



**PRELIMINARY ENDANGERMENT ASSESSMENT WORK PLAN**  
**Carson City Hall Renovation Project**

701 and 801 East Carson Street

Carson, California

*Prepared for:*

**California Department of Toxic Substances Control**

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Cypress, California 90630

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## ACRONYMS

APN	Assessor's Parcel Number
ARARs	applicable or relevant and appropriate requirements
AST	aboveground storage tank
Cal-EPA	California Environmental Protection Agency
City	City of Carson, California
COC	chain-of-custody
COPC	chemical of potential concern
CREC	controlled recognized environmental condition
CSM	conceptual site model
CWSC	California Water Service Company
DQI	data quality indicator
DQO	data quality objective
DWR	California Department of Water Resources
°C	degrees Celsius
°F	degrees Fahrenheit
DTSC	Department of Toxic Substances Control
DVBE	Disabled Veteran Business Enterprise
ESA	Environmental Site Assessment
HASP	Health and Safety Plan
IDW	investigation-derived waste
LUST	Leaking Underground Storage Tank
MDL	method detection limit
mg/kg	milligrams per kilogram
msl	mean sea level
MTA	Moore Twining Associates
NFA	no further action
OEHHA	California Office of Environmental Health Hazard Assessment
PCB	polychlorinated biphenyl
PEA	Preliminary Endangerment Assessment
PEC	potential environmental concern
PG	Professional Geologist
PID	photoionization detector
PPE	personal protective equipment
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
%R	percent recovery
REC	recognized environmental condition
RPD	relative percent difference
RWQCB	Regional Water Quality Control Board
SAP	Sampling and Analysis Plan
SB	small business
SVOC	semi-volatile organic compound
TPH	total petroleum hydrocarbon
TPH-cc	total petroleum hydrocarbon carbon chain

**ACRONYMS**  
(Continued)

TPH-g	total petroleum hydrocarbon as gasoline
TSI	Targeted Site Investigation
USA	Underground Service Alert
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
VOC	volatile organic compound
WBE	Woman-Owned Business Enterprise
WBMWD	West Basin Municipal Water District

**APPROVAL AND ACCEPTANCE**

Document Title: Preliminary Endangerment Assessment Work Plan  
Carson City Hall Renovation Project  
701 and 801 East Carson Street, Carson, California

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# **PRELIMINARY ENDANGERMENT ASSESSMENT WORK PLAN**

## **Carson City Hall Renovation Project**

### **701 and 801 East Carson Street, Carson, California**

#### **1.0 INTRODUCTION**

This document presents the Preliminary Endangerment Assessment (PEA) Work Plan (Work Plan) for the Carson City Hall Renovation project located at 701 and 801 East Carson Street, Carson, California (the site; Figure 1). Carson City Hall is located at 701 East Carson Street, and the Community Center is located at 801 East Carson Street. The City of Carson (City) owns the site and is proposing expansion and redevelopment of the City Hall and surrounding area. The project is being implemented on behalf of the City to determine whether current or former land uses may potentially affect the redevelopment plans. This PEA will be implemented pursuant to the California Department of Toxic Substances Control (DTSC) request in Contract Agreement No. 14-T3934.

This project is funded through the DTSC's Targeted Site Investigation (TSI) program. The TSI program is one of several initiatives funded through a grant that DTSC received from the United States Environmental Protection Agency (U.S. EPA). The purpose of the TSI program is to facilitate redevelopment by assisting eligible participants with addressing specific environmental concerns at planned redevelopment properties. TSI projects are selected to receive support and services through a competitive application process. DTSC offers this service at no cost to the selected applicants to assist them in addressing environmental aspects of the redevelopment process. The City submitted a TSI application for the project to assist with environmental site characterization to support site redevelopment efforts.

To prepare this Work Plan, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) reviewed environmental information for the site and surrounding area. On February 4, 2015, Amec Foster Wheeler, DTSC, and City staff participated in a review of site conditions to identify areas of potential recognized environmental conditions (RECs) and potential PEA sample locations. Subsequently, Amec Foster Wheeler prepared a Phase I Environmental Site Assessment (ESA) report for the site area, a copy of which is included as Appendix A.

The U.S. EPA requires that the TSI environmental monitoring and measurement efforts participate in a centrally managed quality assurance (QA) program. The QA program is designed to minimize uncertainty in characterization of site conditions by ensuring that the precision, accuracy, completeness, comparability, and representativeness of the data



collected during the implementation of the project Sampling and Analysis Plan (SAP) are known and documented (U.S. EPA, 2004). To address this responsibility, this Work Plan includes a SAP and Quality Assurance Project Plan (QAPP). The SAP is intended to minimize the uncertainties inherent in the environmental investigation and to support production of data relevant to site-specific objectives. The QAPP is a formal document describing the QA, quality control (QC), and other technical activities that will be implemented so that the results of the site investigation(s) satisfy the performance criteria listed in the project-specific SAP, the data quality objectives (DQOs), and the Work Plan.

### 1.1 PROJECT ORGANIZATION AND RESPONSIBILITY

The table below provides contact information for key representatives involved with this project:

Title/Responsibility	Name	Telephone Number	Email Address
U.S. EPA Project Officer	Noemi Emeric-Ford	213 244-1821	emeric-ford.noemi@epa.gov
DTSC Project Manager	Maryam Tasnif-Abbasi	714 484-5489	mtasnif@dtsc.ca.gov
Amec Foster Wheeler Program Manager	Hassan Amini, Ph.D.	949 642-0245	hassan.amini@amecfw.com
Amec Foster Wheeler Project Manager	Joseph Bahde	949 642-0245	joseph.bahde@amecfw.com
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Amec Foster Wheeler Risk Assessor	Caryn Kelly	916 636-3200	caryn.kelly@amecfw.com
Amec Foster Wheeler Health & Safety Officer	Bruce Voss	760 202-3737	bruce.voss@amecfw.com
Amec Foster Wheeler Field Geologist	Thet Naing	949 642-0245	thet.naing@amecfw.com
City Representative	Amelia Soto	310 830-7600	asoto@carson.ca.us
Moore Twining Associates, Inc. Manager	Julio Morales	559 268-7021	juliom@mooretwining.com
American Analytics, Inc. Manager	Viorel Vasile	818 998-5547	viorel.vasile@american-analytics.com

The work performed pursuant to this PEA will be conducted under the direction and supervision of the Amec Foster Wheeler Project Manager, who is a California-licensed Professional Geologist (PG) in compliance with the requirements of the California Geologist and Geophysicist Act (Business and Professions Code Sections 7800-7887). The project organization chart is provided in Table 1. The following paragraphs describe the key team members and their responsibilities.

**Maryam Tasnif-Abbasi, DTSC Project Manager:** Ms. Tasnif-Abbasi works for the DTSC as the Brownfields Coordinator/TSI Grant Coordinator. She is the lead for this TSI project,

focusing on achieving the project goals and objectives. Ms. Tasnif-Abbasi will serve as the primary point of contact for the DTSC and will serve as the DTSC Project Manager. She will also assist the Amec Foster Wheeler Project Manager in monitoring adherence to the DQOs established for this TSI project.

**Joseph Bahde, PG, Amec Foster Wheeler Project Manager:** Mr. Bahde will serve as the Project Manager for this project. He is a PG registered with the State of California and will assist the site investigation team and will participate in development and review of the SAP, QAPP, and PEA Report. Mr. Bahde's responsibilities will include managing the budget, schedule, sampling team, subcontractors, and quality control for this project.

**Ann Bernhardt, PE, Amec Foster Wheeler QA Officer:** Ms. Bernhardt will serve as the QA Officer. She provides quality assurance program management across multiple Amec Foster Wheeler commercial and federal projects and will assist the Project Manager with the review and evaluation of sampling results and data. Ms. Bernhardt or her designee will be responsible for reviewing the laboratory reports and preparing data-review summaries.

**Caryn Kelly, Amec Foster Wheeler Risk Assessor:** Ms. Kelly will serve as the PEA risk assessor. She will assist in the screening-level evaluation of the site data and, if needed, conduct a human health risk assessment following the PEA Guidance Manual (DTSC, 2013).

**Bruce Voss, CIH, Amec Foster Wheeler Health & Safety Officer:** Mr. Voss will serve as the Health and Safety Officer. As Amec Foster Wheeler's leader for safety in offices in the western United States, he is responsible for overseeing various programs that in total present a safe and healthy work environment for employees. Mr. Voss will be responsible for developing, implementing, and updating the site-specific health and safety plan (HASP) to be consistent with foreseeable conditions that may be encountered during field operations.

**Thet Naing, PG, Amec Foster Wheeler Field Geologist:** Mr. Naing will serve as the lead field geologist. He is a PG registered with the State of California and will be responsible for coordinating with subcontractors, implementing the PEA scope of work, and assisting the Amec Foster Wheeler Project Manager with reviewing site investigation data and preparing the PEA Report.

**Julio Morales, Project Manager – Moore Twining Associates Inc.:** Mr. Morales will serve as the Project Manager for laboratory services. He will serve as the lead laboratory contact interacting with the Project Manager and field geologist.

**Viorel Vasile, Project Manager – American Analytics, Inc.:** Mr. Vasile will serve as the Project Manager for laboratory services. He will serve as the lead laboratory contact interacting with the Project Manager and field geologist.

## **1.2 PROJECT CONTACTS**

Project contact information is provided below:

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TSI Contact: Amelia Soto  
Housing Authority Project Manager  
701 East Carson Street, Carson, CA 90745  
(310) 830-7600 (ext. 1320)  
asoto@carson.ca.us

PEA-related reports and documents will be distributed to Maryam Tasnif-Abbasi of DTSC and Amelia Soto of the City.

## **1.3 WORK PLAN ORGANIZATION**

This Work Plan is organized according to the PEA Guidance Manual (DTSC, 2013) and TSI requirements and includes the following sections:

Section 1.0 Introduction  
Section 2.0 Project Background  
Section 3.0 Sampling and Analysis Plan  
Section 4.0 Field Operations  
Section 5.0 Record Keeping  
Section 6.0 Data Management and Reporting  
Section 7.0 References

Additional supporting information is presented in tables, figures, and appendixes.

## **1.4 RELIANCE ON INFORMATION PROVIDED BY OTHERS**

Amec Foster Wheeler has relied upon information provided by others in the evaluation of environmental site conditions reported herein. Amec Foster Wheeler did not attempt to

independently verify the accuracy or completeness of that information. To the extent that the opinion and conclusions in this Work Plan, and future reports and documents, are based in whole or in part on such information, those conclusions are contingent on its accuracy and validity. Amec Foster Wheeler assumes no responsibility for any consequence arising from any information or condition that was inaccurate, concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Amec Foster Wheeler.

## **2.0 PROJECT BACKGROUND**

This section provides the scope and purpose of the PEA, a history and site description relevant to the proposed PEA, and other relevant site information.

### **2.1 PROJECT SCOPE AND PURPOSE**

The PEA is being performed to obtain a greater understanding of environmental conditions at the site. The overall purpose of the PEA is to evaluate whether hazardous materials are present at the site at concentrations that may pose an unacceptable risk to human health.

The specific objectives of the PEA are to:

- assess site conditions;
- collect sufficient information to assess whether current or past land use at the site has resulted in the release of hazardous substances that pose a threat to public health or the environment; and
- make a finding of further action (Response Action) or no further action.

To meet these objectives, the PEA will include the following:

- Evaluating the potential presence and concentrations of hazardous materials that may be present in soil at the site through a field sampling and analysis program.
- Estimating the potential threat to public health posed by hazardous materials at the site, if any, in context of future reuse plans.

The PEA will be performed following the DTSC's PEA Guidance Manual (DTSC, 2013).

### **2.2 SITE DESCRIPTION**

The site is owned by the City and located in the mixed commercial and residential area of City of Carson, California. As shown on Figure 2, the site is bounded to the south by East Carson Street, to the west by Avalon Boulevard, to the north by Desford Street, and to the east by Civic Plaza Drive. The Carson City Hall and Community Center buildings currently occupy the site. The Los Angeles County Assessor's Parcel Numbers (APNs) for the site shown on Figure 3 are as follows:

- 7337-005-903: no address listed, 4.85 acres.
- 7337-005-927: no address listed, 4.52 acres.
- 7337-006-919/920: no address listed, approximately 1.28 acres.
- 7337-006-921: 701 East Carson St., 4.35 acres.
- 7337-006-922: 801 East Carson St., 4.82 acres.

The 19.82-acre site is approximately rectangular in shape (Figure 3). The land is currently zoned for commercial use.

### 2.2.1 Current Site Conditions

The Carson City Hall and Community Center are operating at the site. The City Hall building is located in the southwest corner of the site, and the Community Center building is located in the center of the site. The two buildings are separated by Civic Center Drive, which runs approximate north-south. Landscaped areas and paved parking lots surround the buildings.

### 2.2.2 Surrounding Site Conditions

The site is surrounded by commercial properties except on the northeast and south, where residential structures and a mobile home park are located, respectively. Surrounding properties and their uses identified by Amec Foster Wheeler are noted in the table below.

Direction	Property Description
North	Desford Street along the western half of the northern site boundary, followed by Los Angeles County Sheriff Department; Civic Plaza Drive along the eastern half of northern site boundary followed by a residential neighborhood
East	Civic Plaza Drive and two high-rise buildings (One Civic Plaza occupied by Merchants Bank and Two Civic Plaza occupied by Double Tree Inn); southeast is Andrew Carnegie Middle School
South	East Carson Street followed by restaurants, a mobile home park, and various retailers; southwest is a Carl's Jr. restaurant
West	Avalon Boulevard, west of which is a gas station, Happy Cleaners and other retailers, a vacant lot, Carson Primary Care, and a mobile home park

Amec Foster Wheeler identified five RECs, two controlled RECs (CRECs), and three potential environmental concerns (PECs) in the site vicinity during the Phase I ESA:

- Five RECs were identified around the site:
  - Los Angeles County Facilities MGM Department, also identified as the Los Angeles County Sheriff Station, located at 21356 South Avalon Boulevard is a Leaking Underground Storage Tank (LUST) cleanup project with gasoline and

aviation fuel impacts to soil and groundwater. Remediation and groundwater monitoring are currently ongoing.

- An Arco gas station located at 21313 South Avalon Boulevard is a LUST cleanup site with gasoline fuel impacts to soil and groundwater. The property meets the Regional Water Quality Control Board's (RWQCB's) low-threat criteria for a case closure. The RWQCB is considering granting the site a closure, after which this property may be considered as a CREC.
- A former Shell gas station located at 21304 South Avalon Boulevard is a LUST cleanup site showing petroleum impacts to groundwater. Identified wastes also included spent halogenated solvents. Remediation is ongoing.
- A former Chevron Service Station, currently a Carl's Jr. Restaurant, located at 21703 Avalon Boulevard is listed as a LUST cleanup site involving gasoline impacts to groundwater. A remediation plan is due by April 15, 2015.
- A Tosco – 76 Station located at 1025 East Carson Street is a LUST cleanup site involving gasoline-impacted groundwater. Remediation and groundwater monitoring are currently ongoing.
- Two CRECs were identified around the site:
  - A former Exxon/Mobil Service Station located at 655 East Carson Street was listed as a LUST cleanup site with gasoline impacts to groundwater. A no further action (NFA) letter was issued for the property on September 30, 2010.
  - A former Econo Lube N' Tune, currently an IHOP restaurant, located at 708 East Carson Street was listed as a LUST cleanup site with gasoline impacts to groundwater. An NFA letter was issued to the property on March 17, 2014.
- Three PECs were identified around the site:
  - Happy Cleaners, located at 21615 Avalon Boulevard, was listed on several databases as a generator of hydrocarbon solvents (benzene, hexane, Stoddard) and halogenated solvents (chloroforms, methyl chloride, perchloroethylene). No violations were listed; however, cleaning operations using hazardous substances have been conducted at the property since 1990.
  - Bonita Cleaners/South Coast Cleaners, located at 860 East Carson Street, was listed on the US Historic Cleaners database in 1999. No other details were found. No violations or environmental issues are listed; however, previous cleaning operations may have used hazardous substances.
  - One empty in-service liquid pipeline is located along Avalon Boulevard near the western site boundary. Although the line is currently reported as empty, there is a possibility that the line could hold liquid hazardous substances.

Surrounding site properties are identified on Figure 2.

### **2.2.3 Environmental Records Review**

As noted earlier, Amec Foster Wheeler completed a Phase I ESA for the site (Amec Foster Wheeler, 2015), which is included as Appendix A. As noted therein, the site is identified on DTSC's EnviroStor database listing. This listing pertains to this TSI's being conducted by DTSC through funding from U.S. EPA. The EDR report included in the Phase I ESA report (Amec Foster Wheeler, 2015) showed that the subject site generated household wastes and mixed oil/waste oil (Section 2.3.2).

Amec Foster Wheeler (2015) identified three RECs in connection with current and previous site operations, as described below:

- The auto dismantling and salvage yard formerly located across the entire site (Section 2.3.1).
- The 4,000-gallon diesel underground storage tank (UST), installed in the mid-1970s and replaced August 27, 1998; the new double-walled fiberglass 4,000-gallon diesel UST is located on the east side of City Hall (Section 2.3.1).
- The 1,250-gallon clarifier located in the maintenance yard on the north side of the Community Center (Section 2.3.1).

One double-walled, 25 gallon diesel aboveground storage tank (AST) located on the southeast side of the Community Center building was identified as a PEC. However, given the small size of the AST and no evidence and spills or releases, operation of the 25 gallon diesel AST is considered a *de minimis* condition and thus not subject to PEA sampling as described herein.

A copy of the Phase I ESA is included as Appendix A.

## **2.3 SITE HISTORY**

Information on the site's status and history, waste management practices, and previous site assessment is presented in the following subsections.

### **2.3.1 Site Status and History**

As noted in the Phase I ESA (Amec Foster Wheeler, 2015), the site was purchased by the City of Carson in 1970/1971. Prior to this, auto dismantling and salvage operations occurred throughout the site area. By 1952, the northwest and very southeast/southwest portions of the site were used as auto dismantling and salvage yards. By 1963, the entire site appears to be occupied by an auto dismantling and salvage yard. The previous auto dismantling and salvage yard reportedly included collection of old military tanks, heaters, and army surplus, and the dismantling yard was reportedly filled with old cars stacked 8 to 10 high. The site was undeveloped in 1928 and agricultural land in 1947.

The City Hall and Community Center are currently operating at the site. The City Hall has two stories of administrative floors and a basement that includes chiller, boiler, electrical, HVAC, and generator rooms. The generator is fueled by a 4,000-gallon diesel UST in the driveway/loading dock area just east of the generator. Chemicals associated with the chiller room are stored on secondary containment pallets. No significant spills, leaks, or odors were observed in the equipment rooms (Amec Foster Wheeler, 2015).

The Community Center is occupied by equipment rooms similar to those observed in the City Hall building. A loading dock and 1,250-gallon clarifier are located in the maintenance yard on the north side of the building. The maintenance yard is used to load/unload primarily general office supplies. Various city employees interviewed during the Phase I ESA stated that to their knowledge the maintenance yard was not used as an automotive repair shop (Amec Foster Wheeler, 2015). Instead, the yard was used to park vehicles, store small quantities of paint, store light bulbs, and park small lawn mowers. As noted in the Phase I ESA (Amec Foster Wheeler, 2015), the clarifier was used to contain water used to wash large high power lawnmowers and accessory equipment. City employees interviewed during this Phase I ESA stated that, to their knowledge, no lawnmowers or accessory equipment are washed at the site and the clarifier is no longer used.

One 4,000-gallon diesel UST is located on the east side of City Hall (Figure 2). In 1998, Miller Brooks Environmental (MBE) replaced the original single-walled 4,000-gallon diesel UST and associated piping reportedly installed in the mid-1970s with a new double-walled fiberglass 4,000-gallon diesel UST in the same location. Approximately 76 tons of petroleum-impacted soil was transported to TPS Technologies, Inc. facility in Azusa, California (MBE, 1998). Confirmation soil sampling was conducted and no significant hydrocarbon impacts were reported in the UST excavation.

As noted in Section 2.2.3, previous operation of the auto dismantling and salvage yard, current and previous use of the 4,000-gallon diesel UST, and historic operation of the 1,250-gallon clarifier are considered RECs for the site.

### **2.3.2 Hazardous Substance/Waste Management Information**

As noted in the Phase I ESA (Amec Foster Wheeler, 2015), the subject site was listed on the HAZNET, UST, and Los Angeles County HMS databases. The HAZNET listing shows household wastes and mixed oil/waste oil. The UST and Los Angeles County HMS listings did not include details. DTSC's Hazardous Waste Tracking System website identified general household waste from the site. A records review, conducted on March 2, 2015, showed the following pertinent findings:



No hazardous substance/waste management information was available for previous operations conducted at the site.

### **2.3.3 Previous Site Assessments**

City representatives believed that previous environmental assessments have been conducted at the site. However, no assessment report could be located and made available to Amec Foster Wheeler. As noted in Section 2.3.1, a 4,000-gallon diesel UST and approximately 76 tons of associated petroleum-impacted soil were removed from 701 East Carson Street (City Hall) in 1998.

## **2.4 OTHER SITE INFORMATION**

Information on the site's physical and environmental characteristics is presented below.

### **2.4.1 Site Topography and Surface Water**

The site elevation is approximately 20 feet above mean sea level (msl) and the ground slopes generally northeast (United States Geological Survey [USGS], 2012). The site is located within the Santa Monica Bay watershed (Hydrologic Unit Code: 18070104) ([http://water.usgs.gov/wsc/watershed\\_finder.html](http://water.usgs.gov/wsc/watershed_finder.html)). The concrete-lined Dominguez Channel is located approximately 1,000 feet east of the site (Figure 2).

### **2.4.2 Site Geologic Setting**

The site is located within the Los Angeles Basin at the north end of the Peninsular Ranges province and lies between the Palos Verdes and Newport-Inglewood fault zones, which trend approximately northwest-southeast (<http://earthquake.usgs.gov/hazards/qfaults/google.php>). The structural features in the site vicinity include the Dominguez Anticline and Gardena Syncline, located to the east-northeast of the site (California Department of Water Resources [DWR], 1961).

Geologic units underlying the site include Recent alluvium, the upper Pleistocene Lakewood Formation, and the lower Pleistocene San Pedro Formation (DWR, 1961). The approximately 200-foot section of Lakewood Formation in the site vicinity is composed primarily of unconsolidated sand, silt, and clay (DWR, 1961). Soils reportedly encountered north of the site during subsurface investigation at 21356 South Avalon Boulevard included interbedded silty fine sand from ground surface to depths of approximately 18 to 23 feet, silty sands from 20 to 30 feet, and silty clay from 30 to 45 feet (Leighton Consulting Inc., 2014).

### **2.4.3 Site Hydrogeologic Setting**

The site is located in the West Coast Subbasin of the Coastal Plain of Los Angeles County Groundwater Basin, which is located within the South Coast Hydrologic Region (DWR, 2004).

The West Coast Subbasin is bounded on the north by the Ballona Escarpment, an abandoned erosional channel of the Los Angeles River; on the east by the Newport-Inglewood fault zone; and on the south and west by the Pacific Ocean and consolidated rocks of the Palos Verdes Hills (DWR, 2014). Aquifers underlying the West Coast Subbasin include the Holocene semiperched, Bellflower, Gaspar, and Gardena aquifers; the upper Pleistocene Gage aquifer; and the lower Pleistocene Lynwood and Silverado aquifers. The Silverado aquifer is the most productive aquifer in the area and thickness ranges from 100 to 500 feet.

In the site vicinity, the top of the approximately 60-foot-thick Gage Aquifer, located within the Lakewood Formation, is approximately 150 feet below ground surface. The top of the 100-foot thick Lynwood aquifer, located within the San Pedro Formation, is approximately 260 feet below ground surface (DWR, 1961).

Based on information available from GeoTracker, several groundwater monitoring wells are present within 1,500 feet of the site. Several of these monitoring wells are associated with LUST cleanup sites at the Los Angeles County Sheriff's Department north of the site and the former Chevron Gas Station southwest of the site (Figure 2). Depth to groundwater in those monitoring wells ranged from 19 to 36 feet. Based on information available from nearby LUST cleanup sites, groundwater flow direction is variable.

#### **2.4.4 Site Climatological Setting**

The climate of Los Angeles County is Mediterranean with mild winters and warm summers. Based on meteorological data collected at a station in Torrance (National Climate Data Center Cooperative Observer Network Station ID 048973) located approximately 4 miles west of the site, between 1932 and 2012, monthly average high and low temperatures were 71.9°F and 52.3°F, respectively ([www.wrcc.dri.edu](http://www.wrcc.dri.edu)). During this period, a record high of 111°F on September 1, 1955 and record low of 21°F on June 12, 2007 were measured. During the same period, average annual precipitation was 13.55 inches with average monthly precipitation ranging from 0.02 inch to 3.23 inches.

#### **2.4.5 Groundwater Uses and Water Quality Results**

The site is located within the West Bain Municipal Water District (WBMWD) service area. The WBMWD service area includes the cities of Carson, Culver City, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Malibu, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and West Hollywood. During fiscal year 2013-14, 33,081 acre-feet of groundwater was extracted from wells located within the service area (WBMWD, 2014). California Water Service Company (CWSC) is the purveyor for the WBMWD and provides potable water to the City. During fiscal year 2013-14, CWSC extracted 6,183 acre-feet of groundwater.

Groundwater level measurements from wells installed in the Silverado aquifer indicates that water levels rose approximately 5 feet between 2013 and 2014 (DWR, 2014).

#### **2.4.6 Oil and Gas Wells**

There are no oil and gas wells listed at the site. There are two well fields, Dominguez and Torrance, approximately 2 miles to the northeast and southwest, respectively. Both fields are trended approximate northwest-southeast. Oil and gas well information available on the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources website identifies approximately six wells within 1 mile of the site, all of which are listed as “plugged.”

### **3.0 SAMPLING AND ANALYSIS PLAN**

A sampling and analysis program will be conducted to evaluate the potential presence of chemical constituents in soil and soil gas at the site. The program will consist of collecting soil and soil gas samples to assess environmental conditions at the site in general and in suspect areas of the site identified during the preparation of the Phase I ESA (Appendix A) and this Work Plan. U.S. EPA-approved methods will be used for sampling and analysis wherever possible. The following subsections describe the conceptual site model, QAPP, sampling strategy, sample analysis summary, and field activities.

#### **3.1 CONCEPTUAL SITE MODEL**

Pathways of exposure are the means through which an individual may come into contact with a chemical. They are determined by environmental conditions (e.g., exposed soil or location of groundwater), potential for a chemical to move from one medium to another (e.g., soil to groundwater or soil to air), and general lifestyles of the population.

For a complete pathway to exist, each of the following elements must be present (U.S. EPA, 1989):

- a source and mechanism for chemical release;
- an environmental transport medium (e.g., air, water, soil);
- a point of potential contact with the medium; and
- a route of exposure (e.g., inhalation, ingestion, dermal contact).

It is not yet known if a release of chemicals to the subsurface has occurred at the site because no releases have been documented and subsurface field investigations have not yet been conducted at the site. The site history does include current use of a UST for diesel fuel and clarifier for rinsewater, and historical use as an auto dismantling and salvage yard. The site is

also surrounded by several nearby facilities that operated USTs to store gasoline and diesel fuel. Petroleum-impacted soil and groundwater were identified at most of these facilities, which were considered as RECs and CRECs for the site (Amec Foster Wheeler, 2015). In addition, cleaning facilities are/were operated near the site. Therefore, a conceptual site model (CSM) outlining the potential exposure pathways and routes of exposure to chemicals of potential concern (COPCs) potentially released or present at the site has been prepared for current and future receptors, which is shown on Figure 4. Based on the information presented, two potential exposure scenarios are presented in the CSM and will be the focus of the PEA for the site:

1. Potential exposure of site users or workers (including residents) to COPCs in soil and soil gas from onsite sources; and
2. Potential exposure of site users or workers (including residents) to COPCs in soil and soil gas from onsite sources.

Currently, the groundwater condition at the site is unknown. Information available at locations within approximately 500 feet of the site boundary indicates that the depth to groundwater ranges between 19 and 36 feet, and reported groundwater flow direction is variable (Section 2.4.3). Petroleum-impacted groundwater has been reported at several properties surrounding the site. It is not likely that shallow groundwater in the site vicinity would be used as a potable source due to poor quality. For these reasons, further evaluation of groundwater exposure from a future potable use scenario is not considered necessary at this time for the PEA.

Potential migration of chemicals in site soils to surface water is considered an incomplete pathway because the site is relatively flat, reducing sediment migration potential. Storm water runoff drainage appears to be limited to the site perimeter and interior roadways. A stormwater drainage pipeline is present along the west side of the Community Center. In addition, the site is located in a fully commercialized setting and does not maintain natural resources required to support wildlife habitats. For these reasons, further evaluation of ecological receptors is not considered necessary for the PEA.

The two potential exposure scenarios considered applicable for the PEA are further described in the paragraphs below in context of the media they involve.

### **3.1.1 Soil**

Petroleum products may be present in onsite soil as a result of current use of a UST for diesel fuel or historic washing of lawn movers. Metals and petroleum products may be present in onsite soil as a result of historical site use as an auto dismantling and salvage yard. Polychlorinated biphenyls (PCBs) and semi-volatile organic compounds (SVOCs) may also

have been present in hydraulic fluids or materials associated with auto dismantling and salvage operations. Potential exposure of site workers, site users, and residents to chemicals in soil may occur by incidental ingestion or dermal contact with impacted soil or through inhalation of ambient air containing suspended particulates of non-volatile or semi-volatile compounds.

### **3.1.2 Soil Gas**

Chemicals are potentially present in soil gas as a result of leaks and spills from offsite sources to soil. Chemicals, if present in soil, might volatilize as soil gas to indoor or ambient air. In addition, groundwater containing chemicals from offsite sources may have migrated beneath the site, allowing the chemicals to volatilize into soil gas and then move to indoor or ambient air. Outdoor workers and residents may be exposed via inhalation of chemicals in soil gas migrating to ambient air. Indoor workers and residents may be exposed via inhalation of chemicals in soil gas migrating to indoor air.

## **3.2 QUALITY ASSURANCE PROJECT PLAN**

This section presents the QAPP, which establishes an appropriate level of QA/QC to support the reliability and usability of the data generated during the PEA. An integral part of the QAPP is proper field sampling and documentation procedures, which are described in Section 4.0. Likewise, data management and reporting procedures are described in Section 6.0. Therefore, these procedures will not be repeated here. This section sets forth the policies, procedures, and activities for the identification and documentation of the quality of the data generated during the performance of the PEA.

### **3.2.1 Data Quality Objectives**

The project DQOs for the planned sampling and analysis program have been developed based on U.S. EPA's seven-step DQO process (U.S. EPA, 2006). The Amec Foster Wheeler Project Manager will evaluate the data collected in relation to the project DQOs to assess whether the quantitative and qualitative needs of the sampling and analysis program have been met. The project definition associated with each step of the DQO process can be summarized as follows:

**State the Problem:** The City is considering redeveloping the City Hall and Community Center site area located at 701 and 801 East Carson Street, Carson, California (Figure 2). The purpose of the sampling program is to assess whether the current site conditions are acceptable for future development of the site area. The problem is that chemicals may be present in soil or soil gas at the site at concentrations that could pose an unacceptable risk to human health. Other than removal of some petroleum-impacted soil associated with replacement of a former UST, no previous assessments that include media sampling and

analysis are known to have been conducted at the site. Thus, the nature and occurrence of COPCs in soil and soil gas at the site is unknown and presents a data gap.

**Identify the Goals of the Study:** The data obtained from the sampling and testing activities will be used to evaluate whether the concentrations of COPCs in soil or soil gas pose a risk to human health under current conditions or for the proposed redevelopment. The data results will be compiled and used to assess the relative threat associated with onsite constituent concentrations through comparison to appropriate screening criterion (U.S. EPA, California Environmental Protection Agency [Cal-EPA] Office of Environmental Health Hazard Assessment [OEHHA], RWQCB, and DTSC; Section 6.4) and/or a human health screening evaluation performed following the procedures set forth in the PEA Guidance Manual (DTSC, 2013). Based on the screening-level comparisons, the suitability of the site for redevelopment and construction will be evaluated.

**Identify Information Inputs:** Inputs to the decision will include results of analytical testing of soil and soil gas samples from selected locations on the site. The soil matrix will be tested for relatively non-volatile constituents including metals, total petroleum hydrocarbons (TPH), PCBs, and SVOCs as discussed in Section 3.5.3. The soil gas matrix will be tested for VOCs, TPH as gasoline (TPH-g), and fuel oxygenates as discussed in Section 3.5.4.

Due to the unlikely use of groundwater as a potable source due to poor quality, evaluation of groundwater exposure from a future potable use scenario is not considered necessary for the PEA. Likewise, the potential movement of chemicals from site soils to surface water is considered an incomplete pathway because the site is relatively flat and covered by impervious surfaces (excluding landscape areas), which reduces potential sediment transport. The site includes Carson's City Hall and Community Center, and it does not maintain natural resources required to support wildlife habitats. For these reasons, further evaluation of ecological receptors is not considered necessary for the PEA.

**Define the Boundaries of the Study:** The boundaries of the field sampling and analysis program will be the perimeter of the site. The site is bounded to the northwest by East Desford Street and to northeast and east by Civic Plaza Drive. Avalon Boulevard and Carson Street form the western and southern boundaries of the site, respectively (Figure 2). Per City request, PEA sampling will be focused toward the western portion of the site and not include the paved parking lots and landscape areas east of the Community Center.

The study will be completed by April 30, 2015, when the Amec Foster Wheeler contract with DTSC expires.

**Develop the Analytical Approach:** Decisions will be based upon laboratory results for the target constituents. If no valid detected concentrations of target compounds are reported for the given samples, or the reported concentrations of target compounds are below applicable screening criteria, then a decision will be made that the site is adequately characterized with respect to the compounds tested and no further sampling will be required as part of this PEA. If COPCs are detected in the samples tested at concentrations greater than applicable screening criteria, then the PEA results can be used by the City to evaluate the potential need for further action (such as additional assessment, analysis, or potential remediation).

The results of this PEA will be used to request a determination of Response Action (remediation) or no further action (NFA) from the DTSC. Depending on the results, it may be necessary to perform additional sampling to characterize the site. Recommendation for additional characterization, if appropriate, will be provided in the PEA Report.

**Specify Performance or Acceptance Criteria:** Given the size of the site, the historical site operations, and lack of previous sampling, both biased and unbiased sampling approaches will be used to define conditions at the site. Unbiased soil and soil gas samples will be collected from evenly spaced locations throughout the site to provide for an overall evaluation of site conditions where previous auto dismantling and salvage operations occurred. If COPCs are detected in these samples at levels near screening criteria, additional biased sampling may be required. However, chemical “hot spots” could remain undetected. Biased soil and soil gas samples will be collected from around the UST and clarifier where other COPCs may have accumulated. Based on the initial PEA results, step-out locations may be required.

The null hypothesis is that the site is contaminated with chemical concentrations exceeding health-based action levels. Unless there is conclusive information to reject the null hypothesis (baseline condition) and determine chemical concentrations do not pose a threat to human health, we will assume the baseline condition is true. Thus, the SAP includes collection of a number of representative samples from the site in a manner that reduces the decision error rate. The results of the analytical testing will be subject to data evaluation following the procedures for data review specified herein. Data will be considered valid if the specified limits on precision, accuracy, representativeness, completeness, and comparability are achieved. The detected target constituents will be assessed to evaluate the need for additional sampling, and/or potential risks posed by the contaminants.

**Develop the Plan for Obtaining Data:** The field-sampling program has been designed to provide the type and quantity of data needed to satisfy each of the aforementioned objectives. The PEA Work Plan provides the specifications for the data collection activities, including the number of samples, sample locations, and sampling techniques. This PEA also allows for modifications to the sampling plan proposed herein based on actual site conditions and field

observations (pending verbal approval by DTSC staff). The quality of the data will be assessed through the procedures further described herein.

### **3.2.2 Data Quality Indicators**

Specific DQOs for the data quality indicators (DQIs) of precision, accuracy, representativeness, completeness, and comparability have been selected. These DQIs and their corresponding DQOs are discussed in turn below. Sensitivity of method detection limits (MDLs) is described in Section 6.4.

#### Precision

Precision measures the reproducibility of repetitive measurements. It is strictly defined as the degree of mutual agreement among independent measurements as the result of repeated application of the sample process under similar conditions.

Analytical precision is a measurement of the variability associated with duplicate or replicate analyses of the same sample in the laboratory and is assessed by analysis of laboratory QC samples, such as duplicate control samples, matrix spikes, or sample duplicates. If the recoveries of analytes in the specified control samples are comparable within established control limits, then precision is within limits.

Total precision is a measurement of the variability associated with the entire sampling and analytical process. It is assessed by analysis of duplicate or replicate field samples, and measures variability introduced by both the laboratory and field operations. Field duplicate samples are analyzed to assess field and analytical precision.

Duplicate results are assessed using the relative percent difference (RPD) between duplicate measurements. If the RPD for laboratory QC samples exceeds 30 percent, data will be qualified. For soil samples, if the RPD between primary and duplicate field samples exceeds 50 percent, data will be qualified.

The RPD will be calculated as follows:

$$\%RPD = 200 (X2 - X1)/(X2 + X1)$$

where X1 is the larger of the two observed values and X2 is the smaller of the two observed values.

#### Accuracy

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and systematic error. It reflects the total error associated



with a measurement. A measurement is accurate when the value reported does not differ from the true value or known concentration of the spike or standard.

Accuracy of laboratory analyses will be assessed by laboratory control samples, surrogate standards, matrix spikes, and initial and continuing calibrations of laboratory instruments. Laboratory accuracy is expressed as the percent recovery (%R). Accuracy limits are statistically generated by the laboratory, as required by specified U.S. EPA methods, and/or as set forth in guidance documents prepared by various organizations. If the percent recovery is considered to be outside of acceptance criteria, associated data may be qualified. The calculation of percent recovery is provided below:

$$\%R = 100 (X_s - X)/T$$

where  $X_s$  is the measured value of the spiked sample,  $X$  is the measured value of the unspiked sample, and  $T$  is the true value of the spike solution added.

Field accuracy will be assessed through the analysis of field equipment blanks. Analysis of blanks will monitor errors associated with the sampling process including equipment decontamination procedures, field contamination, sample preservation, and sample handling. The DQO for field equipment blanks is that all values are less than the reporting limit for each target constituent. If contamination is reported in the field equipment blanks, data may be qualified.

