutants after construction is complete; and
- certification from a Qualified SWPPP Developer.

While the SWPPP lays out the groundwork for compliance with the Construction General Permit, it is also a repository for completed Rain Event Action Plans (REAPs). During construction, the REAP is a site-specific plan that is geared to address rain events for each specific phase of construction. The REAP was not previously required under Water Quality Order 99-08-DWQ.

Clean Water Act Section 404

Section 404 of the CWA authorizes the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the U.S., including wetlands (33 U.S.C. § 1344). The USACE issues individual site-specific permits or general permits (i.e., Nationwide Permits or Regional General Permits) for such discharges.

Clean Water Act Section 401

Under Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters must provide the licensing or permitting agency with a Water Quality Certification that the discharge will comply with the applicable CWA provisions or a waiver (33 U.S.C. § 1341). If a federal permit is required, such as a USACE permit for dredge and fill discharges, the project proponent must also obtain a Water Quality Certification from the RWQCB.

Clean Water Act Sections 303 and 304

Section 303 of the CWA requires states to adopt water quality standards for all surface Waters of the U.S. (33 U.S.C. § 1313). Section 304(a) requires the U.S. EPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare (33 U.S.C. § 1314(a)). Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality

standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed when numerical standards cannot be established or when they are needed to supplement numerical standards.

Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which the U.S. EPA has published water quality criteria and which could reasonably be expected to interfere with designated uses in a waterbody.

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop a list of waterbodies where beneficial uses are impaired. The waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water segments on the lists and develop action plans, called Total Maximum Daily Loads, to improve water quality.

Rivers and Harbors Appropriation Act Section 10

Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. § 401 et seq.) makes it unlawful to obstruct or alter a navigable river or other navigable water of the U.S. Construction, excavation, or deposition of materials in, over, or under such waters, or any work that will affect the course, location, condition, or capacity of those waters, requires a Section 10 permit and approval from the USACE.

National Flood Insurance Program

FEMA is responsible for determining flood elevations and floodplain boundaries based on USACE studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in floodplains; however, construction activities are restricted within flood hazard areas, depending on the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations, enabling FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State and Local

California Fish and Game Code

Sections 1601 through 1606 of the California Fish and Game Code require a Lake or Streambed Alteration Agreement (LSAA) between the California Department of Fish and Wildlife and an entity proposing to substantially divert or obstruct the natural flow or affect changes to the bed, channel, or bank of any river, stream, or lake. The LSAA is designed to protect the fish and wildlife resources of a river, lake, or stream.

State Water Resources Control Board Order 2001-11-DWQ

The SWRCB adopted the Statewide General NPDES Permit for Discharges from Utility Vaults & Underground Structures to Surface Waters (General Permit CAG990002) in 2001. This

permit authorizes permittees to discharge uncontaminated water from vaults and substructures to surface waters during the operational phase of projects.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967, California Water Code Section 13000 et seq., requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect waters of the State. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for the Proposed Project area are contained in the San Diego RWQCB's Basin Plan.

San Diego Regional Water Quality Control Board Basin Plan

The San Diego RWQCB (Region 9) is responsible for protecting the beneficial uses of surface water and groundwater resources in the San Diego area. The RWQCB adopted the Basin Plan in September 1994. The plan sets forth implementation policies, goals, and water management practices in accordance with the Porter-Cologne Water Quality Control Act and establishes both numerical and narrative standards and objectives for water quality aimed at protecting aquatic resources. Discharges to surface waters within the approximately 3,900 square miles of the San Diego Basin are subject to the regulatory standards set forth in the Basin Plan, which prevents the unauthorized discharge of pollutants into waters of the U.S. and State. NPDES permits, waste discharge requirements, and waivers are mechanisms used by the RWQCB to control discharges and protect water quality.

San Diego Regional Water Quality Control Board Municipal Storm Water Permit

The San Diego RWQCB issued the San Diego Municipal Permit Order No. R9-2013-0001 (NPDES No. CAS0109266) to the County of San Diego, the San Diego Unified Port District, San Diego Regional Airport Authority, and 18 cities in San Diego County (Co-permittees) with the primary goal of preventing polluted discharges from entering the storm water conveyance system and local receiving and coastal waters. Pursuant to the permit, the Co-permittees are required to develop and implement measures that will address and prevent pollution from development projects. Priority development projects are also required to include BMPs in the permanent design to reduce pollutant discharges from project sites.

County of San Diego Standard Urban Stormwater Mitigation Plan

In order to comply with the San Diego RWQCB's San Diego Municipal Permit (NPDES No. CAS0109266), a Standard Urban Stormwater Mitigation Plan (SUSMP) was developed for San Diego County. A Storm Water Management Plan that complies with the criteria provided in the SUSMP must be developed for applicable priority development projects in San Diego County.

General Setting

The Proposed Project is situated in the San Diego Basin, within the Pueblo Hydrologic Unit (908.00) and the Lindbergh Hydrologic Subarea (908.21). Based on topography, surface water in the Proposed Project area appears to flow south and southwest.

San Diego is considered to have a Mediterranean climate, with sunny days 70 percent of the year. Most of San Diego County's annual rainfall occurs during the winter months, with 50

percent of the rainfall occurring from December to February. Only two percent of the annual rainfall occurs during the summer months. Annual average precipitation for the Proposed Project area is approximately 10 inches per year, with the majority of precipitation falling between December and April. Rainfall between June and October averages less than 0.5 inch per month. The Proposed Project area is relatively flat and sits at approximately 30 to 70 feet above mean sea level.

Surface Waters

As described in Attachment 4.4-B: Biological Survey Memo, a small concrete-lined drainage designed for storm water conveyance is located on the west side of the proposed Vine Substation site. The channel is an approximately 12-inch wide concrete v-ditch that was designed for storm water conveyance. There was no vegetation or accumulated sediment observed within the channel. No surface waters are located in the Proposed Project footprint or in other areas surrounding the Proposed Project. No surface waters will be crossed by the Proposed Project.

Groundwater

Groundwater basins can be found along major drainages in San Diego County. Groundwater recharge occurs from dam releases and underflow past existing dams. Other sources of recharge may include precipitation, stream flow, and discharges from municipal wastewater treatment plants.

Groundwater was encountered in the Proposed Project area at a depth of approximately 25 feet below the existing ground surface at the time when exploratory borings were conducted. Groundwater levels may fluctuate due to seasonal variations in weather. The exploratory borings for the Proposed Project were performed during a season characterized with relatively little rainfall. As a result, the relatively dry year could have resulted in lower-than-normal groundwater levels.

Surface Water Quality

The Basin Plan designates beneficial uses for surface and groundwaters in the basin, and it also sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy. Beneficial uses of inland surface waters near the Proposed Project area include recreation, wildlife habitat, and warm freshwater habitat.

The Proposed Project lies within the Pueblo San Diego Watershed. Pollutants of concern in this watershed include trace metals, coliform bacteria, pesticides, and nutrients. Sewer overflows, storm water runoff, and habitat degradation are all factors that may be impairing surface water quality in this watershed. No known or impaired waterbodies will be crossed by the Proposed Project.

Floodplains

According to FEMA's Flood Insurance Rate Maps, the site is in FEMA Zone X. The Proposed Project does not cross or lie within a 100-year or 500-year flood zone.

Dam Failure Inundation Areas

The Office of Emergency Services is responsible for the identification of inundation areas for dam failures in California. The Proposed Project is not located within an inundation area for dam failure.

4.9.3 Impacts

Significance Criteria

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts to hydrology and water quality would be considered significant if the Proposed Project:

- Violates any water quality standards or waste discharge requirements
- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site
- Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner that would result in flooding on site or off site
- Creates or contributes to runoff water that would exceed the capacity of existing or planned storm water drainage systems, or provides substantial additional sources of polluted runoff
- Otherwise substantially degrades water quality
- Places housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map
- Places structures that would impede or redirect flood flows within a 100-year flood hazard area
- Exposes people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Causes inundation by seiche, tsunami, or mudflow

Question 4.9a – Water Quality Standards and Waste Discharge Violations

Construction – Less-than-Significant Impact

Construction of the Proposed Project will result in ground-disturbing activities that will expose soil to erosion and subsequent sedimentation. Sediment transport from construction work areas

to adjacent water resources could contribute to water quality degradation and violate RWQCB standards. Sedimentation from work areas will primarily occur from vehicle tracking and soil transport onto adjacent paved surfaces. Sediment transport from work areas, including at the proposed Vine Substation, could also occur from surface water run-on and runoff, heavy precipitation, or overwatering during dust-abatement activities. The proposed Vine Substation site has been previously graded and slopes gently to the southwest. The erosion potential at most of the work areas is low, primarily because of flat to gentle terrain. However, the erosion potential will increase during construction when the soils become disturbed, and when vehicles and equipment enter and exit work areas.

Equipment and construction materials stored within the substation, right-of-way, and staging areas could come in contact with rainwater or storm water runoff that could potentially transport deleterious substances overland to the nearby water resources. Hazardous materials used during construction (e.g., diesel fuel, hydraulic fluid, oils, grease, and concrete) can be transported by storm water runoff and threaten aquatic life. A list of hazardous materials that are anticipated to be used during construction is included in Table 4.8-1: Hazardous Materials Typically Used for Construction and/or Operation and Maintenance in Section 4.8 Hazards and Hazardous Materials. In addition, storm water contact with litter and/or construction materials could pose a threat to nearby water quality. The Proposed Project area is located approximately 0.75 mile northeast of the San Diego Bay, and no known or impaired waterbodies will be crossed by the Proposed Project.

Wastewater will be generated by construction workers over the approximately 19-month construction duration of the Proposed Project. However, the amount of wastewater generated during the short construction period will be minimal and will be contained within portable restrooms before being treated and disposed of by a licensed contractor. No wastewater will be discharged from the site.

Potential impacts to water quality will be minimized through implementation of the SWPPP, SPCC Plan, and the BMPs in SDG&E's Water Quality Construction BMP Manual. As a result, the Proposed Project will result in a less-than-significant impact to water quality and waste discharge requirements.

Operation and Maintenance – Less-than-Significant Impact

BMPS will provide permanent stabilization for all areas that are disturbed during construction of the Proposed Project. For the proposed Vine Substation, this will include installation of road base or gravel and landscaping. Daily operation and maintenance of the Proposed Project will not impact water quality or result in discharges to waters because existing roads will be used to access Proposed Project components.

Operation and maintenance activities will include routine inspection, maintenance, and repair activities. The 69 kV loop-in insulators may require washing up to three times a year to prevent flashovers, equipment damage, and outages. Water used for insulator washing will be allowed to naturally percolate on site; therefore, the operation phase of the Proposed Project is not anticipated to generate any wastewater. SDG&E operation and maintenance personnel may use oils, paint, or solvents in the course of routine maintenance of the substation equipment. These

materials will not be stored or disposed of at the substation site and their use will conform to applicable laws and regulations governing the use, management, and disposal of hazardous materials.

The proposed Vine Substation, at ultimate build-out, will include four oil-filled transformers with a total maximum capacity of approximately 30,000 gallons of oil. These transformers will have the potential to leak hazardous oil. In order to minimize impacts, oil spill containment basins will be installed around the transformers to capture any oil that accidentally leaks from these components. The basins will be designed to have a capacity that exceeds the transformer capacity by 10 percent. In addition, a copy of the substation's SPCC Plan will be maintained at SDG&E's Kearny Operating & Maintenance Center and will contain specific procedures for managing hazardous materials during the operation phase of the Proposed Project. Therefore, an accidental spill is not anticipated to result in a water quality violation and impacts will be less than significant.

Question 4.9b – Groundwater Depletion or Recharge

Construction – Less-than-Significant Impact

Groundwater is not anticipated to be encountered during construction of the proposed Vine Substation, 12 kV distribution relocation, or the telecommunication system extension because the required excavation depths are less than the depth to groundwater in the Proposed Project area. However, groundwater may be encountered during the foundation excavation for steel pole installation for the 69 kV loop-in. Groundwater was encountered in the Proposed Project area at a depth of approximately 25 feet at the time when exploratory borings were conducted. The foundation excavation for steel pole installation will range from 20 to 45 feet in depth. In the event that groundwater is encountered, dewatering systems may be used to dispose of groundwater, as outlined in SDG&E's Water Quality Construction BMP Manual. Typically, groundwater will be pumped into a desiltation tank (i.e., baker tank) and will be discharged to land in accordance with RWQCB regulations, transported to a nearby sewer inlet with approval from the local wastewater treatment facility owner, or disposed of at an approved SDG&E disposal site. In any of these cases, the amount of groundwater withdrawal is expected to be negligible and not have any effect on existing groundwater supplies. Water required for dust control will be obtained from a municipal source and will not affect local groundwater supplies. Any groundwater encountered during construction will not be used for dust control. Further, construction is not expected to interfere with storm water infiltration and/or groundwater recharge because the site will be approximately 100-percent pervious during the construction phase. Therefore, impacts to groundwater supplies and recharge will be less than significant.

Operation and Maintenance – No Impact

A limited amount of water will be required to allow for long-term operation and maintenance of the proposed Vine Substation. Water use will be limited to irrigation of any on-site landscaping associated with the facilities (i.e., revegetative groundcover or landscape screening). Water will be obtained from permitted municipal sources that can provide an adequate water supply to the site.

The amount of impervious surfaces resulting from construction of the Proposed Project will be similar to the existing conditions within the Proposed Project limits. The proposed location of the proposed Vine Substation is within a paved parking lot and the other Proposed Project components are located within existing paved roads. Rainwater and storm water runoff will continue to infiltrate the ground surface, similar to pre-construction conditions. As such, no net change is anticipated in the amount of storm water released from the Proposed Project area. With or without the Proposed Project, the same amount of water will recharge the groundwater table. Therefore, no impact will occur as a result of operation and maintenance activities.

Question 4.9c – Drainage Patterns – Erosion/Siltation

Construction – Less-than-Significant Impact

The Proposed Project area is relatively flat and will be graded with minimal slope, similar to the existing slope found on site. Construction-related activities will result in minor deviations to the existing drainage patterns on site, due to grading and construction of the Proposed Project components. Such changes will not substantially increase the existing velocity or volume of storm water flows either on-site or in off-site areas. All areas disturbed during grading will be restored to their original contours, and the surrounding area will be repaired, as appropriate. Therefore, the drainage patterns in the Proposed Project area will return to near pre-construction conditions and the Proposed Project will not significantly alter the existing on-site drainage patterns or significantly increase the amount of runoff generated from the site. No net change will occur in the amount of storm water released from the project area, which will preclude any off-site soil erosion that may otherwise result.

The Proposed Project will not alter the course of any waterways because no streams or rivers are located within the Proposed Project area. Impacts to drainage patterns, as well as subsequent erosion and off-site siltation resulting from construction of the Proposed Project, will be less than significant.

Operation and Maintenance – No Impact

On-site drainage patterns established during construction will generally remain unchanged with long-term operation and maintenance of the proposed Vine Substation. The proposed grading improvements are not anticipated to result in impacts from increased on- or off-site erosion or siltation. As such, no impacts resulting from on-site or off-site drainage patterns are anticipated with operation and maintenance of the facilities.

Question 4.9d – Drainage Patterns – Runoff/Flooding

Construction – Less-than-Significant Impact

As discussed in the response to Question 4.9c, construction-related activities will result in minor deviations to the existing drainage patterns on site, due to grading and construction of the Proposed Project components. Such changes will not substantially increase the existing velocity or volume of storm water flows on site or in off-site areas. As such, flow rates and volumes will not be substantially altered and potential impacts from runoffs or flooding will be less than significant.

Operation and Maintenance – No Impact

Once construction of the Proposed Project facilities and associated improvements has been completed, no additional changes to on-site or off-site drainages are anticipated. The Proposed Project will not result in the potential for increased runoff volumes, and storm water facilities in the surrounding area will not be further affected. Therefore, no impact resulting from storm water runoff or flooding is anticipated with operation and maintenance of the Proposed Project.

Question 4.9e – Storm Water Runoff

Construction – Less-than-Significant Impact

The enclosed area of the proposed Vine Substation will occupy approximately 1.3 acres. The proposed Vine Substation will be located within a paved parking lot and development of the site will commence with the removal of the paved surface. Once cleared, remedial grading will take place based on the recommendations of the geotechnical investigation, which will determine the appropriate on-site pad elevation and foundation support that also maintain adequate site drainage. Runoff from the site is not expected to change substantially from pre-construction conditions. Consequently, there will be a less-than-significant impact to existing storm water conveyance systems.

The volume of storm water during construction of other Proposed Project components is expected to be the same as it was prior to construction because limited grading is required to install power line poles and trenching is required to construct the duct banks. Pre-construction contours and elevations will be re-established following the completion of construction; therefore, storm water runoff is anticipated to remain unchanged when compared to pre-construction conditions. Construction will introduce new sources of pollutants that could enter storm water and be transported off site. Sources of pollutants are discussed in detail in response to Question 4.9a. Such pollutants include hazardous materials (e.g., diesel fuel, hydraulic fluid, oil, and grease), as well as typical construction materials, sediment, and trash. With implementation of the SWPPP and BMPs in the SDG&E's Water Quality Construction BMP Manual, impacts associated with introducing pollutants to storm water runoff will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Surface runoff following the completion of construction is expected to be similar to the existing conditions due to a minimal amount of new, impermeable surfaces compounded with the greater amount of existing impermeable surfaces to be removed. Minimal impacts will occur to existing storm water conveyance systems and minor alterations of existing culverts, catch basins, or drains may be required to accommodate the Proposed Project during the operation and maintenance phase. Steel poles, conductor, and substation equipment will be exposed to storm water; however, these materials are not readily soluble or considered to contribute to water quality degradation.

Maintenance activities—such as routine inspections, pole replacements, and conductor work—can introduce pollutants that are similar to those that are typical during construction. Any material or equipment needed to make a repair will be brought to the site and then returned to an SDG&E maintenance yard upon completion. In addition, SDG&E will implement standard

protocols in accordance with state and federal regulations to control, contain, clean up, and dispose of any pollutants that may occur during maintenance activities.

Fertilizers and soil amendments may be used to facilitate plant growth around the perimeter of the substation site in accordance with the landscaping plans. Fertilizers or other soil amendments will be used according to the manufacturer's specifications and in quantities that minimize the potential to reach nearby waterways. As a result, impacts from storm water runoff will be less than significant.

Question 4.9f – Water Quality Degradation – *Less-than-Significant Impact*

Potential sources of pollutants and activities that can contribute water quality degradation are discussed in detail in response to Question 4.9a. No other foreseeable sources of pollution are anticipated to be associated with construction or operation of the Proposed Project. As a result, impacts will be less than significant.

Question 4.9g – Housing in Flood Hazard Areas – *No Impact*

No housing will be constructed as part of the Proposed Project. Therefore, no housing will be placed within a 100-year flood hazard area, and no impact will occur.

Question 4.9h – Structures in Flood Hazard Areas – *No Impact*

According to the FEMA Flood Plain Map, the Proposed Project is not located within the 100-year flood hazard boundary. No new structures will be constructed that will impede or redirect flood flow within a 100-year flood hazard area. As a result, the Proposed Project will not result in any impacts associated with flood zones.

Question 4.9i – Flood Exposure – *No Impact*

Proposed Project construction will not expose people or structures to a significant risk of loss, injury, or death due to flooding, as no on-site or off-site flood impacts are expected, as described in the response to Question 4.9h. No permanent buildings will be placed in a known 100-year flood hazard area. Thus, no impacts will occur.

Question 4.9j – Flooding, Seiche, Tsunami, and Mudflow – *Less-than-Significant Impact*

The Proposed Project area is located approximately 0.75 mile from the San Diego Bay, which is a large body of water with access to the Pacific Ocean and is susceptible to tsunamis. Given the distance from the Pacific Ocean, it is unlikely that a tsunami will cause catastrophic damage to the Proposed Project area. Because the Proposed Project does not involve housing, impacts that will result from a tsunami are expected to be less than significant.

Seiches are typically associated with impounded waterbodies. The Proposed Project will not be located near any lakes or other impounded waterbodies; therefore, no impact from seiches will occur.

A mudflow is a flow of soil and debris that occurs after intense rainfall, earthquakes, or severe wildfires. The potential for a mudflow to occur depends on the slope steepness, soil type, and

soil moisture content. Given that the Proposed Project area is nearly flat and most of the area is paved, a mudflow will not occur. Therefore, no impact is anticipated.

4.9.4 Applicant-Proposed Measures

The Proposed Project will result in a less-than-significant impact to hydrology and water quality with implementation of the Proposed Project's SWPPP and SPCC Plan, which are both required by law, and with implementation of the BMPs in SDG&E's Water Quality Construction BMP Manual as described in Chapter 3 – Project Description. Therefore, no applicant-proposed measures are proposed.

4.9.5 References

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California Resources Agency. 2007. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

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4.10 LAND USE AND PLANNING

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

4.10.0 Introduction

This section describes the existing and designated land uses in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and analyzes potential land use impacts that may result from construction and operation of the Proposed Project. Construction of the Proposed Project will not result in significant impacts to existing or proposed land uses, nor will it physically divide an established community. In addition, the Proposed Project will be compatible with relevant land use and environmental plans and policies adopted by local governments.

4.10.1 Methodology

The land use analysis involved a review of various land use plans, policies, and regulations for the City of San Diego, including the City of San Diego General Plan and Municipal Code, as well as the Midway/Pacific Highway Corridor Community Plan. The San Diego County Regional Airport Authority Airport Land Use Compatibility Plan (ALUCP) for San Diego International Airport (SDIA) was also reviewed. The land use analysis also involved a study of Google Earth aerial imagery of the Proposed Project area. In addition, SDG&E's Subregional Natural Community Conservation Plan (NCCP) and the City of San Diego's Multiple Species Conservation Program (MSCP) were reviewed.

4.10.2 Existing Conditions

Regulatory Background

Pursuant to Article XII, Section 8 of the California Constitution and the California Public Utilities Code, the California Public Utilities Commission (CPUC) maintains jurisdiction at the

local level to regulate the design, siting, installation, operation, maintenance, and repair of electric transmission facilities. However, the CPUC encourages—and SDG&E participates in—discussions with local governments to address their concerns where feasible. In addition, SDG&E is required to obtain ministerial permits from local agencies when applicable. The following subsections consider relevant land use plans, policies, and guidelines, and analyze potential impacts resulting from the Proposed Project with regard to land use and planning.

City of San Diego

The Proposed Project is located within the City of San Diego and is subject to the City of San Diego General Plan, which provides a framework of policies, objectives, and land use designations to guide long-term development. The City of San Diego Municipal Code supports the General Plan and provides specific development regulations for lands within the individual zoning designations. The Proposed Project area is also subject to the Midway/Pacific Highway Corridor Community Plan, which identifies goals, objectives, and recommendations for the area and establishes a vision for the future form of the community. The Proposed Project area is located east of the SDIA within the Approach Overlay Zone, and is subject to the regulations, policies, and requirements contained within the SDIA ALUCP. These plans, along with the existing uses, are described in relation to the Proposed Project in the following sections.

Existing Land Uses

Proposed Vine Substation and 69 kV Loop-In

The proposed Vine Substation will be located on an approximately 1.5-acre parcel purchased by SDG&E for use as a substation. The new poles associated with the 69 kV loop-in will be located to the west of the proposed substation site on land that is within the existing public road right-of-way (ROW) franchise. The substation parcel is currently used as an approximately 240-space long-term airport parking lot. The site is generally flat with minimal vegetation. A dense collection of ornamental and non-native species is located directly adjacent to and west of the site and there are six existing palm trees located along the eastern boundary of the site, between the paved parking lot and the adjacent sidewalk. The southern fence is covered in non-native ivy. The parcel is bordered to the north by Vine Street (and a commercial printing business across Vine Street), to the south by an Advantage Rental Car facility, to the east by Kettner Boulevard, and to the west by the Amtrak Pacific Surfliner, North County Transit District Coaster and San Diego Metropolitan Transit System Trolley railroad tracks. The 69 kV loop-in poles will be located on the west side of these railroad tracks adjacent to Pacific Highway. The area is characterized by light- and medium-industrial, commercial, and office uses; parking lots; and rental car facilities.

12 kV Distribution Relocation

The relocated distribution circuits will be installed within new underground duct banks within Kettner Boulevard from the proposed Vine Substation to West Laurel Street. The approximately 0.75-mile-long alignment will be located within the Kettner Boulevard public ROW. South of West Laurel Street, the distribution circuits will utilize existing conduits for approximately 0.3 mile within Pacific Highway and Kettner Boulevard. Existing uses in the surrounding area include Interstate (I-) 5, rental car facilities, offices, general commercial uses, hotels, and parking lots.

Designated Land Uses

City of San Diego General Plan

As shown in Table 4.10-1: Existing and Designated Land Uses, the proposed Vine Substation and 69 kV loop-in will be located on a site that is designated Industrial Employment. Lands adjacent to the relocated distribution circuits have a General Plan designation of Industrial Employment at the northern end of the line and Multiple Use and Commercial Employment Retail and Services at the southern end. A wide variety of land uses are specified as being appropriate within these designations, including offices, general commercial uses, civic facilities, and light and heavy industrial uses. While utility uses are not explicitly designated as being allowed under these General Plan designations, the General Plan specifically discusses the need to integrate design elements and space requirements necessary for public utilities into planning efforts throughout the city. Figure 4.10-1: Land Use Map presents a depiction of the general land use categories within the Proposed Project area.

Table 4.10-1: Existing and Designated Land Uses

Proposed Project Component	Existing Land Use	General Plan Designation	Zoning Designation	Community Plan Designation
Vine Substation	Parking lot	Industrial Employment	IS-1-1	Light Industrial
12 kV Distribution Relocation	Public street ROW	Industrial Employment, Commercial Employment Retail and Services, Multiple Use	IS-1-1, CC-4-2, CCDC, CCPD-MC	Light Industrial, Transportation Related
69 kV Loop-In	Public street ROW	Industrial Employment	IS-1-1	Light Industrial

Note: The Telecommunication System Extension will be collocated with portions of the 12 kV Distribution Relocation and 69 kV Loop-in.

Sources: City of San Diego General Plan, 2008; City of San Diego General Plan Land Use Map, July 2010; City of San Diego Municipal Code; City of San Diego Zoning Map, June 2009; Midway/Pacific Highway Corridor Community Plan, 1991.

City of San Diego Municipal Code

The proposed Vine Substation, 69 kV loop-in, and the northern portion of the 12 kV distribution relocation are zoned IS-1-1 (Industrial Small Lot), which allows small- and medium-sized industrial and commercial activities promoting economic vitality and neighborhood scale. The southern portion of the 12 kV distribution relocation is zoned CC-4-2, CCDC, and CCPD-MC (Community Commercial designations), which are intended to accommodate high-density commercial uses with strip commercial characteristics, as well as general commercial uses. Utility-related uses—such as power lines, switching stations, and communications facilities—are allowed uses (generally with a Conditional Use Permit) under the IS-1-1, CC-4-2, CCDC, and CCPD-MC zoning designations.

Midway/Pacific Highway Corridor Community Plan

The proposed Vine Substation, 69 kV loop-in, and a portion of the 12 kV distribution relocation (the section north of Laurel Street) are subject to the Midway/Pacific Highway Corridor Community Plan. The plan establishes guidelines for the form of the community and provides specific recommendations for land uses designed to meet the existing and future needs of the community. The Midway/Pacific Highway Corridor Community Plan also recommends actions that will implement the goals and objectives of the City of San Diego's General Plan. The Proposed Project area is designated as Light-Industrial and Transportation Related, though specific use regulations are not contained within the document for this designation. However, the Midway/Pacific Highway Corridor Community Plan does call for a substation at the proposed Vine Substation site in order to meet the electrical power needs of the community. In addition, the plan states that utility lines are recommended to be located underground.

City of San Diego Local Coastal Program

The Proposed Project area is located outside of the City of San Diego Coastal Zone, except for the approximately 0.3-mile portion of the 12 kV distribution relocation that will be placed underground in an existing conduit within Pacific Highway.

SDIA ALUCP

The ALUCP is implemented to protect the public's health, safety, and welfare and to prevent encroachment from degrading the operational capability of the airport. The ALUCP provides the requisite analysis of noise levels, accident potential, and obstruction clearance criteria necessary for safe airport operations. The Proposed Project is located within the SDIA Approach Overlay Zone, as shown in the ALUCP.

NCCPs/Habitat Conservation Plans

In 1995, SDG&E entered into an agreement with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), establishing its Subregional NCCP. The NCCP is intended to establish and implement an agreement between SDG&E, the USFWS, and the CDFW for the long-term preservation of sensitive habitat and animal species while allowing SDG&E to develop, operate, and maintain its facilities. The Proposed Project components are located on lands affected by SDG&E's Subregional NCCP. Relevant policies related to land use were not identified within the Subregional NCCP. The Subregional NCCP is further addressed in Section 4.4 Biological Resources.

No habitat conservation plans (HCPs) were identified as relevant to the Proposed Project area.

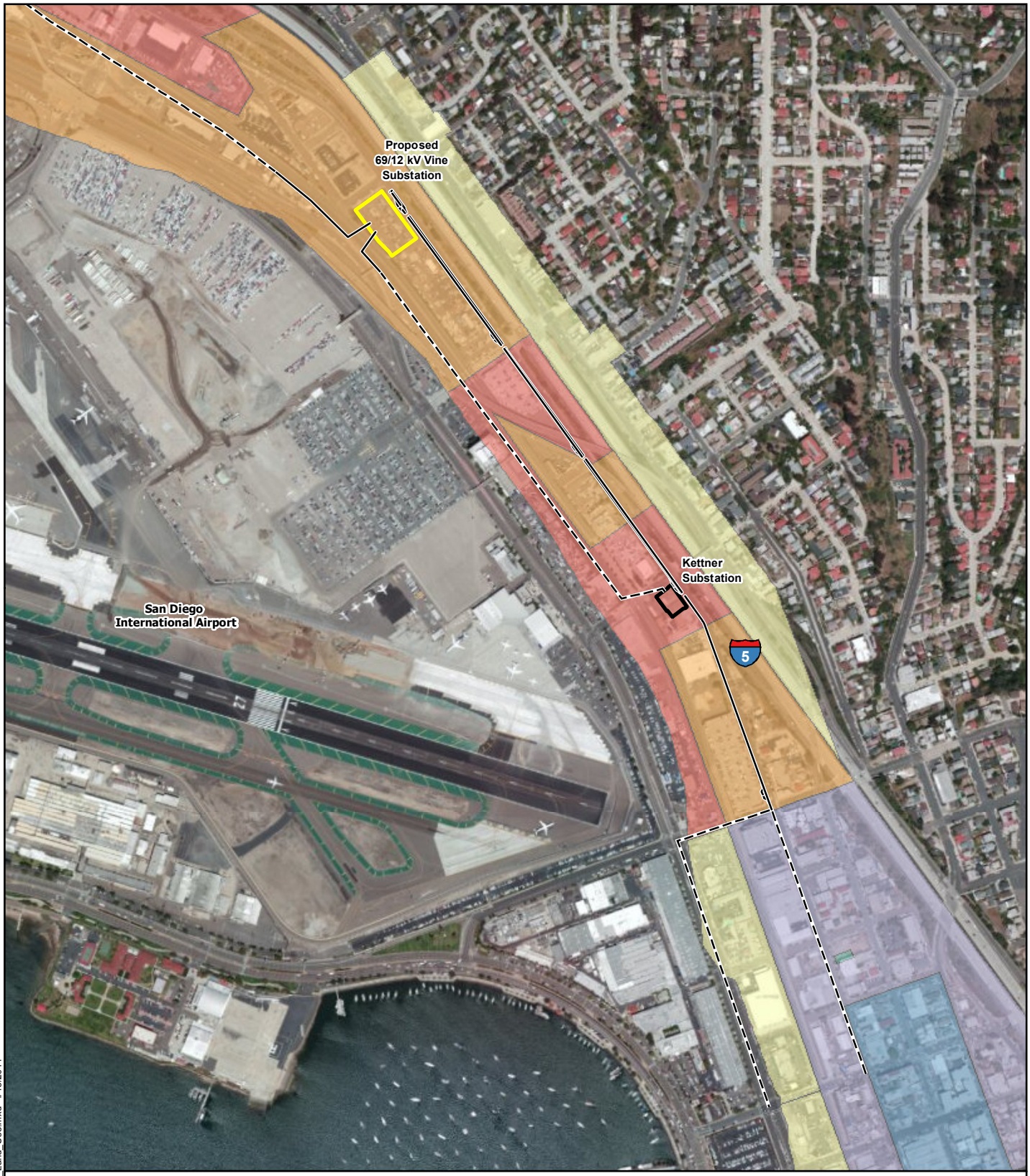

Figure 4.10-1: Land Use Map

Vine 69/12 kV Substation Project

Proposed Vine 69/12 kV Substation
Existing Kettner Substation
Existing Power Line
Proposed Power Line

Land Use

Open Space
Mixed Use
Mixed Commercial
Heavy Commercial
Neighborhood Mixed Use Center
Industrial

1:9,000
0 500 1,000 Feet

N

SDGE A Sempra Energy utility

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City of San Diego MSCP

The Proposed Project is located within the boundaries of the City of San Diego's MSCP Subarea Plan. The MSCP Subarea Plan establishes the conditions under which the City of San Diego—for the benefit of itself, public and private landowners, and other land development project proponents within its subarea boundaries—will receive take authorizations from the USFWS and CDFW; however, take authorization is not anticipated to be required for the Proposed Project. Section 4.4 Biological Resources provides a further description of the MSCP Subarea Plan.

4.10.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act Guidelines. Impacts to land use and planning would be considered significant if the Proposed Project:

- Physically divides an established community
- Conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Proposed Project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflicts with any applicable HCP or NCCP

Question 4.10a – Physical Division of an Established Community – *No Impact*

The Proposed Project site is located in a highly urbanized area of San Diego. The area supports a variety of light industrial and commercial uses. The Proposed Project area is bound by public streets, commercial and industrial uses, and a rail line. Further, I-5 is located to the east and the SDIA is located to the west. The proposed underground 12 kV distribution relocation and portions of the telecommunication system extension will be located within public streets bordered by similar light industrial and commercial uses. No residential uses occur within the area immediately surrounding the Proposed Project. Because of the developed, infrastructure-heavy, mixed commercial-industrial nature of the Proposed Project area—and the fact that there are numerous major roadways and rail lines in the vicinity—there are no existing established communities that will be physically divided as a result of the Proposed Project. Thus, no impact will occur.

Access to businesses and other uses in the area surrounding the Proposed Project site will generally be maintained during the construction phase. Although it is not anticipated that the Proposed Project will require any road closures, temporary lane closures will be required for the for installation of the underground distribution lines and telecommunications system. Additional lane and/or road closures may be required for the installation of the 12 kV distribution relocation and 69 kV loop-in. However, such traffic control measures will be temporary and short-term. Lane and/or road closures will generally night for the 12 kV distribution relocation and during the day for the 69 kV loop-in. These land and/or road closures are not anticipated to create a division between area land uses or within the larger community. In addition, the Proposed

Project will obtain and comply with the requirements of a City of San Diego ROW permit and any roadway restrictions will be coordinated with the city. Therefore, no impact will occur.

Operation and maintenance activities of the Proposed Project will be the similar to those currently performed by SDG&E in the area to maintain existing facilities (in particular, the Kettner Substation) and will occur on land owned by SDG&E or within public road ROWs. Such activities do not currently divide an established community, nor will they be anticipated to do so as a result of the Proposed Project; therefore, there will be no impact.

Question 4.10b – Plans and Policy Conflicts – *No Impact*

A summary of the Proposed Project's consistency with applicable goals and policies is provided in Table 4.10-2: Applicable Land Use Plans and Policies Consistency Analysis. Consistency with the City of San Diego General Plan and Midway/Pacific Highway Corridor Community Plan are specifically discussed. The Proposed Project does not conflict with these applicable plans and their respective policies.

The proposed Vine Substation, 69 kV loop-in, 12 kV distribution relocation, and telecommunication system extension will be located within areas designated as Industrial Employment, Commercial Employment Retail and Services, and Multiple Use by the City of San Diego's General Plan, and areas zoned for commercial and industrial uses by the Municipal Code. As previously stated, a variety of land use types are allowed within these designations, including general commercial uses, as well as light and heavy industrial uses. Substations are typically considered an allowed use (or are allowed with a Conditional Use Permit) within these areas. Further, the Midway/Pacific Highway Corridor Community Plan specifically calls for a substation at the proposed Vine Substation site in order to meet the electrical power needs of the community. Therefore, the Proposed Project will not conflict with applicable City of San Diego land use plans, and there will be no impact.

Because the project is located within the SDIA Approach Overlay Zone per the ALUCP and the City of San Diego Municipal Code, an Obstruction Evaluation will be conducted by the Federal Aviation Administration (FAA) prior to construction. The Proposed Project will comply with all FAA requirements resulting from the Obstruction Evaluation, including the potential incorporation of lighting and signage on the poles or within the substation. Because the Proposed Project will comply with all FAA requirements, no conflict with the ALUCP or requirements of the SDIA Approach Overlay Zone will occur. Therefore, there will be no impact.

As previously stated, the Proposed Project lies within the boundaries of the SDG&E Subregional NCCP and the city's MSCP Subarea Plan. However, no land use-related policies were identified within those documents. Therefore, no impact will occur as a result of construction, operation, or maintenance of the Proposed Project.

Table 4.10-2: Applicable Land Use Plans and Policies Consistency Analysis

Plan or Policy	Consistent? (Yes/No)	Explanation
City of San Diego General Plan		
Land Use and Community Planning Element		
Airport Land Use Compatibility Goal: Protection of the health, safety, and welfare of persons within an airport influence area by minimizing the public's exposure to high levels of noise and risk of accidents.	Yes	The proposed Vine Substation will be unstaffed and operated remotely. This will reduce employee exposure to noise and potential aircraft hazards as compared to other allowed uses, such as industrial or office uses. Thus, the Proposed Project will be consistent with this goal.
Policy LU-G.5: Implement the height standards used by the FAA as defined by Code of Federal Regulations Title 14, Part 77 through development regulations and zoning ordinances.	Yes	The Proposed Project site is within 20,000 feet of a public use airport with a runway measuring more than 3,200 feet, so it is subject to obstruction evaluation. The tallest component of the proposed Vine Substation will be the steel substation support components, which will reach approximately 30 feet above the ground surface, and the new poles associated with the 69 kV loop-in, which will reach approximately 100 feet. Although a determination will be required from the FAA, the Proposed Project is not anticipated to conflict with FAA height standards. In addition, the Proposed Project will implement any lighting or signage requirements from the FAA. The Proposed Project will be consistent with this policy.
Public Facilities, Services, and Safety Element		
Goals		
Public utility services provided in the most cost-effective and environmentally sensitive way.	Yes	The Proposed Project is intended to provide improved substation and circuit reliability, as well as reduce area substation loading conditions. In addition, the Proposed Project has been designed to reduce potential environmental impacts to a less-than-significant level or to avoid impacts to sensitive resources. As a result, the Proposed Project will be consistent with this goal.

Plan or Policy	Consistent? (Yes/No)	Explanation
Public utilities that sufficiently meet existing and future demand with facilities and maintenance practices that are sensible, efficient, and well-integrated into the natural and urban landscape.	Yes	As stated previously, the Proposed Project is intended to effectively meet the area's electric capacity needs, provide improved substation and circuit reliability, and reduce area substation loading conditions. The Proposed Project will be consistent with surrounding industrial and commercial land uses and will be designed to avoid impacts to sensitive resources to the extent possible.
Policies		
PF-M.1: Ensure that public utilities are provided, maintained, and operated in a cost-effective manner that protects residents and enhances the environment.	Yes	The Proposed Project is intended to provide improved substation and circuit reliability with added tie-in capacity and reduce area substation loading to optimum operating conditions. In addition, the proposed Vine Substation will be located on a site that has been identified as an appropriate site for a substation per the Midway/Pacific Highway Corridor Community Plan. The Proposed Project is consistent with this policy.
PF-M.4: Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large-scale gas and electrical facilities) to maximize environmental and community benefits. b. Provide adequate buffering and maintained landscaping between utility facilities and residential and non-residential uses, including the use of non-building areas and/or rear setbacks.	Yes	As stated previously, the proposed Vine Substation will be located on a site that has been identified as appropriate for a substation per the Midway/Pacific Highway Community Plan. The substation will be visually shielded from views by a perimeter wall and new landscaping. In addition, there are very limited residential uses in the vicinity of the Proposed Project. Therefore, the Proposed Project is consistent with this policy.

Plan or Policy	Consistent? (Yes/No)	Explanation
Mobility Element Policies		
ME-A.5: Provide adequate sidewalk widths and clear path of travel, as determined by street classification, adjoining land uses, and expected pedestrian usage. a. Minimize obstructions and barriers that inhibit pedestrian circulation.	Yes	While temporary sidewalk closures may be required during construction of the 12 kV distribution relocation, this work is anticipated to occur at night when pedestrian traffic will be limited. If sidewalk closures are required for any portion of the Proposed Project, alternative pedestrian walking routes around construction areas will be provided. In addition, Proposed Project vaults will be placed underground and any above-ground fixtures will be placed so that they do not obstruct pedestrian circulation in the area. Thus, the Proposed Project is consistent with this policy.
Midway Pacific Highway Corridor Community Plan		
Design Guidelines		
Storage yards, parking areas and outdoor assemblage areas which are visible from the public ROW should be screened. Solid walls or facades should be broken up with recesses and visually softened by landscaping. If feasible, landscaped areas should be placed between the fence and the sidewalk.	Yes	The proposed Vine Substation will be visually shielded from views by a perimeter wall and new landscaping. Thus, the Proposed Project is consistent with this guideline.

Question 4.10c – Habitat Conservation Plan or Natural Community Conservation Plan Conflicts – *No Impact*

SDG&E's existing NCCP and the City of San Diego's MSCP Subarea Plan are the only conservation plans that are relevant to the Proposed Project area. The NCCP addresses potential impacts to sensitive resources associated with SDG&E's ongoing installation, use, maintenance, and repair of its gas and electric systems, as well as typical expansions of those systems throughout SDG&E's existing service area. The NCCP was developed in coordination with the USFWS and CDFW, and designed to be consistent with local habitat conservation plans and the overall preserve planning effort, including the City of San Diego's MSCP Subarea Plan. The NCCP protocols will be applied to the Proposed Project to avoid and/or minimize potential impacts resulting from construction of the Proposed Project, as further described in Section 4.4 Biological Resources. Therefore, the Proposed Project will not conflict with any applicable conservation plan, and no impacts will occur.

Operation and maintenance activities for the Proposed Project will be the similar to those currently performed by SDG&E in the area to maintain existing facilities. While the Proposed Project is located in an urban area with limited biological resources, NCCP protocols will still be applied as they are currently in order to avoid and/or minimize potential species impacts during operation and maintenance activities. Because SDG&E will utilize its existing NCCP during operation and maintenance activities for the Proposed Project, there will be no conflict with the plan and no impact will occur.

4.10.4 Applicant-Proposed Measures

No conflicts with applicable land use plans or policies will occur as a result of construction of the Proposed Project. In addition, the Proposed Project will not divide an established community. As such, no applicant-proposed measures are proposed.

4.10.5 References

City of San Diego. *General Plan*. 2008. Online. http://www.sandiego.gov/planning/genplan/pdf/generalplan/adoptedtoc.pdf. Site visited December 6, 2013.

City of San Diego. *Midway/Pacific Highway Corridor Community Plan*. Online. http://www.sandiego.gov/planning/community/profiles/midwaypacifichwycorridor/pdf/midwayfullversion.pdf. Site visited December 6, 2013.

City of San Diego. MSCP – City of San Diego Subarea Plan. 1997.

City of San Diego. Zoning Map, Grid 15. Online. http://www.sandiego.gov/development-services/zoning/pdf/maps/grid15.pdf. Site visited December 6, 2013.

City of San Diego, Zoning Ordinance. Online. http://docs.sandiego.gov/municode/MuniCodeChapter13/Ch13Art01Division06.pdf. Site visited December 6, 2013.

SDG&E. Subregional NCCP. 1995.

SDIA ALUCP. Online. http://www.san.org/documents/aluc/sdia_alucp.pdf. Site visited December 9, 2013.

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4.11 MINERAL RESOURCES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				✓

4.11.0 Introduction

This section discusses the existing conditions in the area for the proposed San Diego Gas & Electric Company Vine 69/12 Kilovolt Substation Project (Proposed Project) and assesses potential impacts that may occur to mineral resources as a result of Proposed Project implementation. Because there are no known mineral resources that will be crossed by the Proposed Project, it will not have an impact on local or regional mineral resources. In addition, no impacts to mineral resources will result from construction or operation and maintenance activities required for the proposed facilities.

4.11.1 Methodology

Mineral resource data were obtained from the City of San Diego General Plan and the California Department of Conservation (DOC).

4.11.2 Existing Conditions

Regulatory Background

The following subsections detail federal, state, and local plans and policies pertaining to mineral resources that are relevant to the Proposed Project.

State

Surface Mining and Reclamation Act of 1975

The California Geological Survey designates mineral resource zones where access to important mineral resources may be threatened, according to provisions of the California Surface Mining and Reclamation Act (SMARA) of 1975. The SMARA requires that all jurisdictions incorporate mapped mineral resource designations approved by the State Mining and Geology Board (SMGB) into their general plans. The SMGB and the DOC's Office of Mine Reclamation (OMR) are jointly charged with ensuring proper administration of the SMARA's requirements.

The SMGB promulgates regulations to clarify and interpret the SMARA's provisions, as well as to serve as a policy and appeals board. The OMR provides an ongoing technical assistance program for lead agencies and operators, maintains a database of mine locations and operational information statewide, and is responsible for compliance-related matters.

Local

City of San Diego General Plan

The City of San Diego Planning Division maintains and implements the City of San Diego General Plan and ensures regulatory compliance with city codes and ordinances. The Conservation element of the General Plan identifies the location of high-quality mineral resource areas in San Diego that are designated for the managed production of mineral resources. The General Plan notes that mineral deposits that are acceptable for use as Portland Cement Concrete grade aggregate are the rarest and most valuable aggregate resources. Extraction activities occur in Mission Valley and other areas of San Diego, such as Carroll Canyon and Mission Gorge. Mining operations also occur within the Multiple Species Conservation Program subarea plan, primarily consisting of sand, rock, and gravel extraction.

Environmental Setting

The Proposed Project site is located in a developed industrial area of the City of San Diego. No known mineral resources have been identified on the Proposed Project site or in the surrounding vicinity. No areas with known or inferred occurrences of mineral resources are located within five miles of the Proposed Project.

4.11.3 Impacts

Significance Criteria

Under the California Environmental Quality Act, impacts to mineral resources would be considered significant if the Proposed Project:

- Results in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state

- Results in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan

Question 4.11a – Loss of Regional- or State-Valued Mineral Resources – *No Impact*

The proposed Vine Substation site and associated Proposed Project work areas are located in a developed, urbanized area within the City of San Diego. The Proposed Project does not cross any known mineral resources. Therefore, no known mineral resources will be lost due to Proposed Project-related construction or operation and maintenance activities, and no impact will occur.

Question 4.11b – Loss of Locally Important Mineral Resources – *No Impact*

There are no known locally important mineral resources located on the proposed Vine Substation site or within the Proposed Project work areas. No active mining operations or known areas

designated or delineated for mineral resource recovery are located within the Proposed Project area. In addition, no known mineral resources that have noted value to the region or to the residents of the state will be impacted by construction or operation of the Proposed Project. Therefore, no impacts will occur.

4.11.4 Applicant-Proposed Measures

Because the Proposed Project will have no impact on mineral resources, no applicant-proposed measures are proposed.

4.11.5 References

DOC. Mineral Resources. Surface Mining and Reclamation Act Mineral Land Classification. Aggregate Sustainability in California - Map Sheet 52. Online. http://www.consrv.ca.gov/cgs/information/publications/ms/Documents/MS_52_2012.pdf. Site visited March 3, 2014.

City of San Diego. *General Plan*. Conservation Element. Online. http://www.sandiego.gov/planning/genplan/pdf/2012/ce120100.pdf. Site visited March 3, 2014.

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4.12 NOISE

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
e) If located within an airport land use plan or within two miles of a public airport or public use airport for which such a plan has not been adopted, would the project result in exposure of persons residing or working in the project area to excessive noise levels?			✓	
f) If located within the vicinity of a private airstrip, would the project result in exposure of persons residing or working in the project area to excessive noise levels?				✓

4.12.0 Introduction

The purpose of this section is to describe the ambient noise conditions in the vicinity of the proposed San Diego Gas & Electric Company Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and to assess noise impacts that may potentially occur as a result of Proposed Project implementation, particularly with regard to short-term construction activities and long-term operation. Construction of the Proposed Project will not result in a significant increase in temporary, periodic, or permanent ambient noise levels in the Proposed Project area. In addition, the Proposed Project will not expose sensitive receptors to significant vibration levels.

4.12.1 Methodology

Information regarding existing noise sources and standards was obtained from federal, state, regional and local literature reviews to establish the noise standards for the Proposed Project location. Evaluation of potential noise impacts from the Proposed Project included measuring existing noise levels in the vicinity of the Proposed Project site, characterizing the existing noise environment, calculating noise generation from the proposed Vine Substation equipment, and examining typical noise levels resulting from construction and operation activities. The noise analysis focuses on the construction of the proposed Vine Substation, installation of underground duct banks, and installation of the 69 kV loop-in.

4.12.2 Existing Conditions

Regulatory Setting

Federal

No federal noise standards directly regulate noise from operation of electrical power lines and substation facilities. However, in 1974, the United States (U.S.) Environmental Protection Agency (EPA) established guidelines for noise levels, below which no reason exists to suspect that the general population will be at risk from any of the identified effects of noise. The EPA guidelines include the following:

- equivalent sound level (L_{eq})(24) less than or equal to 70 A-weighted decibels (dBA) to protect against hearing loss;[1]

- day-night equivalent noise level (L_{dn}) less than or equal to 55 dBA to protect against activity interference and annoyance in residential areas, farms, and other outdoor areas where quiet is a basis for use;

- L_{eq}(24) less than or equal to 55 dBA to protect against outdoor activity interference where limited time is spent, such as school yards and playgrounds;

- L_{dn} less than or equal to 45 dBA to protect against indoor activity interference and annoyance in residences; and

- L_{eq}(24) less than or equal to 45 dBA to protect against indoor activity interference in school yards.

These levels are not standards, criteria, regulations, or goals, but are defined to protect public health and welfare with an adequate margin of safety, and to provide guidelines for implementing noise standards locally. The federal government has passed various general laws to regulate and limit noise levels, as identified in the following subsections.

[1] The human ear is not uniformly sensitive to all sound frequencies; therefore, the A-weighting scale has been devised to correspond with the human ear's sensitivity. The A-weighting scale uses the specific weighting of sound pressure levels from about 31.5 hertz (Hz) to 16 kilohertz for determining the human response to sound.

Noise Pollution and Abatement Act of 1970

The Noise Pollution and Abatement Act of 1970 established the Office of Noise Abatement and Control (ONAC) within the EPA, authorized to conduct a full and complete investigation of noise and its effect on public health and welfare. The investigation was to include an identification of noise sources, projected noise levels, and effects of noise on persons, animals, and property.

In 1981, the Administration concluded that noise issues were best handled at the state or local government level. As a result, the EPA phased out ONAC's funding in 1982 as part of a shift in the federal noise control policy to transfer the primary responsibility of regulating noise to state and local governments. However, the Noise Control Act of 1972 and the Quiet Communities Act of 1978, which are described in the following sections, were not rescinded by Congress and remain in effect today.

Noise Control Act of 1972

The Noise Control Act of 1972 was the first comprehensive statement of national noise policy. It declares, "It is the policy of the U.S. to promote an environment for all Americans free from noise that jeopardizes their health or welfare."

Quiet Communities Act of 1978

The Noise Control Act was amended by the Quiet Communities Act of 1978 to promote the development of effective state and local noise control programs, to provide funds for noise research, and to produce and disseminate educational materials to the public on the harmful effects of noise and ways to effectively control it.

By 2002, agencies—including the Department of Transportation, Department of Labor, Federal Railroad Administration, and Federal Aviation Administration—developed their own noise control programs, with each agency setting its own criteria.

Occupational Health and Safety Act of 1970

This act covers all employers and their employees in the 50 states, the District of Columbia, Puerto Rico, and other U.S. territories. Administered by the Occupational Health and Safety Administration (OSHA), the act assigns OSHA two regulatory functions—setting standards and conducting inspections to ensure that employers are providing safe and healthful workplaces. OSHA standards may require that employers adopt certain practices, means, methods, or processes that are reasonably necessary and appropriate to protect workers on the job. Employers must become familiar with the standards applicable to their establishments and eliminate hazards. Included in this act is a regulation for worker noise exposure at 90 dBA over an eight-hour work shift. Areas where exposure exceeds 85 dBA must be designated and labeled as high-noise-level areas and hearing protection is required.

Federal Aviation Administration

The Federal Aviation Administration establishes 65 decibels (dB) Community Noise Equivalent Level[2] (CNEL) as the noise standard associated with aircraft noise measured at exterior locations in noise-sensitive land uses[3] (NSLU). This standard is also generally applied to railroad noise.

State

California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also recognizes that continuous and increasing noise levels exists in urban, suburban, and rural areas. This act declares that the State of California has the responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.