### Representativeness

Representativeness is the degree to which data accurately and precisely represent a characteristic environmental condition or a population. It relates both to the area of interest and to the method of collecting the individual sample. Representativeness of data collection is addressed by careful preparation of sampling and analysis programs, including use of procedures to avoid false negatives and false positives (U.S. EPA, 2004).

This SAP addresses representativeness by specifying the number and locations of samples, incorporating appropriate sampling methodologies, specifying and performing proper sample collection and preservation techniques, performing required decontamination procedures, selecting appropriate laboratory methods to prepare and analyze soil, and establishing proper field and laboratory QA/QC procedures for the parameters of interest.

### Completeness

Completeness is the amount of valid data obtained compared to the amount expected under ideal conditions. The number of valid results divided by the number of possible results, expressed as a percentage, is used to assess the completeness of the data set. The DQO for

completeness is to obtain valid results for at least 90 percent of the planned analytical results. The formula for calculation of completeness is presented below:

$$\% \text{ Completeness} = 100 (\text{number of valid results})/(\text{number of expected results})$$

### Comparability

Comparability is an expression of confidence with which one data set can be compared to another. This SAP addresses comparability by specifying laboratory methods that are consistent with the current standards of practice as approved by the U.S. EPA and DTSC, which will allow the data to be evaluated for trends or changes (in space or time) at the site (U.S. EPA, 2004). Comparability is also addressed by specifying that associated standard units of measurement will be used for data reports.

### **3.3 SAMPLING STRATEGY**

Amec Foster Wheeler is completing the PEA to assist the City in evaluating environmental-related conditions to support redevelopment of the site area. The apparent problem at the site is constituted as follows:

1. Release of chemicals to soil may have occurred as a result of the current use of a UST and clarifier, and/or previous site use as an auto dismantling and salvage yard;
2. Chemicals may have been released to the subsurface at other nearby commercial or industrial facilities and migrated into the site subsurface via impacted groundwater or soil vapor; and
3. Chemicals may have been released at other nearby commercial or industrial facilities and migrated into the site subsurface via aerial emission and deposition.

To date, no site-wide subsurface investigations have been conducted at the site to allow assessments of these apparent problems. Therefore, soil and soil gas data will be collected at the site to assess site conditions, conduct the PEA, and make a finding of further action or no further action for the site.

Current site operation of the UST and clarifier, and historical site use as an auto dismantling and salvage yard may have included use of petroleum hydrocarbons. It is unknown at this time (data gap) if petroleum hydrocarbons were released to and impacted shallow soils at the site. In addition, potential impacts from previous auto dismantling and salvage operations have not been evaluated. Metals and TPH, including volatile organic compounds (VOCs), can be associated with automobile operations and/or nearby facility operations (service stations and cleaners). Likewise, PCBs and SVOCs may have been released during historical operations. It is unknown at this time (data gap) whether VOCs, SVOCs, PCBs, or metals

were released to and have impacted soils at the site. Therefore, TPH, VOCs, SVOCs, PCBs, and metals are considered COPCs at the site and are subject to SAP activities.

The overall objective of the PEA is to address these data gaps and evaluate whether COPCs are present at the site at concentrations that may pose an unacceptable risk to human health in context of current and proposed future uses. Further evaluation of the data gaps will provide information the City may use to assess the strategy and approach for future site development.

### **3.4 SAMPLE RATIONALE SUMMARY**

During the PEA investigation, a variety of data will be collected. Each sample collected may be analyzed for a number of different chemicals, depending on the rationale for sample collection. The field activities consist of soil and soil gas sampling to provide data regarding the potential presence and concentrations of COPCs from historical or recent activities at or near the site. The geologic work will be performed by an Amec Foster Wheeler geologist under the supervision of a PG in compliance with the requirements of the Geologist and Geophysicist Act (Business and Professions Code, Sections 7800-7887). Amec Foster Wheeler will contact Underground Service Alert (USA) to mark subsurface utilities before field activities commence.

Soil and soil gas samples will be collected to assess data gaps in site environmental conditions. The rationale for the soil sampling plan is described below.

- Soil and soil gas samples will be collected from locations distributed across the PEA area to provide information on overall site conditions.
- Soil samples will be collected near the UST and clarifier, and analyzed for specific COPCs that may be present in shallow soil as a result of impacts from standard operations.
- Soil samples will be field-screened with a photoionization detector (PID) to assess the potential presence of organic vapors at each sample location and allow for changes in COPC analyses, if warranted.

Soil and soil gas samples will be collected and analyzed to obtain data that will be used to assess the nature and concentration of COPCs in soil at the site. The soil and soil gas matrix sampling methods and procedures are discussed in Sections 3.5.3 and 3.5.4, respectively.

### **3.5 FIELD ACTIVITIES**

This section describes field activities and the methods and procedures that will be used to collect PEA samples.

### **3.5.1 Health and Safety Plan**

A site-specific HASP has been prepared for the fieldwork portion of this PEA and is presented in Appendix B. All Amec Foster Wheeler personnel will be required to follow the procedures set forth in the HASP. Subcontractors will have access to a copy of the HASP; however, they are responsible to provide proper safety procedures and monitoring for their own personnel.

### **3.5.2 Utility Clearance**

Amec Foster Wheeler will notify USA of the planned drilling activities. As part of this task, a site walk will be held to confirm and mark proposed sample locations. The proposed drilling locations will be clearly marked with white paint or surveyor's flagging as required by USA. USA will contact the utility owners of record within the site vicinity and notify them of Amec Foster Wheeler's intention to conduct a subsurface investigation. The utility owners of record, or their designated agents, will be expected to clearly mark the position of their utilities on the ground surface throughout the area designated for the subsurface investigation.

Amec Foster Wheeler will retain Subsurface Surveys & Associates, Inc. of Carlsbad, California to conduct a geophysical survey of the designated sampling locations at the site. If any suspect buried structures are delineated by the geophysical survey, soil sample locations may be changed to safely avoid these anomalies.

### **3.5.3 Soil Sampling**

Amec Foster Wheeler will contract Interphase Environmental Inc., to install 10 soil borings designated SB-1 through SB-10 in the investigation area (Figure 5). Prior to drilling, a hand auger will be used at each location to a depth of approximately 4 feet to verify the absence of underground utilities. Following hand augering, each soil boring will be advanced using truck-mounted direct push equipment to a total depth of approximately 15 feet. The borings will be continuous cored to identify lithology and potential signs of contamination.

Soil samples will be collected at depths of 0.5, 5 and 10 feet. The 0.5-foot depth samples may be collected using hand equipment (e.g., hand auger, drive sampler, or trowel). Discrete-depth soil samples will be collected from acetate liners advanced by the direct push equipment at depths of 5 and 10 feet. The 0.5 and 5-foot depth soil samples will be analyzed for the following, as appropriate:

- metals using U.S. EPA Method 6010B/7471A.
- TPH carbon chain using U.S. EPA Method 8015B(M).

The general intent is to collect and analyze soil samples from levels above and below the historical ground surface level during previous auto dismantling and salvage operations. Thus, sample depths may be modified based on visual observations during soil boring installation.

Selected discrete-depth soil samples from three borings in areas of visual contamination will be analyzed for the following, as appropriate.

- SVOCs using U.S. EPA Method 8270C.
- PCBs using U.S. EPA Method 8082.

From the three selected borings, soil samples from depths of 0.5 and 5 feet (up to six total) above and below the historical ground surface level during previous auto dismantling and salvage operations will be submitted for SVOCs and PCB analyses. If no visual evidence of impact is observed in the soil borings, samples from SB-2, SB-5, and SB-7, located in the approximate middle of the investigation area, will be submitted for analyses.

One additional soil boring designated SB-11 will be installed near the current 4,000-gallon diesel UST (Figure 5). Soil samples will be collected at depths of 5 and 10 feet and analyzed for TPH carbon chain using U.S. EPA Method 8015B(M).

Soil samples collected using hand equipment will be placed in wide-mouth glass jars. The lids of these jars will be secured, and the jars will be labeled, placed in a resealable plastic bag, and stored in a chilled cooler. Soil samples collected in acetate liners will be capped on both ends with Teflon film and plastic caps, labeled, placed in a resealable plastic bag, and stored in a chilled cooler. All soil sample containers will be labeled, placed in resealable plastic bags, placed in an ice chest with sufficient ice, and submitted to the contract laboratory under chain-of-custody (COC) procedures. Soil samples from 10-foot depths will be archived.

The soil samples will be field-screened for the presence of organic vapors using a PID calibrated to a 100-parts-per-million isobutylene standard. During sampling activities, a portion of each soil sample will be placed in a sealable plastic bag and a PID will be used to monitor for the presence and relative concentration of organic vapors in the sample headspace. Organic vapor readings will be recorded on field notes and/or logs prepared during sampling activities.

Following sampling, the soil borings will be converted to soil gas sampling probes (Section 3.5.4). Table 2 presents a summary of the proposed soil sampling and analyses planned for this PEA.

### **3.5.4 Soil Gas Survey**

The purpose of the soil gas survey is to assess potential presence of VOCs in the subsurface. The soil gas survey will be conducted in accordance with the DTSC Advisory – Active Soil Gas Investigations (DTSC, 2012). The rationale for the soil gas sampling plan is as follows:

- The 10 soil boring noted above will be converted to nested soil gas probes.
- Soil gas samples will be collected from depths of 5 and 15 feet.
- The soil gas survey will be conducted following current DTSC advisory protocols using an onsite mobile laboratory to assess the presence and/or occurrence of VOCs in soil gas throughout the site.

A total of 20 soil gas samples will be collected from 10 locations in the site area designated SG-1 through SG-10 (Figure 5). The soil gas samples will be collected from each location at depths of approximately 5 and 15 feet. Soil gas samples SG-1 through SG-10 will be collected from locations spaced approximately 200-feet apart to provide site coverage within the 2-day survey event. Soil gas probe SG-3 will be placed near the clarifier.

Table 2 presents a summary of the proposed soil gas sampling and analyses planned for this PEA.

#### **3.5.4.1 Soil Gas Probe Installation**

Soil gas probes will be installed using truck-mounted direct push equipment (Section 3.5.3). The soil gas probes will be installed following the installation procedures for temporary probes described in Section 3.2 of the DTSC Advisory (2012). Hollow steel drive rods will be hydraulically pushed to the desired sampling depth. The sample probes will be completed with new, 1/4-inch nylaflow or silicon tubing. Hydrated bentonite will be used to seal around the push rod/tubing and ground surface to prevent ambient air intrusion. The completed soil gas probes will be left undisturbed for a minimum of 2 to 48 hours before sampling (depending on the probe installation method used) to allow the soil gas to equilibrate.

#### **3.5.4.2 Soil Gas Probe Sampling**

American Analytics, Inc. (American Analytics) will be retained to conduct the soil gas survey using an onsite mobile laboratory. As required by the Advisory (DTSC, 2012), a purge-volume test will be conducted at the first sampling location using 1, 3, and 10 purge volumes. The sample tubing will be connected to an electrical vacuum pump, which will purge the appropriate volume of soil gas before sampling (based on results of the purging test). After purging, the soil gas samples will be collected in a glass bulb or in a gas-tight syringe. The air flow rate during soil gas sampling will be between 100 and 200 milliliters per minute, in accordance with the DTSC Advisory (2012).

During soil gas sampling, a leak test will be conducted with a tracer gas such as isobutane or isopropanol placed near the surface seal and around the sample train to check for potential intrusion of ambient air. In the event a leak-check compound is detected in the soil gas sample, a different leak-detection compound will be used and another soil gas sample will be collected to further assess potential intrusion of ambient air and to eliminate the possibility that the first compound is actually present in the soil vapor. If both tracer gases are found, the probe will be destroyed and a replacement probe will be installed and sampled.

The soil gas samples will be analyzed by an onsite mobile laboratory for VOCs including fuel oxygenates and TPH-g using modified U.S. EPA Method 8260B. A field duplicate QC sample will also be collected at a sample location showing “moderate” concentrations of VOCs. The soil gas survey will not be conducted during rain events or within 5 days after significant rainfall (0.5 inch or greater of rainfall in 24-hour period).

Details of the soil gas sampling procedures are described in the subcontractor’s standard operating procedures included as Appendix C.

#### **4.0 FIELD OPERATIONS**

This section describes the sample methods, handling, and documentation.

##### **4.1 SAMPLE ANALYSIS AND LABORATORY QUALIFICATIONS**

All samples will be handled in accordance with approved procedures specified herein. The U.S. EPA-approved analytical methods will be used to produce definitive-level data for use in the PEA. Screening-level data such as PID readings will be obtained from field instruments.

The following analytical methods will be used for analysis of samples collected under this PEA:

Analytical Method	Parameters
U.S. EPA Method 8260B	VOCs + fuel oxygenates
U.S. EPA Method 8015B(M)	TPH-carbon chain
U.S. EPA Method 6010B/7471A	Metals
U.S. EPA Method 8270C	SVOC
U.S. EPA Method 8082	PCBs

Moore Twining Associates, Inc. (MTA), a State-certified laboratory, will analyze selected soil samples collected during the field program. MTA is a certified Disabled Veteran Business Enterprise (DVBE) company. MTA’s QA manual, accreditations, and laboratory reporting limits for the above-listed sample parameters are provided in Appendix D.

American Analytics, a State-certified laboratory, will analyze selected soil and soil gas samples collected during the field program. American Analytics is a City of Los Angeles certified Woman Owned Business Enterprise (WBE) and small business (SB). American Analytics' QA manual, accreditations, and laboratory reporting limits for the above-listed sample parameters are provided in Appendix E.

## **4.2 SAMPLE LOCATION SURVEYING, DECONTAMINATION, AND WASTE MANAGEMENT**

PEA sample survey, decontamination, and waste management procedures are described below.

### **4.2.1 Sample Surveying**

PEA sample locations will be marked with paint or wooden stakes. Subsequently, sample locations will be recorded using handheld global positioning satellite equipment.

### **4.2.2 Decontamination Procedures**

All equipment that comes into contact with potentially contaminated soil or water will be decontaminated before and between each use. Disposable equipment intended for one-time use will not be decontaminated, but will be packaged for appropriate disposal. Before initial use and between sampling locations, reusable sampling equipment or containers will be properly decontaminated. The sampling equipment and devices used will be decontaminated using the following procedures:

- Non-phosphate detergent and tap water wash, using a brush if necessary;
- Tap-water rinse;
- Initial deionized/distilled water rinse;
- Final deionized/distilled water rinse; and
- Set on clean plastic sheeting to air dry.

Equipment will be decontaminated in a pre-designated area on pallets or plastic sheeting, and clean bulky equipment will be stored on plastic sheeting in uncontaminated areas. When not in use, decontaminated sampling equipment will be wrapped in or covered with clean plastic.

### **4.2.3 Investigation-Derived Waste Management**

In the process of collecting environmental samples, different types of potentially contaminated investigation-derived waste (IDW) may be generated. IDW may include the following.

- Used personal protective equipment (PPE).



- Disposable sampling equipment.
- Decontamination fluids.
- Soil cuttings.

The U.S. EPA's National Contingency Plan requires that management of IDW generated during such investigations comply with all applicable or relevant and appropriate requirements (ARARs) to the extent practicable. Listed below are the procedures that will be followed for handling any IDW. These procedures have enough flexibility to allow the site investigation team to use its professional judgment for the proper disposal method for each type of IDW generated at each sampling location.

- Unless there is contact with apparent contaminated material, used PPE and disposable equipment such as acetate liners will be bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous due to the limited amount of site media that may adhere to this solid material and can be sent to any acceptable municipal landfill. Any PPE and disposable equipment that is to be disposed of that can still be reused will be rendered inoperable before disposal in the refuse dumpster. If field personnel are uncertain as to the level of contamination remaining on the PPE or solid material, this material will be contained in sealed 55-gallon drums for eventual disposal based on the results of sample analysis. The associated sample location and date that is the source of the apparent contaminated material will be indicated on the 55-gallon drum to aid in this determination.
- Decontamination fluids that may be generated during these sampling activities include deionized water and water with non-phosphate detergent. The drums containing such fluids will be sealed upon completion of the field activities.
- Soil cuttings will be placed into 55-gallon drums that will be labeled with the source material sample locations and sealed. While soil from various borings may be placed in the same container, soil that is apparently contaminated may be sequestered and stored in a separate 55-gallon drum.

Containers filled with PPE/solid waste, decontamination water, and soil will be stored onsite pending analytical results, as needed. After review of the analytical results, and any additional analyses required for waste handling and disposal, the containers will be transported to an appropriate offsite disposal facility.

### **4.3 SAMPLE HANDLING**

All samples will be handled in accordance with approved procedures specified herein.

#### **4.3.1 Sample Containers and Preservatives**

Table 3 shows the requirements for analytical methods, sample containers, volumes, preservatives, and holding times by parameter per matrix. The laboratory will provide sample containers before each sampling event. The containers will be pre-cleaned to meet U.S. EPA standards and will not be rinsed in the field before sample collection.

If any water sample containers are not filled completely, the sample volume level will be marked on the outside of the container with indelible ink.

#### **4.3.2 Sample Labeling, Packaging, and Shipment**

A sample label will be affixed to each sample container for proper identification in the field and for tracking in the laboratory. The sample labels will include the following information:

- job number;
- sample identification number;
- sampler's initials;
- date and time of collection; and
- preservative, if any.

Following collection and labeling, the samples will be immediately placed in a sample cooler for temporary storage. The following protocol will be followed for sample packaging.

- Sample containers will be placed in clear, plastic, leak-resistant bags before placement in the ice chest. Sample sleeve liner caps or container screw caps will be checked for tightness and secured before placing the sample in the bag.
- Samples to be shipped will be placed in a sturdy cooler lined with a large plastic trash bag before placing samples therein. The bottom of the cooler will be lined with bubble wrap. Glass sample containers will be wrapped in bubble wrap. Empty space in the cooler will be filled with bubble wrap or packing peanuts to prevent movement and breakage of samples during shipment. Vermiculite may also be placed in the cooler to absorb spills.
- Ice packs will be contained in double leak-resistant plastic bags and placed in the coolers to keep samples at a chilled temperature of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$  during transport to the analytical laboratory. When ice is used, the drain plug of the cooler will be secured to prevent melting ice from leaking out of the cooler.
- The COC form will be placed in a water-resistant plastic bag taped to the inside of the cooler lid.

- Strapping tape (or equivalent) may be placed around each cooler to secure the lid before transport to the laboratory.
- A self-adhesive custody seal will be placed across the front closure of the cooler any time it is not in someone's possession or view before shipping. Just before shipping, custody seals will be affixed to the cooler. All custody seals will be signed and dated.

To check the potential effects of sample transportation and handling on data quality, a temperature blank will be enclosed in each sample-shipping container when samples that require preservation by chilling are transported. The temperature blank will consist of a 40-milliliter vial filled with distilled or potable tap water, which will be clearly marked to indicate its purpose to the laboratory. The temperature blank will be placed next to the investigation samples during packaging. The temperature of the water in the temperature blanks will be recorded upon arrival at the laboratory. The target sample temperature is  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

Every effort will be made to transport the samples to the analytical laboratory at the end of each sampling day. However, for sampling days that continue after operating hours of the laboratory, the samples will be stored overnight in a secured location (e.g., in a locked office) under appropriate COC procedures, and the samples will be shipped to the laboratory the next day. If stored overnight, the cooler(s) will be restocked with new ice or Blue Ice if necessary to maintain the samples in a chilled state of  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . Alternately, samples may be shipped to the laboratory by overnight courier under COC requirements specified herein.

#### **4.3.3 Field Quality Control Samples**

Two types of field QC samples are planned for this PEA. These include:

- Field equipment blanks; and
- Field duplicates.

Trip blanks will also be used if soil samples are analyzed for VOCs. The field QC sampling procedures are discussed below.

##### **4.3.3.1 Field Equipment Blanks**

A field equipment blank is a sample that is prepared in the field by pouring reagent-grade de-ionized water provided by the laboratory through and over the cleaned sampling equipment. The water is then collected and analyzed as a sample. The field equipment blank provides an indication of contamination from field procedures (e.g., improperly cleaned sampling equipment or cross-contamination). Planned field equipment blanks are presented in Table 4.

Field equipment blanks will be collected during soil sampling activities at a minimum frequency of one per set of non-dedicated sampling equipment per sample matrix per day. The field equipment blanks will be submitted to the laboratory “blind” (i.e., given a fictitious name so that the laboratory will not recognize them as blanks). The field equipment blanks will be analyzed by the same laboratory method(s), and for the same analytes, as the samples collected with the sampling equipment. The analytical goal for field equipment blanks is to have no detected analytes.

The planned field equipment blanks presented in Table 4 will be designated “WG1a” followed by a consecutive two-digit number indicating the order in which the samples were submitted for analysis (WG1a-01, WG1a-02, etc.).

#### **4.3.3.2 Field Duplicates**

A field duplicate is a sample that is collected and analyzed in the same manner and at the same time and location as a primary sample. Field duplicate samples will be collected and analyzed to evaluate sampling and analytical precision (reproducibility). Agreement between primary and duplicate sample results will indicate good sampling and analytical precision. The precision goal for soil field duplicate results will be plus or minus 50 percent RPD compared to the primary results. It is important to note that soil samples may reflect a significant level of naturally occurring matrix heterogeneity that will be considered in evaluating analytical results for soil samples analyzed as duplicates.

Specific locations for collection of field duplicates will be selected in the field. Field duplicates will be collected at a minimum frequency of 10 percent of the primary samples collected. The soil field duplicates will be submitted to the laboratory “blind” (i.e., given a fictitious name so that the laboratory will not recognize them as duplicates). As noted in Table 4, the planned field duplicate samples for soil will be designated “SB01a” followed by a consecutive two-digit number indicating the order in which the samples were submitted for analysis (SB01a-01, SB01a-02, etc.).

#### **4.3.3.3 Trip Blanks**

A trip blank is a sample that is prepared by the analytical laboratory using laboratory-grade de-ionized water and shipped with the sample cooler to the office for delivery to the project site. The trip blank is used to assess the potential for contamination during transport of the sample from the laboratory to the field, through the sampling program, and back to the laboratory.

One trip blank will be submitted with each sample cooler containing soil samples to be analyzed for VOCs, as appropriate. The trip blanks will be designated “TB” followed by a consecutive two-digit number indicating the order in which the samples were submitted for

analysis (TB-02, TB-03, etc.). The analytical goal for trip blanks is to have no detected analytes.

#### **4.3.4 Sample Custody**

A sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until receipt by the laboratory, the custody of the samples will be the responsibility of the sample collector or courier.

The shipping containers in which samples are stored (usually a sturdy cooler) may also be sealed with custody tape any time the containers are not in someone's possession or view and during shipment to the laboratory. Custody seals or tape will be signed and dated by the sample collector.

#### **4.4 FIELD MEASUREMENTS**

Field equipment calibration, maintenance, and monitoring procedures are described below.

##### **4.4.1 Field Equipment and Calibration**

Field equipment may include air monitoring pumps, organic vapor meters, and other similar equipment. Field equipment will be calibrated daily, before its first daily use, according to the manufacturer's recommendations. The date, method, and results of field equipment calibration will be recorded on a field instrument calibration sheet. A field instrument calibration sheet is included in Appendix F.

##### **4.4.2 Equipment Maintenance**

Field equipment may include air monitoring pumps, organic vapor meters, and other similar equipment. Routine preventative maintenance of field equipment is performed according to the manufacturer's recommendations. All field equipment will be examined and serviced as needed before job start-up. Sufficient numbers of backup equipment and spare parts will be available to minimize downtime. In addition, sufficient quantities of field equipment supplies (e.g., hand equipment, sample containers, field materials/consumables), including backup supplies, will be available at the site. Any repairs and maintenance completed on equipment during the investigation will be recorded on the daily field records and documented on an equipment maintenance log.

A description of the field equipment preventive maintenance procedures is presented in Table 5. An equipment maintenance log is included in Appendix F.

#### **4.4.3 Field Monitoring Measurements**

As noted earlier, soil samples will be field-screened for the presence of VOCs using a PID. The PID will be calibrated and maintained throughout the duration of field activities according to manufacturer's recommendations. Field monitoring measurements will be recorded on the daily field records.

#### **4.5 FIELD VARIANCES**

To meet the project objectives, sampling activities must be performed in response to the present conditions of the site, as well as situations that may arise and require adjustments to the planned field operations and procedures. Circumstances could arise that may necessitate SAP adjustments to optimize the field effort. If the proposed field variance affects the schedule or data quality, the Amec Foster Wheeler Project Manager will notify DTSC for approval before implementing the change. Any field modifications or variances from the SAP (approved by DTSC) will be discussed in the PEA Report (Section 6.6).

#### **5.0 RECORD KEEPING**

This section describes procedures for completing chain-of-custody, field, and sampling documentation.

##### **5.1 CHAIN-OF-CUSTODY RECORDS**

COC records are used to document sample collection and shipment to the laboratory for analysis. A COC record will accompany each sample shipment to identify the contents of each shipment and maintain the custodial integrity of the samples. A copy of the form is provided in Appendix F.

##### **5.2 FIELD AND SAMPLE DOCUMENTATION**

Because of the relatively short duration of field activities, daily field records will be used to document where, when, how, and from whom any vital project information was obtained. Daily entries will be complete and accurate enough to permit reconstruction of field activities. Each daily field record will be dated and the time of entry noted in military time. All entries will be legible, written in pen, and signed by the individual making the entries. Language will be factual and objective. If an error is made, corrections will be made by crossing a line through the error and entering the correct information. Corrections will be dated and initialed. No entries will be obliterated or rendered unreadable.

Entries in the daily field record will include at a minimum the following for each day:

- Site name and address.
- Recorder's name.

- Team members and their responsibilities.
- Time of site arrival/entry on site and time of site departure.
- Other personnel onsite.
- Weather conditions including approximate air temperature, precipitation, or high wind conditions.
- A summary of any onsite meetings.
- Deviations from the sampling plan or the site health and safety plan.
- Changes in personnel and responsibilities as well as reasons for the changes.
- Levels of safety protection.

At a minimum, the following information will be recorded during the collection of each sample.

- Sample identification number.
- Sample location and description.
- Site sketch showing sample location and measured distances to physical reference points.
- Sampler name(s).
- Date and time of sample collection.
- Designation of sample as composite or grab.
- Type of sample (i.e., matrix).
- Type of preservation.
- Type of sampling equipment used.
- Lot numbers of vendor-supplied sample containers or specialty-grade water.
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors).
- Instrument readings (e.g., PID).
- Chain-of-custody form numbers.
- Shipping arrangements (by overnight courier delivery company including air bill number, or laboratory pickup including name of personnel and time of departure).
- Recipient laboratory(ies).

A blank daily field record is included in Appendix F.

### **5.3 PHOTOGRAPHS**

Photographs will be taken as needed at areas of interest. They will serve to verify information entered in the daily field record. When a photograph is taken, the following information will be written in the daily field record or will be recorded in a separate field photograph log.

- Time, date, location, and, if appropriate, weather conditions.
- Description of the subject photographed, including sample identification number if appropriate.
- Point-of-view orientation of the photo (e.g., to the west, to the east-southeast).
- Name of person taking the photograph.

Copies of relevant photographs will be included as an appendix to the PEA Report.

### **6.0 DATA MANAGEMENT AND REPORTING**

PEA data review, evaluation, management, screening, and reporting procedures are described below.

#### **6.1 DATA REVIEW AND EVALUATION**

Analytical data packages provided by the contract laboratories will be reviewed to assess whether data were acceptable for their intended use(s) following established U.S. EPA guidelines (U.S. EPA, 2013a and 2013b) and best professional judgment. The Amec Foster Wheeler QA Officer or designee will review the laboratory reports and prepare a data-review summary that will be included in the PEA Report. The laboratory reports will be reviewed for the following:

- Data completeness;
- Chain-of-custody;
- Holding times;
- Sample preservation;
- Blanks;
- Laboratory control samples;
- Matrix spike/matrix spike duplicates;
- Surrogates/internal standards (as applicable); and
- Field QC samples.



Data that do not meet the DQOs set forth in Section 3.2 may be qualified. Data qualification flags will indicate whether results are considered anomalous, estimated, or rejected. Only rejected data are considered unusable for decision-making purposes; however, other qualified data may require further verification, such as reviewing the laboratory's raw data. Table 6 lists the data qualifier definitions.

Detection limits associated with the analytical data will be reviewed before eliminating chemicals from further evaluation in the PEA because they were not detected. In some cases, the detection limit for a chemical may be greater than the corresponding standards, criteria, or concentrations derived from toxicity reference values; therefore, the chemical may be present at levels greater than the corresponding reference concentrations, which may result in undetected risk. In other cases, a particular detection limit may be significantly higher than positively detected values in other samples in a data set. After these cases and other plausible reasons why contaminants may not have been detected are considered, chemicals that have not been detected in any medium will be eliminated, if appropriate. If information exists to indicate that the chemicals are present, they may not be eliminated. The PEA Report will identify the possibility of undetected or insufficiently characterized contaminants and may recommend additional sampling as part of further investigation, if appropriate.

For analytical results, various qualifiers pertaining to the quality of the data may be assigned to certain analytical results by either the laboratory conducting the analyses or by persons conducting data review as discussed above. For example, some results may be flagged as estimated if the concentration is below the verifiable or contract-required detection limit, but is detected and quantified at a lower value by the laboratory instrument. All qualified results will be reviewed before use of the chemical data set for the human health screening-level evaluation.

Any data discrepancies will be reviewed and explained in the PEA Report. If enough data are rejected as unusable for decision-making purposes, such that the DQO for completeness is not achieved, then corrective actions such as re-analysis or re-sampling may be performed, with DTSC concurrence.

## **6.2 DATA MANAGEMENT**

The Amec Foster Wheeler Project Manager will review the daily field records, other field forms (such as boring logs), and COC forms to evaluate completeness of the field records, appropriateness of the field methods employed, and correctness of the COC forms. When the laboratory reports are submitted to Amec Foster Wheeler, the Amec Foster Wheeler data reviewer will prepare a data evaluation document. Subsequently, the data will be entered into

tables to be included in the PEA Report, including any necessary qualification flags identified in the data review documentation.

An independent person (i.e., not the person who prepared the data tables) will check every entry on the data tables for completeness and correctness. Similarly, figures (including boring logs) to be published in the PEA Report will be checked by an independent person to verify that the data on the figures (including soil classifications, PID readings, etc., on the boring logs) are correct. Project documentation, including field records, laboratory reports, data review memoranda, and data tables, will be retained in Amec Foster Wheeler project files and made available to other parties as needed and appropriate.

### **6.3 ASSESSMENT OVERSIGHT**

Ultimate responsibility for implementation of this PEA Work Plan, including the QAPP, will rest with the Amec Foster Wheeler Project Manager. The Amec Foster Wheeler QA Officer will have responsibility for verifying that the QA/QC procedures are implemented and will have authority to correct identified QA/QC deficiencies in the field or analytical procedures. The QA Officer will accomplish such corrections by notifying the Amec Foster Wheeler Project Manager of the identified deficiency and recommending corrective action, so that the Project Manager can implement the corrective action. The Amec Foster Wheeler QA Officer or designee will perform at least one audit of field procedures and will review the field records, other field forms, COCs, and laboratory reports for compliance with the PEA SAP and QAPP.

### **6.4 SOIL AND SOIL GAS SAMPLE RESULT SCREENING EVALUATION**

Amec Foster Wheeler will compare the soil and soil gas sample results collected during the PEA to the following prescriptive regulatory screening levels (as appropriate):

- Interim Site Assessment & Cleanup Guidebook (RWQCB, 2004).
- California Human Health Screening Levels (OEHHA, 2010).
- Health Risk Assessment Note Number 3 (DTSC, 2014).
- Updated U.S. EPA Regional Screening Levels (U.S. EPA, 2015).

The MDLs need to be below the action levels; otherwise, it cannot be determined whether non-detect results are above or below the action level. For this PEA, the action levels will be health-based criteria calculated in accordance with the methodology set forth by OEHHA, U.S. EPA, or other organizations. It is impracticable to calculate action levels for all matrices and constituents in advance of the field program. Therefore, for the purposes of the QAPP, the planned MDLs for soil and soil gas matrix samples, which are included as Appendixes C, D,

and E, have been compared with the screening levels published by OEHHA and U.S. EPA Region IX to verify that MDLs are below their respective screening levels.

## **6.5 PEA RISK EVALUATION**

A specific objective of the PEA is to evaluate the potential threat to public health posed by site conditions and provide an indicator of relative risk among site users. Only the laboratory analytical data that meet the project's DQOs and are suitable for use in the human health screening-level evaluation will be used. The criteria for precision, accuracy, representativeness, completeness, comparability, and sensitivity of detection limits used during chemical analysis and the collection of field measurements were presented in Sections 3.2.2 and 6.4.

### **6.5.1 Metals Evaluation**

Because metals occur naturally in soils, site concentrations may be compared to background concentrations to assess whether onsite levels are consistent with natural levels or indicative of site-related contamination. Background metal results from a comparable, offsite location may be used in evaluation of metals concentrations detected during this PEA. Amec Foster Wheeler will coordinate with DTSC to identify if background metal results are available for comparison purposes. If comparable offsite data is not available, site-specific samples may be collected from "background" locations for comparison purposes.

The Mann-Whitney test, a version of the Wilcoxon Rank Sum Test, may be used to statistically compare concentrations of metals at the site to background soil concentrations as outlined in Cal-EPA (1997) guidance. The Mann-Whitney test is performed by comparing the probability (p-value) with a critical value (alpha). The p-value will be based on an alpha value of 0.05, or 95 percent confidence level. Alternatively, a quantile test may be employed for detecting cases of high value measurements present in the upper quantile (right-hand tail) of a distribution (U.S. EPA, 2009). One-sided statistical tests would employ a Type I error rate of 0.05 (5 percent). Finally, in addition to the comparative statistical tests, graphical representations of the site data may also be used as an additional means to identify the presence of possible outliers (impacted soil samples).

Comparison of arsenic and lead to site background is not required as these metals have specific screening levels. All detected concentrations of arsenic will be compared to the regional background concentration of 12 milligrams per kilogram (mg/kg) established by DTSC for arsenic in Southern California soil (DTSC, 2008). All detected concentrations of lead will be compared to the California Human Health Screening Level value of 80 mg/kg (OEHHA, 2010 and DTSC, 2014).

The selection of an appropriate means to evaluate site concentrations of metals will be made with DTSC concurrence. All statistical tests and graphical methods would be conducted using U.S. EPA's ProUCL product (U.S. EPA, 2009) or other tools approved by DTSC.

### **6.5.2 Screening-Level Risk Evaluations**

As noted in Section 6.4, the results of soil sampling will be compared to the prescriptive regulatory screening levels (as appropriate). Although the screening criteria are not intended to be remediation goals, they can be used to evaluate the potential need for further action (such as additional assessment, analysis, or potential remediation). Copies of the U.S. EPA, OEHHA, and DTSC published screening levels are provided in Appendix G. If concentrations of COPCs exceed screening criteria (Appendix G), then no additional risk evaluation will be conducted. However, if several COPCs are identified that cumulatively could exceed a cancer risk of 1E-6 or hazard index of 1, then a human health screening evaluation may be conducted following the methods described in the PEA Guidance Manual (DTSC, 2013). The need for performing a human health screening evaluation will be discussed with DTSC following review of the data.

The results of metals evaluation and screening-level risk assessment will be included in the PEA Report (Section 6.6).

## **6.6 PEA REPORT PREPARATION**

A PEA report will be prepared that presents the results of the overall investigation. The report will include site background and environmental setting information, field documentation, presentation of field observations, and analytical results. Any field modifications or variances from the sampling plan (approved by DTSC) will be discussed in the PEA Report. The PEA Report will also include the screening-level evaluations of soil sample results. Supporting documentation including boring logs, laboratory reports, tabulated data, and QA data review results will be included as appendixes to the report, as appropriate.

The conclusions of the PEA Report will address three main questions:

- Have previous activities resulted in a release of hazardous materials at the site?
- If a release has occurred, does it pose a significant threat to public health in context of the proposed reuse plans, and if not, why not?
- What further specific information and/or removal/remediation actions are necessary to further assess or abate threats posed by the site to human health and allow the City to move forward with its development plans?

Recommendations will be made regarding the need for any additional actions to further assess and/or remediate conditions at the site, based on site investigative findings and the screening-

level risk evaluations. If further action is recommended, the PEA Report will identify remaining data gaps and/or further assessment or remediation needs and strategies. The PEA Report will also include recommendations for expedited response actions necessary to mitigate any immediate potential hazards to public health, if needed. An NFA recommendation will be made if levels of detected contamination are considered to be below risk-based, human health screening levels.