California Noise Insulation Standards

The California Noise Insulation Standards were adopted in 1974 by the California Commission on Housing and Community Development, which was meant to establish noise insulation standards for multi-family residential buildings. This document establishes standards for interior room noise attributable to outside noise sources. The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such a noise source or sources create an exterior CNEL (or L_{dn}) of 60 dB or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dB.

California Department of Transportation- and Construction-Induced Vibration Guidance

This document provides practical guidance to California Department of Transportation (Caltrans) engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. Continuous or frequent intermittent vibration sources, such as impact pile drivers, are significant when their peak particle velocity (PPV) exceeds 0.1 inch per second. More specific criteria for human annoyance have been developed by Caltrans and will be used to evaluate potential Proposed Project vibration sources. Table 4.12-1: Human Response to Transient Vibration lists Caltrans' thresholds of perception.

[2] CNEL measurements are weighted averages of sound levels gathered over a 24-hour period, essentially measuring ambient noise. Measurements taken during day, evening, and nighttime periods are weighted separately, recognizing that humans are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours.

[3] NSLU is defined as any residence, hospital, school, hotel, resort, library, or any other facility where quiet is an important attribute of the environment.

Table 4.12-1: Human Response to Transient Vibration

Human Response	PPV (inches/second)
Severe	> 0.9
Strongly Perceptible	0.24 to 0.9
Distinctly Perceptible	0.035 to 0.24
Barely Perceptible	< 0.035

Source: Caltrans, 2004

Local

Local governments outline requirements for noise abatement and control in the noise element of their general plans and municipal codes. These noise elements typically set noise goals and objectives, and the municipal codes set sound-level limits and time-of-day restrictions for activities.

City of San Diego General Plan Noise Element

Noise levels within the City of San Diego are regulated by the city's General Plan. The purpose of the Noise Element in the General Plan is to identify existing conditions and to provide general guidelines that would reduce the negative impact of noise on the community in the future. The General Plan's objective is "to protect people living and working in the City of San Diego from excessive noise."

The City of San Diego has an exterior noise level standard of 65 dB CNEL for noise-sensitive uses. These standards are designed to protect noise-sensitive land uses from high noise levels and to be used as guidelines in the planning for future land uses. Noise-sensitive land uses include, but are not necessarily limited to residential areas, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child care facilities, and certain types of passive recreational parks and open space.

City of San Diego Noise Ordinance

The City of San Diego Noise Ordinance—Chapter 5, Article 9.5, Division 4 of the City of San Diego Municipal Code—establishes prohibitions for disturbing, excessive, or offensive noise and contains provisions (e.g., sound level limits) for the purpose of securing and promoting public health, comfort, safety, peace, and quiet. Limits, as specified by land use, are provided in Table 4.12-2: City of San Diego Noise Limits. When two adjacent properties each have different zone classifications, the average of the two sound level limits is used. The Noise Ordinance prohibits the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property on which the sound is produced. Fixed-location public utility distribution or power line facilities located on or adjacent to a property line are subject to these noise level limits, measured at or beyond six feet from the boundary of the property upon which the equipment is located.

Table 4.12-2: City of San Diego Noise Limits

Land Use Zone	Time of Day	One-Hour Average Sound Level (dB)
Single-Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (Up to a maximum density of ½,000)	7:00 a.m. to 7:00 p.m.	45
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	55
All Other Residential	7:00 a.m. to 7 p.m.	50
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	60
Commercial	7:00 a.m. to 7:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	60
	7:00 p.m. to 10:00 p.m.	60
Industrial or Agricultural	Any time	75

Source: City of San Diego, 2010

Construction is not allowed as follows:

- between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day,
- on legal holidays as specified in Section 21.04 of the City of San Diego Municipal Code, or
- on Sundays.

A permit can be obtained from the Noise Abatement and Control Administrator if construction activities must be conducted outside of these previously listed timeframes. In addition, it is prohibited to conduct any construction activity that results in an average sound level of 75 dB or greater during the 12-hour period between 7:00 a.m. and 7:00 p.m. at or beyond the property lines of any property zoned residential. Emergency work is exempted from the construction noise limits.

Existing Noise Measurements

The sound levels in most communities fluctuate, depending on the activity of nearby and distant noise sources, time of the day, or season of the year. Within an hour, the sound level can fluctuate between the lowest level (L_{min}) and the highest level (L_{max}). In order to quantify existing ambient and operational noise levels, noise monitoring was conducted at the northwest corner of the proposed Vine Substation site during a 25-hour period starting on February 25,

2014 and concluding on February 26, 2014. The monitoring period did not include any seasonal abnormalities; therefore, it is considered to be representative of a typical day at the Proposed Project site. The CNEL at this location was 73 dBA and the L_{eq} ranged between 66 dBA and 72 dBA and averaged 69 dBA. Attachment 4.12–A: Noise Technical Report provides a more detailed description of the noise measurement results.

Existing Noise Sources

The dominant ambient noise sources in the Proposed Project area are transportation-related. One of these sources is aircraft traffic from San Diego International Airport. The Proposed Project is located approximately 750 feet outside of the airport's CNEL 65 dB contour. Additional sources include heavy on-road traffic from Interstate (I-) 5, Kettner Boulevard, and Pacific Highway, and rail traffic from the Amtrak, North County Transit District Coaster and San Diego Metropolitan Transit System Trolley railroad tracks account for a significant portion of the existing ambient noise.

4.12.3 Impacts

Significance Criteria

Noise

Standards of significance were derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to noise would be considered significant if the Proposed Project:

- Results in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Results in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels
- Results in a substantial permanent increase in ambient noise levels in the Proposed Project vicinity above levels existing without the Proposed Project
- Results in a substantial temporary or periodic increase in ambient noise levels in the Proposed Project vicinity above levels existing without the Proposed Project
- Lies within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and, as a result, exposes people residing or working in the Proposed Project area to excessive noise levels
- Lies in the vicinity of a private airstrip and, as a result, exposes people residing or working in the Proposed Project area to excessive noise levels

The construction and operational noise thresholds of significance for the Proposed Project components have been derived from the applicable regulatory documents as discussed previously

in Section 4.12.2 Existing Conditions. Specific significance criteria for construction, operation, and maintenance noise levels are presented in the subsections that follow.

Construction

The following thresholds of significance for temporary or periodic increases and from construction noise have been developed for the Proposed Project-related L_{eq} values at noise-sensitive receptor locations:

- less than 75 dBA when measured at the receiving property line will be considered noticeable, but not significant, and
- 75 dBA and above when measured at the receiving property line will be considered significantly impacted.

Operation and Maintenance

The following thresholds of significance for operational noise have been developed for Proposed Project-related ambient noise increases:

- Less than three dB will be considered not discernible and not significant.
- Between three dB and five dB will be considered noticeable, but not significant if noise levels remain below the City of San Diego's Noise Standards of 75 dBA at six feet from the property.
- Three dB or greater will be considered significant if the noise increase will meet or exceed the City of San Diego's Noise Standards of 75 dBA at six feet from the property.
- Increases that exceed the City of San Diego's Noise Standards of 75 dBA at six feet from the property will be considered significant.

Vibration

Vibration amplitude decreases with distance from the source, as presented in Figure 4.12-1: Construction Vibration Amplitudes. Perceptibility of vibrations from construction equipment can be estimated by comparing the vibration thresholds provided in Table 4.12-1: Human Response to Transient Vibration to Figure 4.12-1: Construction Vibration Amplitudes. Vibration amplitudes with a PPV above 0.035 inch/second will be considered potentially significant. This amplitude corresponds with a distance of approximately 50 feet from construction activities.

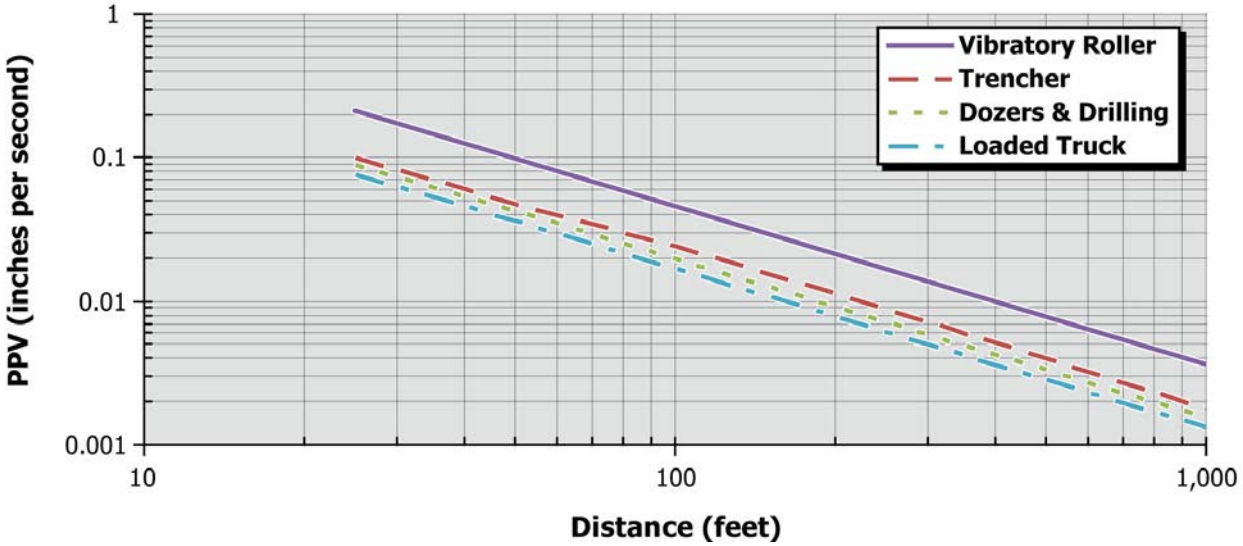
Question 4.12a – Noise in Excess of Standards

Construction – Less-than-Significant Impact

Construction of all of the Proposed Project components will require the temporary use of various types of noise-generating equipment, including graders, back hoes, augers, flatbed boom trucks, rigging and mechanic trucks, air compressors and generators, mobile cranes, concrete trucks, and man lifts. Wire-stringing operations will require pullers, tensioners, and cable reel trailers. Heavy equipment will be used to install substation components. Typical noise levels from construction equipment are provided in Table 4.12-3: Noise Levels Generated by Typical Construction Equipment. As demonstrated by Table 4.12-3: Noise Levels Generated by Typical

Construction Equipment, noise levels from this equipment during construction will typically range from 75 to 89 dBA when measured at a reference distance of 50 feet.

Figure 4.12-1: Construction Vibration Amplitudes



As described in Attachment 4.12–A: Noise Technical Report, the construction schedule and equipment list from Chapter 3 – Project Description was used to simulate the anticipated 12-hour average noise levels from construction. The maximum 12-hour average noise level on site will be approximately 91 dBA, which will occur while both site development and grading activities and boundary wall construction are occurring at the proposed Vine Substation. The nearest noise-sensitive receptors to the proposed Vine Substation are residences located on the east side of I-5, approximately 450 feet from construction activities. Considering the distance to these receptors and the attenuation provided by I-5, noise levels at these residences are anticipated to be approximately 35 dBA below the noise levels at the proposed Vine Substation. As a result, during the period of peak construction, noise levels at the nearest residence will be approximately 56 dBA. As a result, construction-related noise levels will be below the 75 dBA threshold for sensitive receptors under the City of San Diego's Noise Ordinance.

As described in Section 3.6.5 Construction Schedule, construction activities will typically occur during normal work hours from Monday through Saturday. Due to the potential traffic impacts related to open trenching within Kettner Boulevard, construction of portions of the distribution relocation and telecommunication facility extension will occur during the evenings. In addition, some concrete pours may take place during an extended day, depending on the size of the pour. Transformer oil filling may also require continuous work through the night. Actual cutovers of the circuits to the substation will be scheduled in a manner that maintains uninterrupted service to customers, which may require work to be done after normal business hours or on the weekend and/or nights. As a ordinary construction restriction, SDG&E will meet and confer with the City of San Diego, as needed, regarding activities that will be conducted outside of the hours permitted by the Noise Ordinance.

Table 4.12-3: Noise Levels Generated by Typical Construction Equipment

Equipment	Noise Level Range at Approximately 50 Feet (dBA)
Earth-Moving	
Front loader	79 to 80
Back hoe	78 to 80
Tractor, dozer	82 to 85
Scraper, grader	84 to 85
Paver	77 to 85
Truck	74 to 84
Materials-Handling	
Concrete mixer truck	79 to 85
Concrete pump	81 to 82
Crane (movable)	81 to 85
Stationary	
Pump	77 to 81
Generator	70 to 82
Compressor	78 to 80
Impact	
Jackhammers and rock drills	81 to 89
Compactors	80 to 83

Source: The Federal Highway Administration (FHWA), 2006

Because construction-related noise levels will be below the applicable thresholds during day-time work and all nighttime work will be coordinated with the City of San Diego, impacts will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

Vine 69/12 kV Substation

The primary noise sources associated with the operation of the proposed Vine Substation will be from the four 69/12 kV transformers, and the cooling systems associated with the four pieces of 12 kV switchgear and the control shelter. As described in Attachment 4.12–A: Noise Technical Report, the operational noise anticipated from the proposed Vine Substation's ultimate arrangement was simulated. The maximum operational noise at the substation wall will be approximately 46.6 dBA, which will be well below the City of San Diego's standard of 75 dBA at a distance of six feet from the property line. As a result, operational noise emissions from the proposed Vine Substation will be consistent with applicable standards and will be less than significant.

The proposed Vine Substation will be unstaffed and electric equipment within the substation will be controlled from SDG&E's central operations facilities. Entry to an operational substation is restricted to authorized personnel only. Routine maintenance is expected to require approximately six trips per year by a two- to four-person crew. Equipment used to support this effort will include a crew truck, hydraulic tools, oil filtration equipment and a boom truck. Routine operations will require one or two workers in a light utility truck to visit the substation on a daily or weekly basis. It is anticipated that one annual major maintenance inspection will occur, requiring an estimated 10 personnel. It is anticipated that this inspection will take approximately one week or less to complete using a crew truck, hydraulic tools, oil filtration equipment, and a boom truck. Noise generated as the result of the previously described activities will be masked by the existing transportation sources in the area including air traffic from San Diego International Airport, rail traffic from the adjacent railroad tracks, and vehicular traffic from adjacent roadways including I-5 and Kettner Boulevard. In addition, the proposed maintenance activities will be similar to those being performed at the existing Kettner Substation, which is located approximately 2,300 feet southeast of the Proposed Project site. As a result, there will be no exceedance of established noise standards due to maintenance of the substation, and there will be no impact.

12 kV Distribution Relocation

The relocated distribution circuits will be installed entirely underground; therefore, they will not generate any operational noise. Maintenance—which may include replacement of damaged cables or connectors—will be conducted by crews of four to six personnel and will require a tool truck, cable truck, assist truck, and/or trouble shooter truck. Routine inspections will occur annually to identify connection problems or to inspect for equipment degradation. Because SDG&E operates existing distribution facilities in the vicinity of the relocated circuits, noise from operation and maintenance activities will be consistent with the activities that are currently conducted in the area. As a result, there will be no impact.

69 kV Loop-In

When a power line is in operation, an electric field is generated in the air surrounding the conductors, forming a "corona." The corona results from the partial breakdown of the electrical insulating properties of air surrounding the conductors. When the intensity of an electric field at the surface of the conductor exceeds the insulating strength of the surrounding air, a corona discharge occurs at the conductor surface, representing a small dissipation of heat and energy.

Some of the energy may dissipate in the form of small local pressure changes that create audible noise. Audible noise generated by corona discharge is characterized as a hissing or crackling sound that may be accompanied by a 120 Hz hum. Slight irregularities or water droplets on the conductor and/or insulator surface accentuate the electric field strength near the conductor surface, thereby making corona discharge and the associated audible noise more likely. Therefore, audible noise from power lines is generally a foul weather (i.e., wet conductor) phenomenon. However, during fair weather, insects and dust on the conductors can also serve as sources of corona discharge.

Following the construction of the 69 kV loop-in, overhead conductors will continue to parallel and cross the existing railroad tracks located adjacent to the proposed Vine Substation. Because the loop-in will continue to be operated at 69 kV and the conductors will be placed in the same general location, the anticipated corona noise from these conductors will not change from existing conditions. As a result, there will be no impact from corona noise.

It is anticipated that the 69 kV loop-in will be inspected once per year. In a non-emergency situation, major maintenance may include the replacement of damaged insulators or other equipment. Maintenance crews, consisting of as many as four people, may require a tool truck, an assist vehicle, and a large bucket truck. Insulators may require washing up to three times a year to prevent flashovers, equipment damage, and outages. SDG&E currently operates and maintains power line facilities in the vicinity of the 69 kV loop-in. Following construction, these activities will not change; therefore, no impact will occur.

Telecommunication System Extension

The proposed overhead fiber optic cable that will be installed within the same alignment as the 69 kV loop-in will not generate any operational noise. The remainder of the fiber optic cable will be installed underground; therefore, these portions of the cable will not generate operational noise. Routine maintenance is not typically conducted for these facilities. Because the fiber optic cable will not generate any noise and no maintenance activities are required, there will be no impact.

Question 4.12b – Groundborne Vibration and Noise

Construction – No Impact

Construction activities can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Operating construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiving

buildings. Table 4.12-1: Human Response to Transient Vibration states that vibrations become perceptible by humans at an amplitude of approximately 0.035 inch per second. When compared to Figure 4.12-1: Construction Vibration Amplitudes, a PPV of 0.035 inch per second is generated at a distance of approximately 50 feet by a loaded truck. Because there are no sensitive receptors located within 50 feet of the Proposed Project, construction activities will not generate perceivable levels of ground-borne vibration. As a result, there will be no impact.

Operation and Maintenance – Less-than-Significant Impact

Operation of the Proposed Project will consist of routine maintenance activities and emergency repairs. It is unlikely that these activities will produce significant groundborne vibrations because operation and maintenance activities will not require significant ground-disturbing activities. Operation of transformers at the proposed Vine Substation could produce groundborne vibration; however, groundborne vibrations will be perceptible only in the immediate transformer pad vicinity (i.e., less than 25 feet), if at all This will not be perceptible at the property line, much less to sensitive receptors outside of the site. No other component of the Proposed Project will generate vibrations during operation. Therefore, impacts will be less than significant.

Question 4.12c – Substantial Permanent Ambient Noise Increases

Construction – No Impact

Construction activities will occur over a finite period; therefore, no permanent increase in noise will occur and there will be no impact.

Operation and Maintenance – Less-than-Significant Impact

As described in the response to Question 4.12a, the primary source of operational noise at the proposed Vine Substation will be its transformers, the cooling systems associated with the switchgear and control shelter. Attachment 4.12–A: Noise Technical Report presents the simulated noise contours resulting from the operation of the substation. The maximum operational noise at the substation wall will be approximately 46.6 dBA, which will be well below the City of San Diego's standard of 75 dBA at a distance of six feet from the property line. As a result, operational noise emissions from the proposed Vine Substation will be consistent with applicable standards. With the exception of the 69 kV loop-in, the remaining Proposed Project components will be installed underground, within enclosures, or will not generate any perceptible noise during operation. As a result, these components will not act as permanent ambient noise sources. As described in response to Question 4.12a, the 69 kV loop-in will be installed in the vicinity of the existing Tie-Line 604 and the corona generated by the loop-in will be similar to what is currently being generated by the existing power line conductors in the area. As a result, there will be no new source of permanent ambient noise and no change in the existing operational noise in the area. As a result, impacts will be less than significant.

Question 4.12d – Substantial Temporary or Periodic Ambient Noise Level Increases

Construction – Less-than-Significant Impact

Construction noise will be temporary and impacts during construction are identified in the response to Question 4.12a. Noise-sensitive receptors will not experience a significant increase

in ambient noise during construction activities, as previously described. Impacts will be less than significant due to the short-term nature of the construction phase of the Proposed Project, the existing transportation-related ambient noise sources in the area, the generally industrial setting of the area and the distance between the site and sensitive receptors.

Operation and Maintenance – No Impact

As discussed previously in the response to Question 4.12a, the maintenance activities conducted for the Proposed Project will result in less-than-significant temporary and periodic increases in ambient noise levels due to the operation of crew trucks and heavy equipment. As described previously, the closest sensitive noise receptors to the Proposed Project are located approximately 450 feet to the east. I-5 serves as a major interstate in the area, and is located between these sensitive receptors and the Proposed Project. As a result, the periodic increases in ambient noise from construction vehicles will be masked by the significant amount of traffic noise from vehicles that travel along I-5. In addition, SDG&E already performs similar maintenance activities in the Proposed Project area that will not change following construction. Therefore, there will be no impact.

Question 4.12e – Air Traffic Noise from Public Airports – *Less-than-Significant Impact*

The Proposed Project site is located approximately one mile from San Diego International Airport and is within the area covered by the Airport Land Use Compatibility Plan (ALUCP). The noise compatibility policies and standards in the ALUCP are designed to avoid the establishment of new noise-sensitive land uses—including residences, public and private schools, hospitals and convalescent homes, and places of worship—within the CNEL 65 dB contour. While the proposed Vine Substation is located adjacent to the CNEL 65 dB contour, the substation will not be considered an incompatible land use. As a result, the Proposed Project will not expose workers in the Proposed Project area to excessive noise levels, and impacts will be less than significant.

Question 4.12f – Air Traffic Noise from Private Airstrips – *No Impact*

There are no private airstrips located within two miles of the Proposed Project. Therefore, people working in the Proposed Project area during the construction, operation, or maintenance phases will not be exposed to excessive noise levels attributable to a private airstrip, and no impact will occur.

4.12.4 Applicant-Proposed Measures

Because the Proposed Project will have a less-than-significant impact with regard to noise, no applicant-proposed measures are proposed.

4.12.5 References

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Caltrans. 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*.

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FHWA. 2006. *FHWA Roadway Construction Noise Model User's Guide*.

Harris, Cyril. 1979. *Handbook of Noise Control*.

SDG&E. 2014. *Noise Study Vine 69/12 kV Substation.*

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ATTACHMENT 4.12–A: NOISE TECHNICAL REPORT

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Acentech

14 May 2014

Robert Curley
Insignia Environmental
258 High Street
Palo Alto, CA 94301

Subject: Vine 69/12 Kilovolt Substation Project (Proposed Project) Noise Analysis
Acentech Job No. 624025

Dear Rob:

INTRODUCTION

Project Location & Description

The proposed Vine Substation site is located at the southwest corner of Vine Street and Kettner Boulevard in the City of San Diego.

The 69/12 kV substation will include four transformers and four switchgear units.

APPLICABLE NOISE REGULATIONS & STANDARDS

Federal

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of a project of this type. However, the United States (U.S.) Environmental Protection Agency (EPA) has established guidelines for noise levels below which there is no reason to suspect that the general population will be at risk from any of the identified effects of noise. These levels are not standards, criteria, regulations, or goals, but are defined to protect public health and welfare with an adequate margin of safety, and to provide guidelines for implementing noise standards locally. As a guideline, the EPA identified a day-night average sound level (Ldn) value of 55 A-weighted decibels[1] (dBA) as the threshold of activity interference outside farm residences.

In addition, the federal government has passed various laws to regulate and limit noise levels in the U.S., a discussion of which follows.

[1] The human ear is not uniformly sensitive to all sound frequencies; therefore, the A-weighting scale has been devised to correspond with the human ear's sensitivity. The A-weighting scale uses the specific weighting of sound pressure levels from about 31.5 hertz (Hz) to 16 kilohertz (kHz) for determining the human response to sound.

Noise Pollution and Abatement Act of 1970

The Noise Pollution and Abatement Act of 1970 established the Office of Noise Abatement and Control within the EPA, and requires investigations of noise issues and consultation with the EPA.

Noise Control Act of 1972

The Noise Control Act of 1972 was the first comprehensive statement of national noise policy. It declared "it is the policy of the U.S. to promote an environment for all Americans free from noise that jeopardizes their health or welfare."

Occupational Health and Safety Act (OSHA) of 1970

The OSHA regulates worker noise exposure to 90 dBA over an eight-hour work shift. Areas where exposure exceeds 85 dBA must be designated and labeled as high-noise-level areas where hearing protection is required.

Federal Aviation Administration (FAA)

The FAA establishes 65 decibels (dB) Community Noise Level Equivalent[2] (CNEL) as the noise standard associated with aircraft noise measured at exterior locations in noise sensitive land uses such as a residence.

State

There are also no regulations at the state level that would apply to noise from substation operation. However, there are state guidelines and standards on noise.

California Noise Control Act

The California Noise Control Act states that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California has adopted the California Environmental Quality Act (CEQA) to assess the potential for significant noise impacts as a result of projects. CEQA requires that the following questions be asked:[3]

- Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance or applicable standards of other agencies?
- Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

For purposes of the second question, CEQA does not define what noise level increase would be considered "substantial." However, in CEQA noise analysis, it is common to define a noise impact as

[2] CNEL measurements are weighted averages of sound levels gathered over a 24-hour period, essentially measuring ambient noise. Measurements taken during day, evening and nighttime periods are weighted separately, recognizing that humans are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours.

[3] This list represents a subset of questions that are asked as part of CEQA. Additional questions related to the analysis of potential impacts from noise are not addressed in this report.

significant if the pre-existing noise environment has an L_{dn} of 55 dBA or more and if a project would increase noise levels by more than 3 dB at noise-sensitive receptors.

California Noise Insulation Standards

The California Noise Insulation Standards were adopted in 1974 by the California Commission on Housing and Community Development to establish noise insulation standards for multi-family residential buildings. This document establishes standards for interior room noise attributable to outside noise sources. The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dB or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of at least 45 dB.

Local

The City of San Diego Noise Ordinance[4] defines noise and regulates it by land-use, and time of day as shown in Table 1. These standards represent the exterior noise level limits, as measured at the property boundary of receiving land use, which is used to determine noise impacts.

Table 1 City of San Diego Exterior Noise Limits

Land Use Zone	Time of Day	One-Hour Average Sound Level (dB)
1. Single Family Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
2. Multi-Family Residential (Up to a maximum density of 1/2000)	7 a.m. to 7 p.m.	45
	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	55
3. All other Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	60
4. Commercial	7 a.m. to 7 p.m.	65
	10 p.m. to 7 a.m.	60
	7 p.m. to 10 p.m.	60
5. Industrial or Agricultural	Any time	75

[4] Article 9.5: Noise Abatement and Control Division 4: Limits ("Noise Level Limits, Standards and Control"§59.5.0401 Sound Level Limits)

Fixed–location public utility distribution or transmission facilities located on or adjacent to a property line are subject to these noise level limits, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

Construction is unlawful between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays or on Sundays. A permit can be applied for and granted beforehand by the Noise Abatement and Control Administrator. It is also unlawful to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12–hour period from 7:00 a.m. to 7:00 p.m.