## **6.7 PROPOSED SCHEDULE**

The proposed major milestone dates for the completion of the tasks associated with the PEA are as follows:

<u>DATES</u>	<u>ACTIVITIES</u>
March 12, 2015	Submittal of draft PEA Work Plan
March 19, 2015	Verbal approval of PEA Work Plan
March 23, 2015	Commencement of field investigation
April 14, 2015	Submittal of draft PEA Report
April 21, 2015	DTSC issuance of comments on draft PEA Report
April 30, 2015	Submittal of final PEA Report to DTSC
<u>Before April 30, 2015</u>	DTSC approval of final PEA Report

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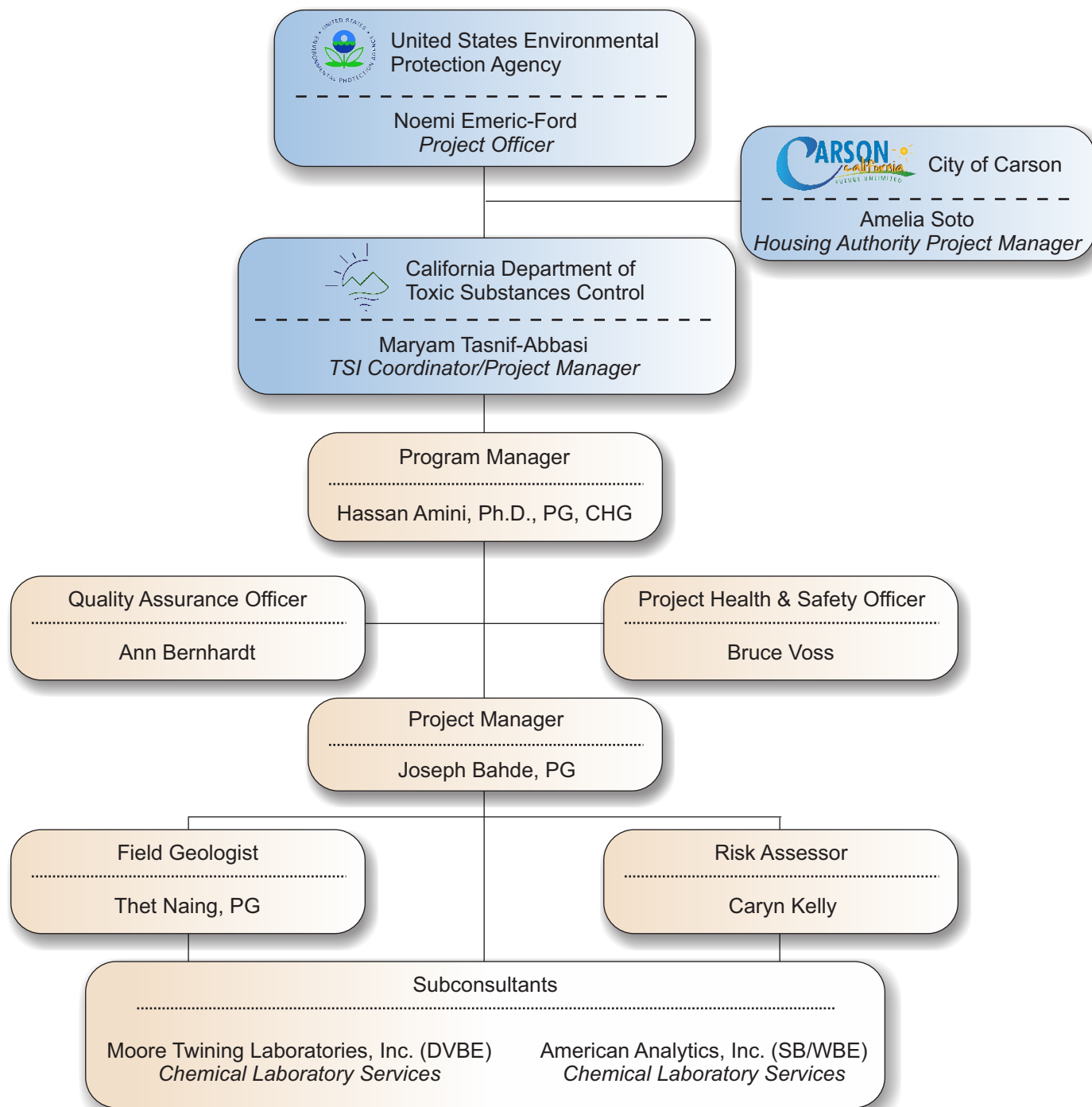
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## TABLES

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**Table 1**  
**Project Organization Chart**  
 Carson City Hall Renovation Project  
 Carson, California



**TABLE 2**

**PROPOSED SOIL AND SOIL GAS SAMPLE LOCATIONS, RATIONALE, AND ANALYSES**

Carson City Hall Renovation Project  
Carson, California

<b>Sample Designation</b>	<b>Sample Location <sup>1</sup> and Rationale</b>	<b>Sample Depth (feet bgs)</b>	<b>Sample Analysis <sup>2</sup></b>
<b>Soil</b>			
SB-1 through SB-10	Samples at approximate 200-foot centers along western portion of site to evaluate potential release of chemicals to the subsurface from previous site operations and/or nearby commercial facilities.	0.5 and 5	metals, TPH-cc
SB-3	Select sample location to evaluate potential release of chemicals to subsurface from operation of the 1,250 gallon clarifier.	0.5 and 5 <sup>3</sup>	metals, TPH-cc
SB-2, SB-5, and SB-7	Select samples to evaluate potential release of chemicals to subsurface from previous site operations. Samples may be collected from other locations showing signs of possible chemical impact (not to exceed six total).	0.5 and 5	PCBs and SVOCs
SB-11	Samples near current 4,000-gallon underground storage tank used for diesel fuel.	0.5, 5, and 10	TPH-cc
<b>Soil Gas</b>			
SG-1 through SG-10	Samples at approximate 200-foot centers along western portion of site to evaluate potential release of volatile organic compounds (VOCs) to the subsurface from previous site operations and/or other nearby commercial facilities.	5 and 15	VOCs with fuel oxygenates

Notes:

- Proposed sample locations shown on Figure 5.
- Total petroleum hydrocarbon carbon chain (TPH-cc) using U.S. EPA Method 8015B(M), metals using U.S. EPA Method 6010B/7471A, polychlorinated biphenyls (PCBs) using U.S. EPA Method 8082, semi-volatile organic compounds (SVOCs) using U.S. EPA Method 8270C, and volatile organic compounds (VOCs) including fuel oxygenates using U.S. EPA Method 8260B.
- Sample depth may be modified to target bottom of clarifier.

Abbreviations:

feet bgs = feet below ground surface.

**TABLE 3**

**SAMPLING AND ANALYTICAL METHOD REQUIREMENTS**

Carson City Hall Renovation Project  
Carson, California

Parameter	Matrix	Method	Sample Containers			Preservation	Holding Time <sup>1</sup>
			Type	Required Volume	Quantity		
VOCs	water	U.S. EPA Method 8260B	VOA vial	40 ml	2 - 4	HCl to pH<2, cool to 4°C, zero headspace	14 days from sample date
Metals	water	U.S. EPA Method 6010B/7471A	poly	500 ml	1	HNO <sub>3</sub> (filter in field)	180 days; 28 days for mercury
TPH-cc	water	U.S. EPA Method 8015B(M)	amber bottle	500 ml	1	cool to 4°C	7 days from sample date
SVOCs	water	U.S. EPA Method 8270C	amber bottle	1 liter	1	cool to 4 °C	7 days from sample date
PCBs	water	U.S. EPA Method 8082	amber bottle	1 liter	1	cool to 4 °C	7 days from sample date
SVOCs	soil	U.S. EPA Method 8270C	glass jar or acetate	20 grams	1	cool to 4°C	14 days from sample date
PCBs	soil	U.S. EPA Method 8082	glass jar or acetate	20 grams	1	cool to 4°C	14 days from sample date
VOCs	soil	U.S. EPA Method 8260B/5035	EnCore or VOA vial	4 oz or 5 grams	2	sodium bisulfate, cool to 4 °C	preserved - 14 days from sample date unpreserved - 48 hours
Metals	soil	U.S. EPA Method 6010B/7471A	glass jar or acetate	20 grams	1	none	180 days; 28 days for mercury
TPH-cc	soil	U.S. EPA Method 8015B(M)	glass jar or acetate	10 grams	1	cool to 4°C	14 days from sample date

Notes:

1. Hold time denoted time to extract.

Abbreviations:

VOC = Volatile organic compounds.

TPH-cc = Total petroleum hydrocarbon carbon chain.

SVOC = Semi-volatile organic compound.

PCBs = Polychlorinated biphenyls.

**TABLE 4**

**FIELD QUALITY ASSURANCE SAMPLES AND ANALYSES**

Carson City Hall Renovation Project  
Carson, California

Sample Type	Sample Frequency	Blind Sample Description	Sample Location <sup>1</sup> and Analysis <sup>2</sup>	QA Sample Designation
<b>Soil Sampling</b>				
Equipment Rinsate Blank	one per day per analysis type	WG1a-01	SB-5 (TPH-cc, metals, PCBs, SVOCs)	WG1a-01
Field Duplicate	10% of primary samples collected (1 to 2 total)	SB01a-01	SB-5 (TPH-cc, metals, PCBs, SVOCs)	SB01a-01, SB01a-02
Trip Blank	one per cooler with samples being analyzed for VOCs	TB-01, TB-02	1 to 2 day sampling event for VOCs (if any)	TB-01, TB-02
<b>Soil Gas Sampling</b>				
Field Duplicate	10% of primary samples collected (2 total)	not applicable	selected in field or SG-7 (VOCs with fuel oxygenates)	SG-7 dup

Notes:

- Proposed sample locations are shown on Figure !
- Total petroleum hydrocarbon carbon chain (TPH-cc) using U.S. EPA Method 8015B(M), metals using U.S. EPA Method 6010B/7471A, polychlorinated biphenyls (PCBs) using U.S. EPA Method 8082, semi-volatile organic compounds (SVOCs) using U.S. EPA Method 8270C, and volatile organic compounds (VOCs) with fuel oxygenates using U.S. EPA Method 8260B.

**TABLE 5**

**FIELD EQUIPMENT MAINTENANCE SCHEDULE AND CALIBRATION**

Carson City Hall Renovation Project  
Carson, California

<b>Field Equipment</b>	<b>Instrument</b>	<b>Preventive Maintenance</b>	<b>Spare Parts</b>	<b>Acceptance Criteria</b>
Photoionization detector (PID)	MiniRAE 2000 or equivalent	Daily inspection	filters	100 ppm isobutylene - beginning of day

Abbreviations:

ppm = parts per million

**TABLE 6**  
**DATA QUALIFIER DEFINITIONS**  
Carson City Hall Renovation Project  
Carson, California

Qualifier	Explanation of Qualifier
<b><i>Organic Analyses</i></b> <sup>1</sup>	
U	The compound was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
<b><i>Inorganic Analyses</i></b> <sup>2</sup>	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

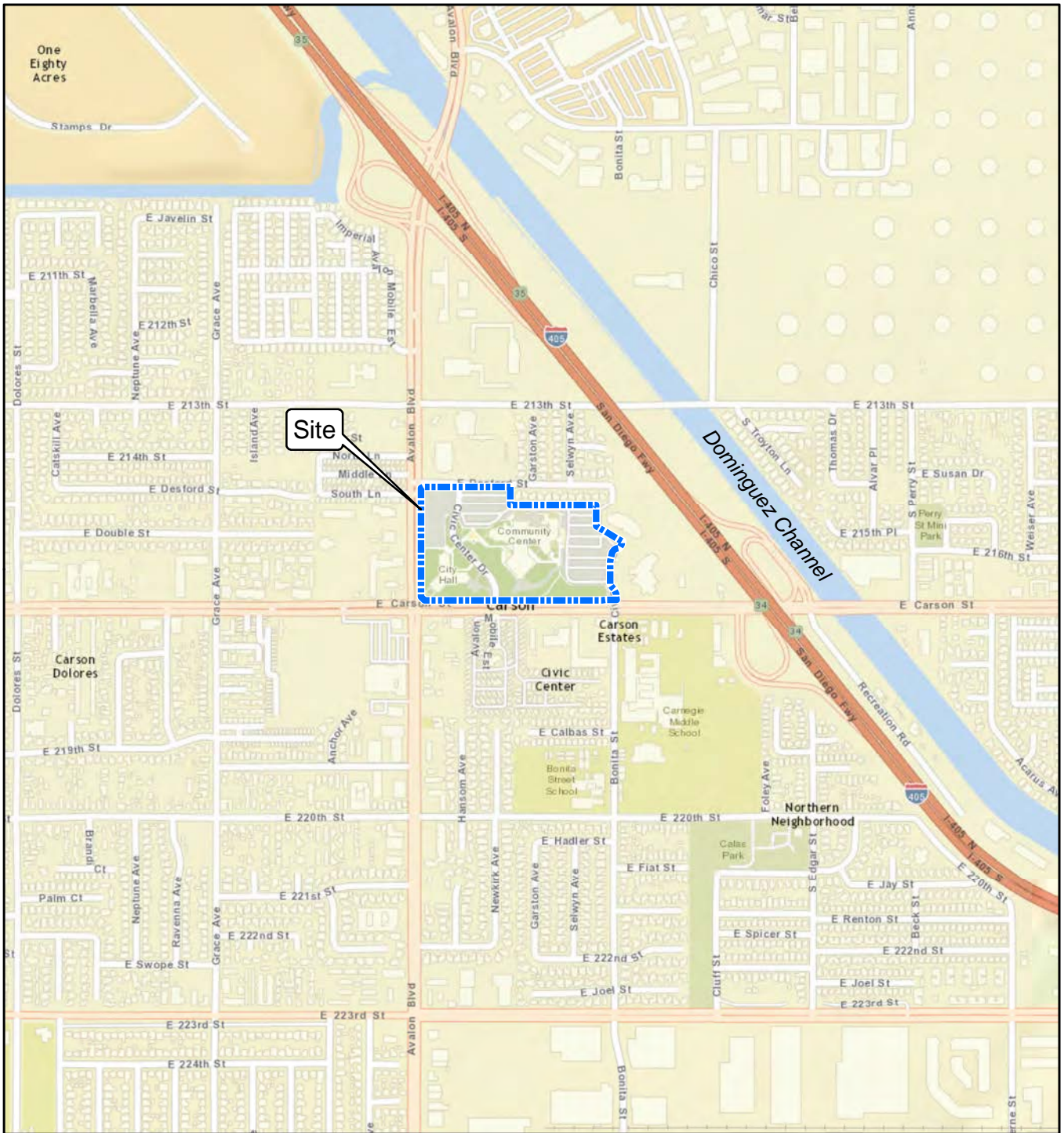
**Notes:**

1. U.S. EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, OSWER 9200.2134, EPA 540-R-014-002, October 2013.
2. U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, OSWER 9200.2-133, EPA 540-R-013-001, October 2013.

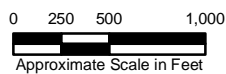
## FIGURES

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Path: Y:\IR1316460K\esri\Work\_plan\_2015-04-24\tb\_Site\_Location\_Map.mxd



Basemap modified from Street Map provided by ESRI, HERE, DeLorme, USGS, Intermap, TomTom, ©OpenStreetMap contributors, and the GIS User Community.



**SITE LOCATION MAP**  
**Carson City Hall Renovation Project**  
**701 and 801 East Carson Street**  
**Carson, California**



Date: 04/24/2015	Project No.: IR1316460K	Figure <b>1</b>
Submitted By: es	Drawn By: pah	



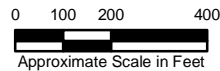


Explanation

 Approximate site boundary

UST Underground storage tank

AST Aboveground storage tank



Basemap modified from aerial photo from Eagle Aerial Imaging, Inc. dated 2011



SITE MAP  
Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California



Date: 04/24/2015

Project No.: IR1316460K

Submitted By: es

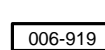
Drawn By: pah

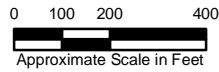
Figure

**2**



**Explanation**

 Los Angeles County Assessor parcel location and APN number



Basemap modified from Street Map provided by ESRI, HERE, DeLorme, USGS, Intermap, TomTom, ©OpenStreetMap contributors, and the GIS User Community.

**PARCEL BOUNDARIES  
AND APN NUMBERS**  
Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California



Date: 04/24/2015

Project No.: IR1316460K

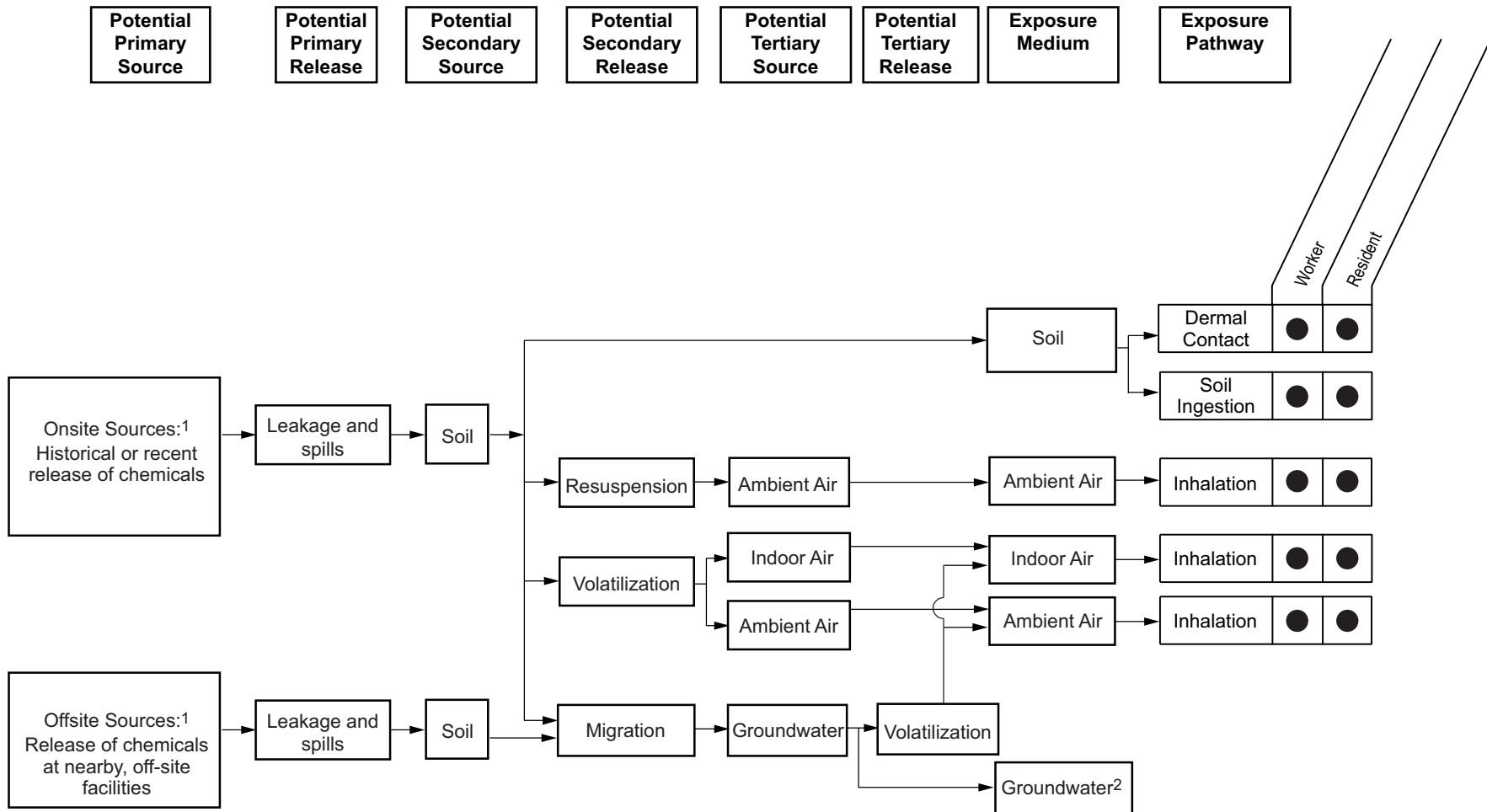
Submitted By: es

Drawn By: pah

Figure

**3**

Current or Future Receptors



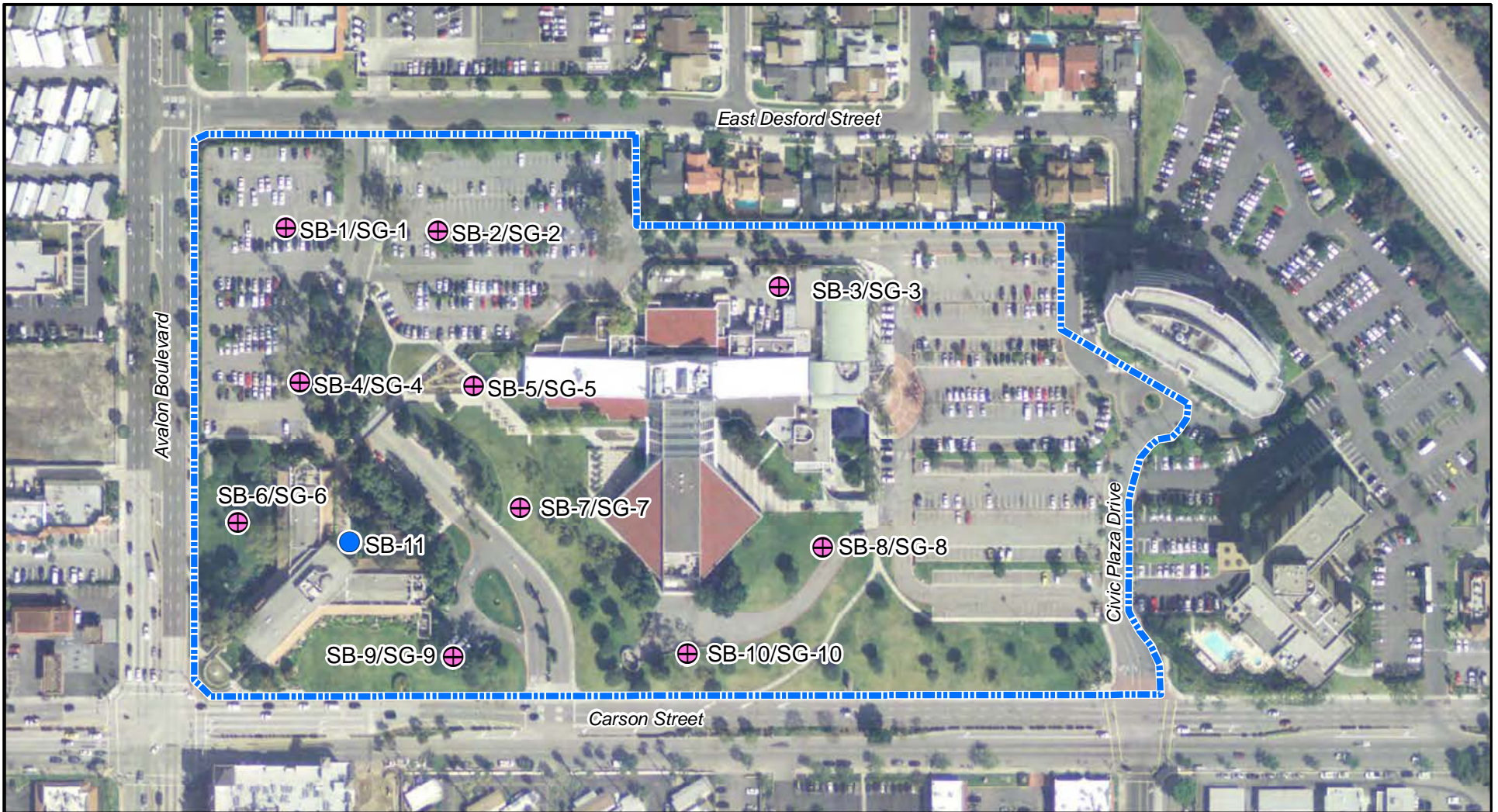
Explanation

● Potentially complete exposure pathway pending the field investigation results




Notes:

1. Verification of on-site or off-site sources is pending completion of the field investigation.
2. Incomplete; shallow groundwater is not potable due to poor quality. Dermal contact is unlikely due to depth to water. Groundwater exposure is not evaluated in this assessment.

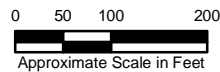
<p><b>CONCEPTUAL SITE MODEL</b>                  Carson City Hall Renovation Project                  701 and 801 East Carson Street                  Carson California</p>		
Date: 04/24/2015	Project No.: IR1316460K	
Submitted By: jb	Drawn By: pah	



**Explanation**

-  Proposed soil and soil gas sample location
-  Proposed soil sample location
-  Approximate site boundary

Note: Sample locations are approximate.



Basemap modified from aerial photo from Eagle Aerial Imaging, Inc. dated 2011



PROPOSED SAMPLE LOCATIONS  
Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California



Date: 04/24/2015

Project No.: IR1316460K

Submitted By: es

Drawn By: pah

Figure

**5**



## APPENDIX A

---

### Phase I Environmental Site Assessment



**PHASE I ENVIRONMENTAL SITE ASSESSMENT**  
**Carson City Hall Renovation Project**

701 and 801 East Carson Street

Carson, California

*Prepared for:*

**California Department of Toxic Substances Control**

5796 Corporate Avenue  
Cypress, California 90630

*Prepared by:*

**Amec Foster Wheeler Environment & Infrastructure, Inc.**

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Irvine, California 92617-3094  
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March 12, 2015

Project No. IR1316460K

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# PHASE I ENVIRONMENTAL SITE ASSESSMENT

## Carson City Hall Renovation Project

### 701 and 801 East Carson Street, Carson, California

#### 1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), has prepared this report to document findings from a Phase I Environmental Site Assessment (ESA) for the Carson City Hall Renovation project located at 701 and 801 East Carson Street in Carson, California (“site” or “subject site”; Figures 1 and 2). Carson City Hall is located at 701 East Carson Street, and the Community Center is located at 801 East Carson Street (Figure 2). The City of Carson (City) owns the site and is proposing expansion and redevelopment of the City Hall and surrounding area. A Targeted Site Investigation (TSI) is being implemented on behalf of the City to determine whether current and former land uses may potentially affect redevelopment plans.

This Phase I ESA report was prepared by Amec Foster Wheeler for the California Department of Toxic Substances Control (DTSC) and on behalf of the City and is in conformance with the ASTM International (ASTM) E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E1527-13).

#### 1.1 PURPOSE

The purpose of this Phase I ESA is to compile and review available information about the site and the immediate vicinity to identify recognized environmental conditions (RECs) to the extent feasible pursuant to ASTM E1527-13. According to ASTM E1527-13, a REC is “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a site (1) due to any 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 RECs. A *de minimis* condition generally does not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”

Separate and distinct from a REC are two other types of conditions that may be noted in a Phase I ESA: a controlled REC (CREC) or a historical REC (HREC). A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the current satisfaction of the applicable regulatory authority (for example, as evidenced by a no further action [NFA] letter or the equivalent, or by meeting risk-based criteria established by the regulatory authority), with hazardous substances or petroleum

products allowed to remain in place subject to the implementation of required controls, such as site use restrictions, activity and use limitations (AULs), institutional controls, or engineering controls. An HREC is a REC from a past release of any hazardous substances or petroleum products that has occurred in connection with the site and has been addressed to the satisfaction of the applicable regulatory authority (using current criteria) or meets the unrestricted residential use criteria established by the regulatory authority and applicable at the time of this Phase I ESA without subjecting the site to any required controls.

Other environmental issues related to the site, which are not considered RECs as defined by ASTM E1527-13, are referred to as potential environmental concerns (PECs). For purposes of this assessment, PECs are defined as features or conditions that do not meet the ASTM definition of a REC, HREC, or CREC, but have been identified as potentially having an environmental component of interest related to the subject property. PECs do not necessarily require any action to address their presence or condition, but are identified for the sake of thoroughness and completeness.

## **1.2 REASON FOR PERFORMING THE ESA**

This project is funded through DTSC's TSI program. The TSI program is one of several initiatives funded through a grant that DTSC received from the United States Environmental Protection Agency (U.S. EPA). The TSI program facilitates redevelopment by assisting eligible participants in addressing specific environmental concerns at planned redevelopment properties. TSI projects are selected to receive services through a competitive application process. DTSC offers this service at no cost to the selected applicants to assist them in addressing environmental aspects of the redevelopment process. The City submitted a TSI application for the project to assist with environmental site characterization to support site development.

The purpose of the TSI is to complete a Phase I ESA and conduct a limited site assessment, if necessary, to assist the City in evaluation of site reuse and redevelopment planning. DTSC commissioned this Phase I ESA to satisfy one of the requirements to permit the City to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (referred to as the "landowner liability protections" or LLPs). This report has been prepared using the ASTM E1527-13 standard as guidance and constitutes "all appropriate inquiry" into the previous ownership and uses of the site consistent with good commercial or customary practice as defined in 42 United States Code (U.S.C.) §9601(35)(B).

### **1.3 SCOPE OF SERVICES**

The scope of services for conducting a Phase I ESA is outlined in ASTM E1527-13. This report should not be used for any purposes outside the scope. To complete the scope of services, the following tasks were performed:

- A physical site reconnaissance to identify likely RECs in connection with the site;
- Visual observation of adjoining properties or facilities to assess conditions that may indicate RECs on the site or on an adjoining property;
- Review of historical land use of the site back to the first developed use or 1940, whichever is earlier;
- Review of existing published information related to geology, hydrology, and topographical information for the site;
- Review of reasonably ascertainable records and regulatory agency file database searches to identify federal and state-listed properties of known potential environmental concern located within the minimum search distances from the site, as specified in ASTM E1527-13;
- Interviews with present owners, operators/managers, or occupants;
- Interviews with representatives of the city, county, state, or local regulatory agencies with knowledge of the site;
- Evaluation of compiled information and documentation; and
- Preparation of this report.

Significant additions to, deletions from, or deviations from ASTM E1527-13 are noted above or in corresponding sections of this report.

### **1.4 EXCLUSIONS**

This Phase I ESA does not address non-scope considerations as defined in Section 13 of ASTM E1527-13. The scope of work does not include items considered to be beyond the scope of an ASTM Standard Phase I ESA, such as the collection and testing of groundwater samples, surface and drinking water samples, air samples (including radon), or building material samples for hazardous materials (including polychlorinated biphenyls [PCBs], asbestos, and lead-based paint). It also does not include the identification of wetlands, endangered or protected plant and animal species, biological agents, historical or archeological sites (cultural resources); lead in drinking water; radon; mold; potential noise or air quality impacts; regulatory compliance; health and safety or industrial hygiene issues; geotechnical studies; geologic hazards; or concerns related to the Americans with Disabilities Act.

## 1.5 SIGNIFICANT ASSUMPTIONS

Amec Foster Wheeler has prepared this Phase I ESA report using reasonable efforts to identify RECs associated with hazardous substances or petroleum products at the site. Findings in this report are presented as professional judgments and are based on the facts currently available to Amec Foster Wheeler within the limits of the existing data, scope of work, budget, and schedule. It is Amec Foster Wheeler's specific intent that the findings and conclusions stated herein provide guidance and are not necessarily a firm course of action, except where explicitly stated.

An independent data research company, Environmental Data Resources, Inc. (EDR), of Milford, Connecticut, provided Amec Foster Wheeler with the government agency database search report referenced in this report. The information provided to Amec Foster Wheeler from the government agency database search was assumed to be correct unless obviously contradicted by Amec Foster Wheeler's observations or by another credible referenced source reviewed by Amec Foster Wheeler.

Similarly, Amec Foster Wheeler has assumed that responses to questions during interviews have been truthful and that information contained in previous reports for the site or adjoining properties (for example, earlier Phase I ESAs or consultants' reports) is accurate (pursuant to Section 4.7 of ASTM E1527-13), unless contradicted by Amec Foster Wheeler's observations or by other credible referenced sources reviewed by Amec Foster Wheeler.

Amec Foster Wheeler researched the California State Water Resources Control Board's GeoTracker website (GeoTracker) and EDR Radius Map Report (EDR, 2015a) for regional geologic and hydrogeologic information. Numerous groundwater monitoring wells are present in the vicinity of the site. According to a report for the Los Angeles County Sheriff Station located north of the site at 21356 South Avalon Boulevard (Figure 2), "on June 24, 2013, the depth to groundwater in well MW15 was 23.77 feet below TOC (top of casing)" (Leighton Consultants, 2014). The report also stated, "A site wide gauging event was conducted May 14-18, 2014 during routine semi-annual monitoring and the direction of groundwater flow beneath the majority of the [Los Angeles County Sheriff] site was to the southeast, with a hydraulic gradient of approximately 0.007 feet per foot" (Leighton Consultants, 2014). According to a 2014 groundwater monitoring report for the former Chevron station located adjacent to the southwest corner of the site at 21703 Avalon Boulevard (Figure 2), recorded depths to groundwater were 22 to 27 feet, and groundwater flow direction varied from southerly to westerly at an approximate gradient of 0.003 foot per foot (ft/ft) (Leidos, 2014). Groundwater depths at a 76 Station located east of the site at 1025 East Carson Street (Figure 2) were approximately 5 to 15 feet in 2010, and the groundwater gradient was 0.02 ft/ft

with a generally variable flow direction but predominantly north to northeast (Holgun, Fahan & Associates, Inc., 2011). Arcadis (2015) currently reports approximate depths to groundwater between 18 and 23 feet and a south to southeast flow direction at the 76 Station.

According to information listed in the EDR Radius Map Report (EDR, 2015a) included as Attachment A, the groundwater flow direction varies at the site and surrounding area within ¼ mile of the site. Measuring groundwater elevations at the site was beyond the scope of this Phase I ESA; therefore, Amec Foster Wheeler could not confirm actual depths to groundwater or groundwater flow direction at the site or in the site vicinity. Assessments of properties discussed in this report focus on adjoining properties, and, since groundwater flow is variable and it is not feasible to presume which properties are hydraulically upgradient of the site, other surrounding pertinent properties in the vicinity of the site are discussed herein.

#### **1.6 LIMITATIONS, EXCEPTIONS, SPECIAL TERMS, AND CONDITIONS**

This report summarizes work performed to fulfill the process specified under ASTM Standard E1527-13. The ASTM standard is intended to permit a user to satisfy one of the requirements to qualify for the federal CERCLA liability exemptions. Reasonable efforts were made to identify evidence of aboveground storage tanks (ASTs), underground storage tanks (USTs), and ancillary on-site equipment during the visit to the site. Reasonable efforts were limited to observation of accessible areas and interviews. Amec Foster Wheeler was allowed full access to the site, and there were no obstructions that might have limited a visual review of the site.

This report was prepared by Amec Foster Wheeler exclusively for DTSC and the City. The quality of information and conclusions contained herein is consistent with the level of effort involved in Amec Foster Wheeler services and based on (1) information available at the time of preparation, (2) data supplied by outside sources, and (3) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by DTSC and the City only for the Carson City Hall Renovation project at 701 and 801 East Carson Street, Carson, California, subject to the terms and conditions of DTSC's contract with Amec Foster Wheeler. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

Environmental impairment of a property may result from many activities, such as illegal or unreported dumping or the spilling of hazardous wastes or materials. The presence of contaminants at a particular property may not always be apparent, and the completion of a Phase I ESA in accordance with ASTM E1527-13 cannot provide a guarantee that hazardous wastes or materials do not exist. Findings of this report are valid as of the report date and are subject to the Phase I ESA limitations described herein and in ASTM Standard E1527-13. An updated Phase I ESA will be required for the site after a period of 180 days.

The findings contained herein are relevant to the dates of Amec Foster Wheeler's site reconnaissance and should not be relied upon to represent conditions at later dates. In the event that changes in the nature, usage, or layout of the property or nearby properties are made, the conclusions and recommendations contained in this report may not be valid.

Regardless of findings stated in this report, Amec Foster Wheeler is not responsible for consequences of conditions arising from facts that were withheld or not fully disclosed to Amec Foster Wheeler during this Phase I ESA.

### **1.7 USER RELIANCE**

Amec Foster Wheeler completed this work under the contract terms and conditions presented in DTSC's work order number 14-T3934 dated January 16, 2015. This report is intended to be used by DTSC or the City only for the Carson City Hall Renovation project located at 701 and 801 East Carson Street, Carson, California, subject to the terms and conditions of DTSC's contract with Amec Foster Wheeler. This Phase I ESA may not be relied upon by other parties without the express written consent of DTSC and upon written acceptance of our terms and conditions through Amec Foster Wheeler's Third Party Reliance Agreement.

In accordance with ASTM E1527-13, this report is valid for one year from the date of acquisition or the date of the intended transaction provided that interviews, a search for environmental cleanup liens, a review of government records, the visual reconnaissance of the site and surrounding properties, and the environmental professional declarations are updated within 180 days of the date of purchase or the date of the intended transaction.

Provided that the report is still valid and reliable, as per the limitations and exceptions listed above, Amec Foster Wheeler will issue a third-party reliance letter to parties that DTSC identifies in writing, upon payment of the then-current fee for such letters. All third parties relying on Amec Foster Wheeler's report, by such reliance agree to be bound by our proposal and Amec Foster Wheeler's reliance agreement. Amec Foster Wheeler's standard reliance letter indicates that in no event shall Amec Foster Wheeler be liable for any damages, howsoever arising, relating to third-party reliance on Amec Foster Wheeler's report.

### **2.0 SITE DESCRIPTION**

The following is a description of the location, general setting, and usage of the site and adjoining properties, based on information provided by DTSC and the City, the site operator/user, and observations during the site reconnaissance.

## 2.1 LOCATION AND LEGAL DESCRIPTION

The site addresses are 701 and 801 East Carson Street, Carson, County of Los Angeles, California. The site is owned by the City and is located in a mixed commercial and residential area of Carson, California (Figure 2). The Los Angeles County Assessor's Parcel Numbers (APNs) for the site shown on Figure 3 are as follows:

- 7337-005-903: no address listed, 4.85 acres, use type: "other."
- 7337-005-927: no address listed, 4.52 acres, use type: "vacant land."
- 7337-006-919/920: no address listed, approximately 1.28 acres, use type: "other."
- 7337-006-921: 701 East Carson Street, 4.35 acres, use type: "other."
- 7337-006-922: 801 East Carson Street, 4.82 acres, use type: "other."

The 19.82-acre site is approximately rectangular in shape (Figure 3). The land is currently zoned for commercial use and occupied by City Hall and Community Center buildings.

## 2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The site consists of approximately 19.82 acres of commercial use land. The site is located in a mixed use land area (businesses, schools, and residences are in the vicinity of the site).

## 2.3 CURRENT SITE USAGE

The site is occupied by Caron's City Hall and Community Center, parking areas, and landscape areas. The City Hall and Community Center are separated by Civic Center Drive (Figure 2). On February 4, 2015, the date of the site reconnaissance, the site was being used for City business and local community services.

## 2.4 CURRENT USES OF THE ADJOINING PROPERTIES

Table 1 summarizes the adjoining properties and their uses identified by Amec Foster Wheeler during the site reconnaissance.

**Table 1: Adjoining Properties**

Direction	Property Description
North	Desford Street along the western half of the northern site boundary followed by Los Angeles County Sheriff Department; Civic Plaza Drive along the eastern half of northern site boundary followed by a residential neighborhood
East	Civic Plaza Drive and two high-rise buildings (One Civic Plaza occupied by Merchants Bank and Two Civic Plaza occupied by Double Tree Inn); southeast is Andrew Carnegie Middle School
South	East Carson Street followed by restaurants, a mobile home park, and various retailers; southwest is a Carl's Jr. restaurant



West	Avalon Boulevard, west of which is a gas station, Happy Cleaners and other retailers, a vacant lot, Carson Primary Care, and a mobile home park
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### 3.0 PHYSICAL SETTING

Amec Foster Wheeler reviewed reasonably ascertainable sources to assess the physical setting of the site, including topographic, geologic, and hydrologic characteristics. The results of Amec Foster Wheeler’s review are presented in the following subsections

#### 3.1 TOPOGRAPHY AND SURFACE WATERS

The site elevation is approximately 20 feet above mean sea level (msl) and the ground slopes generally northeast (United States Geological Survey [USGS], 1981). The site is located within the Santa Monica Bay watershed (Hydrologic Unit Code: 18070104) ([http://water.usgs.gov/wsc/watershed\\_finder.html](http://water.usgs.gov/wsc/watershed_finder.html)). The nearest surface water is the concrete-lined, southeasterly flowing Dominquez Channel, located approximately 1,000 feet east-northeast of the site (Figure 2).