For noise – land use compatibility planning, the City of San Diego currently uses the 1979 General Plan Land Use-Noise Level Compatibility Standards. The City has an exterior noise level standard of 65 dB CNEL for noise-sensitive uses. These standards are designed to protect noise-sensitive land uses from high noise levels and to be used as guidelines in the planning for future land uses. Noise-sensitive land uses include, but are not necessarily limited to the following: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child care facilities, and certain types of passive recreational parks and open space.

ENVIRONMENTAL SETTING

Setting & Location

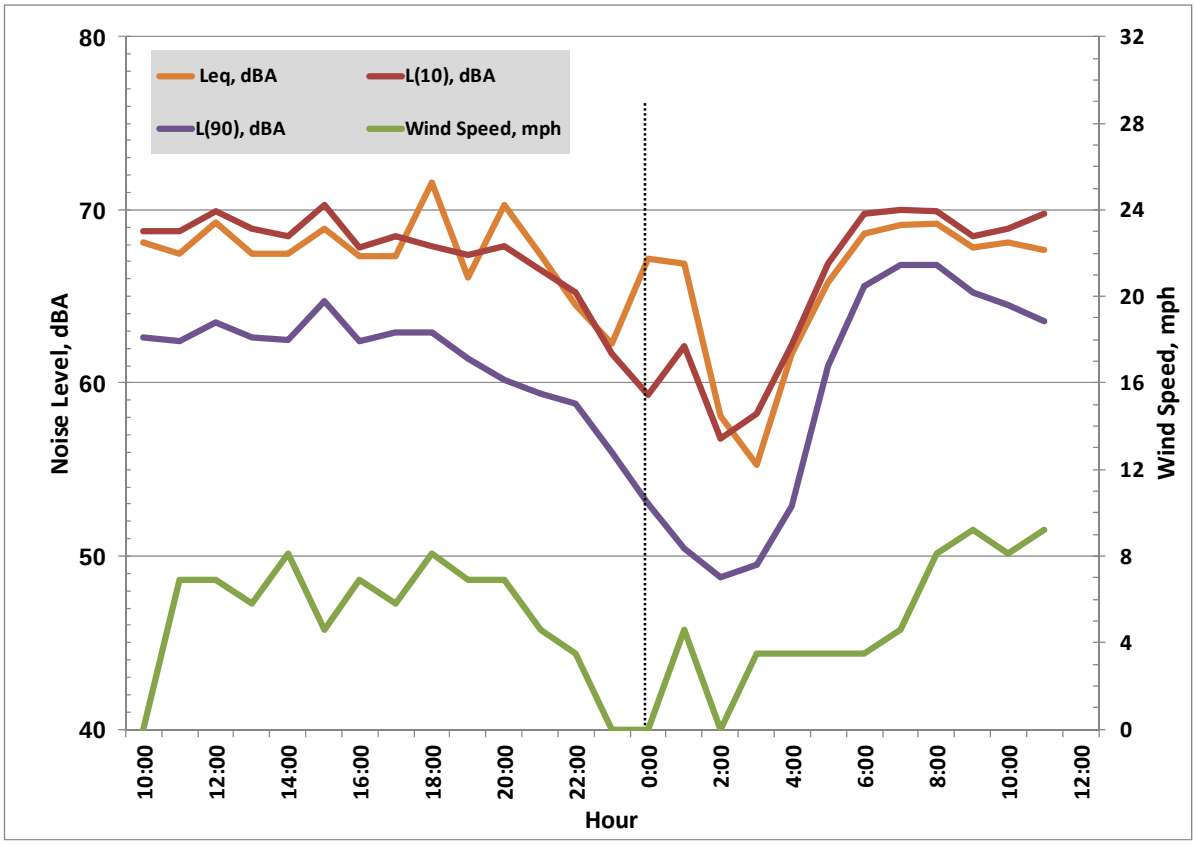
The existing noise environment at the Project site includes contributions from the following sources:

- San Diego Freeway (Interstate 5 [I-5])
- Pacific Highway
- Amtrak and Metrolink Trains
- San Diego International Airport
- Local Traffic on Kettner Boulevard

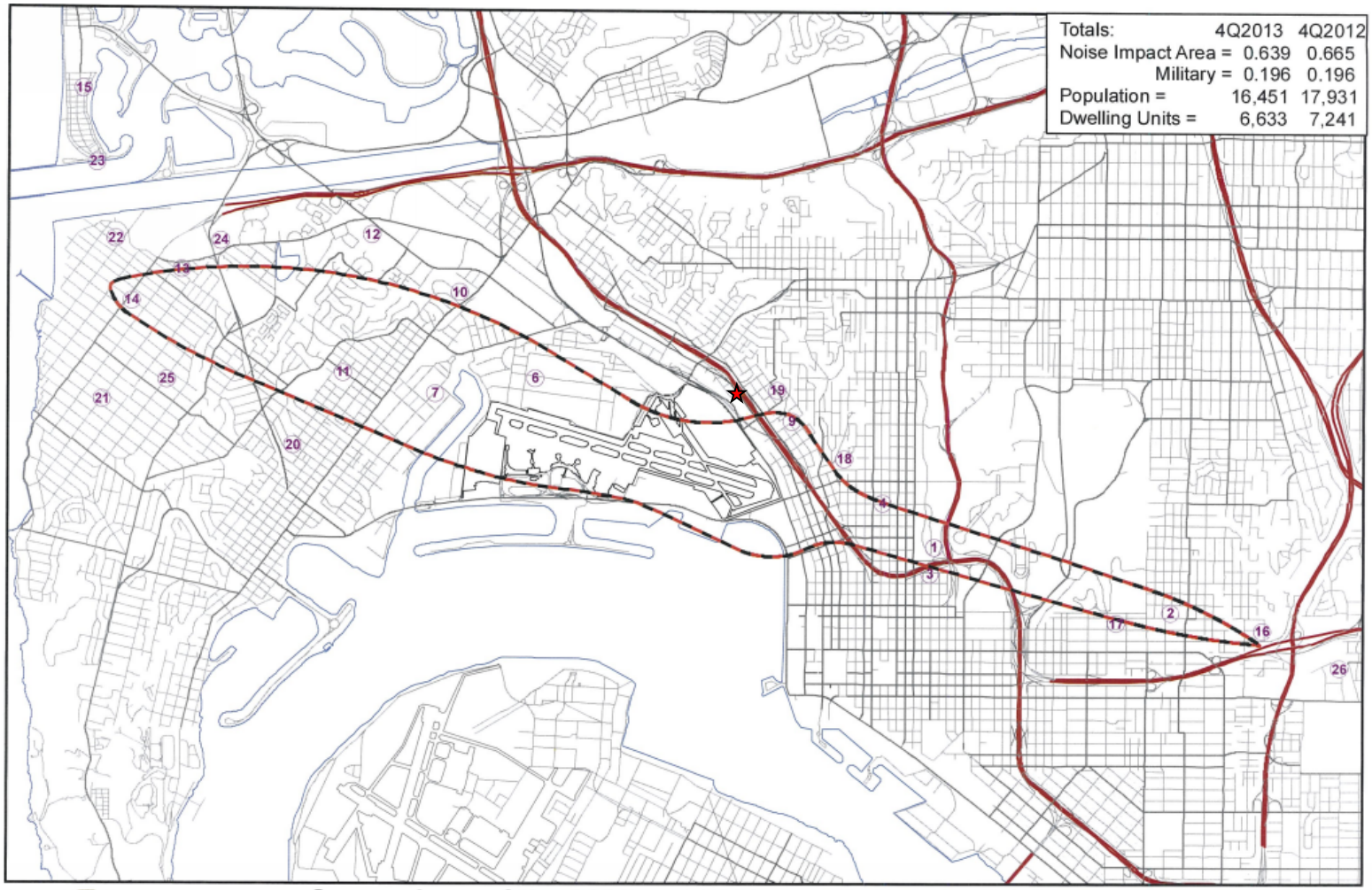
Existing Noise Conditions

The sound levels in most communities fluctuate depending upon the activity of nearby and distant noise sources, time of the day, or season of the year. Noise monitoring was performed at the northwest corner of the proposed Vine Substation site for 25 hours starting 25 February 2014 and ending 26 February 2014. The noise environment at the Project site is greatly influenced by local traffic on the nearby streets and I-5, rail traffic on the adjacent Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor, and airplanes arriving to and departing from San Diego International Airport. As a result, very little seasonal fluctuations are expected and the noise data are considered representative of a typical day.. Figure 1 presents the ambient noise measurement results and the wind speeds occurring during the monitoring period. The CNEL at this location was 73 dBA and the daytime hourly equivalent noise level (Leq) ranged between 66 dBA and 72 dBA and averaged 69 dBA.

Figure 1 Ambient Noise Levels at the Proposed Vine Street Substation



The noise contribution to the local noise environment from aircraft activities related to San Diego International Airport is indicated by the following figure published by the San Diego International Airport that shows the CNEL contour for the airport activities. The Proposed Project is located outside of San Diego International Airport's CNEL 65 dBA Contour.



Comparison of the 2012 and 2013 Fourth Quarter 65 dB Community Noise Equivalent Level (CNEL) Contours

SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

0 1,500 3,000 6,000 9,000 12,000 Feet

N W E S

4th Quarter 2013
4th Quarter 2012

Proposed Vine Substation

SAN DIEGO INTERNATIONAL AIRPORT

Acentech

THRESHOLDS OF SIGNIFICANCE

The level of significance evaluation in this study is based on CEQA guidelines, the Federal, State and local noise standards. The significance criteria that follow were established from the laws, ordinances, regulations and standards applicable to the Proposed Project area. Separate noise significance criteria were developed for the construction and operation and maintenance phases of the project.

Human Perception of Noise Level Change

Under controlled conditions, in an acoustics laboratory, the trained healthy human ear is able to discern changes in sound levels of one dB, when exposed to steady, single frequency "pure tone" signals in the mid-frequency range. Outside of such controlled conditions, the trained ear can detect changes of two dB in normal environmental noise. It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of three dB. A five dB increase is readily noticeable, while the human ear perceives a 10 dB increase as a doubling of sound.

In general, any noise that exceeds the local jurisdiction's adopted standards will be considered potentially significant. Specific criteria for construction and operation noise levels follow.

Construction

Given the baseline background noise environment, the following thresholds of significance for temporary or periodic increases and from construction noise have been developed for the Proposed Project-related average daytime Leq values at noise sensitive receptor locations:

- Less than 75 dBA when measured at a residential property line will be considered noticeable, but not significant,
- 75 dBA and above when measured at a residential property line will be considered significantly impacted.

Operation and Maintenance

Based on the above discussion, the following thresholds of significance for operational noise have been developed for Proposed Project-related increases:

- Less than three dB will be considered not discernible and not significant.
- Between three dB and five dB will be considered noticeable, but not significant, if noise levels remain below the City of San Diego's Noise Standards of 75 dBA at 6 feet from the property.
- Three dB or greater will be considered significant if the noise increase will meet or exceed the City of San Diego's Noise Standards of 75 dBA at six feet from the property easement.
- Increases that exceed the City of San Diego's Noise Standards of 75 dBA at six feet from the property easement will be considered significant.

Construction Noise

Proposed Vine 69/12 kV Substation

Site Development and Grading

Construction activities associated with site development will occur over an approximately three-month period and include clearing and grading of the site. Table 2 Site Development and Grading Noise

Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 2 Site Development and Grading Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$ dBA	d_{ref} ft.	Acoustical Use Factor, %	Leq(12-hr) @ dref, dBA
Site Development and Grading						
Scraper	7	4	85	50	40	79
Front-end loader	6	2	80	50	40	73
Dump truck (12 CY)	7	25	80	50	50	75
Dozer (D6 or D8 or D9)	6	2	84	50	40	77
Excavator	6	1	81	50	40	74
Water truck	7	1	80	50	50	75
Compactor (824 or 834)	7	2	83	50	20	74
Skid steer loader	3	2	80	50	40	70
Backhoe	6	2	80	50	40	73
Ditch-witch	6	1	80	50	40	73
Maintenance truck	1	2	80	50	20	62
Paver	6	1	77	50	50	71
Asphalt trucks	1	8	80	50	20	62
Drum roller compactor	6	2	80	50	20	70
Car/Pickup truck	1	15	75	50	10	54
Duration: 3 Months Start Date: January, 2016						

Source: SDG&E, Acentech Incorporated

Retaining/Boundary Wall Construction

Construction activities associated with retaining/boundary wall construction will occur over an approximately two-month period and include excavation along the perimeter of the site. Table 3 Retaining/Boundary Wall Construction Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and the daily average noise emission, Leq(day).

Table 3 Retaining/Boundary Wall Construction Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$ dBA	d_{ref} ft.	Acoustical Use Factor, %	Leq(12-hr) @ dref, dBA
Retaining/Boundary Wall Construction						
Front-end loader (IT28)	9	3	80	50	40	75

Excavator	9	1	81	50	40	76
Water truck	9	1	80	50	50	76
Compactor (563 Ride-On)	9	1	83	50	40	78
Motor grader (blade)	9	1	83	50	40	78
Walk-behind compactor	9	3	80	50	20	72
Car/pickup truck	1	5	75	50	10	54
Delivery truck	1	3	80	50	10	59
Maintenance truck	3	1	80	50	20	67
Duration: 2 months Start Date: March, 2016						

Source: SDG&E, Acentech Incorporated

Below-Grade Construction

Construction activities associated with below-grade construction will occur over an approximately six-month period and include excavation within the perimeter of the site. Table 4 Below-Grade Construction Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 4 Below-Grade Construction Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor, %	Leq(12-hr) @ dref, dBA
Below-Grade Construction						
Backhoe	6	1	80	50	40	73
Loader	6	2	80	50	40	73
Dump Truck (20 CY)	3	2	80	50	50	71
Skid steer loader	4	1	80	50	40	71
Water truck	3	1	80	50	50	71
Concrete truck (2 days/week for 4 months)	0.5	15	80	50	20	59
Ditch-witch	6	1	70	50	40	63
Car/Pickup truck	1	15	75	50	10	54
Duration: 6 months Start Date: April, 2016						

Source: SDG&E, Acentech Incorporated

Substation Equipment Installation

Construction activities associated with substation equipment installation will occur over an approximately 10-month period. Table 5 Substation Equipment Installation Noise Emissions presents the number and type of

equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 5 Substation Equipment Installation Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Substation Equipment Installation						
Crew truck	1	5	65	50	10	44
Boom truck	6	2	80	50	15	69
Manlift	6	1	75	50	10	62
Bucket truck	5	4	80	50	10	66
Pickup/vans/car	1	8	75	50	10	54
Cable dolly (trailer)	0	1				
Stringing rig (trailer)	0	2				
Oil rig (trailer w/generator)	14	1	82	50	50	80
Water truck	2	1	80	50	50	69
Duration:10 months Start Date: September, 2016						

Source: SDG&E, Acentech Incorporated

12 kV Distribution Relocation

Duct Bank Construction and Vault Installation

Construction activities associated with substation duct bank construction and vault installation will occur over an approximately six-month period within Kettner Boulevard. Table 6 Duct Bank Construction and Vault Installation Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and the daily average noise emission, Leq(day).

Cable Installation and Cutover

Construction activities associated with substation cable installation and cutover construction will occur over an approximately three-month period and include cable installation within the perimeter of the site and along Kettner Boulevard, West Hawthorn Street, and Pacific Highway. Table **7 Cable Installation and Cutover Noise Emissions** presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 6 Duct Bank Construction and Vault Installation Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Duct Bank Construction and Vault Installation						
Crane 60 Ton	6	1	81	50	15	70
Crane Support	1	1				
Bobcat	6	4	80	50	40	73
Backhoe	8	3	80	50	40	74
Trackhoe	8	1	80	50	40	74
Dump/Haul Truck	1	9	80	50	40	65
Construction Truck	2	3	80	50	40	68
Pickup Truck	1	3	75	50	10	54
Pickup w/saw cutter trailer	1	2	75	50	10	54
Concrete trucks	1	7	80	50	40	65
Surface Machine	6	1	80	50	40	73
Asphalt dump truck	1	5	80	50	40	65
Dump Truck w/compressor & emulsion sprayer	7	2	84	50	40	78
Pickup truck	1	2	75	50	10	54
Roller	4	2	80	50	20	68
Duration: 6 months Start Date: October, 2016						

Source: SDG&E, Acentech Incorporated

Table 7 Cable Installation and Cutover Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Cable Installation and Cutover						
Line Truck	1	1	80	50	40	65
Puller	2	1				
Reel Trailer	1	1				
Splice Truck	1	1	80	50	10	59
Pickup Truck	1	1	75	50	10	54
Duration: 3 months Start Date: April, 2017						

Source: SDG&E, Acentech Incorporated

69 kV Loop-In

Foundation Installation

Construction activities associated with substation foundation installation for the 69 kV Loop-In will occur over an approximately two-week period and include pouring foundations adjacent to the proposed substation site. Table 8 69 kV Loop-In Foundation Installation Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 8 69 kV Loop-In Foundation Installation Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Foundation Installation						
Drill rig	8	1	85	50	20	76
Forklift	4	1	80	50	40	71
Pickup truck	1	2	75	50	40	60
Concrete truck	4	5	80	50	20	68
Boom truck	3	1	80	50	10	64
Dump truck	4	1	84	50	40	75
Backhoe	4	1	80	50	40	71
Generator	4	1	82	50	50	74
Duration: 0.5 months Start Date: November, 2016						

Source: SDG&E, Acentech Incorporated

Pole Installation and Removal

Construction activities associated with pole installation and removal for the 69 kV Loop-In will occur over an approximately two-week period. Table 9 Pole Installation and Removal Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 9 Pole Installation and Removal Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Pole Installation and Removal						
Boom truck	8	1	80	50	10	68
Bucket truck	8	1	80	50	10	68

Flatbed truck	6	1	75	50	40	68
Jack hammer	8	1	89	50	20	80
Compressor	8	1	78	50	40	72
Duration: 0.5 months Start Date: November, 2016						

Source: SDG&E, Acentech Incorporated

Conductor Installation and Cutover

Construction activities associated with substation conductor installation and cutover for the 69 kV Loop-In will occur over an approximately two-month period. Table 10 Conductor Installation and Cutover Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 10 Conductor Installation and Cutover Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Conductor Installation and Cutover						
Pulling rig	7	1	75	50	40	69
Wire truck/split reel	7	1				
Boom truck	7	1	80	50	10	68
Bucket truck	7	2	80	50	10	68
Duration: 2 months Start Date: January, 2017						

Source: SDG&E, Acentech Incorporated

Telecommunication System Extension

Duct Bank Construction and Vault Installation

Construction activities associated with substation duct bank construction and vault installation will occur over an approximately two-month period. Table 11 Duct bank Construction and Vault Installation presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 11 Duct bank Construction and Vault Installation

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Duct Bank Construction and Vault Installation						
Backhoe or Rockwheel	3	1	80	50	40	70

Dump truck (20 CY)	3	2	80	50	40	70
Skid steer loader	3	1	80	50	40	70
Concrete/asphalt truck	3	4	80	50	40	70
Duration: 2 months Start Date: April, 2017						

Source: SDG&E, Acentech Incorporated

Energization

Testing and Commissioning

Construction activities associated with substation Testing and Commissioning will occur over an approximately five-month period. Table 12 Testing and Commissioning Noise Emissions presents the number and type of equipment used, the typical percent usage during the day, the maximum noise level (Lmax) and reference distance (d_{ref}) for the maximum noise level, and the daily average noise emission, Leq(day).

Table 12 Testing and Commissioning Noise Emissions

Vehicles Type	Hours Operating at Site/Day (per vehicle)	Quantity Required	$Lmax_{ref}$, dBA	d_{ref}, ft.	Acoustical Use Factor %	Leq(12-hr) @ dref, dBA
Testing and Commissioning						
Relay/telecommunication van	3	3	75	50	1	49
Duration: 5 months Start Date: February, 2017						

Source: SDG&E, Acentech Incorporated

Construction Noise Impacts

The noise from construction will be a composite of many concurrent construction activities as indicated in Figure 2 Construction Schedule and Average Leq(day). At the bottom of Figure 2, the noise emissions were summed.

The nearest residence is located on the east side of the I-5 freeway, approximately 460 feet from the center of the substation. Considering distance and the shielding provided by the freeway the construction noise will be approximately 35 decibels below the values presented in Figure 2. During the month with the highest construction noise the noise levels resulting in the nearest residence would be 56 dBA and the noise impacts will be less than significant.

Figure 2 Construction Schedule and Average Leq(day)

Project Component	Activity	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17
Proposed Vine 69/12 kV Substation	*Site Development and Grading*	89	89	89															
	Retaining/Boundary Wall Construction			85	85														
	Below-Grade Construction				81	81	81	81	81	81									
	Substation Equipment Installation									81	81	81	81	81	81	81	81	81	81
12 kV Distribution Relocation	*Duct Bank Construction and Vault Installation*										86	86	86	86	86	86			
	Cable Installation and Cutover																66	66	66
69 kV Loop-In	*Foundation Installation*											82							
	Pole Installation and Removal											82							
	Conductor Installation and Cutover													74	74				
Telecommunication System Extension	*Duct Bank Construction and Vault Installation*																78	78	
Energization	*Testing and Commissioning*														54	54	54	54	54
Total Average Leq(day), dBA		89	89	91	87	81	81	81	81	84	87	89	87	88	88	87	83	83	81

Source: SDG&E, Acentech Incorporated

Operations and Maintenance – Noise Impact

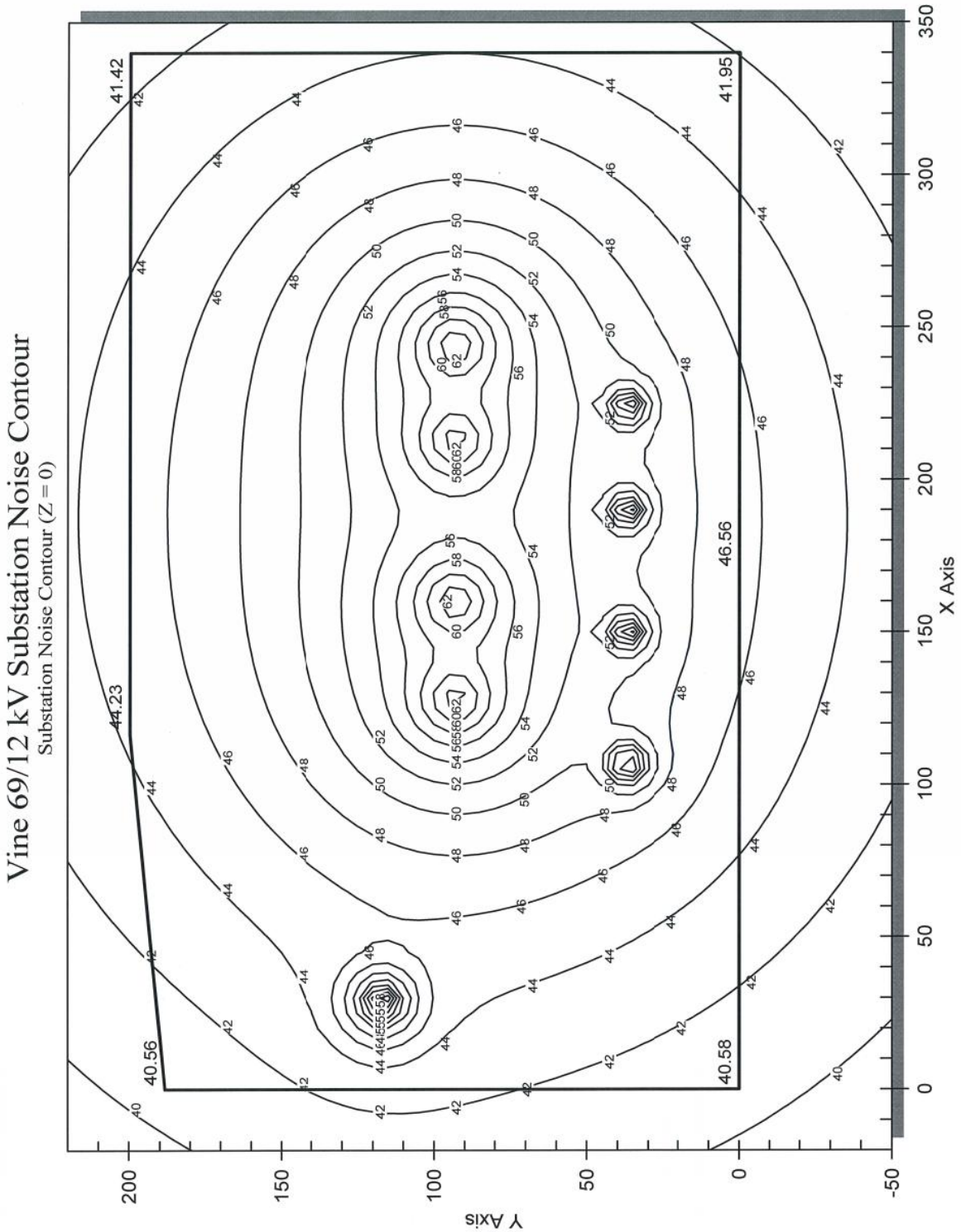
The calculated L_{eq} noise contours (lines of equal sound level) are depicted in Figure 3 Vine Substation Operational Noise Levels. The Contours were developed by San Diego Gas & Electric Company using the following noise-generating equipment and associated noise levels:

- Four 69/12 kV transformers – 61 dBA at 5 feet
- One heating, ventilation, and air conditioning (HVAC) unit for the control shelter – 70 dBA at 5 feet
- Four HVAC units for switchgear – 70 dBA at 5 feet

The noise contour modeling did not consider the effect of the perimeter wall which will reduce the noise levels at a distance of six feet from the property easement by between 5 and 10 dB.

The substation noise levels at six feet from the property are less than 75 dBA; therefore, the impact will be considered less than significant.

Figure 3 Vine Substation Operational Noise Levels



CONCLUSIONS

Acentech Inc. has completed an acoustical analysis for the Proposed Project. The impact assessment in this report has been made in relation to the City of San Diego's General Plan requirements and regulations and CEQA Guidelines.

The results of our analysis indicate that construction and operation noise impacts will be less than significant.

Sincerely yours,

ACENTECH INCORPORATED

Ramon E. Nugent, P.E. (TX)
Director

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4.13 POPULATION AND HOUSING

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

4.13.0 Introduction

This section identifies existing population and housing trends in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project). The Proposed Project site is located within a highly urbanized area in the City of San Diego, in the Midway/Pacific Highway Corridor Community Plan area. The Proposed Project is intended to accommodate existing and planned growth in the downtown and surrounding area; meet the area's electric capacity needs; and provide improved substation and circuit reliability with added tie capacity. The Proposed Project will not extend service into new areas and, therefore, will not have a significant impact on the local or regional population by inducing growth. In addition, the Proposed Project will not require the displacement of housing or people. As such, no impacts will occur with regard to population and housing.

4.13.1 Methodology

Data used to conduct demographic and economic analyses were obtained primarily from statistical reports published by the United States (U.S.) Census Bureau and the California Employment Development Department (EDD). A literature search was also conducted and included City of San Diego publications and government websites, such as the San Diego Association of Governments (SANDAG) website.

4.13.2 Existing Conditions

The regulatory requirements and overall existing population and housing conditions of the Proposed Project are described in the following subsections.

Population

Table 4.13-1: Population Totals and Trends identifies population totals and trends within the City of San Diego and Midway/Pacific Highway Corridor Community Plan area. In the year 2010, the City of San Diego had an estimated population of 1,301,617 residents, or approximately 42 percent of the 3,095,313 total population of the County of San Diego and approximately 3.5 percent of the 37,253,956 total population of the State of California. In 2010, the Midway/Pacific Highway Corridor Community Plan area had a population of 4,628, representing approximately 0.3 percent of the total population of the City of San Diego. Population within the City of San Diego continues to grow, as demonstrated by an approximate six-percent increase in population between 2000 and 2010.

Table 4.13-1: Population Totals and Trends

Jurisdiction	2000 Census Total	2010 Census Total	Percentage Change Between 2000 and 2010	Projected Population for 2020
City of San Diego	1,223,400	1,301,617	6	1,542,324
Midway/Pacific Highway Corridor Community Planning area	4,660	4,628	-1	4,398

Source: SANDAG, October 2011

Housing

Table 4.13-2: Housing Units and Vacancy Rates identifies data for the County of San Diego and the City of San Diego with regard to the number of housing units and associated vacancy rates. In 2010, the U.S. Census Bureau estimated that the County of San Diego had 1,164,786 housing units with a vacancy rate of 6.7 percent. In 2010, the City of San Diego had an estimated 516,033 housing units with a vacancy rate of 6.4 percent. In 2010, the Midway/Pacific Highway Corridor Community Planning area had 1,851 housing units.

Table 4.13-2: Housing Units and Vacancy Rates

County/City	Total Housing Units	Percentage of Vacant Units
County of San Diego	1,164,786	6.7
City of San Diego	516,033	6.4

Source: U.S. Census Bureau

For 2011, approximately 51.7 percent of the total housing units in the County of San Diego were detached, single-family homes. According to the U.S. Census Bureau, approximately 45.8 percent of the 516,033 housing units in the City of San Diego were also estimated as detached, single-family homes for the same year.

Temporary Housing

The Proposed Project area is located near various visitor accommodations. In 2012, the San Diego Convention and Visitors Bureau reported approximately 461 hotel and motel properties with over 56,000 rooms available to visitors within the County of San Diego. The total average occupancy rate for these lodging establishments was approximately 70.7 percent.

Employment and Income

Table 4.13-3: Employment Figures and Unemployment Range identifies the total employment and unemployment rates for the Proposed Project area. In October 2013, the unemployment rate for the County of San Diego was seven percent, and approximately 112,700 people in the total available labor force of 1,598,900 were unemployed. The City of San Diego had the same unemployment rate of seven percent for October 2013, with approximately 50,300 people in the labor force unemployed.

Table 4.13-3: Employment Figures and Unemployment Range

County/City	Total Employed	Total Unemployed	Unemployment Rate (Percent)
County of San Diego	1,598,900	112,700	7.0
City of San Diego	663,500	50,300	7.0

Source: California EDD, October 2013

According to U.S. Census Bureau data, the median annual household income for the County of San Diego was estimated at $63,857 for 2007 to 2011. For the City of San Diego, the median annual household income was estimated at $63,739 for 2007 to 2011. In 2010, the median household income in the Midway/Pacific Highway Corridor Community Plan area was $39,684.

4.13.3 Impacts

Significance Criteria

Determination of impacts was derived from Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to population and/or housing would be considered significant if the Proposed Project:

- Induces substantial population growth
- Displaces a substantial number of housing units
- Displaces a substantial number of people

Question 4.13a – Population Growth

Construction – No Impact

It is anticipated that most of the construction workers for the Proposed Project will reside within the County of San Diego, outside the immediate vicinity of the Proposed Project. It is not anticipated that workers will need to reside temporarily at local lodging establishments. Due to the scope of the Proposed Project, construction is not expected to increase the desirability or

affordability of the area, or cause a significant increase in permanent population within the local community or otherwise. As a result, no impact to population growth from construction of the Proposed Project will occur.

Operation and Maintenance – No Impact

Following construction of the Proposed Project, no permanent jobs are expected to be created in the vicinity of the Proposed Project. When in operation, the substation will be unstaffed and remotely operated. One to two workers will visit the substation site on a daily or weekly basis, but the substation will not require dedicated, full-time personnel. Routine maintenance of the substation is expected to require approximately six trips a year by a two- to four-person crew. It is also anticipated that one major maintenance inspection will occur annually, requiring an estimated 10 personnel and approximately one week to complete. SDG&E anticipates that these needs can be met by its existing staff.

The Proposed Project is being built to meet the electrical needs of the area and, therefore, will not induce population growth in the area either directly or indirectly. In addition, long-term operation and maintenance activities for the Proposed Project will not result in the demand for new residential units and will not significantly increase the desirability or affordability of the surrounding area. Similarly, it will not create new opportunities for local industry or commerce or impact population growth in the area. As a result, the Proposed Project is not expected to cause a direct or indirect increase in population growth. As such, no impacts to population growth will occur as a result of operation and maintenance of the Proposed Project.

Question 4.13b – Displacement of Existing Housing

Construction – No Impact

Construction will occur within public right-of-ways (ROWs) and within an unpopulated parcel owned by SDG&E, which is currently being leased for long-term parking. New ROWs will be secured by SDG&E for the distribution relocation, construction of the 69 kV loop-in, and telecommunication system upgrade work. There are no housing units within the proposed new ROW locations or within the proposed Vine Substation parcel.

The proposed staging areas will be located within the proposed Vine Substation site and at existing SDG&E facilities, as described in Section 3.6.0 Staging Areas in Chapter 3 – Project Description. All temporary work areas will be located immediately adjacent to the Proposed Project components within city streets, public areas, and the proposed Vine Substation site. There are no housing units within the proposed temporary work areas. Therefore, existing housing will not be displaced by the staging and temporary work areas and no impact will occur during construction of the Proposed Project.

Operation and Maintenance – No Impact

Operation and maintenance of the proposed facilities will include regular inspection, repair work, and vegetation trimming, as needed. These activities currently occur for the existing SDG&E facilities in the area and will generally remain the same for the proposed Vine Substation and associated components. As there are no housing units located on the proposed substation site or within the proposed ROWs, regular operation and maintenance practices required for the

proposed facilities will not displace any existing housing. Therefore, there will be no impact from operation and maintenance of the Proposed Project.

Question 4.13c – Displacement of People – *No Impact*

The Proposed Project will be constructed, operated, and maintained within a highly developed area within the City of San Diego where surrounding lands generally support light- and medium-industrial and office uses, parking lots, and rental car facilities, with limited residential uses. The proposed Vine Substation site is located on an SDG&E-owned parcel that is presently used as a long-term airport parking lot. All other Proposed Project components will be constructed on lands owned by SDG&E or within public ROWs. Therefore, construction, operation, and/or maintenance of all components of the Proposed Project will not displace any existing housing units, as discussed previously in the response to Question 4.13b. As such, no one will be displaced with implementation of the Proposed Project. Therefore, there will be no impact from construction, operation, or maintenance of the Proposed Project.

4.13.4 Applicant-Proposed Measures

Because the Proposed Project will have no impact on population and housing, no applicant-proposed measures are proposed.

4.13.5 References

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4.14 PUBLIC SERVICES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?				✓
Police protection?				✓
Schools?				✓
Parks?				✓
Other public facilities?				✓

4.14.0 Introduction

The section describes local public services in the area of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) and evaluates potential effects on existing services. Fire and emergency services, police and protective services, hospitals, schools, parks, and other public services are addressed, and the potential effects resulting from construction, operation, and maintenance are evaluated. Through this analysis, it was determined that the Proposed Project will have no impacts on public services.

4.14.1 Methodology

Research regarding fire, police, emergency services, and public libraries involved the review of data from the City of San Diego. Data pertaining to local area schools were obtained from the San Diego Unified School District. Statistics pertaining to local hospitals and recreational amenities were also obtained through additional desktop-level research, utilizing online sources.

4.14.2 Existing Conditions

The regulatory requirements and overall existing public services conditions of the Proposed Project are described in the following subsections.

Fire and Emergency Services

Serving the eighth-largest city in the United States and the second-largest city in California, the San Diego Fire-Rescue Department (SDFD) provides City of San Diego residents with fire and life-saving services, including fire protection, emergency medical services, and lifeguard protection at San Diego beaches. The SDFD serves a population of approximately 1,337,000 and a service area of approximately 331 square miles. The SDFD operates 47 stations with approximately 801 uniformed personnel and 161 civilian personnel.

The Proposed Project will be served by Fire Station 3, located at 725 West Kalmia Street, approximately 0.8 mile southeast of the Proposed Project site. The station provides both fire protection and medical/rescue services. In addition, the Airport Station at San Diego International Airport, located at 3698 Pacific Highway, is approximately 0.5 mile southwest of the Proposed Project site.

Police Protection Services

The City of San Diego Police Department serves the Proposed Project area. The main headquarters are located at 1401 Broadway in downtown San Diego, approximately 2.3 miles southeast of the Proposed Project site. In addition to police protection services, the police department operates a number of specialized divisions that include the domestic violence, financial crimes, forensic science, and traffic units.

The Proposed Project site is served by the police department's Western Division, which serves the communities of Hillcrest, La Playa, Linda Vista, Loma Portal, Midtown, Midway District, Mission Hills, Mission Valley West, Morena, Ocean Beach, Old Town, Point Loma Heights, Roseville-Fleetridge, Sunset Cliffs, University Heights, and Wooded Area. The Western Division is headquartered at 13396 Salmon River Road, approximately 2.1 miles to the northwest of the site, and serves a population of 129,709 people with a service area of approximately 22.7 square miles.

The Proposed Project site will be served by the Peninsula Storefront Station, located at 3750 Sports Arena Boulevard, Suite #3. The station is located approximately 2.4 miles northwest of the Proposed Project site.

Hospitals

The following are the two closest major medical facilities to the Proposed Project site:

- Scripps Mercy Hospital, located at 4077 Fifth Avenue, approximately 1.3 miles northeast of the site, and
- St. Pauls' Program of All-Inclusive Care for the Elderly, located at 111 Elm Street, approximately 1.3 miles southeast of the Proposed Project site.

Schools

The Proposed Project falls within the San Diego Unified School District. The following schools are within approximately one mile of the Proposed Project:

- Montessori School of San Diego, located approximately 0.25 mile southeast of the Proposed Project;
- Grant Elementary School, located approximately 0.7 mile north of the Proposed Project;
- Old Town Academy K-8 Charter School, located approximately 0.85 mile northeast of the Proposed Project;
- Saint Vincent de Paul School, located approximately 0.9 mile north of the Proposed Project;
- Fleur de Lis School, located approximately 0.95 mile northeast of the Proposed Project;
- Museum School, located approximately one mile southeast of the Proposed Project; and
- Florence Elementary School, located approximately one mile northeast of the Proposed Project.

Other Services

The closest public library is the Mission Hills Branch Library, located at 925 West Washington Street, approximately 0.82 mile northeast of the Proposed Project site. The Central Library is located at 330 Park Boulevard, approximately 2.55 miles to the southeast of the Proposed Project site. In addition, the San Diego County Library is located at 5555 Overland Avenue, approximately seven miles northeast of the Project site.

Many local, regional, county, and state parks are located in and around the City of San Diego. The parks nearest to the Proposed Project site include the following:

- Pioneer Park, located approximately 0.7 mile north of the Proposed Project;
- Mission Hills Park, located approximately 0.7 mile north of the Proposed Project;
- Beeson Field, located approximately 0.9 mile west of the Proposed Project;
- Maple Canyon Trail, located approximately 0.95 mile east of the Proposed Project;
- Beth Israel Park, located approximately one mile southeast of the Proposed Project; and
- Balboa Park, located approximately one mile east of the Proposed Project.

4.14.3 Impacts

Significance Criteria

Determination of impacts was derived from Appendix G of the California Environmental Quality Act Guidelines. Impacts to public services are considered potentially significant if they result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities—or the need for new or physically altered governmental facilities—in order to maintain acceptable service ratios, response times, or other performance objectives. These public services include fire and police protection, emergency services, hospitals, schools, and public facilities.

Question 4.14a – Adverse Impact to Public Services – *No Impact*

Construction – No Impact

The Proposed Project will be constructed within the City of San Diego. Up to 30 construction personnel are expected to be required to be on site during the various phases of construction. Construction of the proposed facilities will not likely to affect the use or operation of any public services or facilities within the immediate area, including fire or police protection services, emergency services, hospitals, schools, parks, or other services (i.e., libraries), because the crew members will likely commute from within the San Diego County area where they are already using such services. Moreoever, this small number of construction personnel represent an insignificant fraction of the region's existing population. It is not anticipated that workers will need to reside temporarily at local lodging establishments. In addition, the Proposed Project will not result in a permanent need for new or additional public services, because it will not directly induce population growth or result in the construction of residential or other land uses that will indirectly induce area population growth.

Fire and Police Protection

Several emergency providers are located in the vicinity of Proposed Project; however, none are located within approximately 0.25 mile. Therefore, construction of the proposed facilities will not directly interfere with fire and police protection or other emergency service providers in the immediate area. The Proposed Project will not result in an increase in the temporary demand for nor alter the level of local public services required, as it will not increase the population or demands for housing in the area. In addition, it will not materially increase the density of the nearby built environment. An emergency could arise as a result of Proposed Project construction, but such an incident is of low probability and will be well within the current capabilities of the existing emergency services. Construction is not anticipated to affect response times because no road closures will be required for construction activities. While lane closures will be necessary during construction, traffic controls will be implemented as required by the Encroachment Permit that will be obtained from the City of San Diego, and emergency vehicles will be provided access. As a result, no impacts to fire and police protective services are anticipated.

Schools

The Proposed Project will not increase the temporary demand for school enrollment because it will not perceptibly increase local population during construction. The majority of the construction crew is likely to be hired from the local operators union and local electrical workers union, which can provide the approximately 30 potential workers from the San Diego area; therefore, construction of the Proposed Project will not create a significant new workforce that will result in a new or increased demand for school services. Family relocation will not be necessary. No new hires will be required for operation and maintenance of the Proposed Project. Therefore, school enrollment will not be affected, and no new schools will be necessary as a result of the Proposed Project. As a result, no impacts to schools are expected.

Parks

No recreational facilities are found within 0.25 mile of the Proposed Project site. The nearest recreational facilities—Pioneer Park and Mission Hills Park—are located approximately 0.7 mile north of the Proposed Project and on the east side of Interstate (I-) 5. Construction of the Proposed Project will notincrease local population growth resulting in the need for new parks or park expansion, nor will it cause a reduction in the availability of recreational resources in the area, as none will be affected by the Proposed Project. Therefore, no impacts to parks or other recreational facilities will result.

Other Public Facilities

No other public facilities are located within 0.25 mile of the Proposed Project components. The closest public library, the Mission Hills Branch Library, is located approximately 0.82 mile northeast of the Proposed Project site and on the east side of I-5. The Proposed Project will not increase the local population or otherwise result in a change that will necessitate alteration or expansion of the public library or other existing public services. As a result, no impacts will result.

Operation and Maintenance – No Impact

After construction, the proposed Vine Substation will be unstaffed and will be visited by one or two workers on a daily or weekly basis. Routine maintenance of the substation is expected to require approximately six trips a year by a two- to four-person crew. In addition, it is anticipated that one annual major maintenance inspection will occur, requiring an estimated 10 personnel from SDG&E's existing workforce. The annual inspection will take approximately one week to complete. Operation and maintenance of the 12 kV distribution relocation, 69 kV loop-in, and telecommunication system extension will be conducted in a manner similar to the existing facilities in the area. These activities will not impede the use of existing public services nor result in a need for new services because they will be limited to routine periodic visits once a year and for no more than a few days on each occasion. As a result, there will be no impacts to public services from the operation and maintenance of the Proposed Project.

4.14.4 Applicant-Proposed Measures

Because the Proposed Project will have no impacts on public services, no applicant-proposed measures are proposed.

4.14.5 References

City of San Diego. 2008. *General Plan*. Online. http://www.sandiego.gov/planning/genplan/pdf/generalplan/fullversion.pdf. Site visited March 7, 2014.

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San Diego Police Department. Online. http://www.sandiego.gov/police/. Site visited December 9, 2013.

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4.15 RECREATION

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				✓
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				✓

4.15.0 Introduction

This section describes the existing recreational facilities in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt Substation Project (Proposed Project) site and evaluates potential impacts to recreational resources that may result from construction, operation, and maintenance of the Proposed Project. It is not anticipated that recreational facilities will be impacted as a result of construction of the Proposed Project.

4.15.1 Methodology

The recreation analysis involved a review of the City of San Diego General Plan. In addition, Google Earth aerial photographs of the Proposed Project area were reviewed.

4.15.2 Existing Conditions

The nearest recreational facilities—Pioneer Park and Mission Hills Park—are located approximately 0.7 mile north of the Proposed Project and east of Interstate 5. The parks contain passive recreational areas, a playground, picnic facilities, a restroom, and a parking lot. Three additional parks and one recreational trail are located within approximately one mile of the Proposed Project. One of these parks is Balboa Park, which is comprised of more than 1,000 acres of museums, various gardens, and international cultural associations, as well as the San Diego Zoo.

4.15.3 Impacts

Significance Criteria

Standards of significance were derived from Appendix G of the California Environmental Quality Act Guidelines. Impacts to recreation would be considered significant if the Proposed Project:

- Increases the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facilities would occur or be accelerated

- Requires the construction or expansion of recreational facilities to meet population demand, potentially resulting in an adverse physical effect on the environment

Question 4.15a – Recreational Facilities Use

Construction – No Impact

It is anticipated that up to 33 workers will be employed for the site development phase of the Proposed Project. Between 12 to 24 workers are expected during the foundation and below-grade work, as well as the construction of the proposed substation and power line facilities. The relocation of the 12 kV distribution circuits will require between 12 and 20 workers. However, these crew members will likely commute from the San Diego County area. The minor increase in daily worker population will not put additional demand on existing recreational facilities due to the small and temporary nature of the increase. Thus, no impact will occur.

Operation and Maintenance – No Impact

As described in Section 4.13 Population and Housing, the Proposed Project will not create a need for additional housing or long-term population immigration, which would result in a permanent increase in park use. No new employees will be hired to operate or maintain the Proposed Project facilities. The facilities will be operated and maintained by existing SDG&E personnel in the same manner that existing facilities in the surrounding area are operated and maintained. Thus, no impact will occur.

Question 4.15b – Recreational Facilities Changes

Construction – No Impact

The Proposed Project will be located in an area characterized predominately by light- and medium-industrial and office uses, parking lots, and rental car facilities, and will not involve the construction of new recreational facilities or the expansion of existing facilities. Therefore, there will be no impact.

Operation and Maintenance – No Impact

Operation and maintenance activities for the Proposed Project facilities will be conducted in a similar manner as they are for the existing facilities. Operation and maintenance practices do not currently impact recreational uses or facilities in the area; thus, no impacts will occur.

4.15.4 Applicant-Proposed Measures

The Proposed Project will not result in any significant impacts to recreational resources; therefore, no applicant-proposed measures are proposed.

4.15.5 References

City of San Diego. *General Plan*. 2008. Online. http://www.sandiego.gov/planning/genplan/. Site visited December 5, 2013.

City of San Diego. Parks and Recreation Department. Parks and Open Spaces. Online. https://www.sandiego.gov/park-and-recreation/. Site visited December 5, 2013.

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4.16 TRANSPORTATION AND TRAFFIC

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			✓	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e) Result in inadequate emergency access?			✓	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			✓	

4.16.0 Introduction

This section describes the existing transportation and traffic conditions within the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project) area and evaluates potential Proposed Project-related transportation and traffic impacts. A summary of existing roadways, transit and rail service, airports, and bicycle facilities are presented, as well as a description of the regulatory setting for transportation and traffic. In addition, an analysis of transportation and traffic impacts that will result from the Proposed Project is provided. The Proposed Project is located adjacent to several major roadways (including Interstate [I-] 5, Kettner Boulevard, and Pacific Highway) and rail lines, but will not have a significant impact on transportation and traffic in the area and will not conflict with any adopted alternative transportation policies.

4.16.1 Methodology

Transportation and traffic data for the Proposed Project area was obtained primarily through relevant literature and Internet research. The City of San Diego General Plan and Municipal Code, the Midway/Pacific Highway Corridor Community Plan, the City of San Diego Traffic Impact Study Manual, and the San Diego Association of Governments' (SANDAG) 2030 Regional Transportation Plan were reviewed. A site visit was also conducted on December 10, 2013 to obtain a visual understanding of the traffic patterns along the public roadways that may be directly or indirectly affected by the Proposed Project.

4.16.2 Existing Conditions

Regulatory Background

Construction projects that cross public transportation corridors are subject to federal, state, and local encroachment permits. Permits are also required for activities that result in the use or obstruction of navigable airspace. The following summarizes transportation and traffic regulations that are applicable to the construction of electric facilities, such as the Proposed Project.

Federal

All airports and navigable airspace not administered by the Department of Defense are under the jurisdiction of the Federal Aviation Administration (FAA). Title 14, Section 77 of the Code of Federal Regulations (CFR) establishes the standards and required notification for objects affecting navigable airspace. In general, construction projects that exceed 200 feet above ground level—or that extend at a ratio greater than 100 to one (horizontal to vertical) from a public or military airport runway less than 3,200 feet long out to a horizontal distance of 20,000 feet—are considered potential obstructions and require notification to the FAA.

State

The use of California state highways for purposes other than normal transportation may require written authorization or an encroachment permit from the California Department of Transportation (Caltrans). Caltrans has jurisdiction over the state's highway system and is responsible for protecting the public and infrastructure. Caltrans reviews all requests from utility companies that plan to conduct activities within its right-of-way (ROW). Encroachment permits

may include conditions or restrictions that limit when construction activities can occur within or above roadways under the jurisdiction of Caltrans.

Local

Chapter 12, Article 9, Division 7: Public ROW Permits of the City of San Diego Municipal Code addresses the use of or encroachment into public ROWs for private uses. The City requires approval of a Public ROW Permit for the construction of privately owned structures or facilities within the public ROW.

The Mobility Element of the City of San Diego General Plan provides measures for improving the efficiency of the city's transportation system and facilitates the long-term planning required to improve mobility through the development of a balanced, multi-modal transportation network, while minimizing potential environmental and neighborhood impacts. The Mobility Element is aimed at creating a system wherein each mode of transportation contributes to an overall goal of providing transit services that meet varied user needs, while implementing a strategy to reduce traffic congestion and provide increased transportation choices with consideration for varying land use types. The City of San Diego also utilizes a Traffic Impact Study Manual, which provides acceptable level of service (LOS) standards for the city, as well as triggers and guidelines for the preparation of traffic studies.

SANDAG's 2030 San Diego Regional Transportation Plan: Pathways for the Future was approved in October 2011 and provides guidance for the establishment of a coordinated transportation system for the greater San Diego area. The plan is intended to connect and improve the regional transportation network of freeways, public transit, and roadways.

Existing Roadway Network

The Proposed Project is located in a primarily industrial and commercial area within the City of San Diego. Figure 3-1: Project Location Map in Chapter 3 – Project Description depicts the location of the Proposed Project area and the existing roadway network. A list of roadways that are adjacent to the Proposed Project and that may be used for construction equipment travel has been included in Table 4.16-1: Public Roadways Adjacent to the Proposed Project Area. This list also includes the classification, number of lanes, LOS information (where available), and the allowable increase in traffic volume for each roadway per the City of San Diego Traffic Impact Study Manual.

I-5 is a major north-south transportation corridor located approximately 150 feet east of the Proposed Project area. It is an eight-lane divided freeway with a posted speed limit of 70 miles per hour. I-5 will serve as the main route to the Proposed Project area. Construction vehicles and equipment will likely utilize the South Kettner Boulevard and the North India Street exits from I-5 to access the Proposed Project.

Within the Proposed Project area, Vine Street, Sassafras Street, West Laurel Street, and West Hawthorn Street are local public streets that run east-west; Kettner Boulevard, California Street, and Pacific Highway run north-south. Access to the Vine Substation will be accomplished from Vine Street during construction via the existing driveway. Access to the 69 kV loop-in will primarily occur from Vine Street, California Street, and Pacific Highway.

Table 4.16-1: Public Roadways Adjacent to the Proposed Project Area

Roadway	Cross Street	Number of Lanes	Average Weekday Traffic Volume	LOS a.m./p.m. Peak	Allowable Increase in Volume/Capacity Ratio
Vine Street	Kettner Boulevard and California Street	2	Not Available (NA)	NA	NA
Kettner Boulevard	Vine Street	3	19,300	C	0.04
California Street	Vine Street	2	NA	NA	NA
Pacific Highway	Sassafras Street	6	23,000	A	0.10
Sassafras Street	Kettner Boulevard and Pacific Highway	3	9,700	C	0.04
West Laurel Street	Kettner Boulevard and Pacific Highway	4	14,600	E/F	0.02
West Hawthorn Street	Kettner Boulevard and Pacific Highway	3	25,200	C	0.04

Source: SANDAG, 2008; City of San Diego Traffic Impact Study Manual.

Railway

The North Country Transit District (NCTD) Coaster provides commuter rail service to the Proposed Project area. The Coaster tracks are located immediately adjacent to and west of the proposed Vine Substation. These tracks will also be spanned by the 69 kV loop-in's overhead conductors. The service links the North County and the City of San Diego and operates more than 20 Coaster trains each weekday, with 10 trains operating on Saturdays. The Coaster does not operate regular service on Sundays.

Amtrak California (a service of Caltrans and Amtrak) operates the Pacific Surfliner train, which runs from San Luis Obispo to the Santa Fe Depot in the City of San Diego. The tracks along which the Amtrak trains travel are owned by the BNSF Railway. In the vicinity of the Proposed Project, Amtrak is located adjacent to the Coaster; therefore, it will be located directly adjacent to and west of the proposed Vine Substation. These tracks will also be spanned by the 69 kV loop-in's overhead conductors. The Pacific Surfliner runs between five and seven trains on a daily basis, generally between 5:50 a.m. and 12:59 p.m.

Airports

San Diego International Airport (also known as Lindberg Field) is located directly adjacent to and west of the Proposed Project. This airport operates approximately 600 arrivals and departures daily along a single runway that measures approximately 9,400 feet long. The airport is operated by the San Diego County Regional Airport Authority.