#### 3.2 SOILS

The United States 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. EDR lists the soil component name in the general site vicinity as “Urban Land”; no pertinent soil details are listed (Attachment A). The EDR Radius Map Report (EDR, 2015a) also states that, based on SCS data, soil types in the general site area may include gravelly, sandy, or silty loam; clay; fine sand; gravelly sand; sand; and fine sandy loam.

#### 3.3 REGIONAL HYDROGEOLOGIC SETTING

The site is located in the West Coast Hydrologic Subarea, a portion of the Coastal Plain Hydrologic Area of the Los Angeles-San Gabriel Hydrologic Unit (California Regional Water Quality Control Board [CRWQCB], 1995). The Los Angeles-San Gabriel Hydrologic Unit is located within Los Angeles County and small areas of southeastern Ventura County. Its recharge area totals 1,608 square miles and includes drainage from the Transverse Ranges through the Los Angeles River, San Gabriel River, and Ballona Creek. These surface waters also recharge large reserves of groundwater that exist in alluvial aquifers underlying the San Fernando and San Gabriel Valleys and Los Angeles Coastal Plain (CRWQCB, 1995). Because land use is predominantly residential, commercial, and industrial, much of the recharge area is covered with semi-permeable or non-permeable material, such as asphalt or concrete.

Aquifers underlying West Coast Hydrologic Subarea include the Holocene semiperched, Bellflower, Gaspar, and Gardena aquifers; the upper Pleistocene Gage aquifer; and the lower Pleistocene Lynwood and Silverado aquifers. The Silverado aquifer is the most productive aquifer in the area and thickness ranges from 100 to 500 feet. In the site vicinity, the top of the approximately 60-foot-thick Gage aquifer, located within the Lakewood Formation, is approximately 150 feet below ground surface. The top of the 100-foot thick Lynwood aquifer, located within the San Pedro Formation, is approximately 260 feet below ground surface (California Department of Water Resources [DWR], 1961).

### **3.4 SITE HYDROGEOLOGIC SETTING**

The site is located within the Los Angeles Basin at the north end of the Peninsular Ranges province and lies between the Palos Verdes and Newport-Inglewood fault zones, which trend approximately northwest-southeast (<http://earthquake.usgs.gov/hazards/qfaults/google.php>). The structural features in the site vicinity include the Dominguez Anticline and Gardena Syncline, located east-northeast of the site (DWR, 1961).

Geologic units underlying the site include Recent alluvium, the upper Pleistocene Lakewood Formation, and the lower Pleistocene San Pedro Formation (DWR, 1961). The approximately 200-foot section of the Lakewood Formation in the site vicinity is composed primarily of unconsolidated sand, silt, and clay (DWR, 1961). Soils reportedly encountered north of the site during subsurface investigation at 21356 South Avalon Boulevard included interbedded silty fine sand from ground surface to depths of approximately 18 to 23 feet; silty sands from 20 to 30 feet; and silty clay from 30 to 45 feet (Leighton Consulting, Inc., 2008).

As stated in Section 1.5 of this report, numerous groundwater monitoring wells are located in the vicinity of the site. Groundwater depths have been recorded between 5 and 27 feet, and groundwater flow directions have varied from east-southeast to south, west, north, and northeast.

### **4.0 INFORMATION PROVIDED BY USER AND OWNER**

The following subsections present information regarding environmental liens, title records, and specialized knowledge obtained from DTSC and/or the City. This information is included as Attachment B. Other sources of information obtained during the environmental records review were used as indicated below.

#### **4.1 TITLE REPORTS**

The City provided title reports, which included the following information:

July 12, 1966, Trustee's Deed Upon Sale executed by Jack D. Milligan, Dudley Gray and Neal F. Harte, each as to an undivided one-third interest, grant and convey to Home Savings and Loan Association.

April 26, 1973, Corporation Grant Deed where Home Savings and Loan Association grants Carson Redevelopment Agency the following property in the City of Carson, County of Los Angeles, State of California:

That portion of Lot 56 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42, Pages 68 and 69 of Maps, in the Office of the County Recorder of said County, lying Southerly of that certain course in the Southerly line of Desford Street, 40 feet wide, shown on the map of Tract No. 26399, recorded in Book 699, Pages 91 and 92 of Maps, in the Office of the County Recorder of said County, as having a veering and length of North 89°39'26" East 620.02 Feet. A portion of this description is now shown as:

Lots 1 to 11, inclusive, of Tract No. 29846, in the County of Los Angeles, State of California, as per map recorded in Book 727, Pages 98 and 99 of Maps, in the Office of the County Recorder of said County.

December 7, 1976, a Corporation Grant Deed, where Carson Redevelopment Agency grants the City of Carson a Municipal Corporation, the following:

Parcel 1:

a) the east 335 feet of Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the Office of the County Recorder of said County. Except the southerly 20 feet thereof.

b) Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County. Except therefrom the easterly 335 feet. Also except the southerly 125 feet of the westerly 160 feet. Also Except the southerly 20 feet from the remainder thereof. Also Except the westerly 25 feet from the remainder thereof.

Parcel 2:

a) The South 125 feet of the West 140 feet of Lot 54 of Tract No. 3848 in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County. Except the westerly 25 feet of said land. Also Except that portion of said land included within the following described boundaries:

Beginning at the intersection of the southerly line of said lot with the easterly line of the westerly 140 feet of said lot: thence northerly along said easterly line 20.00 feet to the northerly line of the southerly 20 feet of said lot: thence westerly along said northerly line 98.00 feet to a point distant easterly thereon 17.00 feet from the easterly line of the westerly 25 feet of said lot; thence northwesterly in a direct line 24.03 feet to a point in said last mentioned easterly

line distant northerly thereon 17.00 feet from the northerly line of the southerly 20 feet of said lot; thence southerly along said last mentioned easterly line to said southerly line of said lot; thence easterly along said southerly line to the point of beginning.

b) the south 125 feet of the west 160 feet of Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County. Except therefrom the west 140 feet thereof. Also Except therefrom the southerly 20 feet thereof.

Parcel 3:

Lot 55 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County. Except the westerly 25 feet of the southerly 165 feet of said lot.

Parcel 4:

Lots 1 to 11, inclusive, of Tract No. 29846, in the County of Los Angeles, State of California, as per map recorded in Book 727 Pages 98 and 99 of Maps, in the office of the County Recorder of said County.

Copies of the title reports are included in Attachment B.

#### **4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS**

No land use restrictions or covenants are known to exist for the site. An environmental lien search was not included within the scope of this Phase I ESA.

#### **4.3 SPECIALIZED KNOWLEDGE**

DTSC provided Amec Foster Wheeler with a fully executed Standard Agreement for Contract 14-T3934, dated January 16, 2015, to conduct a Phase I ESA and Preliminary Endangerment Assessment at the site. The Standard Agreement states the following pertinent information (unless subsequently revised or modified) about the site:

- The site is currently occupied by Carson's City Hall and Community Center.
- Previous assessment activities have not been conducted at the site.
- The site is being assessed for the purpose of renovation.

Figure 3 shows the site boundary and the Los Angeles County APN lines.

#### **4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES**

ASTM E1527-13 requires that the purchase price of the property be evaluated with respect to what its fair market value would be if the property were unaffected by petroleum products or

hazardous substances. A significant difference in valuation may indicate that environmental conditions exist that are negatively affecting the value of the property. No information pertaining to property valuation was provided to Amec Foster Wheeler.

#### **4.5 CURRENT OWNER AND OCCUPANT INFORMATION**

The City of Carson is the current owner of the site. The site is currently used by the owner as a City Hall and a Community Center.

#### **4.6 CURRENT PERMITS**

No current permits were provided by DTSC or the City for this site. The Los Angeles County Department of Public Works online resource (<http://ladpw.org/epd/CleanLA/OpenFileReview.aspx>) shows permits for one 4,000-gallon diesel UST for the emergency generator, equipped with a Veeder Root tank monitoring system. Violations listed online included financial responsibility and water in the tank containment (Section 5.2.4). No UST leaks or spills were listed.

#### **4.7 PREVIOUS SITE WORK**

During an interview with former City of Carson Mayor Gil Smith, Mr. Smith stated that previous environmental investigations had been conducted on the site during the construction of City Hall and the Community Center. Mr. Smith indicated that the reports should be in the City's files. Amec Foster Wheeler has submitted a request to the City to review environmental reports associated with the site; however no reports have been made available at this time. However, a tank closure report documenting removal of a 4,000-gallon diesel UST from 701 East Carson Street (City Hall) was obtained from the Los Angeles County Department of Public Works (Section 5.2.4).

### **5.0 ENVIRONMENTAL RECORDS REVIEW**

The findings from our environmental records research and review are presented in the following sections.

#### **5.1 STANDARD ENVIRONMENTAL RECORD SOURCES**

Amec Foster Wheeler retained EDR to search federal, state, and tribal environmental regulatory databases for information on the site, as well as properties located within 1 mile of the site (ASTM, 2013), with documented environmental releases and/or those that use, store, or dispose of regulated chemicals. A list of the regulatory databases searched and the results are presented in the EDR Radius Map Report (EDR, 2015a) included as Attachment A. Amec Foster Wheeler also searched the following online resources: GeoTracker, DTSC's EnviroStor (EnviroStor), South Coast Air Quality Management District (SCAQMD) Facility Information

Details (FINDS), Hazardous Waste Tracking System (HWTS), and National Pipeline Mapping System (NPMS).

The following subsections describe properties at the site and/or adjacent properties identified as having potential environmental impacts on the site. The EDR report (2015a) did not identify activity and use limitations or institutional controls relating to the site.

#### **5.1.1 Subject Property**

The site address and a site boundary outline were submitted to EDR for the purpose of conducting an environmental database search. The EDR Radius Map Report (2015a) showed the subject site was listed on the Hazardous Waste Information (HAZNET), UST, and Los Angeles Co. Hazardous Materials System (HMS) databases (Attachment A). The HAZNET listing shows household wastes and mixed oil/waste oil. The UST and Los Angeles Co. HMS listings did not show details.

EnviroStor showed one listing for the site identified as Carson City Hall Renovation, 701 to 801 E. Carson St., which pertains to this City Hall Renovation TSI project. The site was not identified by any other of the online resources listed above. The site was not identified on GeoTracker.

#### **5.1.2 Surrounding Properties**

The site may be impacted by releases of chemicals of potential concern (COPCs) from nearby properties via movement of those compounds in groundwater, soil, or soil vapor onto or under the site. COPCs released to soil on a nearby property can potentially impact underlying soil, soil vapor, and/or groundwater. COPCs in groundwater can impact the subject site via movement of the compounds in groundwater, particularly if a release occurs at a location that is hydraulically upgradient of the site. Releases of COPCs to groundwater downgradient or cross gradient of the subject site typically are not expected to impact conditions at the site unless in close proximity. As discussed in Sections 1.5 and 3.4, the groundwater flow direction in the vicinity of the site is variable, thus making it difficult to presume which properties would be hydraulically upgradient of the site. Therefore, all pertinent adjoining properties as well as other pertinent properties in the site vicinity are discussed below.

The EDR regulatory database search included properties that are located within specified search radii and have documented environmental releases and/or that use, store, or dispose of regulated chemicals and wastes. The following paragraphs discuss properties in the site vicinity, for which information was publicly available, that, based on our review, could have a higher potential to adversely impact the site. Where feasible based on existing information,

statements regarding the potential for a nearby property to impact environmental conditions at the site are included.

**Los Angeles County Facilities MGM Department, 21356 South Avalon Boulevard**

Los Angeles County Facilities MGM Department, also identified as the Los Angeles County Sheriff Station, located at 21356 South Avalon Boulevard, is less than 100 feet north of the northern site boundary. The property is identified by EDR (2015a) on the following databases: Historic Hazardous Waste and Substances (CORTESE), Leaking Underground Storage Tank (LUST), and Enforcement Action Listing (ENF). The property is a LUST cleanup project, with gasoline and aviation fuel impacts to soil and groundwater. Remediation and groundwater monitoring are currently ongoing. Monitoring wells are located within a few feet of the northern site boundary. As stated in Section 1.5 of this report, in 2013 the depth to groundwater at this property was reportedly 23.77 feet below TOC and groundwater flow direction was southeasterly (Leighton Consultants, 2014). This property is considered a REC for the site.

**Arco Station No. 6129, 21313 South Avalon Boulevard**

21313 South Avalon Boulevard, located approximately 240 feet north-northwest of the northwest corner of the site, is identified by EDR as Carlos Gutierrez in the Historic UST database. It is listed as a gas station with the following USTs: one 6,000-gallon UST installed in 1971 with fuel type 06; one 6,000 gallon and one 9,000-gallon UST, both installed in 1979; and one 550-gallon waste oil UST, installation date unknown. The address is also listed by EDR as Arco Station #6129. It is identified by EDR (2015a) on the following databases: Historic CORTESE, LUST, Historic Auto Station, CA Facility Inventory Database (FID) UST, Statewide Environmental Evaluation and Planning System (SWEEPS) UST, and Los Angeles County HMS. The property is a LUST cleanup project, with gasoline impacts to groundwater. A UST Program – Pre-Closure Notification letter from the Los Angeles Regional Water Quality Control Board (LARWQCB) dated December 3, 2014, states, “We have completed our review and evaluation of the information provided to this agency for the underground storage tank release(s) at the [Arco] Site and determined that this case meets the Regional Board’s low threat criteria for a case closure.” Based on this information, the property is considered a REC for the site. If, however, the Regional Board grants the site a closure, this property may be considered as a CREC because of the co-mingled groundwater plume remaining beneath the site.

**Former Shell Service Station, 21304 South Avalon Boulevard**

21304 South Avalon Boulevard is located approximately 375 feet north of the site. It is identified in EDR as Farrokh Dai (gas station) and is listed in the Historic UST database with the following USTs: one 550-gallon waste oil UST installed in 1965 and three 10,000-gallon gasoline USTs installed in 1983. The address is also identified as TuneUp Masters No. 63

and is listed on the Resource Conservation and Recovery Act- Small Quantity Generator (RCRA-SQG), FINDS, and HAZNET databases. The wastes included spent halogenated solvents used in degreasing including tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; no violations were listed with respect to these wastes. Lastly, the address is also listed as Dan's Shell/Shell Service Station #204-1312-0708 in the LUST database. As stated in the Quarterly Status Report – Fourth Quarter 2014 (Wayne Perry, 2015), groundwater monitoring was conducted; a soil vapor survey report was submitted on August 22, 2014; a Soil Remediation Excavation Plan was approved by the LARWQCB on December 19, 2014, and the LARWQCB also requested a remedial action plan to address groundwater impacts, and the soil vapor extraction system is currently turned off. The report further indicates that groundwater monitoring will not be conducted during the first quarter of 2015, quarterly monitoring reports will be submitted, and remedial excavation will be conducted and a remedial action plan will be submitted (Wayne Perry, 2015). This property is considered a REC for the site. This property is now occupied by a bail bonds business, however it appears to be listed for sale.

#### **Happy Cleaners, 21615 Avalon Boulevard**

Happy Cleaners, located at 21615 Avalon Boulevard and approximately 100 feet west of the southwestern portion of the site, is listed on the following databases: RCRA-SQG, FINDS, Drycleaners, US Historic Cleaners, and HAZNET. Wastes generated by the property are listed as hydrocarbon solvents (benzene, hexane, Stoddard, etc.) and halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc.). Database dates associated with the facility are from 1993 through 2012. No violations or environmental issues are listed; however, due to the proximity of this property to the site, typical environmental concerns associated with drycleaners, and potential migration pathways in vapor and/or groundwater, this property is considered a PEC for the site. Happy Cleaners is still operating at this address.

#### **Former Exxon/Mobil Station #18MBT, 655 East Carson Street**

A former Exxon/Mobil Service Station located at 655 East Carson Street, situated northwest of the intersection of Carson Street and Avalon Boulevard and less than 100 feet west of the southwest corner of the site, is listed on the following databases: Historic CORTESE, Historic Auto Station (1999 through 2012), UST, Los Angeles County HMS, CA FID UST, SWEEPS UST, RCRA-Large Quantity Generator (LQG), and FINDS. The address is also shown as Edwin S. Yamauchi and listed as a Historic UST. According to EDR (2015a), one 6,000-gallon gasoline UST, one 8,000-gallon gasoline UST, one 10,000-gallon gasoline UST, and one 280-gallon waste oil UST were installed at the property. The only date for installation was 1971 for the 6,000-gallon UST. EDR (2015a) identifies the property as a LUST cleanup project involving gasoline impacts to groundwater, and the case was closed by the LARWQCB in a no



further action (NFA) letter dated September 30, 2010 as a low-threat UST case. Because concentrations of some residual compounds detected in groundwater exceed maximum contaminant levels, the property is considered a CREC for the site. Chevron now occupies this location.

The GeoTracker and EnviroStor information for this property are similar to the EDR information described above, although it indicated all USTs were installed in 1990 and subsequently upgraded. The site is currently a Chevron Service Station.

#### **Former Chevron Service Station #9-4328, 21703 South Avalon Boulevard**

Chevron Service Station #9-4328, located at 21703 South Avalon Boulevard, less than 100 feet southwest of the southwest corner of the site, is listed on the following databases: LUST, Historic CORTESE, and ENF. It is a LUST Cleanup project involving gasoline impacts to groundwater. The most recent documents available on GeoTracker indicate the property will submit a remedial action plan to the LARWQCB by April 15, 2015. As previously stated in Section 1.5 of this report, in 2014, groundwater depths at this property were 22 to 27 feet and groundwater flow direction varied from southerly to westerly. Given variable groundwater flow directions in the site vicinity, this property cannot be ruled out as an upgradient source. Thus, this property is considered a REC for the site. The address is currently a Carl's Jr. Restaurant.

#### **Former Econo Lube N' Tune, 708 East Carson Street**

Econo Lube N' Tune, located at 708 East Carson Street at the northeast corner of Carson Street and Avalon Boulevard, is less than 100 feet south of the southwest corner of the site. The property is listed on the following databases: US Historic Auto Stations (1999 to 2010), UST, Los Angeles County HMS, SWEEPS UST, National Pollutant Discharge Elimination System (NPDES), and LUST. The property was a LUST Cleanup project with gasoline impacts to groundwater. According to GeoTracker, historical groundwater flow was towards the southwest. Active remediation was conducted at the property, including excavation, in situ chemical oxidation, removal of free product from groundwater, soil vapor extraction, and installation of engineering controls (soil gas migration membrane) beneath the subterranean garage level. An NFA letter was issued to the property on March 17, 2014 as a low-threat UST case. Because of the potential present of residual contaminants, this property is considered a CREC for the site. An IHOP restaurant now occupies this approximate location.

#### **Former Bonita/South Coast Cleaners, 860 East Carson Street**

Bonita Cleaner/South Coast Cleaners, located at 860 East Carson Street, at the northwest corner of East Carson Street and Bonita Street, less than 100 feet south of the southern site boundary, is listed on US Historic Cleaners database in 1999. No other details are given. No violations or environmental issues are listed; however, due to the proximity of this property to

the site, typical environmental concerns associated with drycleaners, and potential migration pathways in vapor and/or groundwater, this property is considered a PEC for the site. A restaurant now occupies this approximate location.

#### **No. 37T-Carson**

This property is listed by EDR (2015a) as being less than 1/8 mile west-southwest of the site; however, no actual street address is listed. The property is listed in the Spills, Leaks, Investigation, and Cleanup (SLIC) database as an open, inactive cleanup program location as of 1965. The LARWQCB is shown as the lead agency. GeoTracker shows similar information. Given the presumed close proximity to the site and the unknown environmental issues/concerns, this property is considered a data gap for the site.

#### **Vacant – 923 E. Carson Street**

This property is listed by EDR (2015a) as being less than 1/8 mile east-southeast of the site. The property is listed in the SWEEPS UST database as an active property as of June 30, 1989. The Los Angeles County HMS identifies the facility status as closed. Given the presumed close proximity to the site and the unknown environmental issues/concerns, this property is considered a data gap for the site.

#### **ACTA South – Parcel SE-334**

ACTA South – Parcel SE-334 is listed by EDR (2015a) as being less than 1/8 mile east-southeast of the site. The property is listed on the SLIC database as a closed cleanup program. An NFA letter, dated March 27, 2003, was issued to Alameda Corridor Transportation Authority (ACTA) by the LARWQCB. The actual address could not be located and no other details about the listing were provided. However, the LARWQCB's NFA letter notes that information on the 19.5-square-foot area acquired by ACTA for maintaining a 10-foot clearance along a right-of-way did not reveal evidence of significant potential contaminant sources at the site. This property is not considered a REC for the site.

#### **Shell Pipeline**

Several properties listed by EDR (2015a) as Shell Pipeline or pipeline corridor are reported as being less than 1/8 mile east-southeast of the site. These properties were identified by the LARWQCB as requiring assessment to identify the source of release of non-aqueous phase liquids within the Dominguez Channel. Because the release is impacting surface water away from the site, these properties are not considered RECs for the site.

### **Tosco – 76 Station #6082, 1025 East Carson Street**

Tosco – 76 Station #6082, located at 1025 East Carson Street, approximately 700 feet east of the site, is listed on the LUST database. It is listed by EDR (2015a) as a LUST Cleanup project with ongoing remediation. Gasoline reportedly has impacted groundwater. The most recent document available on GeoTracker (Arcadis, 2015) indicates that semi-annual groundwater monitoring is ongoing. As noted therein, “The direction of groundwater flow and calculated gradient were generally consistent with previous monitoring events; the groundwater flow direction has historically varied.” Arcadis (2015) currently reports approximate depths to groundwater between 18 and 23 feet and a south to southeast flow direction. This property is considered a REC for the site.

### **Blocker**

Blocker, located at 21600 South Bonita Street, is listed by EDR (2015a) as being less than 1/8 mile east-northeast of the site. The property is identified as S103441409 on the Waste Management Unit Database System/State Water Resources Control Board (WMUDS/SWAT) database, but no other information was provided. The property address could not be located; the location shown by EDR is for East Desford Street. However, it may indicate the location of previous salvage yard. Given the presumed close proximity to the site and the unknown environmental issues/concerns, this property is considered a data gap for the site.

### **Other Surrounding Properties**

Other properties near the site are listed in the EDR Radius Map Report (2015a) for various databases. Three properties are listed as “orphan” or unmappable properties.

Based on the regulatory status of these properties, relative distances from the site, locations in relation to the presumed direction of groundwater flow, and/or other information listed in the EDR Radius Map Report (2015a), additional facilities listed in the EDR report, including orphan properties, but not previously discussed in Section 5.1.2, are not expected to represent a significant environmental concern for the site.

### **5.1.3 Water Well Information**

According to information listed in the EDR Radius Map Report (2015a), no water wells are located on the site. Two Federal USGS wells and two State Database wells are located between ¼ and ½ mile west to southwest of the site (EDR, 2015a). Groundwater depth information for these wells was not listed, and no other pertinent information was provided in the EDR report. These wells are not considered environmental issues for the site.

#### **5.1.4 Oil and Gas Well Information**

Active and abandoned oil and gas wells can present an environmental concern due to potential methane migration or soil or groundwater contamination from mud pits, storage pits, or other features. According to information listed in the EDR Radius Map Report (EDR, 2015a), four oil and gas wells are identified within 1 mile of the site. No other pertinent information was listed in the EDR report. Oil and gas well information available on the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website identifies approximately six wells within 1 mile of the site, all of which are listed as “plugged.” These wells are not considered environmental issues for the site.

#### **5.1.5 Area Radon Information**

According to the EDR Radius Map Report (2015a), the Federal EPA Radon Zone for Los Angeles County is 2, defined as indoor average level greater than/equal to 2 picocuries per liter (pCi/L) and less than/equal to 4 pCi/L. This is not considered an environmental issue for the site.

#### **5.1.6 Flood Zone and National Wetland Information**

According to the EDR Radius Map Report (2015a), the site lies within a 500-year flood zone. This is not considered an environmental issue for the site.

#### **5.1.7 Earthquake Fault Lines**

According to the EDR Radius Map Report (2015a), no earthquake fault lines are on the site. EDR (2015a) shows one earthquake fault approximately  $\frac{3}{4}$  mile southeast of the site. This earthquake fault line is not considered an environmental concern.

#### **5.1.8 Power Transmission Lines**

Based on observations made during the site reconnaissance (Section 6.2), there are no power transmission lines located on the site.

#### **5.1.9 Railroad Lines**

According to the EDR Radius Map Report (2015a) and site observations, no active/inactive railroad lines are located on or within  $\frac{1}{2}$  mile of the site. Topographic maps from 1930 through 1981 show no railroad lines on the site.

### **5.2 ADDITIONAL RECORDS REVIEW**

In conformance with ASTM E1527-13, Amec Foster Wheeler conducted inquiries with environmental and other public agencies in an attempt to obtain additional information on

environmental impacts at the site. This section summarizes the findings of the file request and review. Copies of agency correspondence are included in Attachment C.

### **5.2.1 Department of Toxic Substances Control**

Amec Foster Wheeler requested to review records from the DTSC offices in Cypress and Chatsworth, California. DTSC's Cypress office responded that they have records for 701 East Carson Street. Amec Foster Wheeler believes that this record pertains to the TSI project currently being conducted for the site. DTSC's Chatsworth responded that no records exist at that office pertaining to the site.

### **5.2.2 Los Angeles County Public Health Department**

Amec Foster Wheeler requested to review records from the Los Angeles County Public Health Department. A response stated that records are available for the site. A records review, conducted on March 2, 2015, showed the following pertinent findings:

A document dated 10/24/12 identifies one 4,000-gallon diesel UST associated with a backup generator at the 701 East Carson Street (City Hall), and one 10,000 gallon diesel UST at 801 East Carson Street (Community Center). Interviews, site reconnaissance, and records reviews has identified one backup generator and one 4,000-gallon diesel UST at 701 East Carson Street (City Hall building), and one backup generator and one 25 gallon diesel aboveground storage tank (AST) at 801 East Carson Street (Community Center building). However, a 10,000 gallon diesel UST does not appear to have been located at the Community Center building. According to Tony Schafano, Operations Manager for the City, there is a 10,000 gallon diesel UST at the corporate yard at 2410 east Dominguez Street. DPW records support this statement.

A number of documents identify a maintenance yard at 801 East Carson Street (Community Center) with a Standard Industrial Classification (SIC) code 7538 (automotive repair). Various city employees interviewed during the Phase I ESA stated that to their knowledge the maintenance yard was not used as an automotive repair shop. Instead, the yard was used to park vehicles, store small quantities of paint, store light bulbs, and park small lawn mowers.

The 4,000-gallon diesel UST is considered a REC for the site (Section 8.0).

### **5.2.3 Los Angeles Regional Water Quality Control Board**

Amec Foster Wheeler requested to review records from the LARWQCB, and the response stated that the LARWQCB does not have any records that are responsive to the request.

#### **5.2.4 Los Angeles County Department of Public Works**

Amec Foster Wheeler requested to review records from the Los Angeles County Department of Public Works (DPW). An online resource, (<http://ladpw.org/epd/CleanLA/OpenFileReview.aspx>), lists some available records for the site consisting of UST and tank monitoring and testing inspections/reports. A few violations were listed (e.g., financial responsibility reports were not received on time, liquid in tank containment); however, no reports of spills or leaks were listed. The violations reviewed do not represent environmental concerns for the site. Additionally, DPW records were reviewed on March 2, 2015 identifying the following pertinent findings:

One single-walled 4,000-gallon diesel UST and associated piping reportedly installed in the mid-1970s were removed from the site (adjacent to the eastern portion of the City Hall building) in 1998 (Miller Brooks Environmental [MBE], 1998). Approximately 76 tons of excavated soil was transported to TPS Technologies, Inc. facility in Azusa, California (MBE, 1998). Confirmation soil sampling was conducted and no significant hydrocarbon impacts were reported in the UST excavation. A new double-walled fiberglass 4,000-gallon diesel UST was installed on August 27, 1998 in the same location (MBE, 1998).

One 1,250-gallon clarifier is located outside the maintenance yard building. This finding was confirmed during the site reconnaissance (March 10, 2015). The clarifier is connected to the sanitary sewer and an industrial waste permit was included in the files. According to the records, the clarifier was used to contain water used to wash large high power lawnmowers and accessory equipment. City employees interviewed during this Phase I ESA stated that, to their knowledge, no lawnmowers or accessory equipment are washed at the site and the clarifier is no longer used.

The 4,000-gallon diesel UST and 1,250 gallon clarifier are considered RECs for the site (Section 8.0).

#### **5.2.5 Los Angeles County Fire Department**

UST records/reports were requested from the Los Angeles County Fire Department, and a response is still pending.

#### **5.2.6 Carson Building and Safety**

On March 10, 2015, building and safety records were reviewed. The records included a sand and grease interceptor diagram, dated 1964/revised 1974, at 801 East Carson Street. The diagram shows a proposed interceptor with sample box. No further details (i.e. location,

installation date, maintenance records) were available. This structure appears to the same 1,250 gallon clarifier noted in Section 5.2.4.

### **5.2.7 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration**

Amec Foster Wheeler reviewed the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration's (PHMSA) online National Pipeline Mapping System (NPMS) database. No pipelines were identified on the site. The following in-service pipelines were identified in the site vicinity:

- Less than 1/8 mile north: two empty natural gas pipelines and one water pipeline.
- Less than 1/5 mile east: pipeline corridor containing one jet fuel, three ethanol, and three multi-product pipelines.
- Approximately 1/2 mile south: one jet fuel and one crude oil pipeline.
- Along the western site boundary: one empty liquid pipeline. This line is listed as in-service, so there is a possibility that the line could hold liquid hazardous substances. Therefore, this pipeline is considered a PEC for the site.

### **5.2.8 Freedom of Information Act**

Amec Foster Wheeler requested federal agency records for the site through the Freedom of Information Act. U.S. EPA responded that there are no records responsive to this request.

### **5.2.9 EnviroStor, GeoTracker, HWTS, and SCAQMD-FINDS**

Amec Foster Wheeler researched the site and adjacent properties on the EnviroStor and GeoTracker websites. EnviroStor and GeoTracker listings are included in Section 5.1.1. DTSC's HWTS website was reviewed for the site and listings included general household waste.

The SCAQMD-FINDS website was reviewed for the site and listings included the following:

- 2011 – Boiler, Permit
- 2009 – Internal Combustion Engine (ICE) Diesel Generator, Permit
- 1989 – Cooling Towers (Hex Chrome) were cancelled

## **5.3 HISTORICAL DOCUMENT REVIEW**

Amec Foster Wheeler reviewed historical aerial photographs, historical topographic maps, a city directory abstract, and Sanborn maps to identify the historical use of the site and adjacent properties. The specific findings of our review are discussed in the following subsections.

### 5.3.1 Historical Aerial Photographs

Amec Foster Wheeler reviewed aerial photographs from EDR of the site and vicinity for the years 1928, 1947, 1952, 1963, 1970, 1972, 1983, 1989, 1994, 2002, 2005, 2009, 2010, and 2012 (EDR, 2015e). The scale of the aerial photos is 1 inch equals 500 feet. Observations made on the aerial photos, combined with information ascertained from interviews, are summarized as follows:

- The site was undeveloped in 1928. By 1947, the site was either undeveloped or agricultural land. By 1952, the northwest and very southeast/southwest portions of the site were used as auto dismantling and salvage yards. By 1963, the entire site appears to be occupied by an auto dismantling and salvage yard, except for possibly the southwest corner, where several structures were observed. Additionally, a dark unknown feature (possible surface water retention area) appears in the south-central portion of the site. By 1970, the southwest portion of the site appears to have been graded, and the very southwestern corner is occupied by an unknown structure. (According to Gil Smith, former Carson Mayor, the southwestern corner had been occupied by a residential structure.) Structures were also present in the northwest corner of the site between 1952 and 1972.
- By 1972 the auto dismantling and salvage yard had been removed from all but the northwest portion of the site (although there was still a structure in the southwest corner). By 1983, the City Hall and Community Center buildings, parking lots, and landscaping had been developed and appear similar to present site features.
- Adjoining land throughout time appears to have been undeveloped in 1928 and agricultural in 1947. By 1952, some structures are located on adjoining land, and by 1963 other presumed auto dismantling and salvage yards are situated east and south of the site. At this time presumed mobile home parks are to the south and west, and increased development is observed in the vicinity of the site. By 1970, residential neighborhoods have been developed to the north, and a school is located to the southeast (where the current Andrew Carnegie Middle School is located). By 1972, adjoining land to the north, currently occupied by the Los Angeles County Sheriff, had been developed. By 1983, One and Two Civic Plaza buildings had been constructed. With the exception of slight variations and improvements, adjoining land appears similar to current features.

Copies of the aerial photographs (EDR, 2015e) are provided in Attachment D.

### 5.3.2 Historical Topographic Maps

Topographic maps obtained from EDR on which the site is identifiable include the years 1896, 1901, 1930, 1948, 1951, 1964, 1972, and 1981 (EDR, 2015b). As noted therein, the site is situated within a relatively flat, low-lying area, and the surface elevation at the site is approximately 20 feet above msl. As early as 1930, Carson Street and Avalon Boulevard are recognizable, as are numerous other major thoroughfares, scattered structures, and tank farms in the site vicinity. In 1948, the Dominguez Channel, a northwest-southeast trending



river channel, is located to the east-northeast and a marshy area is located north of the site. By 1951, a structure is identified in the northwest corner of the site. By 1964, the structure previously identified in 1951 is no longer present; however, a structure is identified in the southwest site corner and marshy areas are located along the south-central site border. By 1972, two structures are identified on, or just east of, the southeast site corner. By 1981, the City Hall building is located in the southwest corner of the site. Generally, the topographic map information for the site coincides with the aerial photograph interpretations.

Copies of the topographic maps (EDR, 2015b) are included in Attachment E.

### **5.3.3 City Directory Abstracts**

Amec Foster Wheeler reviewed EDR's Historical City Directory Abstract (EDR, 2015c) for the site and surrounding areas, which includes a summary of listings for the period 1920 to 2013 (non-inclusive). The city directory abstract identified the site as 701 and 801 East Carson Street. Between 1995 and 2013, listings included City of Carson departments including Engineering, Community Center, Redevelopment, City Hall, and Conference Center. Also listed were Jay's Catering and Mostroianni's Maintenance. Business listings are consistent with observations made during the site reconnaissance as well as those listed in the EDR report (EDR, 2015c).

Pertinent business listings for adjoining properties include:

- 21615 Avalon Boulevard, Happy Cleaners from 1995 through 2013 and Civic Cleaners in 1990.
- 21741 Avalon Boulevard, Quality Cleaners in 1990
- 655 E. Carson Street, Mobil Gasoline and Service Station from 1995 through 2013
- 708 E. Carson Street, Jesse S 66 Auto Repair/Econo Lube N Tune from 1970 through 2008
- 21625 S. Avalon Boulevard, U-Haul and U Drive Trucks from 1950 through 2001
- 21628 S. Avalon Boulevard, Jack's Auto Service in 1954
- 21703 S. Avalon Boulevard, Chevron Service Station from 1950 through 1980
- 21728 S. Avalon Boulevard, Larry's Avalon Cleaners in 1950
- 21734 S. Avalon Boulevard, Terry S Cleaners and Dyers in 1960 and Fayette Cleaners from 1954 through 1957
- 21739 S. Avalon Boulevard, Quality Cleaners in 1985
- 21805 S. Avalon Boulevard, Town Aire Cleaners in 1964
- 21821 S. Avalon Boulevard, State Auto Wrecking/Salvage and West Coast Junk & Salvage from 1954 to 1964

The Historical City Directory Abstract from EDR (2015c) is included as Attachment F.

### **5.3.4 Sanborn Maps**

Sanborn Maps were not available from EDR for the subject site (EDR, 2015d). The Sanborn Map report is included in Attachment G.

## **6.0 SITE RECONNAISSANCE**

Amec Foster Wheeler staff Ellen Smith, Technical Professional 2, completed an initial site reconnaissance on February 4, 2015, and a follow-up site reconnaissance on March 10, 2015, observing the general site conditions and operations and surrounding site conditions. Ms. Smith was accompanied by Amelia Soto and Ky Trong on February 4, 2015, and Mr. Tony Schafano on March 10, 2015. Photographs taken during the reconnaissance are included in Attachment H.

### **6.1 METHODOLOGY AND LIMITING CONDITIONS**

The reconnaissance included observing existing conditions at the site and the general surrounding areas with respect to possible environmental concerns. There were no limiting conditions during the site reconnaissance.

### **6.2 GENERAL SITE SETTING**

During the site reconnaissance, the weather was sunny and mild. The site is situated northeast of the intersection of Carson Street and Avalon Boulevard. Civic Center Drive trends north-south in the western portion of the site; Civic Plaza Drive travels along a portion of the eastern site boundary, and Desford Street travels along a section of the northern site boundary. The site is occupied by two large buildings: the City Hall building occupies the southwest corner of the site, and the Community Center building occupies the north-central portion of the site (photos 1 through 5). City Hall is surrounded by landscaping and the Community Center has landscaping on the southwestern, southern, and southeastern sides (Figure 2). A loading dock is located on the southeast side of City Hall (photo 6). Parking lots occupy the northwestern corner as well as the eastern one-third of the site (Figure 2). The site and surrounding area have little to no topographic relief, other than the loading dock area located outside the City Hall basement. This area of the site, which includes the 4,000-gallon diesel UST, is located about 12 feet below site grade.