Bus

Bus service to the Proposed Project area is provided by the San Diego Metropolitan Transit System (MTS). Routes serving the immediate Proposed Project area include routes 10, 30, and 150. The closest bus stop is located on Washington Street, which is located approximately 0.3 mile north of the Proposed Project. This bus stop is serviced by Route 10. There are no bus routes that travel adjacent to the Proposed Project area along Kettner Boulevard.

Trolley

The MTS Trolley's Green Line connects downtown San Diego in the south to the City of Santee in the northeast. This trolley line is located adjacent to the Proposed Project area, and runs along California Street. The nearest stations are the Washington Street Station and the Middletown Station. Westbound weekday service from the Santee station to downtown begins at 5:04 a.m. and continues until 11:19 p.m., with trolleys departing every 15 minutes. Eastbound weekday service from the Downtown Station (12th and Imperial) to Santee begins at 4:51 a.m. and continues until 11:36 p.m., with trolleys departing every 15 minutes.

Bicycle Facilities

The City of San Diego designates and maintains three types of bicycle facilities—bike paths, bike lanes, and bike routes. Within the vicinity of the Proposed Project site, an existing bikeway runs along Pacific Highway. The bikeway is designated as a Class III bike route (i.e., shared use with motor vehicle traffic within the same travel lane) north along Pacific Highway to Washington Street. At Washington Street, the bikeway becomes a Class II bike lane (i.e., exclusive bicycle travel as defined by pavement striping) and continues north toward Mission Bay.

4.16.3 Impacts

Significance Criteria

Activities associated with construction of the Proposed Project will have the potential to affect existing traffic patterns or cause traffic delays due to the transport of equipment and materials to and from the Proposed Project area. Due to the nature of the proposed land use, traffic resulting from operation and maintenance activities of the proposed Vine Substation and associated components will generate minimal effects on the existing circulation system, as typically a limited amount of vehicular activity (i.e., less than one vehicle trip per day) will be required over the long-term. As a result, the following analysis of Proposed Project-related traffic impacts is generally focused on the construction phase. Operational impacts are addressed and analyzed, where appropriate, with regard for the significance criteria.

According to Appendix G of the California Environmental Quality Act Guidelines, impacts to transportation and traffic would be considered significant if the Proposed Project:

- Results in a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the circulation system
- Results in a conflict with an applicable congestion management program
- Results in a change in air traffic patterns
- Results in a substantial increase in hazards due to design feature or incompatible uses
- Results in inadequate emergency access
- Conflicts with adopted policies, plans, or programs supporting alternative transportation

Question 4.16a – Circulation Plan or Policy Conflicts

Construction – Less-than-Significant Impact

Construction of the Proposed Project will not result in a conflict with relevant circulation plans or policies establishing measures of effectiveness for the performance of the circulation system. While lanes of travel along Kettner Boulevard will be closed to traffic during the relocation of the distribution circuits, this work will be short-term in nature and will occur at night when vehicle, bicycle, and pedestrian traffic is at its lowest level. In addition, at least one lane of travel through construction areas will always remain open to circulation for cars, buses, bicycles, and pedestrians utilizing the public ROW, as will be consistent with requirements of the Proposed Project's Public ROW Permit. Because the Proposed Project will comply with all requirements of the Public ROW Permit, there will be no conflict and no impact.

No policies or requirements related to the Proposed Project were identified within the SANDAG 2030 San Diego Regional Transportation Plan: Pathways for the Future. The Proposed Project will comply with Policy ME-A.5 of the Mobility Element of the City of San Diego General Plan. This policy states that adequate sidewalk widths and clear paths of travel should be provided for pedestrian usage, and obstructions and barriers that inhibit pedestrian circulation should be minimized. While temporary sidewalk closures may be required as part of the Proposed Project during relocation of the 12 kV distribution lines and extension of the telecommunication system, this work is anticipated to occur at night when pedestrian traffic will be limited. In addition, alternative pedestrian walking routes around construction areas will be provided during any closures. Vaults and hand holes associated with the 12 kV distribution relocation and telecommunication system extension will be placed underground and any aboveground fixtures will be placed so that they do not obstruct pedestrian circulation in the area. Thus, the Proposed Project is consistent with Policy ME-A.5, and there will be no impact.

Construction of the Proposed Project will not impact policies related to mass transit providers, as no such policies were identified that relate to the Proposed Project. While new poles associated with the 69 kV loop-in will be placed adjacent to the Coaster, Amtrak, and Trolley rail lines west of the proposed Vine Substation site, construction will not conflict with any policies related to the rail system operation. Stringing the overhead line from the new poles into the proposed Vine Substation will be conducted over the rail tracks and could potentially impact the operation of the trains and Trolley. However, SDG&E will coordinate with rail transit providers to conduct work at night (or during other transit provider-preferred times) when train service is less

frequent. SDG&E will obtain the necessary Right-of-Entry permits from the NCTD and MTS, as well as a License Agreement from the NCTD, and a Temporary Occupancy Agreement and a Utility Agreement License from BNSF Railway. As a SDG&E ordinary construction restriction, the Proposed Project will comply with all requirements of applicable encroachment permits and approvals; therefore, impacts from conflicts with applicable plans and policies will be less than significant.

Operation and Maintenance – No Impact

Routine maintenance is expected to require approximately six trips per year by a two- to four-person crew. No alternative modes of transportation such as rail, bus, or bicycle traffic or pedestrian circulation patterns would be altered or adversely affected by long-term operation and maintenance activities. As such, no impact will occur.

Question 4.16b – Congestion Management Program Conflict

Construction – Less-than-Significant Impact

The City of San Diego Traffic Impact Study Manual provides acceptable LOS standards for the city. For roadways and intersections in the urban areas of the city, the acceptable LOS standard is D, and the LOS standard in undeveloped areas is C. Table 4.16-1: Public Roadways Adjacent to the Proposed Project Area shows the LOS levels of the roadways in the Proposed Project area and provides the allowable increase of the volume/capacity ratio that will trigger a significant impact. It is anticipated that up to 33 workers will be employed for the site development phase of the Proposed Project. Between 12 and 24 workers are expected during the foundation and below-grade work, as well as the construction of the proposed Vine Substation. The 12 kV distribution relocation will require between 12 and 20 workers. Final testing and checkout will require nine electricians and/or engineers. Construction workers' daily transportation is not expected to cause a significant impact because Proposed Project-generated traffic will be minimal, will occur over the course of the day, and will not result in an increase of the volume/capacity ratio to the point that a significant impact will occur, per the City of San Diego Traffic Impact Study Manual.

Vehicle trips generated by construction personnel will generally occur with workers arriving at the site in the morning and leaving the site at the end of the day, with limited worker-related trips to or from the worksite during the course of the day. It is estimated that construction personnel will generate a maximum of 63 personal vehicle trips per day during peak construction times. On average, approximately 33 personal vehicle trips per day will be required. To reduce the potential number of daily worker-related vehicle trips to and from the site, SDG&E will encourage carpooling to the greatest extent possible.

It is anticipated that construction of the Proposed Project will require a maximum of 27 truck trips per day during the three months of proposed substation grading. In addition, approximately five additional trips per day are anticipated for the delivery of materials and equipment for the duration of construction. All construction vehicles and equipment will enter the proposed Vine Substation site from Vine Street. Although some disruption to traffic flow may occur when trucks ingress or egress the proposed Vine Substation site, such events will be periodic and temporary. As needed, signage or flagmen may be utilized to reduce potential disruptions to traffic flow and to maintain public safety during construction.

As described previously, lanes of travel within Kettner Boulevard will be limited during relocation of the 12 kV distribution circuits, which could impact the LOS in the area. However, this work will be short-term in nature, lasting up to a few weeks at a time, and will occur at night when vehicle traffic is at its lowest level. Trenching operations will be staged in intervals so that only a maximum of 500 feet of trench will be left open at any one time, or as allowed by permit requirements, thus the overall impact will be limited. In addition, SDG&E will coordinate with the City of San Diego through the Public ROW Permit process and comply will all requirements of the Proposed Project's Public ROW Permit. SDG&E, as part of their ordinary construction restrictions, will prepare and implement a Traffic Management Plan to further reduce potential impacts. As required by the City of San Diego, the Traffic Management Plan will provide a detailed drawing of the area where work will occur—including any transition area, buffer space, work area, and termination area—directional signage to be posted, a detour plan (if required), and a pedestrian and bicycle plan.

Because the increase in vehicle trips potentially generated by the Proposed Project during construction will add an insignificant percentage of traffic to surrounding roadways and will not trigger a significant impact per the City of San Diego Traffic Impact Study Manual, and because SDG&E will comply with the requirements of the Proposed Project's Public ROW Permit, there will be no conflict with congestion management programs and impacts as a result of conflicts with such programs will be less than significant.

Operation and Maintenance – No Impact

Routine maintenance is expected to require approximately six trips per year by a two- to four-person crew. Routine operations will require one to two workers in a light utility truck to visit the proposed Vine Substation on a daily or weekly basis. Vehicle trips associated with operation and maintenance activities will constitute a negligible increase in traffic in the area and will not affect roadway LOS or result in conflicts with other congestion management plans or policies. As a result, there will be no impact.

Question 4.16c – Air Traffic Changes

Construction – No Impact

At this time, helicopter use is not anticipated for the construction of the Proposed Project. Because no aircraft will be required for the Proposed Project, no changes to air traffic patterns will be required to accommodate construction. Thus, there will be no impact.

Because the Proposed Project is located within 20,000 feet of the San Diego International Airport, an FAA Obstruction Evaluation is required to be completed prior to construction, pursuant to Part 77 of the CFR and San Diego International Airport Land Use Compatibility Plan requirements. Because the 69 kV steel poles—which will reach approximately 100 feet high and are approximately 2,100 feet from the nearest active runway—will exceed the one-to-100 ratio required by 14 CFR Part 77.9 for airspace and navigation, SDG&E will consult with the FAA. The FAA will conduct an obstruction evaluation, for which the resulting requirements will be implemented by SDG&E. Therefore, it is not anticipated that the Proposed Project will result in a change in air traffic patterns or an increase in safety risks and no impact to air traffic will occur.

Operation and Maintenance – No Impact

Operation and maintenance activities will include routine inspections, ongoing maintenance, and repairs necessary to ensure that integrity of the system is maintained over the long-term. Inspections may occur in the form of aerial patrol through the use of helicopters, or through ground patrols visiting the facilities. Consistent with the approach toward other facilities in the area, if helicopters are used to assist with operation and maintenance activities, SDG&E will notify the FAA and any additional local agencies, as appropriate, prior to conducting maintenance activities requiring a helicopter. Therefore, no impact will occur.

Question 4.16d – Increase in Hazards

Construction – Less-than-Significant Impact

Construction of the Proposed Project will result in temporary traffic lane closures at night along Kettner Boulevard during the 12 kV distribution relocation and telecommunication system extension. Additional lane closures during the day will occur along Pacific Highway during the installation of new poles and conductor for the 69 kV loop-in. These lane closures could increase hazards if appropriate safety measures are not in place, such as proper signage, orange cones, and flaggers. However, SDG&E will obtain the required Public ROW Permit from the City of San Diego and will implement the traffic control measures articulated by that permit. While there may be a limited increase in hazards due to obstructions implemented as part of the lane closures, the closures will be temporary and will be conducted in compliance with City of San Diego safety standards and requirements. Therefore, impacts will be less than significant.

Operation and Maintenance – No Impact

New facilities are being placed within roadways as part of the 12 kV distribution relocation and telecommunication system extension; therefore, it is anticipated that the number of temporary lane closures necessary to accommodate routine operation and maintenance activities will likely increase to a small degree. While temporary roadway obstruction could result in increased hazards, the frequency and duration of these closures will be short-term and limited to a few times per year. In addition, SDG&E will implement necessary traffic control measures and Public ROW Permit requirements. Thus, any increase in hazards will be minimal and the impact will be less than significant.

Access to the proposed Vine Substation will occur primarily from Vine Street. The existing driveway that serves the current parking lot will be relocated approximately 50 feet southwest along Vine Street to connect to the proposed Vine Substation's interior access road. An existing driveway along Kettner Boulevard will also be relocated approximately 125 feet southeast and will provide secondary access to the proposed Vine Substation. The relocated driveways will be constructed in compliance with current standards for width and sight-distance visibility and will be similar to other commercial driveways in the immediate vicinity. Because the relocated driveways will be constructed in accordance with required standards and primary access will occur from a street with limited traffic, the potential for increased hazards will be less than significant.

Question 4.16e – Emergency Access Effects

Construction – Less-than-Significant Impact

Emergency access will not be directly impacted during construction because all streets will remain open to emergency vehicles at all times throughout construction. Although lane closures along Kettner Boulevard will occur during relocation of the distribution circuits, at least one lane will remain open to provide access for emergency vehicles. Further, SDG&E will coordinate with adjacent businesses and local emergency providers to ensure that ingress and egress routes are maintained for the duration of Proposed Project construction. In addition, construction of the proposed Vine Substation will not require any road closures and no improvements to public roadways are required. Therefore, impacts to emergency access will be less than significant.

Operation and Maintenance – No Impact

Operation and maintenance activities associated with the Proposed Project are not expected to generate additional traffic on area roadways, as compared to existing conditions. While temporary road closures could increase due to maintenance activities for the 12 kV distribution relocation and telecommunication system extension, the closures will be limited and short-term, as described previously. In addition, emergency vehicle access will always be provided during operation and maintenance activities. As such, no impacts on emergency vehicle access will occur during operation and maintenance activities for the Proposed Project.

Question 4.16f – Alternative Transportation Conflicts

Construction – Less-than-Significant Impact

The Proposed Project is located in a highly urbanized area. Construction will occur within the public ROW and on SDG&E-owned land. The Proposed Project will not involve any activities that will conflict with alternative transportation policies, plans, or programs, including bus transportation in the area. SDG&E will obtain Public ROW Permits to conduct work within the public ROW and will ensure that access for pedestrians and bicyclists is provided during construction. Rail tracks utilized by the Coaster, Amtrak, and Trolley are located adjacent to the proposed Vine Substation site, and conductor pulling activities will occur over the tracks, which could impact operations of these rail services. However, SDG&E will coordinate with the rail agencies to conduct work at night (or during other transit provider-preferred times, as feasible) to minimize rail service disruptions or delays. Therefore, impacts to alternative transportation modes will be less than significant.

Operation and Maintenance – No Impact

The operation and maintenance activities for the Proposed Project will not change from current practices that are conducted on other facilities located in the vicinity, which require less than one vehicle trip, on average, per day. Rail, bus, and bicycle traffic are not affected by current operation and maintenance activities, and there will be no change to the activities as a result of the Proposed Project. Therefore, no impact will occur.

4.16.4 Applicant-Proposed Measures

Any impacts resulting from conflicts with applicable transportation-related policies as a result of construction of the Proposed Project will be less than significant. In addition, the Proposed

Project will not create significant air traffic or transportation-related hazards or result in a significant impact to emergency access in the area. As such, no applicant-proposed measures are proposed.

4.16.5 References

City of San Diego. 2013 Bicycle Master Plan. Online. https://www.sandiego.gov/planning/programs/transportation/mobility/pdf/sdbmpu_final_draft_july_2013.pdf. Site visited February 28, 2014.

City of San Diego. *General Plan*. 2008. Online. http://www.sandiego.gov/planning/genplan/pdf/generalplan/adoptedtoc.pdf. Site visited December 6, 2013.

City of San Diego. *Midway/Pacific Highway Corridor Community Plan*. Online. http://www.sandiego.gov/planning/community/profiles/midwaypacifichwycorridor/pdf/midwayfullversion.pdf. Site visited December 6, 2013.

City of San Diego. Traffic Impact Study Manual. Online. http://www.sandiego.gov/development-services/pdf/industry/trafficimpact.pdf. Site visited March 4, 2014.

SANDAG. 2030 San Diego Regional Transportation Plan: Pathways for the Future. Online. http://sandag.org/uploads/publicationid/publicationid_1342_7635.pdf. Site visited March 3, 2014.

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4.17 UTILITIES AND SERVICE SYSTEMS

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities (the construction of which could cause significant environmental effects)?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities (the construction of which could cause significant environmental effects)?				✓
d) Have sufficient water supplies available from existing entitlements and resources to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?				✓
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓

4.17.0 Introduction

This section describes local utility services and infrastructure—including cable television and telephone, water treatment, water supply availability, sewer, solid waste disposal, and electricity services—in the vicinity of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt Substation Project (Proposed Project). The Proposed Project will not require the

use of public utilities during construction, operation, or maintenance activities, with the exception of minimal water use during construction activities to control dust on non-paved portions of the Proposed Project area. A temporary tap to an existing distribution line may be installed to provide electrical service to the staging area within the proposed Vine Substation during construction. This temporary tap may be used to power construction trailers, lighting, or small hand-held machinery or tools until the substation is energized. The Proposed Project will generate a limited amount of solid waste during construction; which will ultimately be transported to nearby licensed landfill. Construction of the Proposed Project will not substantially increase the existing velocity or volume of storm water flows either on-site or in off-site areas. Areas disturbed during grading will be restored to their original contours, and the surrounding area will be repaired, as appropriate. Therefore, the Proposed Project will result in less-than-significant impacts to utilities and service systems.

4.17.1 Methodology

Information regarding local utilities was obtained from the City of San Diego's General Plan and Urban Water Management Plan. Internet searches were also conducted to gather information regarding utility service providers in the vicinity of the Proposed Project.

4.17.2 Existing Conditions

Potable Water

Water service within the City of San Diego is provided by the Public Utilities Department through a purchase agreement with the San Diego County Water Authority (SDCWA)—a wholesale water agency that provides imported water to its 24 member agencies. The SDCWA, in turn, purchases the majority of its water from the Metropolitan Water District of Southern California (MWD), which is comprised of 26 cities and water agencies serving 18 million people in six counties. The MWD imports water from two primary sources: from the Colorado River via the MWD's Colorado Aqueduct and from Northern California via the State Water Project (SWP). Water is delivered to Southern California by way of the MWD's approximately 242-mile-long aqueduct, which transports Colorado River water from Lake Havasu to MWD's service area. In addition, water from Northern California is delivered to Southern California through an approximately 444-mile-long aqueduct. The water is captured in reservoirs north of Sacramento and released through natural rivers and streams into the Sacramento-San Joaquin Delta. The MWD then blends the Colorado River and SWP water at a facility in Riverside County and transfers the untreated water via pipelines operated by MWD and SDCWA to the city's three treatment facilities—the Miramar Water Treatment Plant, the Alvarado Water Treatment Plant, and the Otay Water Treatment Plant.

Water within the City of San Diego is also obtained from the City's local water supplies consisting of nine surface water reservoirs with more than 408,000 acre-feet of capacity, eight of which are connected directly or indirectly to the city's three water treatment facilities. The geographic areas served by the three water treatment facilities are flexible such that various areas within the City of San Diego can be supplied by more than one of the treatment plants.

Water Drainage Facilities

As described in Attachment 4.4-B: Biological Survey Memo, small concrete-lined drainage designed for storm water conveyance is located on the west side of the proposed Vine Substation site. The channel is an approximately 12-inch wide concrete v-ditch that was designed for storm water conveyance. There was no vegetation or accumulated sediment observed within the channel. No other drainage facilities are located in the Proposed Project area or in the immediate area surrounding the Proposed Project.

Electricity

Electricity in the City of San Diego is provided by SDG&E.

Cable and Telephone

Telephone, wireless phone, video/cable, and internet services are available from AT&T for residents within the Proposed Project area. Cox Communications and Time Warner Cable also provide cable, broadband, and phone services.

Sewer

The Metropolitan Wastewater System provides sewer services to the City of San Diego and 15 other cities and districts from a 450-square-mile are with a population of over 2.2 million. An average of 180 million gallons of wastewater is treated daily. Wastewater is conveyed through approximately 2,987 miles of collection pipelines and 83 pump stations to the North City Water Reclamation Plant, the Point Loma Wastewater Treatment Plan, and the South Bay Water Reclamation Plant. Treated effluent is discharged to the Pacific Ocean through two ocean outfalls. Solids from the wastewater treatment plants are processed at the Metro Biosolids Center located at the Marine Corps Air Station Miramar.

Solid Waste

Non-recyclable solid waste disposal in the City of San Diego is accommodated by the Miramar Landfill—a city-operated landfill. The Miramar Landfill is the City of San Diego's only active landfill and is located north of Highway 52 at 5180 Convoy Street. The Miramar Landfill accommodates approximately 910,000 tons of waste per year and is expected to reach capacity by the year 2022. The Miramar Landfill is owned and operated by the City of San Diego, which also provides solid waste curbside pick-up service within city limits. Currently, only two other landfills provide disposal capacity within the urbanized region—Allied Waste's Sycamore and Otay landfills. The Sycamore Landfill is located to the east of the Proposed Project, within the City of San Diego's boundaries, and the Otay Landfill is located south of the Proposed Project in the City of Chula Vista.

4.17.3 Impacts

Significance Criteria

Potential impacts to public utilities and service systems were determined in accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Impacts to public utilities and service systems would be considered significant if the Proposed Project:

- Exceeds wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB)
- Requires or results in the construction of new water or wastewater treatment facilities or expansion of existing facilities
- Requires or results in the construction of new storm water drainage facilities or the expansion of existing facilities
- Results in the need for a new or expanded water supply
- Results in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Proposed Project's projected demand
- Results in inadequate access to a landfill with sufficient permitted capacity to accommodate the Proposed Project's solid waste disposal needs
- Causes a breach of national, state, or local standards relating to solid waste

In addition to the guidelines specified in Appendix G, the Proposed Project would have significant adverse impacts to public utilities and service systems if it resulted in the disruption of existing utility systems.

Question 4.17a – Wastewater Treatment Requirement Exceedances

Construction – No Impact

Construction of the Proposed Project will not generate wastewater. Portable toilets will be provided for on-site use by construction workers and will be maintained by a licensed sanitation contractor. Portable toilets will be used in accordance with applicable sanitation regulations established by the Occupational Safety and Health Administration, which generally requires one portable toilet for every 10 workers. The licensed contractor will dispose of the waste at an off-site location and in compliance with standards established by the RWQCB.

No dewatering is anticipated during construction. However, in the event that groundwater is encountered, dewatering may be necessary. The water will be pumped to a desiltation tank and tested to ensure compliance with the RWQCB National Pollutant Discharge Elimination System requirements. The water will be discharged to land, transported to a nearby sewer inlet, or disposed of at an approved SDG&E disposal site. As a result, it will not require treatment at a wastewater facility and no impact will occur.

Operation and Maintenance – No Impact

Long-term operation and maintenance of the proposed Vine Substation will not generate wastewater. The substation will be unstaffed and no sanitary facilities that require waste treatment will be constructed on site. Thus, no impact will result.

Question 4.17b – Water and Wastewater Treatment Facility Expansion

Construction – No Impact

As part of SDG&E's ordinary construction restrictions, water will be applied to non-paved portions of the Proposed Project area to control dust. Because this water will be dispersed on site and will either evaporate or be absorbed into the ground, no wastewater is anticipated. In addition, portable restrooms will be used and maintained during construction and removed after the completion of the Proposed Project. Construction of the Proposed Project will not require additional capacity to existing municipal water or wastewater treatment systems and, therefore, will have no impact on these systems.

Operation and Maintenance – No Impact

Wastewater will not be generated by long-term operation and maintenance of the Proposed Project. Water use will be limited to irrigation of any on-site landscaping associated with the facilities. No sanitation facilities will be located on site and, therefore, no impact will occur.

Question 4.17c – Stormwater Drainage Facilities

Construction – No Impact

Construction-related activities will result in minor deviations to the existing drainage patterns on site, due to grading, and will have the potential to temporarily contribute additional runoff water to existing or planned storm water drainage systems during construction. The Proposed Project site is currently paved and relatively flat and will be graded with minimal slope, similar to the existing slope found on site. Therefore, such changes will not substantially increase the existing velocity or volume of storm water flows either on-site or in off-site areas. All areas outside of the proposed Vine Substation parcel that will be disturbed during grading will be restored to their original contours, and the surrounding area will be repaired, as appropriate. To reduce potential impacts to water quality from runoff during construction activities, SDG&E will implement measures from its Water Quality Construction Best Management Practice (BMP) Manual. In addition, SDG&E will obtain coverage under the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ. SDG&E will implement the Proposed Project's Storm Water Pollution Prevention Plan to reduce impacts to municipal storm water drainage facilities. The use of BMPs during construction activities to control runoff will not necessitate the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, no impact will occur.

Operation and Maintenance – No Impact

On-site drainage patterns established during construction will generally remain unchanged with long-term operation and maintenance of the proposed Vine Substation. The proposed grading improvements are not anticipated to result in impacts from increased on- or off-site erosion or siltation. As such, no impacts to drainage facilities will result.

Question 4.17d – Water Supply Availability

Construction – No Impact

Minimal water will be required during site grading and below-grade construction activities to control dust on non-paved portions of the Proposed Project area. Water will be brought to the site in trucks specially equipped to allow for the dispersal of water. Approximately 1,440,000 total gallons of water will be required for these activities. Water for the trucks will be obtained from municipal water sources. The City of San Diego has approximately 78 billion gallons of water available in its water supply during a normal year; therefore, a sufficient water supply is available to meet water demands for construction needs. The demand for water will be temporary and short-term, and no new entitlements will be required. Therefore, no impact will occur.

Operation and Maintenance – No Impact

Water use will be limited to irrigation of any on-site landscaping associated with the facilities (i.e., revegetative groundcover or landscape screening). This small quantity of water will be obtained from municipal sources. As a result, no impact will occur.

Question 4.17e – Wastewater Treatment Capacity – *No Impact*

As previously addressed in the responses to Questions 4.17a and 4.17b, construction, operation, and maintenance of the Proposed Project will not generate wastewater. Therefore, no impact will occur.

Question 4.17f – Landfill Capacity

Construction – Less than Significant Impact

The Proposed Project will generate a limited amount of solid waste during construction (i.e., refuse, spoils, trash, poles, etc.). All waste will ultimately be transported to the Miramar Landfill or another approved facility and disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste disposal. The Miramar Landfill has sufficient capacity to accommodate the amount of waste anticipated to be generated during construction. Therefore, impacts will be less than significant.

Operation and Maintenance – No Impact

The operation and maintenance of the Proposed Project will generate a limited amount of solid waste. The proposed substation will not require staff and will not produce waste. The only waste generated will be associated with operational equipment maintenance, crew lunches, and packaging material associated with replacement parts. Excess material or waste resulting from the repair or replacement of a structure or equipment (e.g., replacement of an insulator) will be taken to an existing SDG&E maintenance yard and will either be reused, recycled, or disposed of in accordance with federal, state, and local statutes and regulations. Any remaining waste will be minimal and will be properly disposed of at an approved landfill. Therefore, no impact will occur.

Question 4.17g – Solid Waste Statutes and Regulations

Construction – No Impact

Construction of the Proposed Project will generate a minimal amount of solid waste (i.e., refuse, spoils, trash, poles, etc.). As previously discussed in the response to Question 4.17f, solid waste produced during construction will be disposed of at a nearby licensed landfill. Management and disposal of solid waste will comply with all applicable federal, state, and local statutes and regulations. Thus, the Proposed Project will not violate any solid waste statutes or regulations, and there will be no impact.

Operation and Maintenance – No Impact

Handling and disposal of all waste products associated with operation and maintenance activities will comply with all applicable statutes and regulations. Therefore, no impact will occur.

4.17.4 Applicant-Proposed Measures

Because no potentially significant impacts relative to utilities and service systems will result from the Proposed Project, no applicant-proposed measures are provided.

4.17.5 References

California Public Utilities Commission. Memorandum. *Applicants Filing Proponent's Environmental Assessment*. November 24, 2008.

California Resources Agency. 2007. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

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SDCWA. Water Supplies. Online. http://www.sdcwa.org/water-supplies. Site visited December 5, 2013

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4.18 CUMULATIVE ANALYSIS

4.18.0 Introduction

This chapter discusses potential cumulative impacts related to the construction and operation of the proposed San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project). As discussed in Chapter 2 – Purpose and Need, the purpose of the Proposed Project is to ensure that SDG&E maintains the reliability of the substation and distribution system in downtown and the surrounding area, provide added capacity to serve existing and future area load growth, and to prevent potentially long outages or disruption of service to existing and new customers in downtown San Diego and the surrounding area. Implementation of the Proposed Project will not result in a significant cumulative environmental impact in any of the resource areas evaluated under the California Environmental Quality Act (CEQA).

4.18.1 Significance Criteria

Section 15130(a)(1) of the CEQA Guidelines define a cumulative impact as one "which is created as a result of the project…together with other [past, present, and future] projects causing related impacts." Impacts will be considered significant if they exceed the individual criterion established for each resource area, as described in Sections 4.1 through 4.17; if this occurs, the Proposed Project's contribution will be analyzed to determine whether it is cumulatively considerable (Guidelines § 15064(h)(1)). Section 15064(h)(1) of the CEQA Guidelines further explains that "when assessing whether a cumulative effect requires an [Environmental Impact Report], the lead agency shall consider whether the cumulative impact is significant and [whether] the project's incremental effect, though individually limited, is 'cumulatively considerable.'" Applying this qualitative standard necessarily requires application of judgment based on the facts of a particular project subject to CEQA. Further, the significance of an impact may be weighed against the overall effect as both increases and decreases in impacts may balance one another. As noted in Section 15064(h)(4), the CEQA Guidelines, "the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable."

4.18.2 Timeframe of Analysis

For the purpose of this cumulative impacts analysis, the Proposed Project is defined in terms of construction duration and post-construction operation and maintenance. SDG&E anticipates that construction of the Proposed Project will take a total of approximately 19 months. Construction of the proposed Vine Substation is anticipated to begin in January 2016. The operational lifetime of the Vine Substation is anticipated to be approximately 40 years.

4.18.3 Area of Analysis

A list of past, present, and planned future projects within one mile of the Proposed Project has been developed in accordance with CEQA Guidelines Section 15130(b). Potential cumulative impacts were analyzed within one mile of the Proposed Project components because this distance was estimated to be the farthest that Proposed Project impacts will extend.

4.18.4 Methodology

Existing conditions and reasonably foreseeable projects were identified within a one-mile radius of each Proposed Project component. Information was gathered from Internet searches of local planning department and state agency websites and correspondence with agency staff. The websites of the following entities were reviewed, and/or these agencies were contacted regarding development projects, road and utility improvement projects, and capital investment projects:

- California Energy Commission (CEC),
- California Department of Transportation (Caltrans),
- California Independent System Operator (CAISO),
- California Public Utilities Commission (CPUC),
- City of San Diego,
- County of San Diego,
- San Diego International Airport, and
- San Diego Unified Port District (Port District).

4.18.5 Existing/Operating Projects

Land uses surrounding the Proposed Project are characterized by light- and medium-industrial and office uses, parking lots, and rental car facilities. The Proposed Project site is bordered to the north by Vine Street and a commercial printing business across Vine Street, to the south by an Advantage Rental Car facility, to the east by Kettner Boulevard, and to the west by the Amtrak, North County Transit District Coaster and San Diego Metropolitan Transit System Trolley railroad tracks. As such, the existing and operating projects in the area consist mainly of commercial, industrial, and transportation activities, existing utility infrastructure operation and maintenance, and ongoing road maintenance.

4.18.6 Foreseeable Projects Inventory

For the purposes of this document, "reasonably foreseeable" refers to projects that federal, state, or local agency representatives have knowledge of resulting from the formal application process. Table 4.18-1: Planned and Proposed Projects Within One Mile lists 15 known projects that are within one mile of all of the Proposed Project components. An approximately one-mile radius is appropriate based on the size, location, and the minimal impacts associated with the Proposed Project. Given the approximately 1.5-acre size of the proposed substation site and its use strictly as a substation, it does not have the potential to change land use patterns in the area. The Proposed Project is located adjacent to the Interstate (I-) 5 freeway and east of Pacific Highway and is physically separated from any development projects to the west. The Proposed Project is also surrounded by existing commercial and industrial developments. Finally, the Proposed Project site has been previously disturbed as a result of the construction of a long-term parking lot. As an unstaffed substation, the Proposed Project will not generate a substantial amount of traffic that will be distributed into nearby intersections and roadways. For these reasons, the approximately one-mile radius is an appropriate distance to determine the potential for other reasonably foreseeable projects to be cumulatively considerable.

Table 4.18-1: Planned and Proposed Projects Within One Mile

Project	Approximate Location	Approximate Distance from the Proposed Project	Project Description/Size	Anticipated Construction Schedule	
				Start	End
San Diego County Regional Airport Authority Parking	North side of San Diego International Airport, west of Pacific Highway	0.25 mile	Construction of a public surface parking lot, which includes 1,964 parking spaces, three approximately 44-square-foot parking control kiosks, two approximately 60-square-foot shuttle bus shelters, an approximately 750-square-foot portable office trailer, an approximately 64-square-foot portable guard booth, an approximately 80-square-foot maintenance shed, fencing, landscaping, and approximately 35,606 cubic yards of grading (14,753 cubic yards of cut and 20,853 cubic yards of fill); and construction of an interior circulation road and associated utilities to provide access to the proposed parking lot	2013	2014
San Diego County Airport North Side Development Project – Fixed-Base Operator (FBO) Building	North side of San Diego International Airport, west of Pacific Highway	0.3 mile	Construction of a state-of-the-art FBO campus, with an approximately 20,000-square-foot terminal, an approximately 250,000-square-foot ramp, and five hangars on approximately 12.4 acres of airfield	2013	2014
San Diego County Airport North Side Development Project – Consolidated Car Rental Facilities	North side of San Diego International Airport, west of Pacific Highway	0.11 mile	Construction of an approximately 17-acre consolidated car rental facility	2013	2015

Project	Approximate Location	Approximate Distance from the Proposed Project	Project Description/Size	Anticipated Construction Schedule	
				Start	End
Pacific Highway Obstructed Curb Ramp Barrier Removal (Capital Improvement Project)	West side of Pacific Highway	0.35 mile	Installation of missing curb ramps at three locations along Pacific Highway: Frontage Road at Bandini Street, Estudillo Street, and Sutherland Street	2015	2015
Bayside Fire Station	1595 Pacific Highway (southeast corner of Pacific Highway and Cedar Street)	0.27 mile	Construction of a three-bay fire station	Not Available	Not Available
County Waterfront Park	Pacific Highway and Cedar Street	0.2 mile	Conversion of the existing, approximately eight-acre, on-grade parking lots north and south of the historic Administration Center to a large community and regional open space amenity. The park will include large civic greens, a children's play area, intimate garden rooms, and an expansive interactive fountain. Parking will be provided in a new underground parking garage off of Ash Street.	2012	2015
401 West Ash Street Hotel Development	Northeast corner of Ash, Colombia, and State streets	0.5 mile	Construction of a 410-room hotel, approximately 3,200 square feet of retail/commercial space, and 133 parking spaces.	2014	2016
Bella Pacifico Condominiums	Grape Street at Pacific Highway (1919 Pacific Highway)	0.12 mile	Construction of a 71-unit residential condominium development, approximately 3,200 square feet of retail and commercial space, and 118 parking spaces	Not Available	Not Available

Project	Approximate Location	Approximate Distance from the Proposed Project	Project Description/Size	Anticipated Construction Schedule	
				Start	End
Harbor View Hotel (Fat City)	Pacific Highway and Hawthorn Street	0.02 mile	Construction of a 364-room hotel	2013	2014
H.G. Fenton Development (India and Date Apartments)	Date Street between India Street and Columbia Street	0.25 mile	Construction of 97 apartment units and approximately 14,000 square feet of retail	Not Available	Not Available
Kettner and Ash Condominiums	Southwest corner of Kettner Boulevard and Ash Street	0.44 mile	Construction of 285 condominium residences and approximately 25,000 square feet of retail space	Not Available	Not Available
Lane Field North	900 West Broadway	0.72 mile	Construction of a 400-room, dual-branded hotel in a single building on the northern portion of the site fronting Pacific Highway, and an approximately two-acre public park on the western portion fronting Harbor Drive	Not Available	Not Available
Navy Broadway Complex	West side of Harbor Drive	0.84 mile	Development of approximately 1,265 square feet of office space, approximately 350,000 square feet of Navy office space, approximately 1,500 square feet of hotel space, approximately 160,000 square feet of retail space, and an approximately 40,000-square-foot museum	Not Available	Not Available
Pacific Highway and Broadway (Bosa Development)	East side of Pacific Highway at Broadway	0.72 mile	Construction of 232 condominium residences and approximately 16,000 square feet of retail	2014	2017
Palatine Apartments	North side of Fir Street between Columbia Street and State Street	0.19 mile	Construction of 101 apartment units	Not Available	Not Available

4.18.7 Potential Cumulative Impacts

This section discusses whether the Proposed Project will result in significant short-term or long-term environmental impacts when combined with other past, present, and planned and probable future projects in the area. Short-term impacts are generally associated with construction of the Proposed Project, while long-term impacts are those that result from permanent Proposed Project features or operation of the Proposed Project.

Construction, operation, and maintenance of the Proposed Project will not impact the following resources and, therefore, will not contribute to a cumulative effect in these areas:

- Agriculture and Forestry Resources,
- Biological Resources,
- Geology and Soils,
- Land Use and Planning,
- Mineral Resources,
- Population and Housing,
- Public Services,
- Recreation, and
- Utilities and Service Systems.

As a result, these resource areas were not further analyzed with regard to cumulative impacts.

Cumulative impacts to the following resources could occur as a result of construction of the Proposed Project in conjunction with the other planned and probable projects:

- Aesthetics,
- Air Quality,
- Cultural Resources,
- Greenhouse Gas Emissions,
- Hazards and Hazardous Materials,
- Hydrology and Water Quality,
- Noise, and
- Transportation and Traffic.

These resources are discussed further in the subsections that follow.

Aesthetics

Cumulative impacts to visual resources could occur where Proposed Project facilities are viewed in combination with other past, present, and probable developments. The significance of cumulative visual impacts depends on a number of factors, including the degree to which the viewshed is altered and the extent to which scenic resources in the area are disrupted due to either view obstructions or direct impacts to scenic resource features. The Proposed Project viewshed is defined as the general area from which it is visible or can be seen. For the purpose of this analysis, the potential effects on foreground viewshed conditions are emphasized. The

foreground is defined as the zone between 0.25 and 0.5 mile from the viewer. Landscape detail is most noticeable and objects generally appear most prominent when seen in the foreground.

The Proposed Project components will be located within an SDG&E right-of-way or within lands that are owned by SDG&E. The construction schedule for the Proposed Project could overlap with the construction schedules for three of the planned and proposed projects listed Table 4.18-1: Planned and Proposed Projects Within One Mile. An additional seven projects have construction timelines that are unknown and could overlap with the Proposed Project. These projects will increase the potential for adverse cumulative impacts to occur from construction equipment, vehicles, materials, staging areas, and project personnel. However, adverse visual impacts during construction will be temporary and are generally accepted by the public. While portions of the Proposed Project site will be visible during construction, surrounding lands are characterized by light- and medium-industrial and office uses, parking lots, and rental car facilities, and resulting visual impacts will be minimal when compared to the existing visual setting. In addition, the Proposed Project components are separated from the 401 West Ash Street Hotel Development by a distance of approximately 0.5 mile. The Pacific Highway Obstructed Curb Ramp Barrier Removal Project is located approximately 0.35 mile from the Proposed Project and will consist of minimal visual disturbances. While the San Diego County Airport North Side Development Project – Consolidated Car Rental Facilities Project will be located approximately 0.11 mile from the Proposed Project, these sites are separated by Pacific Highway and the San Diego International Airport to the west. In addition, views of construction from these cumulative projects would not likely be visible within the same view shed as the Proposed Project given the intervening topography and existing structures. These temporary aesthetic impacts will be cumulative; however, they are not expected to be significant.

Permanent cumulative visual impacts could occur as a result of project components being located near other proposed developments in the project area. Expected visual changes associated with the future development in the project area will result from a combination of the Proposed Project with other planned projects. Twelve of the projects identified in Table 4.18-1: Planned and Proposed Projects Within One Mile are located within 0.5 mile of the Proposed Project. However, from many locations in the surrounding area, views of the Proposed Project are partially or fully screened by intervening topography and structures. The Proposed Project will represent an incremental visual change to the urban landscape, and given the industrial setting, will not be particularly noticeable. The introduction of landscaping along Vine Street also results in a minor improvement to the streetscape. Further, the earth-toned masonry perimeter wall (in place of the chain link fence) that will be constructed as part of the Proposed Project will reduce visual clutter within this predominantly industrial landscape. In addition, the Proposed Project will not substantially affect views of the San Diego Bay or the downtown San Diego skyline. For these reasons, the Proposed Project is not expected to result in a cumulatively considerable impact to aesthetics.

Air Quality

The construction schedule for the Proposed Project and three of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile could occur simultaneously. In addition, the construction schedules for seven additional projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile are unknown and could overlap with the Proposed

Project. As a result, a cumulative air quality impact could occur in the Proposed Project area during construction. SDG&E will implement ordinary construction restrictions to reduce emissions and dust during construction, as discussed in Section 4.3 Air Quality. Similarly, other projects within the study area will be required to comply with local ordinances and regulations regulating air quality, including dust control during construction activities. Measures will be required for the cumulative projects to reduce potential impacts on air quality to less than significant. As a result, cumulative impacts are expected to be less than significant.

In addition, a significant impact may occur if a project is inconsistent with the rules and regulations of the San Diego County Air Pollution Control District (SDAPCD) or if it induces growth in excess of that anticipated by the SDAPCD Regional Air Quality Strategy. Long-term operation of the proposed Vine Substation will not include any permanent, stationary sources of pollution, and will not induce population growth or area employment. Therefore, the Proposed Project will not contribute to a cumulatively considerable air quality impact associated with operation or power generation, or population growth.

Cultural Resources

Cumulative impacts to cultural resources could occur as a result of increased ground-disturbing activities by multiple projects within the study area. The results of the record search conducted for the Proposed Project indicate that no cultural resources or cultural resource sites are located within the Proposed Project area. However, ground-disturbing construction activities have the potential to inadvertently impact unknown cultural resources within the Proposed Project area. These activities disturb subsurface soils and can potentially disturb or destroy unknown buried cultural deposits (i.e., archaeological sites). However, the Proposed Project areas have been previously disturbed for the construction of the parking lot and roadways; therefore, the potential to discover unknown cultural resources is unlikely. All the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile will occur within areas that are previously disturbed/developed, and where no resources are likely to occur. As a result, no cumulative impacts are anticipated.

Although no known paleontological resources have been identified on the Proposed Project site, the site is located in an areas with a high potential—the Bay Point and San Diego formations—and moderate potential—within the Lindavista Formation—for discovery of a sensitive paleontological resource. As such, fossils may be encountered during excavation activities for the Proposed Project. However, due to the disturbed nature of the Proposed Project area, the likelihood of discovering buried paleontological resources is improbable. In addition, all projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile will occur within areas that are previously disturbed/developed, where the likelihood of encountering paleontological resources is unlikely. Regardless, SDG&E will implement the APMs discussed in Section 4.5.4 Applicant-Proposed Measures, which include implementation of a complete paleontological resource mitigation program that will reduce the Proposed Project's impacts to a less-than-significant level. For these reasons, the Proposed Project will not result in a cumulatively considerable impact to paleontological resources.

Operation and maintenance activities associated with the Proposed Project will be conducted in areas that were previously disturbed during construction of the Proposed Project. As a result, it

is not anticipated that cultural and paleontological resources will be encountered during such activities, and there will be no cumulative impact.

Hazards and Hazardous Materials

Cumulative impacts to hazards and/or hazardous materials can result from the construction of concurrent projects and the Proposed Project having an increased effect on public or worker safety, including exposure to hazardous materials, increased fire potential, or physical hazards. The Proposed Project and three of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile could occur simultaneously. In addition, seven other projects do not have a defined timeline. As a result, several of these projects have the potential to result in a cumulative impact to overall hazards or hazardous materials when combined with the Proposed Project. Because each of these projects requires construction equipment, these projects have the potential to create a temporary impact from accidental releases of diesel and gasoline fuel, hydraulic fluids, and other hazardous liquids. While no impact is anticipated, there is a potential for accidental spills or leaks. Though this potential hazard will exist during construction, it is very unlikely that a spill will occur in the same immediate vicinity during a similar timeframe. Large releases of hazardous materials from multiple projects are highly unlikely with adherence to federal and state regulations. Small releases will be contained, cleaned up, and disposed of properly. As the nearest project that could be constructed during the Proposed Project's timeframe is approximately 0.11 mile away, the potential for accidental releases to result in a cumulative impact is low. As a result, a cumulative impact to hazardous materials is not anticipated.

Greenhouse Gas Emissions

The construction schedule for the Proposed Project and three of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile could occur simultaneously. In addition, seven other projects do not have defined construction timelines. A cumulative greenhouse gas (GHG) impact in the Proposed Project area could occur during construction of these projects. The vehicles and heavy equipment used during construction will be the primary sources of these emissions. However, emissions generated during Proposed Project construction will be negligible when compared to existing baseline GHG emissions in the area. SDG&E will be required to adhere to the standards and requirements established by the SDAPCD to minimize the potential for the Proposed Project's construction activities to contribute to potential cumulative impacts with regard to GHG emissions. The other projects in the area will also be required to adhere to the SDAPCD standards and requirements. As such, impacts will be reduced to a less-than-significant level and will not be cumulatively considerable.

During operation, various projects may potentially contribute to GHG accumulation by emitting carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Projects that will contribute to GHG accumulation generally include those that will induce population growth, such as condominium developments and hotels. The Proposed Project, on the other hand, will not contribute to this cumulative impact because SDG&E already operates and patrols facilities in the area. As a result, no cumulative impact will occur.

Hydrology and Water Quality

Cumulative impacts to hydrology and/or water quality have the potential to result from increases in local groundwater use and alterations to the existing and natural drainage patterns of the landscape. All of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile will be constructed in previously developed areas where there are no existing hydrological or natural drainage features. Pollutants or sediment disturbed during grading or construction could potentially enter the watershed and increase the potential for construction-related contaminants to reach surface water or groundwater. However, other planned or future projects within the cumulative study area will be required to conform to City of San Diego regulations and policies and/or the National Pollutant Discharge Elimination System General Construction Permit, which requires the implementation of best management practices to reduce potential construction-related (as well as long-term) impacts on hydrology and water quality to a less-than-significant level. As a result, a cumulative impact is not anticipated.

Noise

Construction of the Proposed Project and three of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile could occur simultaneously. Seven additional projects could also occur in the same timeframe, as their construction schedules are currently not defined. The simultaneous construction of these projects could result in a cumulative impact to overall noise levels when combined with the Proposed Project. The Proposed Project components are separated from the 401 West Ash Street Hotel Development Project by a distance of approximately 0.5 mile. The Pacific Highway Obstructed Curb Ramp Barrier Removal Project is located approximately 0.35 mile away, and construction will be limited in duration. While the San Diego County Airport North Side Development Project – Consolidated Car Rental Facilities Project will be located approximately 0.11 mile from the Proposed Project, these sites are separated by Pacific Highway and the San Diego International Airport to the west. At these distances and with the existing dominant noise sources in area (e.g., San Diego International Airport, railroad use, and I-5), it is unlikely that construction noise from simultaneous projects would be discernable at a sensitive receptor. The construction-related noise levels from the Proposed Project will not exceed the 75 A-weighted decibel threshold from the City of San Diego's Noise Ordinance. In addition, noise-sensitive receptors will not experience a significant increase in ambient noise during construction activities. Impacts will be less than significant due to the short-term nature of the construction phase of the Proposed Project, the existing transportation-related ambient noise sources in the area, and the generally industrial setting of the area. Therefore, the Proposed Project is not anticipated to contribute to a cumulatively significant noise impact.

Long-term operation of the proposed Vine Substation will not significantly increase noise levels beyond the noise levels that presently exist in the area, because surrounding land uses (e.g., San Diego International Airport) and several roadways (e.g., I-5, Kettner Boulevard and Pacific Highway) currently experience high-volume traffic and associated vehicle noise. As a result, the Proposed Project's contribution to a significant cumulative noise impact will be minimal and the cumulative impact will be less than significant.

Transportation and Traffic

During the construction phase, cumulative traffic impacts will occur from projects that have overlapping construction timeframes. In this case, the Proposed Project will potentially overlap with three of the projects listed in Table 4.18-1: Planned and Proposed Projects Within One Mile. Seven additional projects could also overlap with Proposed Project construction as their construction timelines are unknown. Traffic could be increased in the surrounding area during concurrent construction of these projects. Within the Proposed Project area, Vine Street, Sassafras Street, West Laurel Street, and West Hawthorn Street are local public streets that run east to west; and Kettner Boulevard, California Street, and Pacific Highway run north to south. During construction, Vine Substation will be accessible from Vine Street via the existing driveway. Lanes of travel within Kettner Boulevard will be limited during relocation of the 12 kV distribution circuits, which could impact the level of service (LOS) in the area. However, this work will be short-term in nature and will occur at night when vehicle traffic is at its lowest level. In addition, all of the roadways within the Proposed Project area are currently operating at acceptable LOS standards—with the exception of West Laurel Street.

Due to the locations of the other cumulative projects, it is unlikely there will be overlapping traffic resulting in significant cumulative traffic impacts. Given the small and limited nature of the Pacific Highway Obstructed Curb Ramp Barrier Removal Project, it is unlikely to have significant overlapping traffic associated with its construction. The 401 West Ash Street Hotel Development Project activities will have the potential to overlap with the Proposed Project. However, this project is located approximately 0.5 mile away on the northeast corner of Ash, Columbia, and State streets and will not likely utilize the same roads as the Proposed Project. Construction of the San Diego County Airport North Side Development Project has the potential to increase traffic to surrounding roadways. Access to this project will likely be provided by Washington Street, Pacific Highway, and Midway Avenue. As a result, it is unlikely that significant transportation and traffic-related impacts will occur as a result of this project, when combined with the Proposed Project. Construction of the Proposed Project is not expected to cause a significant impact because Proposed Project-generated traffic will be minimal, will occur over the course of the day, and will not result in an increase of the volume/capacity ratio to the point that a significant impact will occur, per the City of San Diego Traffic Impact Study Manual. For these reasons, the Proposed Project's contribution to transportation and traffic impacts will not be cumulatively considerable.

Permanent cumulative impacts are not anticipated as a result of the Proposed Project in combination with the other proposed projects. Operation of the proposed Vine Substation will generate approximately six trips per year by a two- to four-person crew and SDG&E already operates and maintains facilities in the vicinity of the substation. Therefore, a significant impact is not expected. For these reasons, the Proposed Project's contribution to transportation and traffic impacts will not be cumulatively considerable.

4.18.8 Conclusion

While the Proposed Project will contribute to certain cumulative impacts with the level of development activity in its vicinity, its contribution to these impacts is anticipated to be minimal. It is anticipated that the other projects within the vicinity of the Proposed Project will be required to implement avoidance and minimization measures similar to SDG&E's APMs, mitigation

measures, and permit conditions. These measures will minimize potential environmental impacts, thereby minimizing the overall cumulative effects. As a result, cumulative impacts are expected to be less than significant.

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CHAPTER 5 – DETAILED DISCUSSION OF SIGNIFICANT IMPACTS

5.0 INTRODUCTION

In accordance with the Proponent's Environmental Assessment (PEA) Checklist issued by the California Public Utilities Commission (CPUC) on November 24, 2008, this Section:

- identifies the potentially significant impacts that would result from the construction, operation, or maintenance of the San Diego Gas & Electric Company (SDG&E) Vine 69/12 Kilovolt (kV) Substation Project (Proposed Project);
- discusses the alternatives that were evaluated in determining the Proposed Project and the justification for the selection of the preferred alternative; and
- discusses the Proposed Project's potential to induce growth in the area.

5.1 APPLICANT-PROPOSED MEASURES TO MINIMIZE SIGNIFICANT IMPACTS

Based on the findings in Chapter 4 – Environmental Impact Assessment, the Proposed Project is not likely to result in significant impacts to any resource areas after implementation of the applicant-proposed measures (APMs) and SDG&E's ordinary construction and operating restrictions. SDG&E has identified four APMs that it plans to implement during construction and/or operation of the Proposed Project to reduce or avoid impacts. Chapter 3 – Project Description provides the APMs that have been proposed as part of the Proposed Project, as well as the justification for each.

5.2 DESCRIPTION OF PROJECT ALTERNATIVES AND IMPACT ANALYSIS

5.2.0 Introduction

Section 15126.6, subdivisions (a) and (f)(2)(A) of the California Environmental Quality Act (CEQA) Guidelines and Assigned Commissioner's Ruling on Application 01-07-004 (dated October 16, 2002) do not require a review of alternatives when a project would not result in significant environmental impacts after mitigation, as is the case with the Proposed Project. However, the CPUC has adopted an "Information and Criteria List" in order to determine whether applications for projects are complete. The list specifies the information required from any applicant for a project subject to the CEQA. As the lead agency, the CPUC requires applicants for a Permit to Construct or a Certificate of Public Convenience and Necessity to describe a reasonable range of alternatives within the PEA.