City Hall, located at 701 East Carson Street, has two stories of administrative floors and a basement that includes the following rooms: generator (photo 7), chiller (photos 8 through 10), boiler (photos 11 and 12), compressor (photo 13), electrical (photo 14), and HVAC. The generator is fueled by a 4,000-gallon diesel UST in the driveway/loading dock area just east of the generator (photo 15). No spills, leaks, or odors were observed in the equipment rooms, other than minor staining from the boiler (photo 12). Chemicals on secondary containment

pallets observed in the chiller room included sulfuric acid, Nalco Trasar cooling water treatment, and Chlor Brite (photo 10). These chemicals are not considered an environmental issue for the site. According to Ky Truong, Public Safety Community Service Manager for the City, no spills or leaks have been reported for the UST. The UST is considered a REC for the site. A pad-mounted electrical transformer (Southern California Edison #P5052594) was observed at an outside location near the generator room (photo 16); no leaks or spills were observed. Rooftop HVAC equipment was not observed as part of this site reconnaissance. The transformer and rooftop HVAC equipment are not considered environmental concerns for the site.

The Community Center, located at 801 East Carson Street, is occupied by equipment rooms similar to those observed in the City Hall building. On March 10, 2015, Ms. Smith conducted a site reconnaissance of the maintenance yard, located on the north side of the building. Ms. Smith was accompanied by Mr. Tony Schafano, Operations Manager with the City. A loading dock is located in the maintenance yard on the north side of the building. According the City representatives, the maintenance yard is only used to load/unload primarily general office supplies. During the site reconnaissance, observations of the maintenance yard were as follows: fertilizer was stored on pallets under cover; petroleum was stored in three 5-gallon containers inside the building in a flammable cabinet; a clarifier located in the maintenance yard; and a generator and associated 25-gallon double-walled AST were located adjacent to the southeast exterior of the Community Center building (Photos 17 and 18). No vehicle/equipment repair or washing activities were observed.

Adjoining properties, shown on Figure 2, are as follows:

- A residential neighborhood is located northeast of the site (photos 19 and 20).
- Los Angeles County Facilities MGM, also identified as Los Angeles County Sheriff (Site C-1), is located north of the northwest portion of the site on the northern side of Desford Street (photo 19). As discussed in Section 5.1.2, petroleum impacts to groundwater are associated with this property and remediation is ongoing. During the site reconnaissance, two groundwater monitoring wells, believed to be associated with this property, were observed in Desford Street (photos 20 and 21). This location is considered a REC for the site.
- An Arco gas station is located north-northwest of the site (photo 22). As discussed in Section 5.1.2, groundwater has been impacted by gasoline; however, the property meets the LARWQCB's low-threat criteria for a case closure. Based on this information, the property is considered a REC for the site. If, however, the Regional Board grants the site a closure, this property may be considered as a CREC.

- A former Shell gas station is located north of the site and north and of the Los Angeles County Sheriff property (photos 23 and 24). As discussed in Section 5.1.2, the property is a LUST cleanup project showing petroleum impacts to groundwater. Remediation is ongoing, and the property is considered a REC for the site. The property is currently a bail bonds business and is listed for sale.
- Two high-rise commercial buildings are located east of the site (photos 25 and 26). Merchants Bank, located at One Civic Plaza, is situated east of the northeast corner of the site. Double Tree Inn, located at Two Civic Plaza, is situated east of the southeast corner of the site.
- A Tosco 76 Station, located at 1025 East Carson Street, is situated approximately 700 feet east of the site (photo 27). As discussed in Section 5.1.2, it is listed as a LUST Cleanup project with ongoing remediation involving gasoline impacts to groundwater. This location is considered a REC for the site.
- Andrew Carnegie Middle School is located at 21820 Bonita Street, southeast of the site, and a mobile home park is located south of the site (photo 28).
- Along the southern boundary of the site and west of Andrew Carnegie Middle School is a restaurant (860 East Carson Street) where the former Bonita Cleaners was located (photo 29). Bonita Cleaners is considered a PEC for the site.
- An IHOP restaurant, located southeast of the intersection of Carson Street and Avalon Boulevard, is the former location of Econo Lube N' Tune (photo 30). As discussed in Section 5.1.2, petroleum impacted groundwater was identified and remediated, and an NFA letter was issued. This location is considered a CREC for the site.
- A Carl's Jr. is located southwest of the intersection of Carson Street and Avalon Boulevard, southwest of the site (photo 31). This is the former location of the Chevron Station. As discussed in Section 5.1.2, this property was identified as an open LUST Cleanup project involving petroleum-impacted groundwater. This location is considered a REC for the site.
- A Chevron Station is located at the northwest corner of Carson Street and Avalon Boulevard, situated west of the southwest corner of the site (photo 31). An Exxon/Mobil Station previously at this location is identified in Section 5.1.2 as a closed LUST Cleanup project involving gasoline impacts to groundwater. This location is considered a CREC for the site.
- A strip mall, including Happy Cleaners, is located west of the site (photo 32). As discussed in Section 5.1.2, Happy Cleaners is considered a PEC for the site. A vacant lot is located north of the strip mall, north of which is Carson Primary Care, then a mobile home park.

### **6.3 OTHER OBSERVATIONS**

Amec Foster Wheeler did not observe the following features on site during the site reconnaissance: unusual odors; pools, catchment structures, or sumps containing liquids or oily sheen likely to be hazardous substances or petroleum products; pits, ponds, or lagoons; drums; containers identified as hazardous substances or petroleum products; containers of unidentified substances suspected of being hazardous substances or petroleum products; electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs; stains or corrosion indicative of hazardous substances or petroleum products.

Amec Foster Wheeler did not observe the following features on site during the site reconnaissance: stained soil/pavement or dry vegetation; wastewater; dry wells, irrigation wells, injection wells, abandoned wells, or monitoring wells; or septic systems. Municipal dumpsters were observed in a paved outside enclosure near the generator room. The dumpsters are not considered to be environmental concerns for the site.

The site is located in a 500-year flood zone. This is not considered to be an environmental concern for the site.

### **7.0 INTERVIEWS**

During the course of this Phase I ESA, Amec Foster Wheeler interviewed Barry Waite, Carson City Business and Employment Development Manager; Linda Mann, Carson City Housing Program Manager; Gil Smith, former Mayor of Carson; Amelia Soto, City of Carson; Tony Schafano, City Operations Manager; and, Maryam Tasnif-Abbasi, DTSC TSI Grant Coordinator and Project Manager. A summary of pertinent site information gained from the interviews and questionnaire is presented below:

- Prior to the development of the site with current City buildings, the entire site area was occupied by an auto dismantling and salvage yard (collection of old military tanks, heaters, army surplus, etc.). The dismantling yard was reportedly filled with old cars stacked 8 to 10 high. The auto dismantling and salvage yard is considered a REC for the site.
- In a discussion with the City on February 4, 2015, Ms. Mann indicated that there could have been a gasoline station located on the southwest corner of the site. In a follow-up phone conversation on February 5, 2015, Mr. Smith stated that to his knowledge there were no gas stations located on the site.
- The site was purchased by the City of Carson in 1970/1971. Prior to this, environmental assessments were reportedly conducted on the property and reports were filed with the City. However, the City has not been able to locate and provide any previous environmental assessment reports to Amec Foster Wheeler. The

auto dismantling and salvage yard was removed and City buildings were constructed beginning in the mid-1970s.

- One single-walled, 4,000-gallon diesel UST and associated piping were removed from near the City Hall building in 1998 and replaced by a double-walled, 4,000-gallon diesel UST. The tank removal report (MBE, 1988), included in Attachment B, indicates petroleum-impacted soil was removed from the UST excavation area. The former UST area (current location of double-walled, 4,000-gallon diesel UST) is considered a REC for the site.
- One double-walled, 4,000-gallon diesel UST and associated backup generator are located adjacent to the eastern exterior of City Hall. The current tank is serviced regularly by Orange County Tanks and is equipped with a Veeder Root monitoring system. No subsequent leaks/spills have been reported. The City is currently getting bids to replace the old fuel lines. Chemicals used in the coolers located on secondary containment pallets in the chiller room (City Hall building) were observed. No leaks or spills have been reported on the site. No odors have been observed at the site. As noted above, 4,000-gallon diesel UST is considered a REC for the site.
- One 25-gallon diesel AST and associated backup generator are located adjacent to the southeastern exterior of the Community Center building. A maintenance yard located on the north side of the Community Center building has been used to load/unload office supplies. One 1,250 gallon clarifier was observed in the maintenance yard. Fertilizers and three 5-gallon containers of petroleum products were observed under cover and/or inside the building in the maintenance yard. The maintenance yard reportedly has not been used to maintain/wash vehicles or equipment. The clarifier is considered a REC for the site.
- There is a kitchen in the Community Center that is seldom used.
- Floor drains in the buildings are connected to the sanitary sewer. There is a drain in the loading dock on the southeast side of the City Hall building, and the drain connection is unknown (e.g., planter, sanitary sewer, storm drain).

## **8.0 FINDINGS AND OPINIONS**

The following are Amec Foster Wheeler's findings and opinions of the Phase I ESA performed for the subject site:

- The site is located at 701 and 801 East Carson Street in Carson, California, northeast of the intersection of Carson Street and Avalon Boulevard. The site consists of approximately 19.82 acres (Los Angeles County APNs 7337-006-921, 7337-006-922, 7337-005-903, 7337-005-927, and 7337-005-919/920). It is used for City buildings and parking lots.
- Based on historical information reviewed during this Phase I ESA, the site was undeveloped in 1928 and undeveloped and agricultural land in 1947. By 1952, the northwest and very southeast/southwest portions of the site were used as auto

dismantling and salvage yards. By 1963, the entire site appears to be occupied by an auto dismantling and salvage yard and structures. In addition, there is a dark unknown feature in the south-central portion of the site. By 1970, the southwest portion of the site appears to have been graded, and the very southwestern corner is occupied by an unknown structure. The yard was reportedly filled with old cars stacked 8 to 10 cars high. The auto dismantling and salvage yard are considered RECs for the site.

- The site was purchased by the City in 1970/1971, and by 1972 the auto dismantling and salvage yard had been removed from all but the northwest portion of the site (although there was still a possible structure in the southwest corner at that time). The City Hall and City Community Center buildings, parking lots, and landscaping were developed on the site in the mid-1970s, and current site features appear to be primarily unchanged.
- Adjoining land throughout time appears to have been undeveloped in 1928 and agricultural in 1947. By 1952, some structures are located on adjoining land, and by 1963 other presumed dismantling and salvage yards are situated east and south of the site. At this time presumed mobile home parks are to the south and west, and increased development is observed in the vicinity of the site. By 1970, presumed residential neighborhoods have been developed to the north, and a presumed school is located to the southeast. By 1972, the land currently occupied by the Los Angeles County Sheriff lies to the north; by 1983, the One and Two Civic Plaza buildings have been constructed. With the exception of slight variations and improvements, adjoining areas appear to be unchanged to present.
- Groundwater monitoring wells are located along the northern site boundary, with groundwater depths recorded between 22 and 27 feet. Groundwater flow direction in the site vicinity has been noted as variable.
- The site was identified by EDR (2015a) on the following databases: HAZNET, UST, and Los Angeles County HMS. No pertinent details were available; however, the listing shows generation of household wastes and mixed oil/waste oil and violations related to UST operations. The site has one double-walled, 4,000-gallon diesel UST and one double-walled, 25 gallon diesel AST. The 4,000-gallon diesel UST is considered an REC for the site.
- The site is listed on GeoTracker and identified as the Carson City Hall Renovation, 701 to 801 E. Carson St. This listing pertains to the active TSI City Hall Renovation project. Three listings were found for the site on the HWTS website, all of which pertained to the generation of household waste. The SCAQMD FINDS website showed site listings for the boiler room and generator. No violations were listed. None of the online listings for the site are considered to be environmental concerns.
- Eight RECs were identified for the site:
  - The auto dismantling and salvage yard formerly located across the entire site.

- The 4,000-gallon diesel UST, located on the east side of City Hall building (701 East Carson Street).
- The 1,250-gallon clarifier located in the maintenance yard (801 East Carson Street).
- Los Angeles County Facilities MGM Department, also identified as the Los Angeles County Sheriff Station, located at 21356 South Avalon Boulevard and less than 100 feet north of the northern site boundary, is a LUST cleanup project with gasoline and aviation fuel impacts to soil and groundwater. Remediation and groundwater monitoring is currently ongoing.
- An Arco gas station, located at 21313 South Avalon Boulevard, is a LUST cleanup project, with gasoline impacts to groundwater. A UST Program – Pre-Closure Notification letter from the LARWQCB dated December 3, 2014, states, “We have completed our review and evaluation of the information provided to this agency for the underground storage tank release(s) at the [Arco] Site and determined that this case meets the Regional Board’s low threat criteria for a case closure.” If the Regional Board grants the property a closure, this property may be considered as a CREC instead of a REC.
- A former Shell gas station is located at 21304 South Avalon Boulevard, approximately 375 feet north of the site. Identified wastes also included spent halogenated solvents. Remediation is ongoing.
- A former Chevron Service Station, currently a Carl’s Jr. Restaurant, located at 21703 Avalon Boulevard and less than 100 feet southwest of the southwest corner of the site, is listed as a LUST cleanup project involving gasoline impacts to groundwater. A remediation plan is due by April 15, 2015.
- Tosco – 76 Station, located at 1025 East Carson Street and approximately 700 feet east of the site, is a LUST cleanup project involving gasoline-impacted groundwater. Remediation and groundwater monitoring is currently ongoing.
- Two CRECs were identified for the site:
  - A former Exxon/Mobil Service Station, located at 655 East Carson Street, situated northwest of the intersection of Carson Street and Avalon Boulevard and less than 100 feet west of the southwest corner of the site, is listed on the following databases: Historic CORTESE, Historic Auto Station (1999 through 2012), UST, Los Angeles County HMS, CA FID UST, SWEEPS UST, RCRA-LQG, and FINDS. The address is also shown as Edwin S. Yamauchi and listed in the Historic UST database. The property was a LUST cleanup project. An NFA letter was issued for the property on September 30, 2010.
  - A former Econo Lube N’ Tune, currently an IHOP restaurant located at 708 East Carson Street and less than 100 feet south of the southwest corner of the site, is listed on the following databases: US Historic Auto Stations (1999 to 2010), UST, Los Angeles County HMS, SWEEPS UST, NPDES, and LUST.



The property was a LUST cleanup project with gasoline impacts to groundwater. An NFA letter was issued to the property on March 17, 2014.

- Four PECs were identified for the site:
  - One double-walled, 25 gallon diesel AST is located adjacent to the Community Center building. No violations or environmental issues are listed or were observed.
  - Happy Cleaners, located at 21615 Avalon Boulevard and approximately 100 feet west of the southwestern portion of the site, is listed on the following databases: RCRA-SQG, FINDS, Drycleaners, US Historic Cleaners, and HAZNET. Wastes generated by the property are listed as hydrocarbon solvents (benzene, hexane, Stoddard) and halogenated solvents (chloroforms, methyl chloride, perchloroethylene). No violations were listed; however, cleaning operations have been conducted at the property since 1990.
  - Bonita Cleaners/South Coast Cleaners, located at 860 East Carson Street and less than 100 feet south of the southern site boundary, is listed on the US Historic Cleaners database in 1999. No other details are listed. No violations or environmental issues are listed.
  - One empty in-service liquid pipeline is located along Avalon Boulevard near the western site boundary. Although the line is currently reported as empty, there is a possibility that the line could hold liquid hazardous substances.

## 9.0 DATA GAPS

As defined by ASTM E1527-13, a data gap is “a lack of or inability to obtain information required by this practice despite good faith efforts by the Environmental Professional to gather such information.” One data gap associated with pending agency responses was identified during this Phase I ESA; the Los Angeles County Fire Department. Three data gaps were identified involving listings in EDR (2015a):

- No. 37T-Carson is listed by EDR (2015a) as being less than 1/8 mile west-southwest of the site, however no actual street address is listed. The property is listed in the SLIC database as an open, inactive cleanup program as of 1965, and no details were available.
- Vacant property at 923 E. Carson Street is listed by EDR (2015a) as being less than 1/8 mile east-southeast of the site. The property is listed in the SWEEPS UST database as an active property as of June 30, 1989. The Los Angeles County HMS identifies the facility status as closed.
- Blocker, located at 21600 South Bonita Street, is listed by EDR (2015a) as being less than 1/8 mile east-northeast of the site. The property is identified as S103441409 on the WMUDS/SWAT database, but no other information was provided.

These data gaps are not considered to have affected Amec Foster Wheeler's ability to evaluate RECs for the site or alter the findings of this Phase I ESA. If records are found that change the findings of this Phase I ESA, an addendum to this report will be submitted.

## **10.0 CONCLUSIONS**

Amec Foster Wheeler has performed a Phase I ESA in conformance with the scope and limitations of ASTM E1527-13 for 701 and 801 East Carson Street in Carson, California. Any exceptions to, or deletions from, this practice are described in Section 1.0 of this Phase I ESA report. As noted in Section 8.0, Amec Foster Wheeler identified eight RECs for the site involving possible environmental impacts to the site. Two CRECs and three PECs were also identified.

## **11.0 DEVIATIONS**

No deviations or deletions from ASTM E1527-13 were made during preparation of this Phase I ESA.

## 12.0 REFERENCES

- Arcadis, 2015, Semi-Annual Status Report, Third and Fourth Quarters 2014, 76 Station No. 6082, 1025 East Carson Street, Carson, California, January 15.
- ASTM International, 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13.
- California Department of Water Resources (DWR), 1961, Planned Utilization of the Ground Water Basins of the Coastal Plain of the Los Angeles County, Bulletin No. 104, Appendix A, Ground Water Geology.
- California Regional Water Quality Control Board, Los Angeles Region (4) (CRWQCB), 1995, Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, February 23.
- CRWQCB, 2014a, Underground Storage Tank Program – Pre-Closure Notification, Arco Station No. 6129 (Priority B-1), 21313 South Avalon Boulevard, Carson, CA (File No. I-00457), December 3.
- CRWQCB, 2014b, Underground Storage Tank Program – Pre-Closure Notification, Former Allstar Inn (Priority B-1), 640-644 East 213<sup>th</sup> Street, Carson, CA (File No. R-23210), December 3.
- Environmental Data Resources, Inc., 2015a, EDR-Radius Map with GeoCheck™, 701 and 801 East Carson Street, Carson, California, 90745, Inquiry Number 4195320.2s, January 30, 2015.
- Environmental Data Resources, Inc., 2015b, EDR-Historical Topographic Map Report, 701 and 801 East Carson Street, Carson, California, 90745, Inquiry Number 4195320.4, January 30, 2015.
- Environmental Data Resources, Inc., 2015c, EDR-City Directory Abstract, 701 and 801 East Carson Street, Carson, California, 90745, Inquiry Number 4195320.5, January 30, 2015.
- Environmental Data Resources, Inc., 2015d, EDR-Certified Sanborn Map Report, 701 and 801 East Carson Street, Carson, California, 90745, Inquiry Number 4195320.3, January 30, 2015.
- Environmental Data Resources, Inc., 2015e, EDR-Aerial Photograph Report, 701 and 801 East Carson Street, Carson, California, 90745, Inquiry Number 4195320.9, February 2, 2015.
- Holgun, Fahan & Associates, Inc., 2011, Work Plan for Site Assessment Activities Related to 76 Station 6082, 1025 East Carson Street, Carson, California (CRWQCB-LAR Case No. I-02903, Section 13267 Investigative Order for Dominguez Channel, South of Carson Street, Carson, California), June 9.

Leighton Consulting, Inc., 2008, Site Conceptual Model Semi-Annual Update, Second Quarter 2008, 21356 South Avalon Boulevard, Carson, California, July 14.

Leighton Consulting, Inc., 2014, First Half of 2014 Waste Discharge Requirements Compliance Report, Fenton's Reagent Injection Near Well MW15, Los Angeles County Sheriff Station (C-1 Site), 21356 South Avalon Boulevard, Carson, California, July 1.

Leidos, 2014, Third Quarter 2014, Updated Site Conceptual Model, Low-Threat Closure Request and Groundwater Monitoring Report, Former Chevron Station No. 9-4328, 21703 Avalon Boulevard, Carson, California, LARWQCB Case No. R-22019, October 15.

Miller Brooks Environmental, Inc. (MBE), 1998, Tank Closure Report, City of Carson City Hall, 701 East Carson Street, Carson, California, October 13.

United States Geological Survey (USGS), 1981, Torrance Quadrangle, California, 7.5-Minute Series (Topographic), 1:24,000; photorevised from 1964.

Wayne Perry, 2015, Quarterly Status Report – Fourth Quarter 2014, Shell Service Station, 21304 Avalon Boulevard, Carson, California, Case Number: I-05882.

### 13.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

I/we declare that, to the best of my/our professional knowledge and belief, I/we meet the definition of environmental professional as defined in Title 40 of the Code of Federal Regulations (CFR), Part 312.0. I/we have the specific qualifications based on education, training, and experience to assess a site of the nature, history, and setting of the subject site. I/we have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

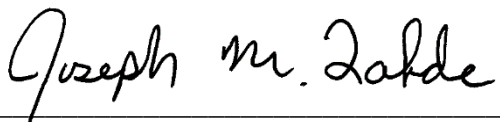
We appreciate the opportunity to be of service to DTSC on this project. If you have any questions or comments regarding this report, please contact the undersigned at (949) 642-0245.

**Amec Foster Wheeler Environment & Infrastructure, Inc.**



---

Ellen Smith  
Technical Professional 2



---

Joseph Bahde, PG  
Senior Associate Geologist

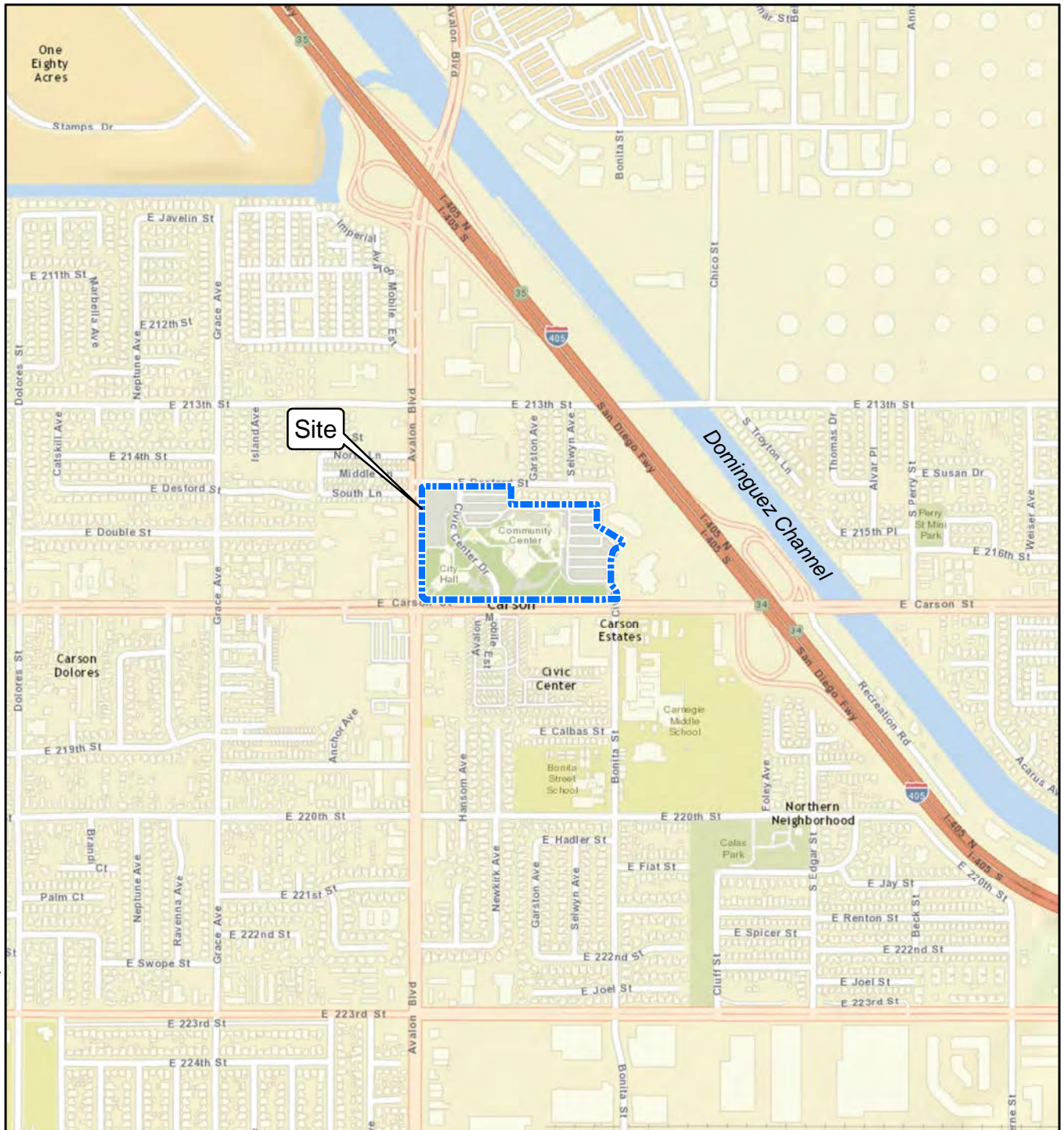
#### **14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL(S)**

Resumes for the individuals acting as representatives of Amec Foster Wheeler and involved in preparing this report are included in Attachment I.

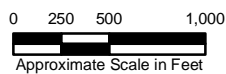
## FIGURES

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Path: Y:\IR1316460K\esri\Work\_plan\_2015-04-24\tb\_Site\_Location\_Map.mxd



Basemap modified from Street Map provided by ESRI, HERE, DeLorme, USGS, Intermap, TomTom, ©OpenStreetMap contributors, and the GIS User Community.



**SITE LOCATION MAP**  
**Carson City Hall Renovation Project**  
**701 and 801 East Carson Street**  
**Carson, California**



Date: 04/24/2015

Project No.: IR1316460K

Figure

Submitted By: es

Drawn By: pah

**1**



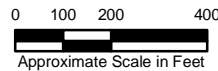


Explanation

 Approximate site boundary

UST Underground storage tank

AST Aboveground storage tank



Basemap modified from aerial photo from Eagle Aerial Imaging, Inc. dated 2011



SITE MAP  
Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California



Date: 04/24/2015

Project No.: IR1316460K

Submitted By: es

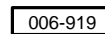
Drawn By: pah

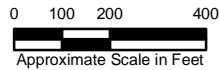
Figure

**2**



**Explanation**

 Los Angeles County Assessor parcel location and APN number



Basemap modified from Street Map provided by ESRI, HERE, DeLorme, USGS, Intermap, TomTom, ©OpenStreetMap contributors, and the GIS User Community.

**PARCEL BOUNDARIES  
AND APN NUMBERS**  
Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California



Date: 04/24/2015

Project No.: IR1316460K

Submitted By: es

Drawn By: pah

Figure

**3**



## ATTACHMENT A

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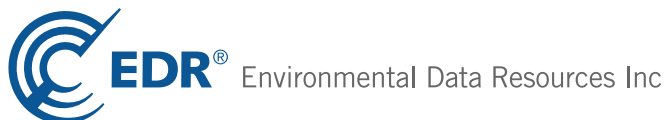
EDR – Radius Map Report with GeoCheck

**Carson City Hall**

701 East Carson Street  
Carson, CA 90745

Inquiry Number: 4195320.2s  
January 30, 2015

# The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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 <b><u>GEOCHECK ADDENDUM</u></b>	
Physical Setting Source Addendum .....	A-1
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Physical Setting Source Map .....	A-8
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*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

### Disclaimer - Copyright and Trademark Notice

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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

701 EAST CARSON STREET  
LOS ANGELES County, CA 90745

#### COORDINATES

Latitude (North): 33.8326000 - 33° 49' 57.36"  
Longitude (West): 118.2616000 - 118° 15' 41.76"  
Universal Transverse Mercator: Zone 11  
UTM X (Meters): 383259.7  
UTM Y (Meters): 3744117.0  
Elevation: 20 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 33118-G3 TORRANCE, CA  
Most Recent Revision: 1981  
  
East Map: 33118-G2 LONG BEACH (DIGITAL), CA  
Most Recent Revision: 1964

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20120505  
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:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
CITY OF CARSON 701 E CARSON ST CARSON, CA 90745	HAZNET	N/A
CITY OF CARSON CITY HALL 701 E CARSON ST CARSON, CA 90745	UST LOS ANGELES CO. HMS	N/A
CITY OF CARSON/CENTRAL SERVICES 701 E CARSON ST CARSON, CA 90745	HAZNET	N/A

## EXECUTIVE SUMMARY

CITY OF CARSON REFERRALS 701 E CARSON ST CARSON, CA	LOS ANGELES CO. HMS	N/A
CITY OF CARSON-PUBLIC WORKS 701 E CARSON ST CARSON, CA 90745	HAZNET	N/A
CITY OF CARSON 701 E CARSON ST CARSON, CA 90749	HAZNET	N/A
CITY OF CARSON - PUBLIC WORKS 701 E CARSON ST CARSON, CA 90745	HAZNET	N/A

### **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***

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***

FEDERAL FACILITY..... Federal Facility Site Information listing

#### ***Federal CERCLIS NFRAP site List***

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

#### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

#### ***Federal RCRA generators list***

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

## EXECUTIVE SUMMARY

### **Federal institutional controls / engineering controls registries**

LUCIS..... Land Use Control Information System

### **Federal ERNS list**

ERNS..... Emergency Response Notification System

### **State- and tribal - equivalent NPL**

RESPONSE..... State Response Sites

### **State and tribal leaking storage tank lists**

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### **State and tribal registered storage tank lists**

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

### **State and tribal voluntary cleanup sites**

INDIAN VCP..... Voluntary Cleanup Priority Listing

### **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

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

HIST Cal-Sites..... Historical Calsites Database

SCH..... School Property Evaluation Program

Toxic Pits..... Toxic Pits Cleanup Act Sites

AOCONCERN..... San Gabriel Valley Areas of Concern

CDL..... Clandestine Drug Labs

US HIST CDL..... National Clandestine Laboratory Register

#### **Local Land Records**

LIENS 2..... CERCLA Lien Information

LIENS..... Environmental Liens Listing



## EXECUTIVE SUMMARY

### **Records of Emergency Release Reports**

HMIRS.....	Hazardous Materials Information Reporting System
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
SPILLS 90.....	SPILLS 90 data from FirstSearch

### **Other Ascertainable Records**

RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
DOT OPS.....	Incident and Accident Data
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
UMTRA.....	Uranium Mill Tailings Sites
US MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
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
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
UIC.....	UIC Listing
NPDES.....	NPDES Permits Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings.....	CUPA Resources List
Notify 65.....	Proposition 65 Records
LA Co. Site Mitigation.....	Site Mitigation List
WIP.....	Well Investigation Program Case List
ENF.....	Enforcement Action Listing
EMI.....	Emissions Inventory Data
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
LEAD SMELTERS.....	Lead Smelter Sites
PRP.....	Potentially Responsible Parties
2020 COR ACTION.....	2020 Corrective Action Program List
COAL ASH DOE.....	Steam-Electric Plant Operation Data
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
WDS.....	Waste Discharge System
HWT.....	Registered Hazardous Waste Transporter Database
PROC.....	Certified Processors Database
Financial Assurance.....	Financial Assurance Information Listing
MWMP.....	Medical Waste Management Program Listing
PCB TRANSFORMER.....	PCB Transformer Registration Database
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List

# EXECUTIVE SUMMARY

## EDR HIGH RISK HISTORICAL RECORDS

### ***EDR Exclusive Records***

EDR MGP..... EDR Proprietary Manufactured Gas Plants

## EDR RECOVERED GOVERNMENT ARCHIVES

### ***Exclusive Recovered Govt. Archives***

RGA LF..... Recovered Government Archive Solid Waste Facilities List

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.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 09/29/2014 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>U S E P A MONTROSE SUPERFUND S</i></b>	<b><i>20201 SOUTH NORMANDIE A</i></b>	<b><i>NE 1/8 - 1/4 (0.148 mi.)</i></b>	<b><i>0</i></b>	<b><i>14</i></b>

### ***Federal CERCLIS list***

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System 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

## EXECUTIVE SUMMARY

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.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>U S E P A MONTROSE SUPERFUND S</i>	<i>20201 SOUTH NORMANDIE A</i>	<i>NE 1/8 - 1/4 (0.148 mi.)</i>	<i>0</i>	<i>14</i>

### ***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 12/09/2014 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>HUCK INTL INC DBA ALCOA FASTEN</i>	<i>900 E WATSON CENTER RD</i>	<i>S 1/2 - 1 (0.807 mi.)</i>	<i>X110</i>	<i>290</i>

### ***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 12/09/2014 has revealed that there are 4 RCRA-LQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>U S E P A MONTROSE SUPERFUND S</i>	<i>20201 SOUTH NORMANDIE A</i>	<i>NE 1/8 - 1/4 (0.148 mi.)</i>	<i>0</i>	<i>14</i>
<i>EXXONMOBIL OIL CORP 11578</i>	<i>655 E CARSON ST</i>	<i>WSW 0 - 1/8 (0.048 mi.)</i>	<i>G31</i>	<i>144</i>
<i>BONITA STREET ELEMENTARY SCHOO</i>	<i>21929 BONITA ST</i>	<i>SSE 1/8 - 1/4 (0.229 mi.)</i>	<i>75</i>	<i>224</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SHELL PIPELINE COMPANY LP - CA</i>	<i>939 EAST CARSON STREET</i>	<i>ESE 0 - 1/8 (0.075 mi.)</i>	<i>H34</i>	<i>146</i>

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 12/09/2014 has revealed that there are 5

## EXECUTIVE SUMMARY

RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>HAPPY CLEANERS</i>	<i>21615 AVALON BLVD</i>	<i>W 0 - 1/8 (0.013 mi.)</i>	<i>B9</i>	<i>93</i>
<i>JESSES AUTO SERVICE</i>	<i>645 E 219 ST APT NO 5</i>	<i>SW 1/8 - 1/4 (0.216 mi.)</i>	<i>P68</i>	<i>219</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>TUNEUP MASTERS NO 63</i>	<i>21304 AVALON BLVD</i>	<i>NNW 0 - 1/8 (0.098 mi.)</i>	<i>I45</i>	<i>174</i>
<i>DON KOTT CHRYSLER PLYMOUTH</i>	<i>21126 S AVALON</i>	<i>N 1/8 - 1/4 (0.157 mi.)</i>	<i>L62</i>	<i>200</i>
<i>OLD QUAKER PAINT CO INC</i>	<i>21243 SO AVALON BLVD</i>	<i>NNW 1/8 - 1/4 (0.167 mi.)</i>	<i>M64</i>	<i>207</i>

### ***Federal institutional controls / engineering controls registries***

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 09/18/2014 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>U S E P A MONTROSE SUPERFUND S</i>	<i>20201 SOUTH NORMANDIE A</i>	<i>NE 1/8 - 1/4 (0.148 mi.)</i>	<i>0</i>	<i>14</i>

US INST CONTROL: 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.

A review of the US INST CONTROL list, as provided by EDR, and dated 09/18/2014 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>U S E P A MONTROSE SUPERFUND S</i>	<i>20201 SOUTH NORMANDIE A</i>	<i>NE 1/8 - 1/4 (0.148 mi.)</i>	<i>0</i>	<i>14</i>

### ***State- and tribal - equivalent CERCLIS***

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies 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 ENVIROSTOR list, as provided by EDR, and dated 11/03/2014 has revealed that there are 7 ENVIROSTOR sites within approximately 1 mile of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GARDENA VALLEY LANDFILL NO. 6</b> Status: Active	<b>CHICO AND DOMINGUEZ STR</b>	<b>NNE 1/4 - 1/2 (0.382 mi.)</b>	<b>U94</b>	<b>251</b>
<b>MARTIN ADAMS DUMP</b> Status: Refer: EPA	<b>213 ST TO 21111 DOLORES</b>	<b>WNW 1/2 - 1 (0.576 mi.)</b>	<b>108</b>	<b>283</b>
<b>HUCK INTL INC.</b> Status: No Further Action Status: Refer: Other Agency	<b>900 WATSONCENTER ROAD</b>	<b>S 1/2 - 1 (0.807 mi.)</b>	<b>X111</b>	<b>314</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>OLD QUAKER PAINT CO INC</b> Status: Refer: EPA	<b>21243 SO AVALON BLVD</b>	<b>NNW 1/8 - 1/4 (0.167 mi.)</b>	<b>M64</b>	<b>207</b>
<b>SEA CREST PARCEL (A.K.A. PERRY)</b> Status: Certified O&M - Land Use Restrictions Only	<b>INTERSECTION OF ALVAR S</b>	<b>ENE 1/4 - 1/2 (0.339 mi.)</b>	<b>83</b>	<b>230</b>
<b>PERRY STREET</b> Status: No Further Action	<b>21502-21526 PERRY STREE</b>	<b>E 1/4 - 1/2 (0.377 mi.)</b>	<b>S88</b>	<b>242</b>
<b>GOLDEN WEST CIRCUITS, INC. - C</b> Status: Refer: Other Agency	<b>1139 E. DOMINGUEZ STREE</b>	<b>NE 1/2 - 1 (0.577 mi.)</b>	<b>109</b>	<b>289</b>

### ***State and tribal landfill and/or solid waste disposal site lists***

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 11/17/2014 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GARDENA VALLEY #6 (FORD CENTER</b>	<b>21007 CHICO STREET</b>	<b>NNE 1/4 - 1/2 (0.379 mi.)</b>	<b>U92</b>	<b>249</b>

### ***State and tribal leaking storage tank lists***

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 LUST list, as provided by EDR, and dated 12/12/2014 has revealed that there are 16 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CARSON CITY CENTER (FORMER ECO</b> Status: Completed - Case Closed	<b>708 CARSON</b>	<b>SW 0 - 1/8 (0.013 mi.)</b>	<b>C14</b>	<b>99</b>
<b>CHEVRON SS# 9-4328 FORMER</b> Status: Open - Remediation	<b>21703 AVALON BLVD S</b>	<b>WSW 0 - 1/8 (0.020 mi.)</b>	<b>C17</b>	<b>106</b>
<b>MOBIL #11-MBT</b> Status: Completed - Case Closed	<b>655 CARSON ST E</b>	<b>WSW 0 - 1/8 (0.038 mi.)</b>	<b>B20</b>	<b>119</b>

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TOSCO - 76 STATION #6082 Status: Open - Remediation	1025 CARSON ST E	E 1/8 - 1/4 (0.144 mi.)	K55	189
<b>F A SHERRY INC</b> Status: Completed - Case Closed	<b>22127 AVALON BLVD S</b>	<b>SSW 1/4 - 1/2 (0.378 mi.)</b>	<b>91</b>	<b>246</b>
<b>PROPOSED 7-11</b> <b>SOUTHLAND CORP SS</b> Status: Open - Site Assessment	<b>22225 AVALON</b> <b>22225 S AVALON BLVD</b>	<b>SSW 1/4 - 1/2 (0.455 mi.)</b> <b>SSW 1/4 - 1/2 (0.455 mi.)</b>	<b>W103</b> <b>W104</b>	<b>264</b> <b>265</b>
<b>MOBIL #18-MBJ (FORMER 11-MBJ)</b> Status: Open - Remediation	<b>22240 AVALON BLVD S</b>	<b>SSW 1/4 - 1/2 (0.466 mi.)</b>	<b>W106</b>	<b>269</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>LA CO FACILITIES MGM DEPT</b> Status: Open - Remediation	<b>21356 AVALON BLVD S</b>	<b>NNW 0 - 1/8 (0.047 mi.)</b>	<b>E24</b>	<b>128</b>
<b>ARCO #6129</b> Status: Open - Remediation	<b>21313 AVALON BLVD S</b>	<b>NW 0 - 1/8 (0.097 mi.)</b>	<b>I40</b>	<b>151</b>
<b>SHELL #204-1312-0708</b> Status: Open - Remediation	<b>21304 AVALON BLVD</b>	<b>NNW 0 - 1/8 (0.098 mi.)</b>	<b>I43</b>	<b>163</b>
SHELL #204-1312-0708 ALLSTAR INN SITE (FORMER) Status: Open - Site Assessment	21304 AVALON BLVD 640-644 213TH ST E	NNW 0 - 1/8 (0.098 mi.) NW 0 - 1/8 (0.123 mi.)	I44 J49	173 180
<b>OLD QUAKER PAINT CO INC</b> Status: Completed - Case Closed	<b>21243 SO AVALON BLVD</b>	<b>NNW 1/8 - 1/4 (0.167 mi.)</b>	<b>M64</b>	<b>207</b>
<b>SHELL PIPELINE L-PACIFIC YACHT</b> TEXACO SERVICE STATION (FORMER) Status: Open - Eligible for Closure	<b>21611 PERRY ST S</b> 1209 CARSON ST. E.	<b>E 1/4 - 1/2 (0.374 mi.)</b> E 1/4 - 1/2 (0.374 mi.)	<b>S84</b> T86	<b>235</b> <b>238</b>

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 12/12/2014 has revealed that there are 23 SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NO. 37T - CARSON Facility Status: Open - Inactive		WSW 0 - 1/8 (0.016 mi.)	C15	105
76 SERVICE STATION Facility Status: Completed - Case Closed	1025 E. CARSON STREET	E 1/8 - 1/4 (0.144 mi.)	K57	197
CHRYSLER - CARSON Facility Status: Completed - Case Closed	21121 AVALON BLVD	NNW 1/4 - 1/2 (0.259 mi.)	80	229
PEP BOYS Facility Status: Completed - Case Closed	810 DOMINGUEZ ST E	N 1/4 - 1/2 (0.467 mi.)	107	282
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ACTA SOUTH - PARCEL SE-334 Facility Status: Completed - Case Closed	E. CARSON ST.	ESE 0 - 1/8 (0.041 mi.)	D21	125
SHELL PIPELINE CORRIDOR - W/O Facility Status: Open - Site Assessment	CARSON STREET	ESE 0 - 1/8 (0.109 mi.)	H48	180

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BP PIPELINE - DOMINGUEZ CHANNE Facility Status: Open - Site Assessment	CARSON STREET	E 1/4 - 1/2 (0.266 mi.)	Q81	229
TESORO PIPELINE - DOMINGUEZ CH Facility Status: Open - Site Assessment	CARSON STREET	ESE 1/4 - 1/2 (0.332 mi.)	R82	230
<b>SHELL PIPELINE L-PACIFIC YACHT</b> Facility Status: Open - Remediation Facility Status: Open - Site Assessment	<b>21611 PERRY ST S</b>	<b>E 1/4 - 1/2 (0.374 mi.)</b>	<b>S84</b>	<b>235</b>
TEXACO SERVICE STATION (FORMER <b>FORMER TEXACO SERVICE STATION</b> Facility Status: Completed - Case Closed	1209 CARSON <b>1209 E. CARSON STREET</b>	E 1/4 - 1/2 (0.374 mi.) <b>E 1/4 - 1/2 (0.375 mi.)</b>	T85 <b>T87</b>	237 <b>242</b>
SHELL PIPELINE LEAK - ALEXANDE Facility Status: Open - Site Assessment	21500 PERRY ST	E 1/4 - 1/2 (0.377 mi.)	S89	245
DOMINGUEZ CHANNEL @ CARSON STR Facility Status: Open - Site Assessment	CARSON STREET	ESE 1/4 - 1/2 (0.377 mi.)	R90	245
DOMINGUEZ CHANNEL @ CARSON STR Facility Status: Completed - Case Closed	DOMINGUEZ CHANNEL	ESE 1/4 - 1/2 (0.381 mi.)	R93	250
SHELL PIPELINE 0367 - DOMINGUE Facility Status: Open - Site Assessment	CARSON STREET	ESE 1/4 - 1/2 (0.383 mi.)	95	261
CHEVRON PIPELINE - DOMINGUEZ C Facility Status: Open - Site Assessment	CARSON STREET	ESE 1/4 - 1/2 (0.384 mi.)	V96	261
CRIMSON PIPELINE - DOMINGUEZ C Facility Status: Open - Site Assessment	CARSON STREET	ESE 1/4 - 1/2 (0.385 mi.)	V97	262
COURTLAND PROWELL PROPERTY COURTLAND PROWELL Facility Status: Completed - Case Closed	1216 CARSON 1216 CARSON STREET, EAS	E 1/4 - 1/2 (0.391 mi.) E 1/4 - 1/2 (0.391 mi.)	T98 T99	262 262
NICHOLSON INVESTMENT GROUP NICHOLSON INVESTMENT GROUP Facility Status: Completed - Case Closed	1202 CARSON 1202 CARSON STREET, EAS	ESE 1/4 - 1/2 (0.394 mi.) ESE 1/4 - 1/2 (0.394 mi.)	T100 T101	263 263
SHELL PIPELINE LEAK - COLONY H Facility Status: Open - Site Assessment	1211 CARSON AVE.	E 1/4 - 1/2 (0.430 mi.)	102	264
SHELL OIL CO Facility Status: Open - Site Assessment	PERRY STREET	ENE 1/4 - 1/2 (0.461 mi.)	105	269

### **State and tribal registered storage tank lists**

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 UST list, as provided by EDR, and dated 01/20/2015 has revealed that there are 6 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ECONO LUBE N'TUNE</b>	<b>708 E CARSON ST</b>	<b>SW 0 - 1/8 (0.013 mi.)</b>	<b>C12</b>	<b>98</b>
<b>MOBIL OIL CORP S/S #18-MBT</b>	<b>655 E CARSON ST</b>	<b>WSW 0 - 1/8 (0.048 mi.)</b>	<b>G29</b>	<b>141</b>
<b>TOSCO/UNOCAL #31088</b>	<b>1025 E CARSON ST</b>	<b>E 1/8 - 1/4 (0.144 mi.)</b>	<b>K52</b>	<b>187</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LA CO SHERIFF CARSON STA	21356 AVALON BLVD	NNW 0 - 1/8 (0.047 mi.)	E25	140

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARCO PRODUCTS #06129	21313 AVALON BLVD	NW 0 - 1/8 (0.097 mi.)	I38	149
DAN'S SHELL SERVICE	21304 AVALON BLVD	NNW 0 - 1/8 (0.098 mi.)	I47	179

### ***State and tribal voluntary cleanup sites***

VCP: 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.

A review of the VCP list, as provided by EDR, and dated 11/03/2014 has revealed that there are 3 VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GARDENA VALLEY LANDFILL NO. 6</b>	<b>CHICO AND DOMINGUEZ STR</b>	<b>NNE 1/4 - 1/2 (0.382 mi.)</b>	<b>U94</b>	<b>251</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>SEA CREST PARCEL (A.K.A. PERRY PERRY STREET)</b>	<b>INTERSECTION OF ALVAR S 21502-21526 PERRY STREE</b>	<b>ENE 1/4 - 1/2 (0.339 mi.) E 1/4 - 1/2 (0.377 mi.)</b>	<b>83 S88</b>	<b>230 242</b>

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### ***Local Lists of Landfill / Solid Waste Disposal Sites***

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/15/2014 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PONCE RECYCLING	650 E CARSON ST	WSW 0 - 1/8 (0.056 mi.)	G33	146

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BLOCKER	21600 SOUTH BONITA STRE	ENE 0 - 1/8 (0.006 mi.)	8	92



## EXECUTIVE SUMMARY

### Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 6 CA FID UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>MOBIL</b>	<b>655 E CARSON ST</b>	<b>WSW 0 - 1/8 (0.048 mi.)</b>	<b>G30</b>	<b>142</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ARCO GAS STATION</b>	<b>21313 S AVALON BLVD</b>	<b>NW 0 - 1/8 (0.097 mi.)</b>	<b>I39</b>	<b>150</b>
<b>DANS SHELL SERVICE</b>	<b>21304 S AVALON BLVD</b>	<b>NNW 0 - 1/8 (0.098 mi.)</b>	<b>I46</b>	<b>178</b>
<b>CARSON CHRYSLER PLYMOUTH</b>	<b>21126 S AVALON BLVD</b>	<b>N 1/8 - 1/4 (0.157 mi.)</b>	<b>L60</b>	<b>198</b>
<b>DON KOTT CHRYSLER PLYMOUTH</b>	<b>21126 S AVALON</b>	<b>N 1/8 - 1/4 (0.157 mi.)</b>	<b>L62</b>	<b>200</b>
<b>OLD QUAKER PAINT CO INC</b>	<b>21243 SO AVALON BLVD</b>	<b>NNW 1/8 - 1/4 (0.167 mi.)</b>	<b>M64</b>	<b>207</b>

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 9 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>EDWIN S. YAMAUCHI</b>	<b>655 CARSON</b>	<b>WSW 0 - 1/8 (0.038 mi.)</b>	<b>B19</b>	<b>118</b>
<b>SERVICE STATION 6082</b>	<b>1025 E CARSON ST</b>	<b>E 1/8 - 1/4 (0.144 mi.)</b>	<b>K54</b>	<b>187</b>
<b>UNION OIL SERVICE STATION 6082</b>	<b>1025 E CARSON ST</b>	<b>E 1/8 - 1/4 (0.144 mi.)</b>	<b>K56</b>	<b>197</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CARSON SHERIFF</b>	<b>21356 AVALON BLVD</b>	<b>NNW 0 - 1/8 (0.047 mi.)</b>	<b>E22</b>	<b>126</b>
<b>CARLOS GUTIERREZ</b>	<b>21313 AVALON BLVD</b>	<b>NW 0 - 1/8 (0.097 mi.)</b>	<b>I37</b>	<b>148</b>
<b>FARROKH DAI</b>	<b>21304 AVALON BLVD</b>	<b>NNW 0 - 1/8 (0.098 mi.)</b>	<b>I42</b>	<b>162</b>
<b>DEAN CORBETT CHRYSLER PLYMOUTH</b>	<b>21126 AVALON BLVD</b>	<b>N 1/8 - 1/4 (0.157 mi.)</b>	<b>L61</b>	<b>200</b>
<b>DON KOTT CHRYSLER PLYMOUTH</b>	<b>21126 S AVALON</b>	<b>N 1/8 - 1/4 (0.157 mi.)</b>	<b>L62</b>	<b>200</b>
<b>OLD QUAKER PAINT CO INC</b>	<b>21243 SO AVALON BLVD</b>	<b>NNW 1/8 - 1/4 (0.167 mi.)</b>	<b>M64</b>	<b>207</b>

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 SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 10 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ECONO-LUBE &amp; TUNE</b>	<b>708 E CARSON ST</b>	<b>SW 0 - 1/8 (0.013 mi.)</b>	<b>C13</b>	<b>99</b>
<b>MOBIL</b>	<b>655 E CARSON ST</b>	<b>WSW 0 - 1/8 (0.048 mi.)</b>	<b>G30</b>	<b>142</b>
<b>SERVICE STATION 6082</b>	<b>1025 E CARSON ST</b>	<b>E 1/8 - 1/4 (0.144 mi.)</b>	<b>K54</b>	<b>187</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>VACANT</b>	<b>923 E CARSON ST</b>	<b>ESE 0 - 1/8 (0.019 mi.)</b>	<b>D16</b>	<b>105</b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>Not reported</i>	21356 S AVALON BLVD	NNW 0 - 1/8 (0.047 mi.)	E23	127
ARCO GAS STATION	21313 S AVALON BLVD	NW 0 - 1/8 (0.097 mi.)	I39	150
DANS SHELL SERVICE	21304 S AVALON BLVD	NNW 0 - 1/8 (0.098 mi.)	I46	178
CARSON CHRYSLER PLYMOUTH	21126 S AVALON BLVD	N 1/8 - 1/4 (0.157 mi.)	L60	198
DON KOTT CHRYSLER PLYMOUTH	21126 S AVALON	N 1/8 - 1/4 (0.157 mi.)	L62	200
OLD QUAKER PAINT CO INC	21243 SO AVALON BLVD	NNW 1/8 - 1/4 (0.167 mi.)	M64	207

### Local Land Records

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 DEED list, as provided by EDR, and dated 12/08/2014 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SEA CREST PARCEL (A.K.A. PERRY	INTERSECTION OF ALVAR S	ENE 1/4 - 1/2 (0.339 mi.)	83	230

### Other Ascertainable Records

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2013 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
U S E P A MONTROSE SUPERFUND S	20201 SOUTH NORMANDIE A	NE 1/8 - 1/4 (0.148 mi.)	0	14

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
U S E P A MONTROSE SUPERFUND S	20201 SOUTH NORMANDIE A	NE 1/8 - 1/4 (0.148 mi.)	0	14

CA BOND EXP. 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.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>GARDENA VALLEY LANDFILL NO. 6</b>	<b>CHICO AND DOMINGUEZ STR NNE 1/4 - 1/2 (0.382 mi.)</b>		<b>U94</b>	<b>251</b>

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 HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 12 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>CHEVRON SS# 9-4328, FORMER</b>	<b>21703 AVALON</b>	<b>WSW 0 - 1/8 (0.020 mi.)</b>	<b>C18</b>	<b>116</b>
<b>MOBIL #11-MBT</b>	<b>655 CARSON ST E</b>	<b>WSW 0 - 1/8 (0.038 mi.)</b>	<b>B20</b>	<b>119</b>
<b>76 PRODUCTS STATION #6082</b>	<b>1025 CARSON</b>	<b>E 1/8 - 1/4 (0.144 mi.)</b>	<b>K53</b>	<b>187</b>
<b>F A SHERRY INC</b>	<b>22127 AVALON BLVD S</b>	<b>SSW 1/4 - 1/2 (0.378 mi.)</b>	<b>91</b>	<b>246</b>
<b>PROPOSED 7-11</b>	<b>22225 AVALON</b>	<b>SSW 1/4 - 1/2 (0.455 mi.)</b>	<b>W103</b>	<b>264</b>
<b>MOBIL #18-MBJ (FORMER 11-MBJ)</b>	<b>22240 AVALON BLVD S</b>	<b>SSW 1/4 - 1/2 (0.466 mi.)</b>	<b>W106</b>	<b>269</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>LA CO FACILITIES MGM DEPT</b>	<b>21356 AVALON BLVD S</b>	<b>NNW 0 - 1/8 (0.047 mi.)</b>	<b>E24</b>	<b>128</b>
<b>ARCO #6129</b>	<b>21313 AVALON BLVD S</b>	<b>NW 0 - 1/8 (0.097 mi.)</b>	<b>I40</b>	<b>151</b>
<b>SHELL #204-1312-0708</b>	<b>21304 AVALON BLVD</b>	<b>NNW 0 - 1/8 (0.098 mi.)</b>	<b>I43</b>	<b>163</b>
<b>ALLSTAR INN SITE (FORMER)</b>	<b>640644 213TH</b>	<b>NW 0 - 1/8 (0.124 mi.)</b>	<b>J50</b>	<b>186</b>
<b>OLD QUAKER PAINT CO INC</b>	<b>21243 SO AVALON BLVD</b>	<b>NNW 1/8 - 1/4 (0.167 mi.)</b>	<b>M64</b>	<b>207</b>
<b>SHELL PIPELINE L-PACIFIC YACHT</b>	<b>21611 PERRY ST S</b>	<b>E 1/4 - 1/2 (0.374 mi.)</b>	<b>S84</b>	<b>235</b>

DRYCLEANERS: 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 cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 06/28/2014 has revealed that there are 3 DRYCLEANERS sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HAPPY CLEANERS</b>	<b>21615 AVALON BLVD</b>	<b>W 0 - 1/8 (0.013 mi.)</b>	<b>B9</b>	<b>93</b>
<b>GIANT CLEANERS</b>	<b>21950 AVALON BLVD STE E</b>	<b>SSW 1/8 - 1/4 (0.239 mi.)</b>	<b>O77</b>	<b>226</b>
<b>GIANT CLEANERS, JUSTINE HA DBA</b>	<b>21950 AVALON BLVD</b>	<b>SSW 1/8 - 1/4 (0.239 mi.)</b>	<b>O78</b>	<b>227</b>

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 11/24/2014 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>HUCK INTL INC.</b>	<b>900 WATSONCENTER ROAD</b>	<b>S 1/2 - 1 (0.807 mi.)</b>	<b>X111</b>	<b>314</b>

## 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 16 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	708 E CARSON ST	SW 0 - 1/8 (0.013 mi.)	C11	97
Not reported	860 E CARSON ST	SE 0 - 1/8 (0.048 mi.)	F26	140
Not reported	655 E CARSON ST	WSW 0 - 1/8 (0.048 mi.)	G28	141
Not reported	1025 E CARSON ST	ESE 1/8 - 1/4 (0.126 mi.)	H51	186
Not reported	21839 AVALON BLVD	SSW 1/8 - 1/4 (0.148 mi.)	58	198
Not reported	520 E CARSON ST	WSW 1/8 - 1/4 (0.208 mi.)	N66	219
Not reported	21906 AVALON BLVD	SSW 1/8 - 1/4 (0.213 mi.)	O67	219
Not reported	645 E 219TH ST	SW 1/8 - 1/4 (0.216 mi.)	P69	221
Not reported	637 E 219TH ST	SW 1/8 - 1/4 (0.219 mi.)	P70	222
Not reported	644 E 219TH ST	SW 1/8 - 1/4 (0.220 mi.)	P71	223
Not reported	640 E 219TH ST	SW 1/8 - 1/4 (0.222 mi.)	P72	223
Not reported	638 E 219TH ST	SW 1/8 - 1/4 (0.223 mi.)	P73	223
Not reported	21932 AVALON BLVD	SSW 1/8 - 1/4 (0.228 mi.)	O74	224
Not reported	1135 E CARSON ST	E 1/8 - 1/4 (0.250 mi.)	Q79	228
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	21615 AVALON BLVD	NW 0 - 1/8 (0.097 mi.)	I41	161
Not reported	21212 AVALON BLVD	NNW 1/8 - 1/4 (0.166 mi.)	M63	207

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 8 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	21615 AVALON BLVD	W 0 - 1/8 (0.013 mi.)	B10	97
Not reported	860 E CARSON ST	SE 0 - 1/8 (0.048 mi.)	F27	140
Not reported	21737 AVALON BLVD	SW 0 - 1/8 (0.049 mi.)	C32	146

## EXECUTIVE SUMMARY

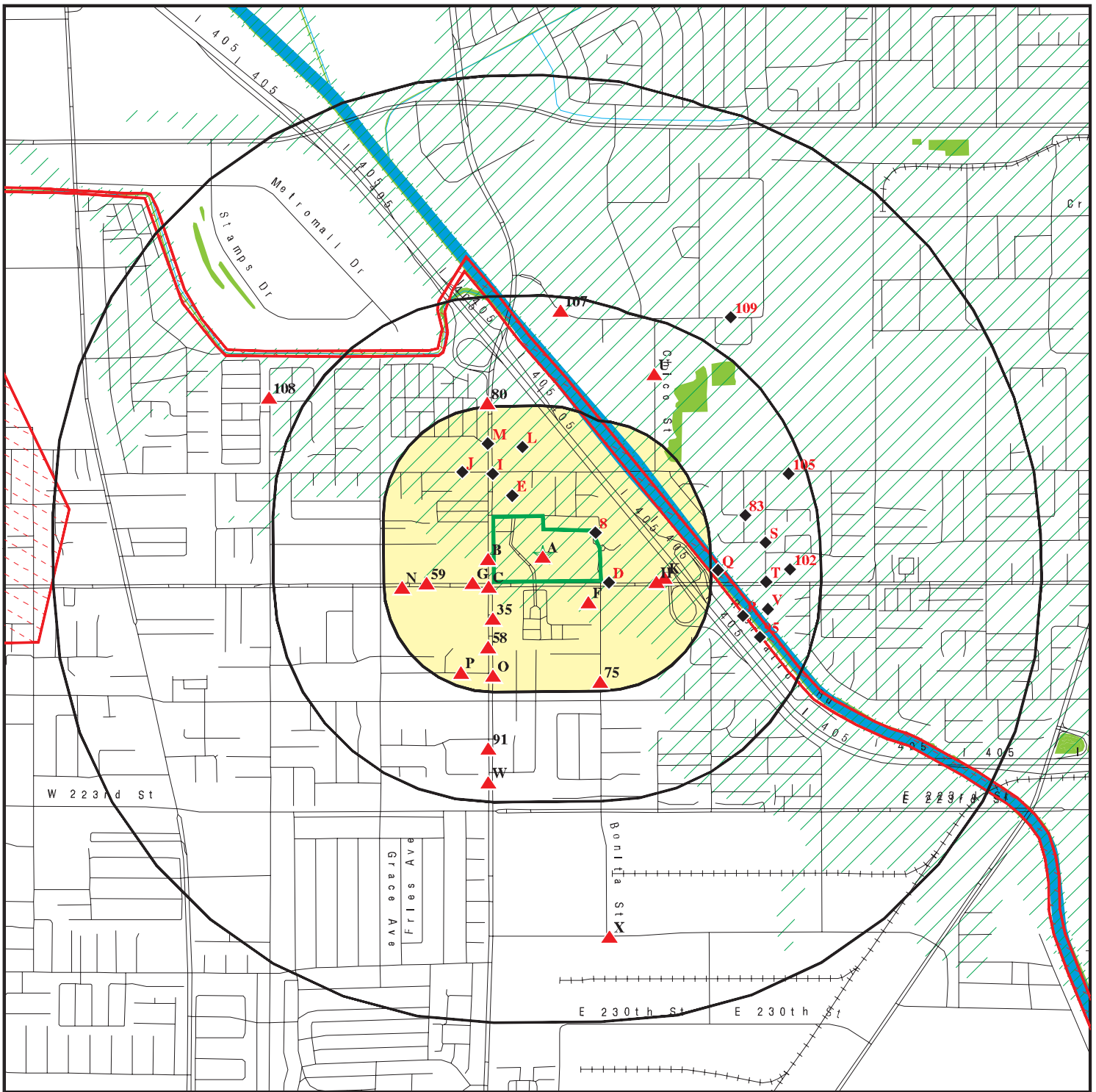
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	21734 AVALON BLVD	SW 0 - 1/8 (0.084 mi.)	35	148
TOWNE CLEANERS & LAUNDRY	611 E CARSON	WSW 0 - 1/8 (0.090 mi.)	G36	148
Not reported	555 E CARSON ST	WSW 1/8 - 1/4 (0.153 mi.)	59	198
Not reported	520 E CARSON ST	WSW 1/8 - 1/4 (0.208 mi.)	N65	218
Not reported	21950 AVALON BLVD	SSW 1/8 - 1/4 (0.239 mi.)	O76	225

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 5 records.

<u>Site Name</u>	<u>Database(s)</u>
GIANT CLEANERS	DRYCLEANERS
K & S RUBBISH	SWF/LF
CROSBY AND OVERTON	SWF/LF
CITY OF CARSON	HAZNET
TED HAMMETT (CARSON)	ENVIROSTOR

# OVERVIEW MAP - 4195320.2S



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

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

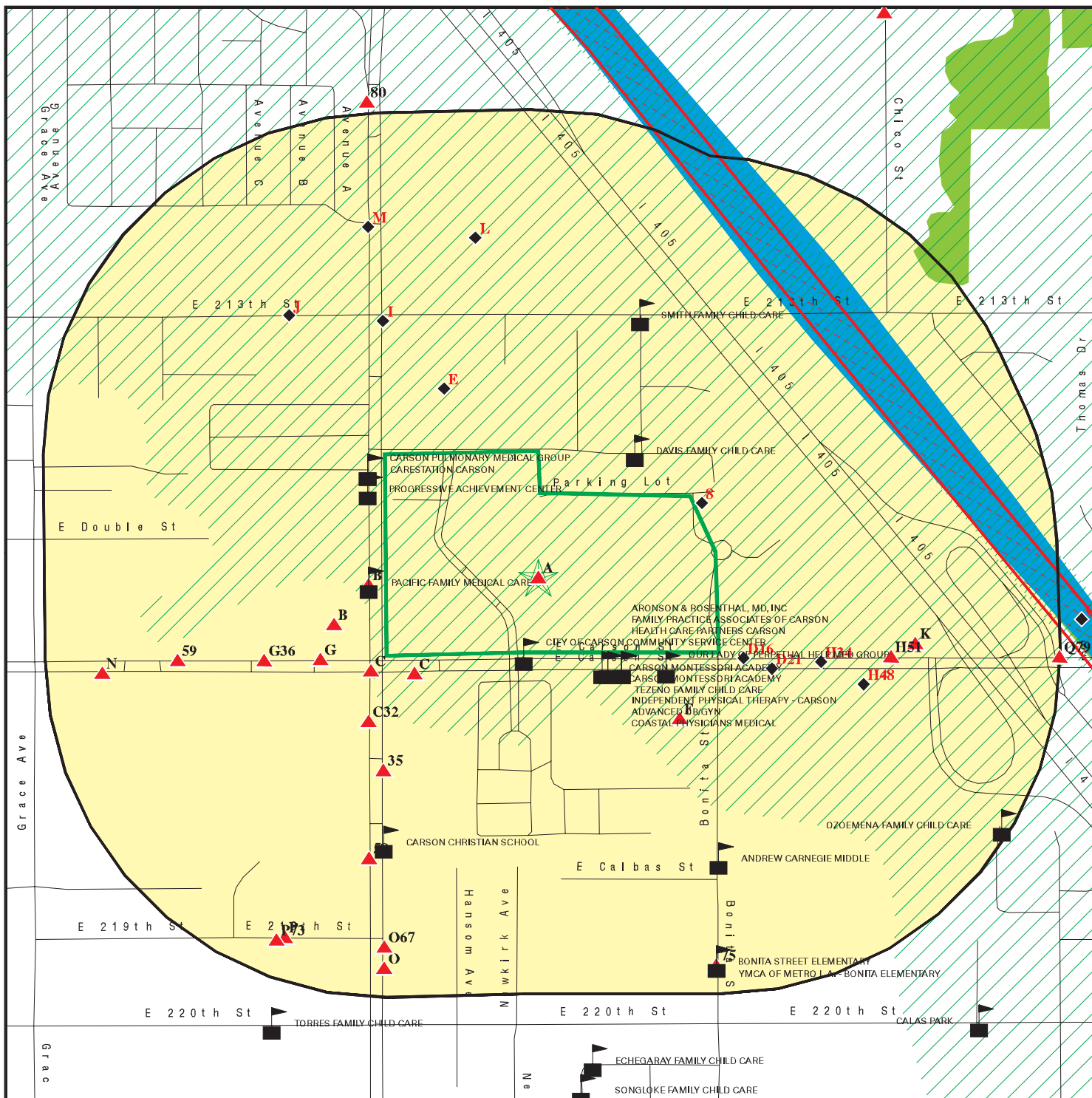
Areas of Concern

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: Carson City Hall  
 ADDRESS: 701 East Carson Street  
 Carson CA 90745  
 LAT/LONG: 33.8326 / 118.2616

CLIENT: AMEC Environment & Infrastructure, Inc.  
 CONTACT: Ellen Smith  
 INQUIRY #: 4195320.2s  
 DATE: January 30, 2015 2:31 pm

# DETAIL MAP - 4195320.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

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: Carson City Hall  
 ADDRESS: 701 East Carson Street  
 Carson CA 90745  
 LAT/LONG: 33.8326 / 118.2616

CLIENT: AMEC Environment & Infrastructure, Inc.  
 CONTACT: Ellen Smith  
 INQUIRY #: 4195320.2s  
 DATE: January 30, 2015 2:33 pm



## 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
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Federal NPL site list</i></b>								
NPL	1.000		0	1	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<b><i>Federal Delisted NPL site list</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Federal CERCLIS list</i></b>								
CERCLIS	0.500		0	1	0	NR	NR	1
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<b><i>Federal CERCLIS NFRAP site List</i></b>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA CORRACTS facilities list</i></b>								
CORRACTS	1.000		0	0	0	1	NR	1
<b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<b><i>Federal RCRA generators list</i></b>								
RCRA-LQG	0.250		2	2	NR	NR	NR	4
RCRA-SQG	0.250		2	3	NR	NR	NR	5
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
US ENG CONTROLS	0.500		0	1	0	NR	NR	1
US INST CONTROL	0.500		0	1	0	NR	NR	1
LUCIS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	TP		NR	NR	NR	NR	NR	0
<b><i>State- and tribal - equivalent NPL</i></b>								
RESPONSE	1.000		0	0	0	0	NR	0
<b><i>State- and tribal - equivalent CERCLIS</i></b>								
ENVIROSTOR	1.000		0	1	3	3	NR	7
<b><i>State and tribal landfill and/or solid waste disposal site lists</i></b>								
SWF/LF	0.500		0	0	1	NR	NR	1
<b><i>State and tribal leaking storage tank lists</i></b>								
LUST	0.500		8	2	6	NR	NR	16

## 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
SLIC	0.500		3	1	19	NR	NR	23
INDIAN LUST	0.500		0	0	0	NR	NR	0
<b>State and tribal registered storage tank lists</b>								
UST	0.250	1	5	1	NR	NR	NR	7
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
<b>State and tribal voluntary cleanup sites</b>								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	3	NR	NR	3
<b>ADDITIONAL ENVIRONMENTAL RECORDS</b>								
<b>Local Brownfield lists</b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b>Local Lists of Landfill / Solid Waste Disposal Sites</b>								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		1	0	0	NR	NR	1
<b>Local Lists of Hazardous waste / Contaminated Sites</b>								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
<b>Local Lists of Registered Storage Tanks</b>								
CA FID UST	0.250		3	3	NR	NR	NR	6
HIST UST	0.250		4	5	NR	NR	NR	9
SWEEPS UST	0.250		6	4	NR	NR	NR	10
<b>Local Land Records</b>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	1	NR	NR	1
<b>Records of Emergency Release Reports</b>								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	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
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
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	1	0	0	NR	1
ROD	1.000		0	1	0	0	NR	1
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	1	0	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		6	2	4	NR	NR	12
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		1	2	NR	NR	NR	3
WIP	0.250		0	0	NR	NR	NR	0
LOS ANGELES CO. HMS	TP	2	NR	NR	NR	NR	NR	2
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	5	NR	NR	NR	NR	NR	5
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
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
HWP	1.000		0	0	0	1	NR	1
HWT	0.250		0	0	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
PROC	0.500		0	0	0	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	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		4	12	NR	NR	NR	16
EDR US Hist Cleaners	0.250		5	3	NR	NR	NR	8

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LF	TP		NR	NR	NR	NR	NR	0
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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

A1  
Target  
Property

CITY OF CARSON  
701 E CARSON ST  
CARSON, CA 90745

HAZNET S112938548  
N/A

Site 1 of 7 in cluster A

Actual:  
20 ft.

HAZNET:  
envid: S112938548  
Year: 2004  
GEPAID: CAC002579125  
Contact: CANDACE BOHANAN  
Telephone: 3108473546  
Mailing Name: Not reported  
Mailing Address: 2390 E DOMINGUEZ ST  
Mailing City,St,Zip: LONG BEACH, CA 90810  
Gen County: Not reported  
TSD EPA ID: CAT080013352  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Recycler  
Tons: 1.29  
Facility County: Los Angeles

A2  
Target  
Property

CITY OF CARSON CITY HALL  
701 E CARSON ST  
CARSON, CA 90745

UST U003776121  
LOS ANGELES CO. HMS N/A

Site 2 of 7 in cluster A

Actual:  
20 ft.

UST:  
Facility ID: 6062  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.834091  
Longitude: -118.261713

LOS ANGELES CO. HMS:  
Region: LA  
Facility Id: 005848-006062  
Facility Type: T0  
Facility Status: Permit  
Area: 22  
Permit Number: 000125217  
Permit Status: Permit

Region: LA  
Facility Id: 005848-106062  
Facility Type: I01  
Facility Status: Permit  
Area: 22  
Permit Number: 000003055  
Permit Status: Permit

Region: LA  
Facility Id: 005848-106875  
Facility Type: I01  
Facility Status: Permit  
Area: 22  
Permit Number: 000008123  
Permit Status: Permit

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**A3** CITY OF CARSON/CENTRAL SERVICES  
**Target** 701 E CARSON ST  
**Property** CARSON, CA 90745

**HAZNET** S113071344  
N/A

**Site 3 of 7 in cluster A**

**Actual:**  
**20 ft.**

HAZNET:  
envid: S113071344  
Year: 2013  
GEPaid: CAL000126217  
Contact: MARCO ADAME  
Telephone: 3109521750  
Mailing Name: Not reported  
Mailing Address: 701 E. CARSON ST  
Mailing City,St,Zip: CARSON, CA 907450000  
Gen County: Los Angeles  
TSD EPA ID: CAD981696420  
TSD County: Los Angeles  
Waste Category: Not reported  
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Tons: 1.71  
Facility County: Not reported

envid: S113071344  
Year: 2013  
GEPaid: CAL000126217  
Contact: MARCO ADAME  
Telephone: 3109521750  
Mailing Name: Not reported  
Mailing Address: 701 E. CARSON ST  
Mailing City,St,Zip: CARSON, CA 907450000  
Gen County: Los Angeles  
TSD EPA ID: NVT330010000  
TSD County: 99  
Waste Category: Not reported  
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill( To Include On-Site Treatment And/Or Stabilization)  
Tons: 0.075  
Facility County: Not reported

envid: S113071344  
Year: 2013  
GEPaid: CAL000126217  
Contact: MARCO ADAME  
Telephone: 3109521750  
Mailing Name: Not reported  
Mailing Address: 701 E. CARSON ST  
Mailing City,St,Zip: CARSON, CA 907450000  
Gen County: Los Angeles  
TSD EPA ID: CAD981696420  
TSD County: Los Angeles  
Waste Category: Not reported  
Disposal Method: Not reported  
Tons: Not reported  
Facility County: Not reported

envid: S113071344  
Year: 2012

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITY OF CARSON/CENTRAL SERVICES (Continued)**

**S113071344**

GEPaid: CAL000126217  
Contact: MARCO ADAME  
Telephone: 3109521750  
Mailing Name: Not reported  
Mailing Address: 701 E. CARSON ST  
Mailing City,St,Zip: CARSON, CA 907450000  
Gen County: Los Angeles  
TSD EPA ID: CAD981696420  
TSD County: Los Angeles  
Waste Category: Not reported  
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Tons: 0.56295  
Facility County: Los Angeles

envid: S113071344  
Year: 2012  
GEPaid: CAL000126217  
Contact: MARCO ADAME  
Telephone: 3109521750  
Mailing Name: Not reported  
Mailing Address: 701 E. CARSON ST  
Mailing City,St,Zip: CARSON, CA 907450000  
Gen County: Los Angeles  
TSD EPA ID: CAD981696420  
TSD County: Los Angeles  
Waste Category: Not reported  
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)  
Tons: 0.56295  
Facility County: Los Angeles

[Click this hyperlink](#) while viewing on your computer to access 28 additional CA\_HAZNET: record(s) in the EDR Site Report.