This Section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives considered. In accordance with CPUC requirements, SDG&E evaluated a reasonable range of alternatives that meet most of the project objectives. Under the CEQA, the intent of analyzing project alternatives is to identify ways to mitigate or avoid the significant effects of the Proposed Project on the environment (Public Resources Code Section 21002.1). The discussion of alternatives only needs to focus on the alternatives to the

Proposed Project or the locations that are capable of avoiding or substantially decreasing the significant impacts of the Proposed Project.

This environmental alternatives analysis evaluates the No Project Alternative, five system or facility alternatives to the Proposed Project as a whole, and four alternative locations for the proposed Vine Substation. Route alternatives were not developed and analyzed as part of this process. The proposed 12 kV distribution relocation route represents the shortest distance between the existing facilities and the proposed Vine Substation, is located entirely within an existing roadway, and avoids traversing existing developed land uses. The 69 kV loop-in route also represents the shortest route that can be feasibly connected to the proposed Vine Substation while reducing the number of crossings over the existing railroad tracks and utilizing available franchise easements.

Each alternative is evaluated for its feasibility and ability to fulfill the Proposed Project objectives, as well as its ability to reduce environmental impacts compared to the Proposed Project. Figure 5-1: System Alternatives depicts each of the evaluated system alternatives. Figure 5-2: Alternative Substation Sites shows the location of each of the substation site alternatives on an aerial-based map. Table 5-1: Alternatives Considered lists each alternative that was considered during the alternatives evaluation process. All of the site alternatives are located in the downtown area of the City of San Diego. System alternatives that were clearly not feasible were rejected early in the evaluation process and are not discussed in detail in this document. Alternatives to the Proposed Project that were evaluated, including the No Project Alternative, are summarized in sections that follow. Feasible alternatives that were considered but eliminated because they did not meet the Proposed Project objectives or reliability requirements are discussed briefly in Section 5.2.5 Construct a New Substation Alternative.

5.2.1 Methodology

The CEQA does not provide specific direction regarding the methodology of alternatives comparison. Resource areas that are generally given more weight in comparing alternatives are those with long-term impacts, such as visual impacts, permanent loss of habitat, or land-use conflicts. Impacts associated with construction (i.e., temporary or short-term) or those that are easy to mitigate to a less-than-significant level are considered to be less important. In order to properly analyze each alternative, SDG&E followed the following three-step process:

1. SDG&E began by determining if each alternative is feasible; that is, they evaluated whether the requirements to build the alternative are reasonable, as defined in the CEQA Guidelines.

2. SDG&E then determined which alternatives attain all or a majority of the Proposed Project objectives.

3. Lastly, SDG&E evaluated the relative environmental impact of each site alternative for select resource areas. Even though the Proposed Project has no significant unmitigated impacts, SDG&E considered whether an alternative would reduce one or more impacts further than under the Proposed Project.

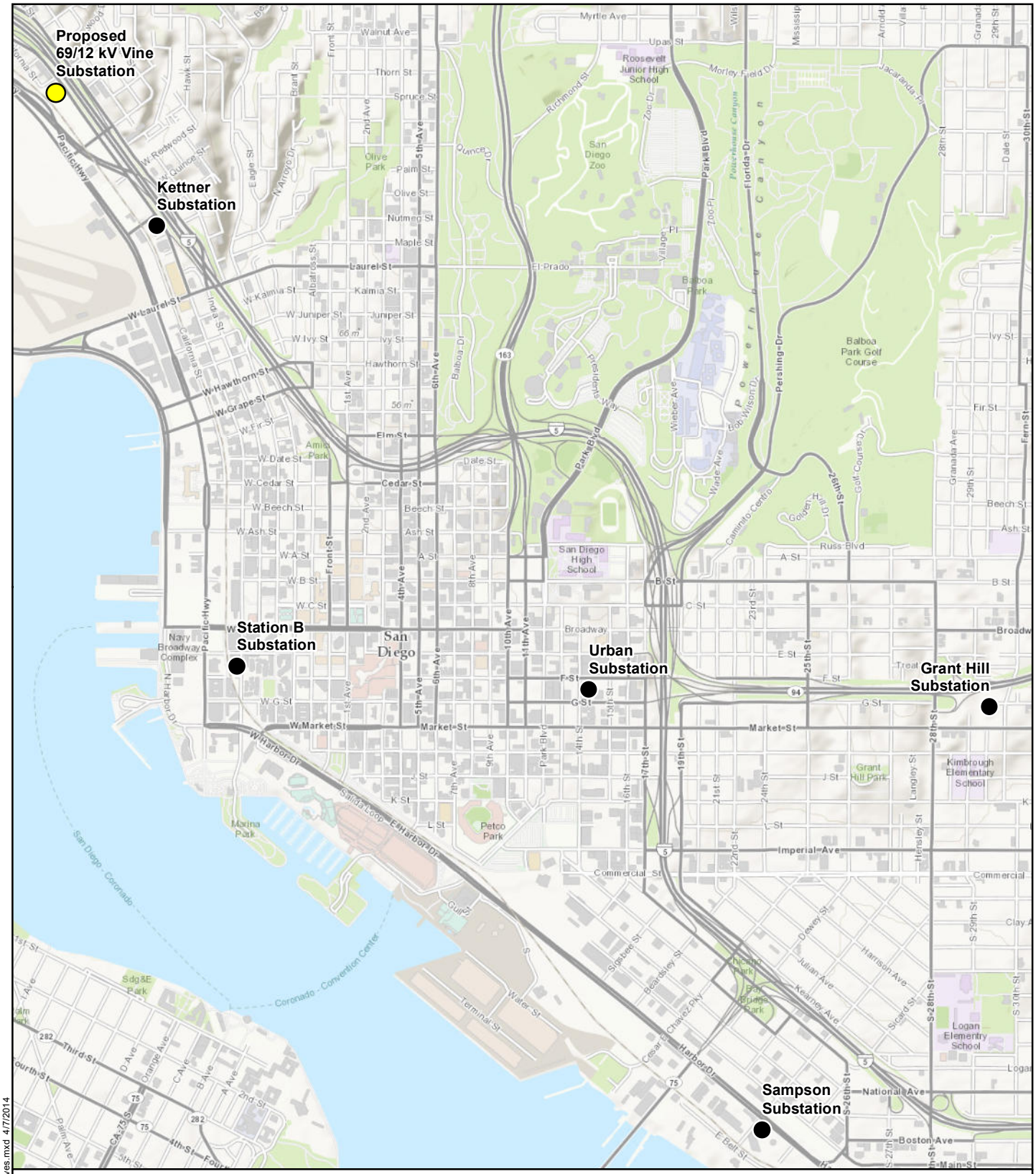

Figure 5-1: System Alternatives **Vine 69/12 kV Substation Project**

- Existing Substation
- Proposed Substation

1:26,000

0 1,000 2,000 Feet

Z:\Projects\SDGE_Vine\MXDs\Fig5_1_System Alternatives.mxd 4/7/2014

Figure 5-2: Alternative Substation Sites **Vine 69/12 kV Substation Project**

Existing Kettner Substation
Proposed Vine Substation
Alternative Substation Site

1:20,000
0 1,000 2,000 Feet

SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

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Table 5-1: Alternatives Considered

Type of Alternative	Alternative	Evaluated or Eliminated
No Action Alternatives	No Action (No Project) Alternative	Eliminated Prior to Environmental Review
System Alternatives	Rebuild Kettner Substation Alternative	Eliminated Prior to Environmental Review
	Expand Sampson Substation Alternative	Eliminated Prior to Environmental Review
	Expand Station B Substation Alternative	Eliminated Prior to Environmental Review
	Expand Urban Substation Alternative	Eliminated Prior to Environmental Review
	Expand Grant Hill Substation Alternative	Eliminated Prior to Environmental Review
Substation Site Alternatives	Vine Substation Site (Preferred)	Evaluated for Potential Environmental Impacts
	Hillcrest Substation	Eliminated Prior to Environmental Review
	County of San Diego Substation Site	Evaluated for Potential Environmental Impacts
	Adjacent to Urban Substation Site	Evaluated for Potential Environmental Impacts
	State Street Substation Site	Eliminated Prior to Environmental Review

The No Project Alternative and System Alternatives listed in Table 5-1: Alternatives Considered, were analyzed based on their ability to meet the engineering requirements and Proposed Project objectives. Because they did not meet all of the Proposed Project objectives, no further analysis was conducted. The Site Alternatives were analyzed based on their ability to meet the engineering requirements, then the Proposed Project objectives, and then the environmental constraints. This analysis resulted in the selection of a new 69/12 kV substation (Vine Substation), which is described in detail in Chapter 3 – Project Description.

5.2.2 Proposed Project Objectives

The Proposed Project is being proposed to meet several objectives identified by SDG&E. The overall objective of the Proposed Project is to construct a new substation and associated power line loop-in, and to relocate/re-arrange various distribution circuits. The Proposed Project is designed to eliminate existing reliability concerns at the Kettner Substation and to increase distribution system reliability in downtown and the surrounding area. In addition, the Proposed Project will ultimately provide 90 megavolt amperes (MVA) of additional capacity in its eventual configuration, which will provide a reliable solution for serving existing and future area

load and prevent potential long outages or disruption of service to existing and new customers in downtown and the surrounding area. Specifically, the Proposed Project has the following four objectives:

- Objective 1: Maintain existing substation and distribution system reliability standards.
- Objective 2: Provide substation and circuit tie capacity that will provide additional reliability for existing and future system needs.
- Objective 3: Meet the area's long-term electric distribution capacity needs by constructing a substation near planned load growth.
- Objective 4: Utilize existing SDG&E-owned land previously purchased for substation use to meet the scheduled in-service date.

Each of these Proposed Project objectives is more thoroughly described in Chapter 2 – Project Purpose and Need.

5.2.3 No Project Alternative

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the Proposed Project with the impacts of not approving the Proposed Project (CEQA Guidelines, Section 15126.6(e)). Under the No Project Alternative, the proposed Vine Substation and 69 kV loop-in would not be constructed, and the various distribution circuits would not be relocated/re-arranged.

In providing electrical service to downtown and the surrounding area, SDG&E currently operates four substations—Kettner Substation, Urban Substation, Station B Substation, and Sampson Substation. Grant Hill Substation is an existing facility in the surrounding area that was also evaluated as a potential alternative to the Proposed Project in order to serve capacity needs. Commercial growth in downtown and the surrounding area is driving the existing substations to their ultimate capacities. Because the projected load indicates that all substations in downtown and the surrounding area will exceed 85 percent of their capacity by 2018, SDG&E has determined that an additional 30 megavolt-amperes (MVA) is needed by mid-2017 to serve this growth. The optimum maximum substation load is 85 percent, as it allows for transformer bank loads to be transferred in the event of a transformer bank outage. Optimum operating conditions maintain substation reliability and reduce outage times. All of the substations—with the exception of Grant Hill and Sampson substations—are near capacity and will begin to exceed their 85-percent ratings in 2015 or sooner. Grant Hill Substation has ultimate capacity remaining; however, this substation is not optimal for providing additional capacity due to its distance from downtown and the surrounding areas. In addition to the existing customer-driven growth in downtown and the surrounding area, expansion of San Diego International Airport and construction of Ballpark Village—a new mixed use development consisting of apartments, condominiums, and commercial and retail space—is expected to commence construction at the end of 2015.

The No Project Alternative will not meet any of the Proposed Project's objectives. The No Project Alternative will not address the reliability concerns at the Kettner Substation and will not provide the additional 30 MVA of capacity to offload the congested downtown and surrounding area substations. The No Project Alternative will also not provide the opportunity to maintain

substation and circuit reliability with added tie capacity. In addition, if the No Project Alternative was selected, a new substation will not be available to meet increased capacity needs driven by commercial growth in the area.

5.2.4 System Alternatives

Alternatives were examined for correcting the projected system overloads and reliability deficiency in the downtown and surrounding service area. The following five system alternatives were considered but rejected as preferred to substation construction, as described in the subsections that follow.

Rebuild and Expand Kettner Substation Alternative

SDG&E evaluated the expansion of Kettner Substation—an aging facility with obsolete equipment. The location of the Kettner Substation is depicted in Figure 5-1: System Alternatives. The Kettner Substation has a variety of reliability concerns due to its physical layout and aging infrastructure. Given its current state, without significant repair these concerns will likely become an operational/security/safety issue.

Due to space constraints at the Kettner Substation, acquisition of an adjacent approximately 0.25-acre parcel would be required to address some of the current reliability issues on site, including the rebuild of the existing control shelter and repair of the perimeter fence line. Even with the purchase of the adjacent parcel, the expanded site will not have enough space to install an additional transformer. By failing to add capacity at this site, the substation will continue to operate near its ultimate capacity, which will not address the future load needs of downtown and the surrounding area. As a result, this system alternative was not selected as preferred.

Expand Sampson Substation Alternative

Sampson Substation is located south of downtown San Diego in the community of Barrio Logan, as depicted in Figure 5-1: System Alternatives. SDG&E evaluated expansion or upgrade of this substation to avoid projected system overloads in the service planning area; however, this substation is already built out to its ultimate capacity and due to the limited size of the parcel (0.75 acre) it lacks available space within its existing footprint to accommodate further expansion. Due to the surrounding commercial uses, it is not feasible to expand the Sampson Substation. As a result, this system alternative was eliminated from further consideration.

Expand Station B Substation Alternative

Station B Substation is located south of Broadway along Kettner Boulevard, as shown in Figure 5-1: System Alternatives. The Station B Substation site is too small (0.83 acre) to accommodate an additional transformer and there is no available space to expand the substation within its existing footprint. Therefore, this substation cannot be expanded or upgraded to avoid projected system overloads in the service planning area because they are all built out to their maximum configurations. In addition, the site is surrounded by existing commercial uses that would make acquiring additional adjacent property infeasible. As a result, this system alternative was not selected as the Preferred Project.

Expand Urban Substation Alternative

Urban Substation is located north of Market Street, between F and G Street, as depicted in Figure 5-1: System Alternatives. SDG&E determined that Urban Substation—currently fed by two power lines—could accommodate a fourth bank; however, this would require the addition of a new third power line, which would be very challenging due to required reconfiguration of the 69 kV portion of the existing substation. Reconfiguration of this portion of the existing substation will require taking portions of the substation out of service, which would have the potential to reduce customer reliability. Further, this site is already serving 14 distribution circuits and can only accommodate one additional distribution circuit, with the addition of another transformer. This is not considered an optimum configuration. As a result, this alternative would not completely address distribution capacity needs. In addition, the City of San Diego has raised concerns in the past about the location of this substation and its desire to have it either relocated or undergrounded to eliminate visual impacts to the surrounding community. As a result, this alternative was determined to be infeasible and was eliminated from further consideration.

Expand Grant Hill Substation Alternative

Grant Hill Substation is the only substation that can accommodate additional distribution capacity. Grant Hill Substation is located east of Interstate 5, south of State Route 94 on 30th Street in the community of Grant Hill, as shown in Figure 5-1: System Alternatives. The Grant Hill Substation was built to accommodate the east downtown area and is located outside of the desired coverage area. Consequently, adding additional circuits to this substation would require long distribution circuits—thereby decreasing efficiency of the system. In addition, upgrades to the substation for purposes of downtown and the surrounding area would be detrimental to the east downtown area, should the area ever require additional capacity. As a result, this system alternative was eliminated from further consideration.

5.2.5 Construct a New Substation Alternative

After evaluating several alternatives that would upgrade existing substation facilities, SDG&E determined none of the existing substations in downtown and the surrounding area can be expanded or upgraded to correct the projected system overloads and reliability deficiency in the downtown and surrounding service area. Therefore, SDG&E determined that it was necessary to investigate potential sites for the construction of a new distribution substation in this service area. The following section discusses the alternative substations sites that were evaluated.

Substation Site Alternatives

A total of five substation sites were initially considered for construction of the proposed Vine Substation. These potential substation sites are depicted in Figure 5-2: Alternative Substation Sites. Two of these substation sites—State Street and Hillcrest—were determined to be too small (0.7 acre and 0.3 acre, respectively) and narrow to maintain the required operation and maintenance clearance around the substation equipment and to accommodate the connection of power lines. In addition, the State Street site was too narrow in configuration to accommodate a

substation. The remaining three sites were evaluated based on the following differentiating criteria in order of importance:

- Engineering Factors
  - Parcel size (minimum 1 acre) and of appropriate shape
  - Close proximity to existing power lines
- Ability to meet the Proposed Project objectives
- Ability to secure the parcel in accordance with schedule constraints
- Environmental Constraints
  - Potential visibility from residences and recreational areas, based on proximity
  - Potential for land use conflicts

From these three alternatives, a preferred substation location was determined based on these criteria.

Vine Substation Site – Preferred Site

The proposed Vine Substation site is a 1.5-acre parcel located at the southwestern corner of the intersection of Vine Street and Kettner Boulevard, just west of Interstate (I-) 5 and east of Pacific Highway. An existing overhead power line is located adjacent to and to the west of the site. The site will allow SDG&E to meet all of the Proposed Project objectives. The site is owned by SDG&E and was previously being leased for long-term airport parking, thus there is no schedule constraint associated with site acquisition. The site is designated Industrial Employment; thus, the use is consistent with the General Plan, though substations in this designation are not explicitly discussed. The parcel is bordered to the north by Vine Street and a commercial printing business across Vine Street, to the south by an Advantage Rental Car facility, to the east by Kettner Boulevard, and to the west by the North County Transit District Coaster and San Diego Metropolitan Transit System Trolley rail tracks. Views toward the site from the residential neighborhood of Midtown are almost completely blocked by the Interstate 5 embankment as well as by the closely spaced buildings and mature vegetation lining the streets of this residential neighborhood. Thus, the proposed Vine Substation site was selected as the preferred site because it meets the engineering criteria, meets all of the Proposed Project objectives, is already owned by SDG&E, and does not result in any environmental impacts that exceed those of the alternatives. A detailed analysis of this site is provided in Chapter 4 – Environmental Impact Assessment.

County of San Diego Substation Site

The site is 1.23 acres, located along Kettner Boulevard, approximately 600 feet from an existing SDG&E power line, as depicted in Figure 5-2: Alternative Substation Sites. The site is comprised of six developed parcels owned by the County of San Diego. Construction of a substation at this site would require an underground power line crossing of the North County Transit District Coaster and San Diego Metropolitan Transit System Trolley rail tracks. Due to the number of parcels that would need to be acquired, this alternative is not considered feasible from a schedule perspective. This alternative would also be visible from residences located directly across from the site on Kettner Boulevard. In addition, existing uses on the site consist of industrial warehouses and a parking lot, thus existing businesses would need to be removed to accommodate a new substation. For these reasons, the site was not considered environmentally superior to the Proposed Project site.

Near Urban Substation Site

Two parcels located adjacent to the existing Urban Substation, as shown in Figure 5-2: Alternative Substation Sites, were evaluated as potential sites for a new substation. Construction of a substation at these sites would require approximately four to five blocks of underground construction to accommodate the interconnection of at least one new 69 kV line. The 0.23-acre parcel located immediately adjacent to the existing Urban Substation is owned by the City of San Diego. The other parcel, which is 0.25-acre in size and located further east, is owned by a private entity. Historically, the City has opposed the location of a substation within the community. Therefore, the City would be unlikely to sell this site to SDG&E for a substation, greatly affecting acquisition time. For these reasons, the site is not considered environmentally superior to the Project site.

5.2.6 Conclusion

A number of alternative system development approaches and site locations for the Proposed Project were evaluated against the Proposed Project objectives to provide continued service to downtown and the surrounding area. The No Project Alternative, Rebuild Kettner Substation Alternative, Expand Sampson Substation Alternative, Expand Station B Substation Alternative, Expand Urban Substation Alternative, and Expand Grant Hill Substation Alternative were evaluated and rejected based upon their inability to meet Proposed Project objectives and engineering design requirements.

With regard to the alternative sites that were evaluated, Table 5-2: Alternative Site Comparison Summary, identifies the relative differences between the sites based on the identified criteria. Many of these sites do not meet the minimum land area and shape requirement criteria or would require the extension of power lines outside of the existing ROW, resulting in increased land requirements or greater construction impacts than would result from the Proposed Project. SDG&E would not be able to acquire many of the sites according to the Proposed Project schedule. Many of the sites would also have environmental impacts that would exceed those of the Proposed Project. Each of the alternatives failed to meet basic Proposed Project objectives. The proposed Vine Substation site, by comparison, meets the engineering criteria, meets all of the Proposed Project objectives, is already owned by SDG&E, and does not result environmental impacts that exceed those of the alternatives. Thus, the proposed Vine Substation site was selected as the preferred substation site.

5.3 GROWTH-INDUCING IMPACTS

5.3.0 Growth-Inducing Impacts

The CEQA requires a lead agency to review and discuss ways in which a project could induce growth. The CEQA Guidelines (Section 15126.2d) consider a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding area. New employees hired for proposed commercial and industrial development projects and population growth resulting from residential development projects represent direct forms of growth. Other examples of growth-inducing projects are the expansion of urban services into previously undeveloped areas or the removal of major obstacles to growth, such as transportation corridors and potable water supply.

Table 5-2: Alternative Site Comparison Summary

Criteria		Substation Site Alternatives		
		Vine Substation (Preferred/Proposed Project)	**County of San Diego**	**Near Urban**
Engineering Requirements	Approximate Proximity to Existing Power Line (feet)	Immediately adjacent	600	6,500
	Size (acres)	1.5	1.2	0.25 and 0.22
Number of Project Objectives Met		4	2	2
Land Rights	Ability to secure the parcel in accordance with schedule constraints	Good, SDG&E owned	Poor, many parcels	Poor, unwilling seller
Environmental Requirements	Proximity to residences and recreational areas	None	Many	Many
	Potential for land use conflicts	None	Yes, currently developed	None

The growth-inducing potential of the Proposed Project could be considered significant if it were to stimulate human population growth or a population concentration in the City of San Diego or other surrounding communities, above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if the Proposed Project were to provide infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies. Because the Proposed Project will not increase housing, bring in new services, or improve the existing infrastructure system (with the exception of making the existing electric service more reliable and adding additional capacity to accommodate planned growth), it will not stimulate population growth or result in a new concentration of residents, businesses, or industries.

5.3.1 Growth Caused by Direct and Indirect Employment

The construction and operation of the Proposed Project itself will not affect employment patterns in the area. SDG&E will employ an average of approximately 33 workers throughout the 19-month-long construction period. During the peak construction period, up to 63 workers may be employed. The workers will consist of existing SDG&E employees and contract workers. The majority of construction workers are anticipated to come from San Diego County and will not require lodging.

Operation and maintenance of the Proposed Project will be performed by current SDG&E employees and will, therefore, not create new jobs. Because the Proposed Project will not result in an increase in employment during the operation and maintenance phase, the Proposed Project will not increase the demand for new housing.

5.3.2 Growth Related to the Provision of Additional Electric Power

The population of San Diego County has increased every year since 1944. As a result, growth is part of the past, present, and expected future of the region. The San Diego Association of Governments (SANDAG) is the regional planning entity for the San Diego region and is composed of representatives from 18 cities and the county government. SANDAG serves as the forum for regional decision-making. SANDAG makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life.

The cities and county have designated SANDAG as the regional planning board, pursuant to a voter-approved proposition. The cities and county provide SANDAG with information about their general plans, local growth patterns, and land use regulations. In return, SANDAG generates regional management plans and population forecasts. As members of SANDAG, the cities and county review and approve all plans and forecasts prepared by SANDAG. The cities and county use SANDAG's findings to develop and shape their respective general plans and land use regulations. The county and each city are required to adopt a general plan, which must be updated on a regular basis. All general plans and subsequent amendments are subject to CEQA review.

SANDAG prepared a Regional Comprehensive Plan (RCP) in 2004 to provide policy guidance on accommodating the growth projected by SANDAG. A key element of the RCP is the Integrated Regional Infrastructure Strategy (IRIS), which outlines guidance for planning the

region's infrastructure. The goal of the IRIS is to ensure internal consistency with respect to long-term regional infrastructure planning to meet the needs of the growth projected by SANDAG. The IRIS addresses the energy supply and delivery system as key infrastructure elements. As the primary utility that provides electric service to approximately 3.4 million people using approximately 1.4 million meters in its service area, which includes all of San Diego County and the southern part of Orange County, SDG&E participates in and supports this aspect of the planning process. SANDAG has been preparing long-range forecasts of population, housing, and employment since the 1970s. SANDAG's forecasts represent the changes anticipated for the region based on the best available information. The forecast is produced by using established computer models that evaluate land use, demographics, regional and local economics, and transportation patterns. The SANDAG forecasts utilize a complex set of assumptions, input data, computations, and model interactions.

The latest Regional Growth Forecast (RGF) was developed for 2050 and provides an update of expected growth from the previous model that was developed for 2030. The 2050 RGF is based on data from the 2008 estimate produced by the California Department of Finance plus updated information for all model inputs.

The 2050 RGF predicts that economic and local population will continue at a steady rate through 2050, although at a slightly slower rate than in the previous 40 years. These updated projections suggest that the region will approach 4.4 million residents, 1.9 million jobs, and 1.5 million housing units by 2050.

SANDAG does not use energy as a driver of growth; however, its regional growth model recognizes the investment in energy infrastructure as necessary to support the implementation of the RCP. SDG&E coordinates with SANDAG to address this component of its regional planning process. Only local government entities with jurisdiction over land use approvals can either directly cause or prevent growth. How and where development occurs within SDG&E's service area is dictated by the land use agencies with this authority. SDG&E responds to such development.

5.3.3 Proposed Project and Growth

The objectives of the Proposed Project are to maintain existing reliability standards for the distribution and substation systems, provide substation and circuit tie capacity that will provide additional reliability for existing and future system needs, meet long-term electric distribution capacity needs by constructing a substation near planned load growth, fulfill long-term electric distribution capacity needs by constructing a substation near planned load growth, and to meet project need while minimizing environmental impacts. The Proposed Project will provide additional capacity to serve existing and future area load and to prevent potential long outages or disruption of service to existing and new customers in downtown and the surrounding area. Furthermore, the Proposed Project will not create a new service or source of power that will indirectly allow for an increase in population or housing as a result, as it will not extend infrastructure into previously un-served areas.

The Proposed Project will accommodate existing and planned power demands in SDG&E's service territory, as well as those based on state- and locally adopted plans and projections.

SDG&E responds to projected development and forecasts, rather than inducing growth by extending infrastructure for future unplanned development. Therefore, the Proposed Project will not induce population growth in the area.

5.4 REFERENCES

California Resources Agency. 2014. Title 14 California Code of Regulations, Chapter 3 Guidelines for Implementation of the California Environmental Quality Act. CEQA Guidelines.

SANDAG. Regional Comprehensive Plan. Online. http://www.sandag.org/programs/land_use_and_regional_growth/comprehensive_land_use_and_regional_growth_projects/RCP/rcp_final_complete.pdf. Site visited March 7, 2014.

SANDAG. Regional Growth Forecast 2050. Online. http://www.sandag.org/2050forecast. Site visited March 7, 2014.