**A4  
Target  
Property**

**CITY OF CARSON REFERRALS  
701 E CARSON ST  
CARSON, CA**

**LOS ANGELES CO. HMS S102056756  
N/A**

**Site 4 of 7 in cluster A**

**Actual:  
20 ft.**

LOS ANGELES CO. HMS:  
Region: LA  
Facility Id: 016988-022811  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A5**            **CITY OF CARSON-PUBLIC WORKS**  
**Target**       **701 E CARSON ST**  
**Property**     **CARSON, CA 90745**

**HAZNET**    **S112976938**  
                  **N/A**

**Site 5 of 7 in cluster A**

**Actual:**  
**20 ft.**

HAZNET:  
 envid:            S112976938  
 Year:             2009  
 GEPAID:         CAC002640855  
 Contact:         DENNY BACON  
 Telephone:       3108473520  
 Mailing Name:   Not reported  
 Mailing Address: 2390 E DOMINGUEZ ST  
 Mailing City,St,Zip: CARSON, CA 90810  
 Gen County:     Not reported  
 TSD EPA ID:     CAD981696420  
 TSD County:     Not reported  
 Waste Category: Household waste  
 Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
                          (H010-H129) Or (H131-H135)  
 Tons:             0.5421  
 Facility County: Los Angeles

**A6**            **CITY OF CARSON**  
**Target**       **701 E CARSON ST**  
**Property**     **CARSON, CA 90749**

**HAZNET**    **S113021381**  
                  **N/A**

**Site 6 of 7 in cluster A**

**Actual:**  
**20 ft.**

HAZNET:  
 envid:            S113021381  
 Year:             2006  
 GEPAID:         CAH777001313  
 Contact:         ROXANNE CLARKE/NORTH STATE  
 Telephone:       9098759288  
 Mailing Name:   Not reported  
 Mailing Address: 701 E CARSON ST PO BOX 6234  
 Mailing City,St,Zip: CARSON, CA 907490000  
 Gen County:     Not reported  
 TSD EPA ID:     CAD982444481  
 TSD County:     Not reported  
 Waste Category: Household waste  
 Disposal Method: Recycler  
 Tons:             0.24  
 Facility County: Los Angeles

envid:            S113021381  
 Year:             2006  
 GEPAID:         CAH777001313  
 Contact:         ROXANNE CLARKE/NORTH STATE  
 Telephone:       9098759288  
 Mailing Name:   Not reported  
 Mailing Address: 701 E CARSON ST PO BOX 6234  
 Mailing City,St,Zip: CARSON, CA 907490000  
 Gen County:     Not reported  
 TSD EPA ID:     CAD982444481  
 TSD County:     Not reported  
 Waste Category: Household waste  
 Disposal Method: Recycler



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITY OF CARSON (Continued)**

**S113021381**

Tons: 0.24  
Facility County: Los Angeles  
  
envid: S113021381  
Year: 2006  
GEPaid: CAH777001313  
Contact: ROXANNE CLARKE/NORTH STATE  
Telephone: 9098759288  
Mailing Name: Not reported  
Mailing Address: 701 E CARSON ST PO BOX 6234  
Mailing City,St,Zip: CARSON, CA 907490000  
Gen County: Not reported  
TSD EPA ID: CAD982444481  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Recycler  
Tons: 0.13  
Facility County: Los Angeles

envid: S113021381  
Year: 2006  
GEPaid: CAH777001313  
Contact: ROXANNE CLARKE/NORTH STATE  
Telephone: 9098759288  
Mailing Name: Not reported  
Mailing Address: 701 E CARSON ST PO BOX 6234  
Mailing City,St,Zip: CARSON, CA 907490000  
Gen County: Not reported  
TSD EPA ID: CAD982444481  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Recycler  
Tons: 0.13  
Facility County: Los Angeles

envid: S113021381  
Year: 2005  
GEPaid: CAH777001313  
Contact: ROXANNE CLARKE/NORTH STATE  
Telephone: 9098759288  
Mailing Name: Not reported  
Mailing Address: 701 E CARSON ST PO BOX 6234  
Mailing City,St,Zip: CARSON, CA 907490000  
Gen County: Not reported  
TSD EPA ID: CAT080013352  
TSD County: Not reported  
Waste Category: Waste oil and mixed oil  
Disposal Method: Recycler  
Tons: 1.45  
Facility County: Los Angeles

[Click this hyperlink](#) while viewing on your computer to access 7 additional CA\_HAZNET: record(s) in the EDR Site Report.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**A7** CITY OF CARSON - PUBLIC WORKS  
**Target** 701 E CARSON ST  
**Property** CARSON, CA 90745

**HAZNET** S113021517  
N/A

**Site 7 of 7 in cluster A**

**Actual:**  
**20 ft.**

HAZNET:  
envid: S113021517  
Year: 2005  
GEPaid: CAH777001562  
Contact: DENNY BACON  
Telephone: 3108473528  
Mailing Name: Not reported  
Mailing Address: 2390 E DOMINGUEZ ST  
Mailing City,St,Zip: LONG BEACH, CA 90810  
Gen County: Not reported  
TSD EPA ID: CAD008252405  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Transfer Station  
Tons: 0.12  
Facility County: Los Angeles

envid: S113021517  
Year: 2005  
GEPaid: CAH777001562  
Contact: DENNY BACON  
Telephone: 3108473528  
Mailing Name: Not reported  
Mailing Address: 2390 E DOMINGUEZ ST  
Mailing City,St,Zip: LONG BEACH, CA 90810  
Gen County: Not reported  
TSD EPA ID: CAD982444481  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Recycler  
Tons: 2.62  
Facility County: Los Angeles

envid: S113021517  
Year: 2005  
GEPaid: CAH777001562  
Contact: DENNY BACON  
Telephone: 3108473528  
Mailing Name: Not reported  
Mailing Address: 2390 E DOMINGUEZ ST  
Mailing City,St,Zip: LONG BEACH, CA 90810  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Transfer Station  
Tons: 2.26  
Facility County: Los Angeles

envid: S113021517  
Year: 2005  
GEPaid: CAH777001562  
Contact: DENNY BACON

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CITY OF CARSON - PUBLIC WORKS (Continued)**

**S113021517**

Telephone: 3108473528  
Mailing Name: Not reported  
Mailing Address: 2390 E DOMINGUEZ ST  
Mailing City,St,Zip: LONG BEACH, CA 90810  
Gen County: Not reported  
TSD EPA ID: CAD008252405  
TSD County: Not reported  
Waste Category: Household waste  
Disposal Method: Recycler  
Tons: 0.22  
Facility County: Los Angeles

**NPL  
Region  
NE  
1/8-1/4  
781 ft.**

**U S E P A MONTROSE SUPERFUND SITE  
20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502**

**NPL 1000420366  
CERCLIS CAD008242711  
RCRA-LQG  
US ENG CONTROLS  
US INST CONTROL  
CONSENT  
ROD  
ICIS  
PRP**

NPL:  
EPA ID: CAD008242711  
EPA Region: 09  
Federal: N  
Final Date: 1989-10-04 00:00:00

Category Details:  
NPL Status: Currently on the Final NPL  
Category Description: Depth To Aquifer-> 100 Feet  
Category Value: 400  
  
NPL Status: Currently on the Final NPL  
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile  
Category Value: 100

Site Details:  
Site Name: MONTROSE CHEMICAL CORP.  
Site Status: Final  
Site Zip: 90502  
Site City: TORRANCE  
Site State: CA  
Federal Site: No  
Site County: LOS ANGELES  
EPA Region: 09  
Date Proposed: 10/15/84  
Date Deleted: Not reported  
Date Finalized: 10/04/89

Substance Details:  
NPL Status: Currently on the Final NPL  
Substance ID: Not reported  
Substance: Not reported  
CAS #: Not reported  
Pathway: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Scoring: Not reported

NPL Status: Currently on the Final NPL  
Substance ID: A023  
Substance: DDE  
CAS #: 72-55-9  
Pathway: AIR PATHWAY  
Scoring: 2

NPL Status: Currently on the Final NPL  
Substance ID: U060  
Substance: DDD  
CAS #: 72-54-8  
Pathway: AIR PATHWAY  
Scoring: 2

NPL Status: Currently on the Final NPL  
Substance ID: U061  
Substance: DDT  
CAS #: 50-29-3  
Pathway: AIR PATHWAY  
Scoring: 4

NPL Status: Currently on the Final NPL  
Substance ID: U061  
Substance: DDT  
CAS #: 50-29-3  
Pathway: GROUND WATER PATHWAY  
Scoring: 3

NPL Status: Currently on the Final NPL  
Substance ID: U061  
Substance: DDT  
CAS #: 50-29-3  
Pathway: SURFACE WATER PATHWAY  
Scoring: 3

Summary Details:

Conditions at proposal October 15, 1984): Montrose Chemical Corp. manufactured DDT on a 13-acre site in a light industrial/residential area of Torrance, Los Angeles County, California, from 1947 until 1982. About 3,000 people live or work within 0.25 mile of the site. The company's operations included formulation, grinding, packaging, and distribution of DDT. According to analyses conducted by EPA, Montrose, and various State and local agencies, on- and off-site soils, surface water, and sediments are contaminated with DDT. The major transport mechanisms identified were storm water run-off and aerial emissions. On May 6, 1983, EPA issued an Administrative Order under CERCLA Section 106 requiring Montrose Chemical to cease all discharges of DDT and to initiate a study to determine the nature and extent of contamination. After a more detailed review of the Montrose site, EPA determined that further work was necessary to characterize the site and evaluate alternatives. Therefore, EPA prepared a workplan for a remedial investigation/feasibility study (RI/FS). This second phase of investigation will assess all areas of contamination, both on- and off-site, and any public health and environmental impacts. Status June 1986): In February 1985, Montrose installed a temporary asphalt cover over the site. EPA did not endorse this activity. In the summer of 1985, EPA conducted Part I of

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

the RI. On-site sampling found high levels of contamination at 77-foot depths in soil and in shallow ground water. In October 1985, Montrose and EPA signed an Administrative Order under CERCLA Section 106 requiring Montrose to conduct Part II of the RI, which includes on-site sampling of ground water and off-site sampling of soil, sediments, surface water, and ground water. Status November 1988): During July 1986, EPA sampled off-site dust and soil and verified that DDT migrated off-site via aerial dispersion. In November 1986, Montrose completed Phase I sampling under Part II of the RI. Results indicated that soils near the site are contaminated with high levels of DDT, and that the two shallower aquifers in the four-aquifer system underlying the site are contaminated with DDT and monochlorobene. In October 1987, EPA and Montrose signed an amendment to the October 1985 Administrative Order, calling for both on- and off-site sampling of the two deeper aquifers in the four-aquifer system. Status October 4, 1989): In July 1989, EPA and Montrose signed a second amendment to the original order, under which Montrose will conduct the FS for the overall site and evaluate options for removing DDT-contaminated sediments in the sanitary sewer lines near the site. Sampling conducted under the first amended order indicates that ground water is contaminated with high levels of monochlorobene 0.25 mile downgradient from the site. Deep wells and additional downgradient wells will be constructed and sampled.

Site Status Details:

NPL Status: Final  
Proposed Date: 10/15/1984  
Final Date: 10/04/1989  
Deleted Date: Not reported

Narratives Details:

NPL Name: MONTROSE CHEMICAL CORP.  
City: TORRANCE  
State: CA

CERCLIS:

Site ID: 0900993  
EPA ID: CAD008242711  
Facility County: LOS ANGELES  
Short Name: MONTROSE CHEMICAL CORP  
Congressional District: 43  
IFMS ID: 0926  
SMSA Number: 4480  
USGC Hydro Unit: 18070104  
Federal Facility: Not a Federal Facility  
DMNSN Number: 13.00000  
Site Orphan Flag: N  
RCRA ID: Not reported  
USGS Quadrangle: Not reported  
Site Init By Prog: Not reported  
NFRAP Flag: Not reported  
Parent ID: Not reported  
RST Code: P  
EPA Region: 09  
Classification: Manufacturing Plant  
Site Settings Code: UR  
NPL Status: Currently on the Final NPL  
DMNSN Unit Code: ACRE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

RBRAC Code: Not reported  
RResp Fed Agency Code: Not reported  
Non NPL Status: Not reported  
Non NPL Status Date: / /  
Site Fips Code: 06037  
CC Concurrence Date: / /  
CC Concurrence FY: Not reported  
Alias EPA ID: Not reported  
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 9271140.00000  
Contact Name: Jason Musante  
Contact Tel: (213) 244-1818  
Contact Title: On-Scene Coordinator (OSC)  
Contact Email: Not reported

Contact ID: 9270421.00000  
Contact Name: Russell Mechem  
Contact Tel: (415) 972-3192  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 9271118.00000  
Contact Name: Carolyn dAlmeida  
Contact Tel: (415) 972-3150  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 13003791.00000  
Contact Name: Dante Rodriguez  
Contact Tel: (415) 972-3166  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 13003854.00000  
Contact Name: Leslie Ramirez  
Contact Tel: (415) 972-3978  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

Contact ID: 13003858.00000  
Contact Name: Sharon Murray  
Contact Tel: (415) 972-4250  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

Contact ID: 13004003.00000  
Contact Name: Carl Brickner  
Contact Tel: Not reported  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

Contact ID: 9271193.00000  
Contact Name: Judy Huang  
Contact Tel: (415) 972-3681  
Contact Title: Remedial Project Manager (RPM)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Contact Email: Not reported

Contact ID: 13004194.00000  
Contact Name: Yarissa Martinez-Leon  
Contact Tel: (213) 244-1806  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 9271138.00000  
Contact Name: Richard Hiett  
Contact Tel: (415) 972-3170  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 9270408.00000  
Contact Name: Phillip Ramsey  
Contact Tel: (415) 972-3006  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

Contact ID: 9270063.00000  
Contact Name: Kevin Mayer  
Contact Tel: (415) 972-3176  
Contact Title: Remedial Project Manager (RPM)  
Contact Email: Not reported

**CERCLIS Site Alias Name(s):**

Alias ID: 101  
Alias Name: MONTROSE CHEMICAL CORP  
Alias Address: Not reported  
Not reported

Alias ID: 102  
Alias Name: MONTROSE CHEMICAL CORP.  
Alias Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502

Alias Comments: Not reported

Site Description: The Montrose Chemical Corporation site is located in Los Angeles County, California, with portions of the site within the City of Los Angeles, and adjacent to the City of Torrance, California. The Montrose site and the Del Amo site are separate, but adjacent, Superfund sites that have commingled groundwater contamination. The Harbor Gateway is a half-mile-wide strip of the City of Los Angeles that extends south from Los Angeles proper and provides the City a contiguous jurisdiction to Los Angeles Harbor. The former Montrose Chemical and Del Amo plants were located in the Harbor Gateway between the Cities of Torrance and Carson. Overall groundwater contamination associated with these two sites has come to be located over an area extending more than 1.3 miles in length, but its extent differs widely with the depth of the water-bearing unit as well as the lateral location being considered.

Montrose Chemical Corporation operated a technical grade dichloro-diphenyltrichloroethane (DDT) pesticide manufacturing plant in Los Angeles, California from 1947 to 1982. During its 35 years of operation, the Montrose plant released hazardous substances, pollutants or contaminants, into the surrounding environment, including surface soils, surface drainage and storm water pathways, sanitary sewers, the Pacific Ocean, and groundwater.

In 1982, the Environmental Protection Agency (EPA) conducted an inspection of the Montrose property and determined that DDT was present in surface drainages leading from the Montrose property. In 1983, EPA and the State

MAP FINDINGS

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

issued enforcement orders to Montrose, requiring them to cease and desist their discharge of hazardous wastes to the storm drain and surface water drainages. The site was listed final on the National Priorities List in October 1989. In October 1985 Montrose and EPA entered into an Administrative Order on Consent (AOC) which obligated Montrose to perform a remedial investigation and feasibility study (RI/FS) of the entire Montrose Chemical site. This AOC was subsequently amended twice, once in 1987 and again in 1989. Because the investigation of the Montrose Chemical Site had begun earlier than that for the Del Amo Site, originally there had been insufficient data to determine (1) the degree to which groundwater contamination from the Montrose and Del Amo sites were commingled, and (2) the degree to which contamination from the Montrose Chemical Site might be affected by remedial actions that were being considered in feasibility studies for groundwater at the Montrose Chemical Site. The Montrose remedial investigation had identified the existence of extensive Del Amo-related groundwater contamination, but initially the remedial investigation at the Del Amo Site had not progressed to the point that this contamination was adequately defined. Accordingly, EPA considered selecting limited interim groundwater remedies for the Montrose Chemical Site until these factors could be resolved. Operable Unit 3 (OU3): By late 1995 sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the Del Amo and Montrose Chemical Superfund sites was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In later 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater Record of Decision (ROD). EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. A ROD addressing the groundwater operable unit at the Montrose Chemical and Del Amo Superfund sites was completed in March 1999. The Montrose Chemical Corporation site is located in Los Angeles County, California, with portions of the site within the City of Los Angeles, and adjacent to the City of Torrance, California. The Montrose site and the Del Amo site are separate, but adjacent, Superfund sites that have commingled groundwater contamination. The Harbor Gateway is a half-mile-wide strip of the City of Los Angeles that extends south from Los Angeles proper and provides the City a contiguous jurisdiction to Los Angeles Harbor. The former Montrose Chemical and Del Amo plants were located in the Harbor Gateway between the Cities of Torrance and Carson. Overall groundwater contamination associated with these two sites has come to be located over an area extending more than 1.3 miles in length, but its extent differs widely with the depth of the water-bearing unit as well as the lateral location being considered.

Montrose Chemical Corporation operated a technical grade dichloro-diphenyltrichloroethane (DDT) pesticide manufacturing plant in Los Angeles, California from 1947 to 1982. During its 35 years of operation, the Montrose plant released hazardous substances, pollutants or contaminants, into the surrounding environment, including surface soils, surface drainage and storm water pathways, sanitary sewers, the Pacific Ocean, and groundwater.

In 1982, the Environmental Protection Agency (EPA) conducted an inspection of the Montrose property and determined that DDT was present in surface drainages leading from the Montrose property. In 1983, EPA and the State issued enforcement orders to Montrose, requiring them to cease and desist their



**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

discharge of hazardous wastes to the storm drain and surface water drainages. The site was listed final on the National Priorities List in October 1989. In October 1985 Montrose and EPA entered into an Administrative Order on Consent (AOC) which obligated Montrose to perform a remedial investigation and feasibility study (RI/FS) of the entire Montrose Chemical site. This AOC was subsequently amended twice, once in 1987 and again in 1989. Because the investigation of the Montrose Chemical Site had begun earlier than that for the Del Amo Site, originally there had been insufficient data to determine (1) the degree to which groundwater contamination from the Montrose and Del Amo sites were commingled, and (2) the degree to which contamination from the Montrose Chemical Site might be affected by remedial actions that were being considered in feasibility studies for groundwater at the Montrose Chemical Site. The Montrose remedial investigation had identified the existence of extensive Del Amo-related groundwater contamination, but initially the remedial investigation at the Del Amo Site had not progressed to the point that this contamination was adequately defined. Accordingly, EPA considered selecting limited interim groundwater remedies for the Montrose Chemical Site until these factors could be resolved. Operable Unit 3 (OU3): By late 1995 sufficient data had been obtained from the Del Amo groundwater investigation to determine that (1) the groundwater contamination from the Del Amo and Montrose Chemical Superfund sites was commingled, and (2) the evaluation of remedial alternatives related to groundwater contamination at one site was inseparable from the same evaluation at the other site. Groundwater contamination at both sites had to be considered together in order to properly evaluate and select groundwater alternatives for the two sites. In later 1995 and early 1996, EPA informed and opened a dialogue with Montrose Chemical and the Del Amo Respondents that EPA intended to unite the remedial selection processes with respect to groundwater, thereby leading to a single feasibility study and a dual-site groundwater Record of Decision (ROD). EPA initiated a process to generate a single feasibility study, called a Joint Groundwater Feasibility Study (JGWFS) to provide analysis for this ROD. While the separate AOC documents did not directly discuss a JGWFS, the parties agreed to proceed with the joint work as envisioned by EPA on a voluntary basis. A ROD addressing the groundwater operable unit at the Montrose Chemical and Del Amo Superfund sites was completed in March 1999. Operable Unit 5: The Palos Verdes Shelf Superfund site (PV Shelf) is an 88 square kilometer (km<sup>2</sup>) area of sediment on the continental shelf and slope off the coast of the Palos Verdes Peninsula, Los Angeles County, California, that has been contaminated with DDT and polychlorinated biphenyls (PCBs). PV Shelf is Operable Unit 5 of the Montrose Chemical Corporation Superfund site. Its national Superfund electronic database (i.e., CERCLIS) identification number is CAD008242711. EPA Region 9 is the lead agency for site remediation, and is using special account funds from various Consent Decrees entered into with the potentially responsible parties to clean up the site. The California coast from Pt. Conception to the Mexican border curves inward, forming a large bay called the "Southern California Bight." The Palos Verdes Peninsula is a small but prominent land mass extending into the Southern California Bight (SCB). It is bordered by Santa Monica Bay to the north and the San Pedro Shelf to the south. The Channel Islands lie to the west and northwest. The narrow underwater shelf off the Palos Verdes Peninsula is called the Palos Verdes Shelf. It is approximately 14.5 kilometers (km) long and 2.4 km wide. The seabed over most of the shelf slopes at a gentle 1 to 3 degrees. The shelf breaks at a depth of 70 to 100 meters (m), then drops steeply over 800 m to the ocean floor. The primary historical source of chemical contaminants on the PV Shelf is effluent discharged through submarine outfalls at White Point on the Palos Verdes Peninsula. Since 1937, wastewaters have been discharged to the ocean off Palos Verdes Peninsula from submarine outfalls of the JWPCP, operated by the

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Sanitation Districts of Los Angeles County (LACSD). Contaminants in the effluent included chlorinated hydrocarbons (e.g., DDTs and PCBs) as well as trace metals (e.g., cadmium, copper, lead, zinc, and other metals), and organic matter. The total discharge of suspended solids from 1937 to 1995 has been estimated to be 4.1 million metric tons. It is estimated that approximately 1,000 metric tons (mtons) of DDT were discharged from the outfalls from the 1950s through 1971. Traces of DDT can be found throughout the Southern California Bight; however, approximately 10 percent of the discharge settled on PV Shelf, forming an identifiable layer of contaminated sediment from 5 centimeters (cm) to 60 cm thick over a 44 km<sup>2</sup> area. From 1947 until 1982, Montrose Chemical Corp. of California, Inc. (Montrose) operated a DDT-manufacturing plant on 13 acres at 20201 Normandie Avenue in Los Angeles County, California. The land was owned by Stauffer Chemical Company. The Montrose plant operated 24 hours a day, seven days a week, 365 days a year. During its 35 years of operation, Montrose produced approximately 800,000 tons of DDT. When the plant first opened, it discharged DDT-contaminated wastewater from its production operations to a city sewer line via a private pressure sewer line owned by Stauffer Chemical. This connecting line periodically clogged, resulting in the discharge of Montrose DDT-contaminated wastewater to the natural stormwater drainage. When EPA investigated the natural stormwater drain in the 1990s, residual levels of DDT in the drainage immediately downstream of the Montrose plant property were in excess of 8,000 parts per million (ppm). The Normandie Avenue plant property itself was contaminated by Montrose operations. Investigations directed by EPA beginning in 1985 found significant contamination (primarily DDT and chlorobenzene) in the shallow and deep soil at the Montrose plant property, groundwater beneath and downgradient from the Montrose plant property, soil adjacent to and in the vicinity of the property, the sewer line adjacent to and downstream of the Montrose plant property, and, as mentioned above, portions of the stormwater pathway leading from the Montrose plant to the Consolidated Slip in Los Angeles Harbor. Groundwater at the Montrose site is contaminated with monochlorobenzene and other contaminants across six hydrostratigraphic units and to distances up to 1.3 miles from the former Montrose plant site. From 1953 until 1971, Montrose discharged DDT-contaminated wastewater from its operations at the Montrose plant to two sewers operated by the LACSD. These sewers conveyed the wastewater to the JWPCP, where it received primary treatment and was discharged through the White Point outfalls located on the PV Shelf. In the early 1970s, LACSD initiated an investigation to identify and eliminate discharge of DDTs and PCBs into their sewer system. LACSD identified the Montrose plant as the only significant source of DDT in sewer flows to the JWPCP. PCBs entered the LACSD sewer system from several industrial sources in the Los Angeles area, most notably from the Westinghouse Electric Corporation, which manufactured and repaired electrical equipment at its Los Angeles County plant; from a paper-manufacturing plant in Pomona owned by Potlatch Corporation; and from Simpson Paper Company. Like DDT from the Montrose plant, PCBs from these plants were sent to the JWPCP and, after treatment, were discharged from the White Point outfalls onto the PV Shelf. LACSD estimated that the discharge from the Montrose plant was contributing 654 pounds (lbs) of DDT per day to the LACSD system. The peak annual mass emissions of effluent solids (167,000 metric tons [mt]), DDT (21.1 mt), and PCBs (5.2 mt) occurred in 1971. Montrose ceased discharging waste into the county sewer system in 1971. LACSD conducted cleaning operations in the two sewer lines adjacent to and downstream of the Montrose property. Sediments in the two sewer lines contained in excess of 7,700 lbs of DDT, according to LACSD. Despite these efforts by LACSD, significant quantities of DDT-contaminated sediment remained in the sewer line. After the plant closure in 1983, under EPA order, Montrose removed approximately 162,000 lbs of sediment from the sewer line downstream from the

MAP FINDINGS

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

plant. Sewer sediment samples from this removal operation showed levels of DDT in the sediment at 490,000 milligrams per kilogram (mg/kg) and chlorobenzene at 2,200 mg/kg. PV Shelf enforcement activities occurred along two parallel paths: litigation and response actions. In 1989, CERCLA natural resource trustees<sup>1</sup> determined that DDT and PCB contamination of the marine environment off the southern California coast, including the Palos Verdes Shelf, could be causing significant damage to natural resources. In June 1990, the United States and the State of California filed suit in the case of *United States v. Montrose et al.* The suit contained two claims: - A claim by the natural resource trustees ("Trustees") for natural resource damages caused by the release of DDT and PCBs, through sanitary sewer and stormwater runoff pathways, into the environment off the Los Angeles coast, i.e., the Natural Resource Damage (NRD) site, and - EPA's claim for response costs with respect to the Montrose NPL Site. The named defendants in the Montrose case were Pottlatch Corporation and Simpson Paper Corporation, owners and operators of a paper mill that released PCBs into the LACSD sewer system; Westinghouse Electric Corporation, owner and operator of a facility that released PCBs into the LACSD sewer system; the Los Angeles County Sanitation Districts, owners and operators of the municipal sewer system that discharges wastewater to the PV Shelf through the White Point outfalls; and Montrose Chemical Corporation, owner and operator of the facility at the Montrose plant property. Named along with Montrose were several other corporations that were related to Montrose as corporate parents, successors and/or owners of the real property. EPA entered into Consent Decrees with LACSD/Municipalities in 1997, with Central Broadcasting System (CBS) Corporation in 1998, with Pottlatch Simpson Paper in 1998, and Montrose offshore in 2000. The first Consent Decree established a special account to be used for response and remedial actions on PV Shelf. Monies from the other settlements were added to the special account. Funds from the consent decrees were also allotted to the natural resource trustees. The Trustees formed the Montrose Settlements Restoration Program (MSRP) to restore or replace injured resources and lost services. Federal and state natural resource trustees, with NOAA as the lead trustee, completed a CERCLA natural resource damage assessment (NRDA) for the Southern California Bight, including PV Shelf. As part of the NRDA, the U.S. Geological Survey (USGS) collected sediment cores in 1992-1993 from 56 stations at the PV Shelf. Core samples from discrete 2 or 4 cm intervals were analyzed for total DDT and total PCBs, as well as several physical parameters. The results of this sampling indicated that DDT and PCBs were present throughout the effluent-affected sediment deposit and that trends in PCB levels tended to follow trends in DDT concentrations. The NRDA also found that the DDT and PCBs in contaminated sediment were entering the food chain and posed a variety of threats to sediment dwelling organisms, fish and higher predator species, including some protected by state or federal endangered species laws. The NRDA expert reports were issued in October 1994, confirming that DDT and PCBs in sediment on the PV Shelf have caused and continue to cause major damage to the marine environment. Given the breadth and depth of information contained in these reports, EPA decided in December 1994 to consider whether to initiate EPA Superfund response actions with regard to DDT and PCB contamination on the PV Shelf. In July 1996, EPA initiated a noontime critical removal action to evaluate risks posed by the DDT and PCB effluent-affected sediment on PV Shelf and the feasibility of response actions that could reduce threats to human health and the environment. In July 1996, EPA determined that the elevated concentrations of DDT and PCBs in sediment on the PV Shelf represented a threat to human health, welfare and the environment, and initiated a non-time-critical removal action under CERCLA to further investigate the threats. Non-time critical removal actions are defined in the National Oil and Hazardous Substances Pollution Contingency Plan as response actions that can start later

MAP FINDINGS

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

than six months after the need for action has been established. 40 CFR subsection 300.415(b) (4). The National Contingency Plan requires an EE/CA for all non-time critical removal actions. The EE/CA for PV Shelf was issued in 2000. As an initial step in the EE/CA process, EPA identified and screened possible response action technologies for contaminated sediment on the PV Shelf. Based on the results of the initial screening, a subset of actions was selected for further evaluation and comparison in the EE/CA. Response actions were screened using three criteria: effectiveness, implementability, and cost. The EE/CA Proposed Plan identified Institutional Controls (ICs) as the preferred alternative. In September 2001, EPA issued an Action Memorandum to implement the ICs program. Public comment on the proposed plan shaped the ICs program to rely more substantively on outreach and education. Institutional Controls (ICs) would serve as an interim removal action (with a limited duration of 10 years) while EPA completed its investigation of PV Shelf. As an interim removal action, EPA waived the applicable or relevant and appropriate requirements (ARARs) for surface water quality standards for DDT and PCBs. In 2000, EPA conducted a pilot study to assess the feasibility of using capping to clean up the site. Three 45-acre cells at different depths were capped with sand from two different sources, using different placement methods. Post-cap monitoring in 2002 showed that contaminant levels over the capped areas were comparable to uncapped areas. Additionally, the LACSD collected sediment cores across the PV Shelf in 2001 and noted that the peak concentration of contaminated sediment in one core collected from a capped cell was closer to the surface than it had been historically. The surface recontamination and possible sediment scouring prompted EPA to conduct four field studies in 2004 to evaluate 1) sediment geotechnical properties, 2) impacts of large, deep-burrowing worms and shrimp, 3) resuspension of sediment from capping, and 4) oceanographic conditions during winter storms. The study reports were completed in 2005 and posted on EPA's website under "Site Documents and Reports." The results of these and other studies were used to develop the Remedial Investigation and Feasibility Study for PV Shelf. EPA issued a Human Health Risk Evaluation for PV Shelf in 1999. The EE/CA acknowledged the need to gather additional information on the extent of contaminants of concern in fishes. From 2002 to 2004, EPA and MSRP collected 23 species of fish from 30 locations along the Southern California coast and analyzed them for DDT, PCBs and other contaminants. White croaker from the vicinity of PV Shelf was generally the most highly contaminated species. In most cases, DDT concentrations were higher than PCBs, particularly in the PV Shelf area. EPA used the survey to recalculate the health hazards from consumption of certain species of fish. An Interim ROD for OU5 was completed in September 2009.

**CERCLIS Assessment History:**

Action Code: 001  
Action: DISCOVERY  
Date Started: / /  
Date Completed: 01/01/80  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID  
Direction  
Distance  
Elevation

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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Code: 002  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 05/06/83  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 04/01/84  
Priority Level: Higher priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: SITE INSPECTION  
Date Started: / /  
Date Completed: 04/01/84  
Priority Level: Higher priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORKPLAN APPROVAL BY HQ  
Date Started: / /  
Date Completed: 10/01/84  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: PROPOSAL TO NATIONAL PRIORITIES LIST  
Date Started: / /

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

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EDR ID Number  
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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Date Completed: 10/15/84  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS  
Date Started: 02/15/84  
Date Completed: 11/15/84  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH  
Date Started: / /  
Date Completed: 02/15/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Alternate  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: ADMINISTRATIVE ORDER ON CONSENT  
Date Started: / /  
Date Completed: 10/28/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Alternate  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: PREPARATION OF COST DOCUMENT PACKAGE  
Date Started: / /  
Date Completed: 10/28/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: PREPARATION OF COST DOCUMENT PACKAGE  
Date Started: / /  
Date Completed: 10/28/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: PREPARATION OF COST DOCUMENT PACKAGE  
Date Started: / /  
Date Completed: 10/28/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMEDIAL INVESTIGATION  
Date Started: 01/01/85  
Date Completed: 04/30/86  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 02/19/88  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

Map ID  
Direction  
Distance  
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MAP FINDINGS

Site

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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action: HAZARD RANKING SYSTEM PACKAGE  
Date Started: / /  
Date Completed: 06/01/88  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL  
Date Started: 02/19/88  
Date Completed: 06/21/89  
Priority Level: Cleaned up  
Operable Unit: SITEWIDE  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST  
Date Started: / /  
Date Completed: 10/04/89  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMOVAL ASSESSMENT  
Date Started: 08/01/90  
Date Completed: 08/01/90  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: ADMINISTRATIVE RECORDS  
Date Started: 06/05/91  
Date Completed: 06/05/91  
Priority Level: Admin Record Compiled for a Removal Event



Map ID  
Direction  
Distance  
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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: REMOVAL ASSESSMENT  
Date Started: 12/11/91  
Date Completed: 12/11/91  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 11/05/92  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: CONSENT DECREE  
Date Started: / /  
Date Completed: 04/26/93  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 06/22/94  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported

Map ID  
Direction  
Distance  
Elevation

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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: ADMINISTRATIVE RECORDS  
Date Started: 06/28/94  
Date Completed: 06/28/94  
Priority Level: Admin Record Compiled for a Removal Event  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: TREATABILITY STUDY  
Date Started: 06/01/92  
Date Completed: 08/12/94  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 06/07/95  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 10/16/96  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

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Database(s)

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EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Code: 001  
Action: SECTION 107 LITIGATION  
Date Started: 06/13/90  
Date Completed: 02/27/97  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: ALTERNATIVE DISPUTE RESOLUTION  
Date Started: 10/01/95  
Date Completed: 03/03/97  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 03/25/97  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY  
Date Started: 10/28/85  
Date Completed: 08/14/97  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Responsible Party  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Original Action Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 10/10/86  
Date Completed: 01/08/98

Map ID  
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Distance  
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**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Original Action Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: REMEDIAL INVESTIGATION  
Date Started: 01/08/98  
Date Completed: 05/18/98  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: ADMINISTRATIVE RECORDS  
Date Started: 05/01/98  
Date Completed: 06/30/98  
Priority Level: Admin Record Compiled for a Remedial Event  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMOVAL COMMUNITY RELATIONS  
Date Started: 04/11/94  
Date Completed: 09/24/98  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 11/16/98  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 11/16/98  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: FEASIBILITY STUDY  
Date Started: 08/14/97  
Date Completed: 03/30/99  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: RECORD OF DECISION  
Date Started: / /  
Date Completed: 03/30/99  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL  
Date Started: 06/17/96  
Date Completed: 03/31/99  
Priority Level: Cleaned up  
Operable Unit: SITEWIDE  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

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EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 08/14/97  
Date Completed: 03/31/99  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Other Start and Completion Anomaly

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMOVAL  
Date Started: 04/11/94  
Date Completed: 06/30/99  
Priority Level: Cleaned up  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: CONSENT DECREE  
Date Started: / /  
Date Completed: 08/20/99  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: CONSENT DECREE  
Date Started: / /  
Date Completed: 08/20/99  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: CONSENT DECREE  
Date Started: / /  
Date Completed: 08/20/99  
Priority Level: Not reported  
Operable Unit: SITEWIDE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 10/19/00  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006  
Action: CONSENT DECREE  
Date Started: / /  
Date Completed: 10/20/00  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 12/19/00  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: PREPARATION OF COST DOCUMENT PACKAGE  
Date Started: / /  
Date Completed: 12/30/00  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005  
Action: CONSENT DECREE  
Date Started: 12/14/00  
Date Completed: 03/15/01  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 07/19/01  
Priority Level: Not reported  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: ENGINEERING EVALUATION/COST ANALYSIS  
Date Started: 07/09/96  
Date Completed: 09/28/01  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 12/21/01  
Priority Level: Not reported  
Operable Unit: STORMWATER PATHWAY  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action: REMOVAL  
Date Started: 04/12/01  
Date Completed: 03/06/02  
Priority Level: Cleaned up  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008  
Action: CONSENT DECREE  
Date Started: 07/19/01  
Date Completed: 06/24/02  
Priority Level: Not reported  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007  
Action: CONSENT DECREE  
Date Started: 12/20/01  
Date Completed: 06/24/02  
Priority Level: Not reported  
Operable Unit: STORMWATER PATHWAY  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: REMOVAL  
Date Started: 05/08/01  
Date Completed: 09/26/02  
Priority Level: Cleaned up  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 05/08/03  
Priority Level: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: REMEDIAL DESIGN  
Date Started: 08/01/99  
Date Completed: 05/27/03  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Original Action Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: Notice of Intent by All Parties  
Date Started: / /  
Date Completed: 05/27/03  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Not reported  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH  
Date Started: 10/26/04  
Date Completed: 08/29/05  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 11/21/05  
Priority Level: Not reported  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: Notice of Intent by All Parties  
Date Started: / /  
Date Completed: 12/19/05  
Priority Level: Not reported  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 06/23/06  
Priority Level: Not reported  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: ADMINISTRATIVE ORDER ON CONSENT  
Date Started: / /  
Date Completed: 11/02/07  
Priority Level: Not reported  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009  
Action: UNILATERAL ADMIN ORDER  
Date Started: / /  
Date Completed: 02/20/08  
Priority Level: Multi-Site-First Site  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Code: 005  
Action: REMOVAL  
Date Started: 12/03/07  
Date Completed: 02/21/08  
Priority Level: Cleaned up  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Approved  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: ADMINISTRATIVE ORDER ON CONSENT  
Date Started: / /  
Date Completed: 09/24/08  
Priority Level: Not reported  
Operable Unit: JONES CHEMICALS  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 07/17/03  
Date Completed: 05/27/09  
Priority Level: Not reported  
Operable Unit: PALOS VERDES SHELF  
Primary Responsibility: Special Account Financed Action - EPA  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: REMOVAL  
Date Started: 12/18/01  
Date Completed: 09/30/09  
Priority Level: Stabilized  
Operable Unit: SITEWIDE  
Primary Responsibility: Special Account Financed Action - EPA  
Planning Status: Primary  
Urgency Indicator: Non-Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: RECORD OF DECISION  
Date Started: / /  
Date Completed: 09/30/09  
Priority Level: Not reported  
Operable Unit: PALOS VERDES SHELF

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS  
Date Started: 01/20/11  
Date Completed: 06/29/12  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009  
Action: Lodged By DOJ  
Date Started: / /  
Date Completed: 07/09/12  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009  
Action: CONSENT DECREE  
Date Started: 06/29/12  
Date Completed: 08/22/12  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Federal Enforcement  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN  
Date Started: 05/27/03  
Date Completed: 09/19/12  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: REMEDIAL INVESTIGATION  
Date Started: 01/01/85  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: STORMWATER PATHWAY  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002  
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 03/02/94  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: ENGINEERING EVALUATION/COST ANALYSIS  
Date Started: 03/02/94  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Other Completion Anomaly

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY  
Date Started: 01/08/98  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: POTENTIALLY RESPONSIBLE PARTY FEASIBILITY STUDY  
Date Started: 01/08/98  
Date Completed: / /

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007  
Action: OPERATIONS AND MAINTENANCE  
Date Started: 03/06/02  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: ON/NEAR PROPERTY SOIL  
Primary Responsibility: Responsible Party  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004  
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 10/01/05  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Special Account Financed Action - EPA  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL  
Date Started: 01/17/06  
Date Completed: / /  
Priority Level: Stabilized  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Time Critical  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION  
Date Started: 07/05/06  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: HISTORIC SW PATHWAY SOUTH  
Primary Responsibility: Responsible Party  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: ENGINEERING EVALUATION/COST ANALYSIS  
Date Started: 06/04/08  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: STORMWATER PATHWAY  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: SITE SECURITY AND MAINTENANCE  
Date Started: 08/29/08  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: RESIDENTIAL SOILS  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003  
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY  
Date Started: 09/24/08  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: JONES CHEMICALS  
Primary Responsibility: Responsible Party  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005  
Action: REMEDIAL DESIGN  
Date Started: 07/22/09  
Date Completed: / /  
Priority Level: Not reported  
Operable Unit: PALOS VERDES SHELF  
Primary Responsibility: Special Account Financed Action - EPA  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001  
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION  
Date Started: 09/19/12  
Date Completed: / /



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Priority Level: Not reported  
Operable Unit: GROUNDWATER/NAPL  
Primary Responsibility: Responsible Party  
Planning Status: Primary  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:

Fed Register Date: 10/04/89  
Fed Register Volume: 54  
Page Number: 41015

Fed Register Date: 10/15/84  
Fed Register Volume: 49  
Page Number: 40320

[Click this hyperlink](#) while viewing on your computer to access  
6862 additional US CERCLIS Financial: record(s) in the EDR Site Report.

RCRA-LQG:

Date form received by agency: 03/01/2014  
Facility name: MONTROSE CHEMICAL COMPANY OF CALIFORNIA  
Facility address: 20201 SOUTH NORMANDIE AVENUE  
LOS ANGELES, CA 90502  
EPA ID: CAD008242711  
Mailing address: SOUTH NORMANDIE AVENUE  
LOS ANGELES, CA 90502  
Contact: MICHAEL A PALMER  
Contact address: SCOTT STREET, SUITE 104  
SAN DIEGO, CA 92106  
Contact country: Not reported  
Contact telephone: (619) 546-8377  
Contact email: MPALMER@DEMAXIMIS.COM  
EPA Region: 09  
Land type: Private  
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: MONTROSE CHEMICAL COMPANY OF CALIFORNIA  
Owner/operator address: ERICKSEN AVENUE NE, SUITE 380  
BAINBRIDGE ISLAND, WA 98110  
Owner/operator country: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Owner/operator telephone: (619) 546-8377  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1947  
Owner/Op end date: Not reported

Owner/operator name: MONTROSE CHEMICAL COMPANY OF CALIFORNIA  
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: 01/01/1947  
Owner/Op end date: Not reported

Owner/operator name: MONTROSE CHEMICAL CORP. OF CALIFORNIA  
Owner/operator address: P O BOX E  
CITY NOT REPORTED, NJ 99999

Owner/operator country: Not reported  
Owner/operator telephone: (201) 964-3250  
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: 06/15/2010  
Site name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Site name: MONTROSE CHEM CORP OF CA  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Site name: MONTROSE CHEM CORP OF CA  
Classification: Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Date form received by agency: 08/07/1980  
Site name: MONTROSE CHEM CORP OF CA  
Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: 135  
Waste name: 135

Waste code: 343  
Waste name: 343

Waste code: 351  
Waste name: 351

Waste code: 611  
Waste name: 611

Waste code: D018  
Waste name: BENZENE

Waste code: D021  
Waste name: CHLOROENZENE

Waste code: D022  
Waste name: CHLOROFORM

Waste code: U060  
Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO-

Waste code: U061  
Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO-

Waste code: 611  
Waste name: 611

Waste code: 741  
Waste name: 741

Waste code: D018  
Waste name: BENZENE

Waste code: D021  
Waste name: CHLOROENZENE

Waste code: D022  
Waste name: CHLOROFORM

Waste code: U060  
Waste name: BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO-

Waste code: U061  
Waste name: BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO-

Violation Status: No violations found

Evaluation Action Summary:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Evaluation date: 05/17/1982  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: EPA

Evaluation date: 12/22/1980  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: EPA

**US ENG CONTROLS:**

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502

EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Actual Date: 09/30/2015

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502

EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Actual Date: 09/30/2015

Action ID: 001  
Action Name: RECORD OF DECISION  
Action Completion date: Not reported  
Operable Unit: 01  
Contaminated Media : Groundwater  
Engineering Control: Aeration

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Air Stripping

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Carbon Adsorption

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Contaminated Media : Groundwater  
Engineering Control: Containment, (N.O.S.)

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Discharge

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Extraction

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Monitoring

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Natural Attenuation

Action ID: 002  
Action Name: RECORD OF DECISION  
Action Completion date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater  
Engineering Control: Precipitation

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Fish Tissue  
Engineering Control: Monitored Natural Attenuation

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Sediment  
Engineering Control: Cap

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Sediment

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Engineering Control: Monitored Natural Recovery

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Sediment  
Engineering Control: Monitoring

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Sediment  
Engineering Control: Subaqueous Sediment Cap

Action ID: 004  
Action Name: RECORD OF DECISION  
Action Completion date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Surface Water  
Engineering Control: Monitoring

**US INST CONTROL:**

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Access Restriction  
Actual Date: 09/30/2015  
Comple. Date: Not reported  
Operable Unit: 01  
Contaminated Media : Groundwater

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Deed Restriction  
Actual Date: 03/31/1999  
Comple. Date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater

EPA ID: CAD008242711  
Site ID: 0900993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Drilling Restriction  
Actual Date: 03/31/1999  
Comple. Date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Notices to State Regulators Before Changes in Land Ownership  
Actual Date: 03/31/1999  
Comple. Date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Water Supply Use Restriction  
Actual Date: 03/31/1999  
Comple. Date: 03/30/1999  
Operable Unit: 03  
Contaminated Media : Groundwater

EPA ID: CAD008242711  
Site ID: 0900993  
Name: MONTROSE CHEMICAL CORP.  
Action Name: RECORD OF DECISION  
Address: 20201 S NORMANDIE AVE  
TORRANCE, CA 90502  
EPA Region: 09  
County: LOS ANGELES  
Event Code: Not reported  
Inst. Control: Fishing Restriction  
Actual Date: 09/30/2009  
Comple. Date: 09/30/2009  
Operable Unit: 05  
Contaminated Media : Sediment

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

CONSENT:

EPA ID: CAD008242711  
Site ID: Not reported  
Case Title: Not reported  
Court Num: Not reported  
District: Not reported  
Entered Date: Not reported  
Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

ICIS:

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: BR CAD008242711  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2010-2518  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE/DEL AMO SUPERFUND SITES DUAL SITE GROUNDWATER OU RD/RA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2530  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL AOC WITH JCI JONES FOR RI/FS  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 122A/104A Agrmt For RI/FS  
Facility County: LOS ANGELES  
EPA Region #: 9

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-2501  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL - SHELL OIL  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2008-0009  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CEMICAL - KENWOOD  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0133  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2006-0025  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL - NORMANDIE (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9  
Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9  
Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9  
Enforcement Action ID: 09-2003-0114  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#2)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9  
Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-2003-0060  
FRS ID: 110002630608

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL / DEL AMO (#1)  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1998-0169  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE - CBS/POTLATCH/SIMPSON  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0048  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE - LOS ANGELES COUNTY SANITATION DISTRICT  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1997-0009  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE - UAO  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: CERCLA 106 AO For Resp Action/Imm Haz  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608  
Program ID: FRS 110002630608  
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608  
Program ID: RCRAINFO CAD008242711  
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608  
Program ID: BR CAD008242711  
Action Name: MONTROSE CHEMCIAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502

Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: DTSC-ENVIROSTOR 19280024  
Action Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608  
Program ID: CERCLIS CAD008242711  
Action Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: MONTROSE CHEMICAL CORP  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1990-0012  
FRS ID: 110002630608  
Program ID: RCRAINFO CAR000108613  
Action Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA  
Full Address: 20201 SOUTH NORMANDIE AVENUE TORRANCE CA 90502  
State: California  
Facility Name: U S E P A MONTROSE SUPERFUND SITE  
Facility Address: 20201 SOUTH NORMANDIE AVENUE  
TORRANCE, CA 90502  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	RCRAINFO CAR000108613
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	Not reported
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: Not reported

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

SIC Code:	Not reported
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	RCRAINFO CAR000108613
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	RCRAINFO CAR000108613
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	RCRAINFO CAR000108613
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

NAIC Code:	Not reported
SIC Code:	2869
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: FRS 110002630608

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	BR CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	RCRAINFO CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

NAIC Code:	Not reported
SIC Code:	5191
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

SIC Code: 2869

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: CERCLIS CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: DTSC-ENVIROSTOR 19280024

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: DTSC-ENVIROSTOR 19280024  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: BR CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	CERCLIS CAD008242711
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2869
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	2879
Program ID:	DTSC-ENVIROSTOR 19280024
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5191
Program ID:	FRS 110002630608
Facility Name:	MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)
Address:	20201 SOUTH NORMANDIE AVENUE
Tribal Indicator:	N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: FRS 110002630608  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2879

Program ID: RCRAINFO CAD008242711  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5191

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2869

Program ID: RCRAINFO CAR000108613  
Facility Name: MONTROSE CHEMICAL (MONTROSE SUPERFUND SITE)  
Address: 20201 SOUTH NORMANDIE AVENUE  
Tribal Indicator: N  
Fed Facility: No





Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**U S E P A MONTROSE SUPERFUND SITE (Continued)**

**1000420366**

SIMPSON INVESTMENT CO  
 SIMPSON PAPER COMPANY  
 STAUFFER MANAGEMENT COMPANY  
 STAUFFER MANAGEMENT COMPANY  
 STAUFFER MANAGEMENT COMPANY  
 STAUFFER MANAGEMENT COMPANY  
 ZENECA HOLDINGS INC  
 ZENECA HOLDINGS INC  
 ZENECA HOLDINGS INC

**8**  
**ENE**  
**< 1/8**  
**0.006 mi.**  
**32 ft.**

**BLOCKER**  
**21600 SOUTH BONITA STREET**  
**CARSON, CA**

**WMUDS/SWAT S103441409**  
**N/A**

**Relative:**  
**Lower**

WMUDS/SWAT:

**Actual:**  
**17 ft.**

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
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:	Not reported
Agency Name:	Not reported
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BLOCKER (Continued)**

**S103441409**

Threat to Water Quality: Not reported  
Sub Chapter 15: False  
Regional Board Project Officer: LT  
Number of WMUDS at Facility: 1  
Section Range: Not reported  
RCRA Facility: Not reported  
Waste Discharge Requirements: Not reported  
Self-Monitoring Rept. Frequency: Not reported  
Waste Discharge System ID: 4 190147NUR  
Solid Waste Information ID: Not reported

**B9**  
**West**  
**< 1/8**  
**0.013 mi.**  
**68 ft.**

**HAPPY CLEANERS**  
**21615 AVALON BLVD**  
**CARSON, CA 90745**  
**Site 1 of 4 in cluster B**

**RCRA-SQG 1000820316**  
**FINDS CAD983663501**  
**DRYCLEANERS**  
**HAZNET**

**Relative:**  
**Higher**

RCRA-SQG:

Date form received by agency: 04/01/1993

Facility name: HAPPY CLEANERS  
Facility address: 21615 AVALON BLVD  
CARSON, CA 90745

EPA ID: CAD983663501  
Mailing address: AVALON BLVD  
CARSON, CA 90745

Contact: LE LE  
Contact address: 21615 AVALON BLVD  
CARSON, CA 90745

Contact country: US  
Contact telephone: (310) 513-0469  
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: LE LE  
Owner/operator address: 21615 AVALON BLVD  
CARSON, CA 90745

Owner/operator country: Not reported  
Owner/operator telephone: (310) 513-0469

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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HAPPY CLEANERS (Continued)**

**1000820316**

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: 110002895724

**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.

**DRYCLEANERS:**

EPA Id: CAD983663501  
NAICS Code: 81232  
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)  
SIC Code: 7211  
SIC Description: Power Laundries, Family and Commercial  
Create Date: 12/03/2002  
Facility Active: No  
Inactive Date: 06/30/2000  
Facility Addr2: Not reported  
Owner Name: LE LE  
Owner Address: 21615 AVALON BLVD  
Owner Address 2: Not reported  
Owner Telephone: 4154958995  
Contact Name: --  
Contact Address: INACTIVE PER VQ00 - BMI  
Contact Address 2: Not reported  
Contact Telephone: Not reported  
Mailing Name: NUMBER NOT VALID DO NOT USE  
Mailing Address 1: 21615 AVALON BLVD  
Mailing Address 2: Not reported  
Mailing City: CARSON  
Mailing State: CA  
Mailing Zip: 907452245  
Owner Fax: Not reported  
Region Code: 3

EPA Id: CAL000284973  
NAICS Code: 81232  
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)  
SIC Code: 7211  
SIC Description: Power Laundries, Family and Commercial

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HAPPY CLEANERS (Continued)**

**1000820316**

Create Date: 07/23/2004  
Facility Active: Yes  
Inactive Date: Not reported  
Facility Addr2: Not reported  
Owner Name: WOON JO YEO  
Owner Address: 21615 AVALON BLVD  
Owner Address 2: Not reported  
Owner Telephone: 3105155026  
Contact Name: WOON JO YEO  
Contact Address: 21615 AVALON BLVD  
Contact Address 2: Not reported  
Contact Telephone: 3105155026  
Mailing Name: WOON JO YEO  
Mailing Address 1: 21615 AVALON BLVD  
Mailing Address 2: Not reported  
Mailing City: CARSON  
Mailing State: CA  
Mailing Zip: 907452245  
Owner Fax: Not reported  
Region Code: 3

**HAZNET:**

envid: 1000820316  
Year: 2004  
GEPaid: CAD983663501  
Contact: --  
Telephone: Not reported  
Mailing Name: Not reported  
Mailing Address: 21615 AVALON BLVD  
Mailing City,St,Zip: CARSON, CA 907452245  
Gen County: Not reported  
TSD EPA ID: NVR000076158  
TSD County: Not reported  
Waste Category: Not reported  
Disposal Method: Not reported  
Tons: Not reported  
Facility County: Los Angeles

envid: 1000820316  
Year: 2004  
GEPaid: CAD983663501  
Contact: --  
Telephone: Not reported  
Mailing Name: Not reported  
Mailing Address: 21615 AVALON BLVD  
Mailing City,St,Zip: CARSON, CA 907452245  
Gen County: Not reported  
TSD EPA ID: NVR000076158  
TSD County: Not reported  
Waste Category: Not reported  
Disposal Method: Not reported  
Tons: Not reported  
Facility County: Los Angeles

envid: 1000820316  
Year: 2004  
GEPaid: CAD983663501

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HAPPY CLEANERS (Continued)**

**1000820316**

Contact: --  
Telephone: Not reported  
Mailing Name: Not reported  
Mailing Address: 21615 AVALON BLVD  
Mailing City,St,Zip: CARSON, CA 907452245  
Gen County: Not reported  
TSD EPA ID: NVR000076158  
TSD County: Not reported  
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)  
Disposal Method: Not reported  
Tons: Not reported  
Facility County: Los Angeles

envid: 1000820316  
Year: 2004  
GEPaid: CAD983663501  
Contact: --  
Telephone: Not reported  
Mailing Name: Not reported  
Mailing Address: 21615 AVALON BLVD  
Mailing City,St,Zip: CARSON, CA 907452245  
Gen County: Not reported  
TSD EPA ID: NVR000076158  
TSD County: Not reported  
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)  
Disposal Method: Not reported  
Tons: Not reported  
Facility County: Los Angeles

envid: 1000820316  
Year: 2004  
GEPaid: CAD983663501  
Contact: --  
Telephone: Not reported  
Mailing Name: Not reported  
Mailing Address: 21615 AVALON BLVD  
Mailing City,St,Zip: CARSON, CA 907452245  
Gen County: Not reported  
TSD EPA ID: NVR000076158  
TSD County: Not reported  
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)  
Disposal Method: Not reported  
Tons: 0.22  
Facility County: Los Angeles

[Click this hyperlink](#) while viewing on your computer to access 33 additional CA\_HAZNET: record(s) in the EDR Site Report.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B10**  
**West**  
**< 1/8**  
**0.013 mi.**  
**68 ft.**

**21615 AVALON BLVD**  
**CARSON, CA 90745**

**EDR US Hist Cleaners**    **1015019157**  
**N/A**

**Site 2 of 4 in cluster B**

**Relative:**  
**Higher**

EDR Historical Cleaners:

**Actual:**  
**22 ft.**

- Name: HAPPY CLEANERS  
Year: 1999  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2001  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2002  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2004  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2005  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2010  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2011  
Address: 21615 AVALON BLVD
- Name: HAPPY CLEANERS  
Year: 2012  
Address: 21615 AVALON BLVD

**C11**  
**SW**  
**< 1/8**  
**0.013 mi.**  
**69 ft.**

**708 E CARSON ST**  
**CARSON, CA 90745**

**EDR US Hist Auto Stat**    **1015609692**  
**N/A**

**Site 1 of 8 in cluster C**

**Relative:**  
**Higher**

EDR Historical Auto Stations:

**Actual:**  
**21 ft.**

- Name: ECONO LUBE N TUNE SERVICE CENTERS CARSON  
Year: 1999  
Address: 708 E CARSON ST
- Name: ECONO LUBE & TUNE  
Year: 2001  
Address: 708 E CARSON ST
- Name: ECONO LUBE & TUNE  
Year: 2002  
Address: 708 E CARSON ST
- Name: ECONO LUBE & TUNE  
Year: 2004

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

1015609692

Address: 708 E CARSON ST  
Name: ECONO LUBE & TUNE  
Year: 2005  
Address: 708 E CARSON ST  
Name: ECONO LUBE & TUNE  
Year: 2006  
Address: 708 E CARSON ST  
Name: ECONO LUBE & TUNE  
Year: 2007  
Address: 708 E CARSON ST  
Name: ECONO LUBE & TUNE  
Year: 2008  
Address: 708 E CARSON ST  
Name: ECONO LUBE N TUNE  
Year: 2010  
Address: 708 E CARSON ST

C12  
SW  
< 1/8  
0.013 mi.  
69 ft.

ECONO LUBE N'TUNE  
708 E CARSON ST  
CARSON, CA 90745  
Site 2 of 8 in cluster C

UST U003984129  
LOS ANGELES CO. HMS N/A

Relative:  
Higher

UST:  
Facility ID: 4918  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.8322929  
Longitude: -118.261694

Actual:  
21 ft.

LOS ANGELES CO. HMS:  
Region: LA  
Facility Id: 004736-004918  
Facility Type: T0  
Facility Status: Removed  
Area: 22  
Permit Number: 00001943T  
Permit Status: Removed  
Region: LA  
Facility Id: 004736-104918  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

C13  
SW  
< 1/8  
0.013 mi.  
69 ft.

**ECONO-LUBE & TUNE**  
**708 E CARSON ST**  
**CARSON, CA**  
  
**Site 3 of 8 in cluster C**

**SWEEPS UST** U002279632  
**LOS ANGELES CO. HMS** N/A

**Relative:**  
**Higher**

SWEEPS UST:  
Status: Active  
Comp Number: 4918  
Number: 9  
Board Of Equalization: 44-007868  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-004918-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 1

LOS ANGELES CO. HMS:  
Region: LA  
Facility Id: 004736-055059  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

C14  
SW  
< 1/8  
0.013 mi.  
69 ft.

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE)**  
**708 CARSON**  
**CARSON, CA 90745**  
  
**Site 4 of 8 in cluster C**

**NPDES** S111121268  
**LUST** N/A

**Relative:**  
**Higher**

NPDES:  
Npdes Number: CAS000002  
Facility Status: Terminated  
Agency Id: 0  
Region: 4  
Regulatory Measure Id: 359459  
Order No: 2009-0009-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 4 19C354574  
Program Type: Construction  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 02/11/2009  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: 02/04/2014  
Discharge Name: Thomas Safran & Associates  
Discharge Address: 11812 San Vicente Blvd Ste 600  
Discharge City: Los Angeles  
Discharge State: California  
Discharge Zip: 90049

**Actual:**  
**21 ft.**



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE) (Continued)**

**S111121268**

LUST:

Region: STATE  
Global Id: T10000000071  
Latitude: 33.831322  
Longitude: -118.263267  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 03/17/2014  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MT  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: R-04918  
LOC Case Number: 04736-04918  
File Location: Not reported  
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:](#)

Contact:

Global Id: T10000000071  
Contact Type: Regional Board Caseworker  
Contact Name: MARYAM TAIDY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mtaidy@waterboards.ca.gov  
Phone Number: 2135766741

Global Id: T10000000071  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T10000000071  
Status: Open - Case Begin Date  
Status Date: 05/02/2008

Global Id: T10000000071  
Status: Open - Site Assessment  
Status Date: 05/02/2008

Global Id: T10000000071  
Status: Open - Site Assessment  
Status Date: 10/03/2008

Global Id: T10000000071  
Status: Open - Eligible for Closure  
Status Date: 02/16/2010

Global Id: T10000000071

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE) (Continued)**

**S111121268**

Status: Completed - Case Closed  
Status Date: 03/17/2014

Global Id: T10000000071  
Status: Open - Remediation  
Status Date: 08/28/2009

Global Id: T10000000071  
Status: Open - Remediation  
Status Date: 02/16/2010

Regulatory Activities:

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Remedial Progress Report

Global Id: T10000000071  
Action Type: ENFORCEMENT  
Date: 09/20/2010  
Action: Notice to Comply

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 02/15/2009  
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T10000000071  
Action Type: ENFORCEMENT  
Date: 08/31/2009  
Action: Waste Discharge Requirements

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 09/18/2008  
Action: Other Report / Document

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 06/17/2014  
Action: Well Destruction Report

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 01/15/2013  
Action: Request for Closure - Regulator Responded

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 08/20/2013  
Action: Request for Closure - Regulator Responded

Global Id: T10000000071  
Action Type: RESPONSE  
Date: 08/20/2013  
Action: Interim Remedial Action Plan - Regulator Responded

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE) (Continued)**

**S111121268**

Global Id:	T10000000071
Action Type:	ENFORCEMENT
Date:	08/11/2008
Action:	Staff Letter
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000000071
Action Type:	ENFORCEMENT
Date:	06/15/2009
Action:	Staff Letter
Global Id:	T10000000071
Action Type:	ENFORCEMENT
Date:	02/16/2010
Action:	Staff Letter
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	08/19/2008
Action:	Preliminary Site Assessment Report
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	11/15/2008
Action:	Interim Remedial Action Plan
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	11/15/2008
Action:	Soil and Water Investigation Report
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Remedial Progress Report
Global Id:	T10000000071
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000000071
Action Type:	ENFORCEMENT
Date:	12/18/2008
Action:	Staff Letter
Global Id:	T10000000071
Action Type:	ENFORCEMENT
Date:	04/25/2012
Action:	Staff Letter
Global Id:	T10000000071
Action Type:	REMEDIATION

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE) (Continued)**

**S111121268**

Date: 07/01/2009  
Action: Excavation

Global Id: T1000000071  
Action Type: REMEDIATION  
Date: 05/17/2010  
Action: Soil Vapor Extraction (SVE)

Global Id: T1000000071  
Action Type: REMEDIATION  
Date: 12/16/2011  
Action: Free Product Removal

Global Id: T1000000071  
Action Type: REMEDIATION  
Date: 09/03/2009  
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 02/15/2011  
Action: Staff Letter

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Soil and Water Investigation Report

Global Id: T1000000071  
Action Type: Other  
Date: 06/10/2008  
Action: Leak Reported

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 01/15/2012  
Action: Remedial Progress Report

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 01/15/2012  
Action: Monitoring Report - Semi-Annually

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Monitoring Report - Semi-Annually

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 01/17/2014

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CITY CENTER (FORMER ECONO LUBE AND TUNE) (Continued)**

**S111121268**

Action: Notification - Preclosure

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 03/17/2014  
Action: Closure/No Further Action Letter

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 08/28/2009  
Action: Staff Letter

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 08/31/2009  
Action: Waste Discharge Requirements

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Remedial Progress Report

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Site Assessment Report

Global Id: T1000000071  
Action Type: RESPONSE  
Date: 07/15/2013  
Action: Monitoring Report - Semi-Annually

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 09/16/2008  
Action: Notice to Comply

Global Id: T1000000071  
Action Type: ENFORCEMENT  
Date: 10/02/2008  
Action: Staff Letter

Global Id: T1000000071  
Action Type: Other  
Date: 05/02/2008  
Action: Leak Discovery

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C15**  
**WSW**  
**< 1/8**  
**0.016 mi.**  
**83 ft.**

**NO. 37T -CARSON**  
**CARSON, CA**  
**Site 5 of 8 in cluster C**

**SLIC** **S109349233**  
**N/A**

**Relative:**  
**Higher**

SLIC:

**Actual:**  
**22 ft.**

Region: STATE  
**Facility Status: Open - Inactive**  
Status Date: 01/01/1965  
Global Id: SL0003724100  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.831609  
Longitude: -118.263731  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: Not reported  
File Location: Not reported  
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:](#)

**D16**  
**ESE**  
**< 1/8**  
**0.019 mi.**  
**98 ft.**

**VACANT**  
**923 E CARSON ST**  
**CARSON, CA**  
**Site 1 of 2 in cluster D**

**SWEEPS UST** **U003062402**  
**LOS ANGELES CO. HMS** **N/A**

**Relative:**  
**Lower**

SWEEPS UST:

**Actual:**  
**18 ft.**

Status: Active  
Comp Number: 6733  
Number: 9  
Board Of Equalization: Not reported  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
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

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 006513-106733  
Facility Type: I02  
Facility Status: Closed  
Area: 22  
Permit Number: 000006586  
Permit Status: Closed

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

C17  
WSW  
< 1/8  
0.020 mi.  
104 ft.

**CHEVRON SS# 9-4328 FORMER**  
**21703 AVALON BLVD S**  
**CARSON, CA 90745**  
**Site 6 of 8 in cluster C**

**LUST S103437972**  
**N/A**

**Relative:**  
**Higher**

LUST:

**Actual:**  
**22 ft.**

Region: STATE  
Global Id: T0603705347  
Latitude: 33.8315301  
Longitude: -118.2639311  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 07/18/2005  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MB  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: R-22019  
LOC Case Number: Not reported  
File Location: Regional Board  
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:](#)

Contact:

Global Id: T0603705347  
Contact Type: Regional Board Caseworker  
Contact Name: MAGDY BAIADY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mbaady@waterboards.ca.gov  
Phone Number: 2135766699

Global Id: T0603705347  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603705347  
Status: Open - Site Assessment  
Status Date: 02/15/1996

Global Id: T0603705347  
Status: Open - Site Assessment  
Status Date: 01/11/2002

Global Id: T0603705347  
Status: Open - Site Assessment  
Status Date: 10/10/2002

Global Id: T0603705347

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Status: Open - Site Assessment  
Status Date: 07/18/2005

Global Id: T0603705347  
Status: Open - Remediation  
Status Date: 01/11/2002

Global Id: T0603705347  
Status: Open - Remediation  
Status Date: 07/18/2005

Global Id: T0603705347  
Status: Open - Case Begin Date  
Status Date: 08/04/1994

Regulatory Activities:

Global Id: T0603705347  
Action Type: ENFORCEMENT  
Date: 10/02/2002  
Action: Staff Letter

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2010  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2010  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2012  
Action: Conceptual Site Model

Global Id: T0603705347



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Action Type:	RESPONSE
Date:	01/15/2012
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2014
Action:	Request for Closure - Regulator Responded
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2014
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2014
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2005
Action:	Soil and Water Investigation Workplan
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2005
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2003

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: Other  
Date: 08/04/1994  
Action: Leak Reported

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2015  
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0603705347  
Action Type: ENFORCEMENT  
Date: 11/20/2014  
Action: Staff Letter

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2015  
Action: Monitoring Report - Semi-Annually

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2014  
Action: Monitoring Report - Semi-Annually

Global Id: T0603705347  
Action Type: ENFORCEMENT  
Date: 05/04/2005  
Action: Staff Letter

Global Id: T0603705347  
Action Type: ENFORCEMENT  
Date: 06/24/2003  
Action: Site Visit / Inspection / Sampling

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: REMEDIATION  
Date: 08/01/2004  
Action: Soil Vapor Extraction (SVE)

Global Id: T0603705347  
Action Type: REMEDIATION  
Date: 08/01/2004  
Action: Soil Vapor Extraction (SVE)

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2002  
Action: Other Report / Document

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2002  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/10/2002  
Action: Interim Remedial Action Plan

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/10/2002  
Action: Soil and Water Investigation Workplan

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Conceptual Site Model

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	ENFORCEMENT
Date:	10/21/2005
Action:	Staff Letter
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Date: 04/15/2004  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2011
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2012
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2012
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	02/10/2012
Action:	Corrective Action Plan / Remedial Action Plan - Addendum
Global Id:	T0603705347
Action Type:	ENFORCEMENT
Date:	06/17/2002
Action:	Staff Letter
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	10/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603705347
Action Type:	Other
Date:	08/04/1994
Action:	Leak Discovery
Global Id:	T0603705347
Action Type:	RESPONSE
Date:	04/15/2009
Action:	Conceptual Site Model
Global Id:	T0603705347
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Date: 04/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 10/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 04/15/2013  
Action: Conceptual Site Model

Global Id: T0603705347  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Monitoring Report - Semi-Annually

**LUST REG 4:**

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: R-22019  
Status: Pollution Characterization  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: Not reported  
Global ID: T0603705347  
W Global ID: Not reported  
Staff: MB  
Local Agency: 19000  
Cross Street: CARSON ST  
Enforcement Type: SI  
Date Leak Discovered: 8/4/1994  
Date Leak First Reported: 8/4/1994  
Date Leak Record Entered: 2/23/1996  
Date Confirmation Began: Not reported  
Date Leak Stopped: Not reported  
Date Case Last Changed on Database: 4/15/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: OM  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK  
Operator: Not reported  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 1057.302177140896283110587217  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: 2/15/1996  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: 10/10/2002  
Remediation Plan Submitted: 1/11/2002  
Remedial Action Underway: Not reported



Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CHEVRON SS# 9-4328 FORMER (Continued)**

**S103437972**

Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	1/1/1965
Hist Max MTBE Conc in Groundwater:	3200
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	Y. M. TUAN
RP Address:	PO BOX 2833
Program:	LUST
Lat/Long:	33.8315301 / -1
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	5/25/00 2ND QTR GW MON RPT 2000; 10/16/00 3RD QTR GW MON RPT 2000; 1/17/01 4TH QTR GW MON RPT 2000; 4/17/01 1ST QTR GW MON RPT 2001

**C18**  
**WSW**  
**< 1/8**  
**0.020 mi.**  
**104 ft.**

**CHEVRON SS# 9-4328, FORMER**  
**21703 AVALON**  
**CARSON, CA 90745**  
**Site 7 of 8 in cluster C**

**HIST CORTESE** **S102430182**  
**ENF** **N/A**

**Relative:**  
**Higher**

HIST CORTESE:  
 Region: CORTESE  
 Facility County Code: 19  
 Reg By: LTNKA  
 Reg Id: R-22019

**Actual:**  
**22 ft.**

ENF:  
 Region: 4  
 Facility Id: 217526  
 Agency Name: Chevron USA Inc La Habra  
 Place Type: Facility  
 Place Subtype: Not reported  
 Facility Type: All other facilities  
 Agency Type: Privately-Owned Business  
 # Of Agencies: 1  
 Place Latitude: 33.83157  
 Place Longitude: -118.26373  
 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  
 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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328, FORMER (Continued)**

**S102430182**

NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
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:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	R-22019
Reg Measure Id:	167559
Reg Measure Type:	Unregulated
Region:	4
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:	Never Active
Status Date:	02/20/2013
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:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229900
Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	02/18/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	02/18/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - R-22019
Description:	Level 1 enforcement letter sent 2/18/00 for deficient groundwater monitoring reports.
Program:	UST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEVRON SS# 9-4328, FORMER (Continued)**

**S102430182**

Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: \$0.00  
Initial Assessed Amount: \$0.00  
Liability \$ Amount: \$0.00  
Project \$ Amount: \$0.00  
Liability \$ Paid: \$0.00  
Project \$ Completed: \$0.00  
Total \$ Paid/Completed Amount: \$0.00

**B19**  
**WSW**  
**< 1/8**  
**0.038 mi.**  
**202 ft.**

**EDWIN S. YAMAUCHI**  
**655 CARSON**  
**CARSON, CA 90745**  
**Site 3 of 4 in cluster B**

**HIST UST** **U001565740**  
**N/A**

**Relative:**  
**Higher**

HIST UST:  
Region: STATE  
Facility ID: 00000039979  
Facility Type: Gas Station  
Other Type: Not reported  
Contact Name: SAME  
Telephone: 2138304792  
Owner Name: MOBIL OIL CORP  
Owner Address: 612 S. FLOWER ST  
Owner City,St,Zip: LOS ANGELES, CA 90017  
Total Tanks: 0004

**Actual:**  
**23 ft.**

Tank Num: 001  
Container Num: 1  
Year Installed: Not reported  
Tank Capacity: 00000280  
Tank Used for: WASTE  
Type of Fuel: WASTE OIL  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

Tank Num: 002  
Container Num: 4  
Year Installed: Not reported  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

Tank Num: 003  
Container Num: 3  
Year Installed: 1971  
Tank Capacity: 00006000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

Tank Num: 004  
Container Num: 2  
Year Installed: 1971

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWIN S. YAMAUCHI (Continued)**

**U001565740**

Tank Capacity: 00008000  
Tank Used for: PRODUCT  
Type of Fuel: PREMIUM  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor

**B20  
WSW  
< 1/8  
0.038 mi.  
202 ft.**

**MOBIL #11-MBT  
655 CARSON ST E  
CARSON, CA 90745**

**HIST CORTESE  
LUST S104406545  
N/A**

**Site 4 of 4 in cluster B**

**Relative:  
Higher**

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-00062

**Actual:  
23 ft.**

LUST:  
Region: STATE  
Global Id: T0603766538  
Latitude: 33.8319748959952  
Longitude: -118.264067173004  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 09/30/2010  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MT  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-00062A  
LOC Case Number: 00062-00062  
File Location: Regional Board  
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:

Contact:

Global Id: T0603766538  
Contact Type: Local Agency Caseworker  
Contact Name: GILLIAN MINTIER  
Organization Name: LOS ANGELES COUNTY  
Address: 900 SOUTH FREMONT AVE  
City: ALHAMBRA  
Email: gmintier@ladpw.org  
Phone Number: Not reported

Global Id: T0603766538  
Contact Type: Regional Board Caseworker  
Contact Name: MARYAM TAIDY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mtaidy@waterboards.ca.gov  
Phone Number: 2135766741

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Status History:

Global Id: T0603766538  
Status: Open - Case Begin Date  
Status Date: 04/18/2005

Global Id: T0603766538  
Status: Open - Site Assessment  
Status Date: 04/18/2005

Global Id: T0603766538  
Status: Completed - Case Closed  
Status Date: 09/30/2010

Global Id: T0603766538  
Status: Open - Site Assessment  
Status Date: 04/02/2007

Global Id: T0603766538  
Status: Open - Site Assessment  
Status Date: 07/11/2007

Global Id: T0603766538  
Status: Open - Site Assessment  
Status Date: 07/30/2008

Regulatory Activities:

Global Id: T0603766538  
Action Type: ENFORCEMENT  
Date: 05/02/2008  
Action: 13267 Requirement

Global Id: T0603766538  
Action Type: ENFORCEMENT  
Date: 06/26/2007  
Action: Staff Letter

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/11/2007  
Action: Soil and Water Investigation Workplan

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603766538  
Action Type: Other  
Date: 04/19/2005  
Action: Leak Discovery

Global Id: T0603766538  
Action Type: ENFORCEMENT  
Date: 09/30/2010  
Action: Closure/No Further Action Letter

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Global Id:	T0603766538
Action Type:	ENFORCEMENT
Date:	09/09/2010
Action:	Notification - Preclosure
Global Id:	T0603766538
Action Type:	ENFORCEMENT
Date:	06/15/2009
Action:	Staff Letter
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	07/02/0607
Action:	Other Report / Document
Global Id:	T0603766538
Action Type:	Other
Date:	05/20/2005
Action:	Leak Reported
Global Id:	T0603766538
Action Type:	ENFORCEMENT
Date:	07/31/2008
Action:	Staff Letter
Global Id:	T0603766538
Action Type:	ENFORCEMENT
Date:	07/31/2008
Action:	Staff Letter
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	04/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	10/30/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603766538
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603766538
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Date: 10/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603766538  
Action Type: REMEDIATION  
Date: 04/02/2007  
Action: Not reported

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Soil and Water Investigation Workplan

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Interim Remedial Action Plan

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 11/16/2009  
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Soil and Water Investigation Report

Global Id: T0603766538  
Action Type: ENFORCEMENT  
Date: 01/08/2008  
Action: Staff Letter

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: CAP/RAP - Other Report

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/23/2009  
Action: Soil and Water Investigation Report

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Global Id: T0603766538  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Monitoring Report - Quarterly

Region: STATE  
Global Id: T0603702661  
Latitude: 33.832001  
Longitude: -118.264079  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 10/10/1996  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: YR  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-00062  
LOC Case Number: Not reported  
File Location: Not reported  
Potential Media Affect: Aquifer used for drinking water supply  
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: T0603702661  
Contact Type: Regional Board Caseworker  
Contact Name: YUE RONG  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: Los Angeles  
Email: yrong@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0603702661  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

**Status History:**

Global Id: T0603702661  
Status: Completed - Case Closed  
Status Date: 10/10/1996

Global Id: T0603702661  
Status: Open - Case Begin Date  
Status Date: 05/31/1990

Global Id: T0603702661  
Status: Open - Site Assessment  
Status Date: 08/13/1990



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Global Id: T0603702661  
Status: Open - Site Assessment  
Status Date: 03/21/1991

Regulatory Activities:

Global Id: T0603702661  
Action Type: Other  
Date: 05/31/1990  
Action: Leak Stopped

Global Id: T0603702661  
Action Type: Other  
Date: 05/31/1990  
Action: Leak Discovery

Global Id: T0603702661  
Action Type: Other  
Date: 06/01/1990  
Action: Leak Reported

LUST REG 4:

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: I-00062  
Status: Case Closed  
Substance: Waste Oil  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: Not reported  
Global ID: T0603702661  
W Global ID: Not reported  
Staff: UNK  
Local Agency: 19000  
Cross Street: Not reported  
Enforcement Type: Not reported  
Date Leak Discovered: 5/31/1990  
Date Leak First Reported: 6/1/1990  
Date Leak Record Entered: 8/8/1990  
Date Confirmation Began: Not reported  
Date Leak Stopped: 5/31/1990  
Date Case Last Changed on Database: 11/26/1996  
Date the Case was Closed: 10/10/1996  
How Leak Discovered: Tank Test  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: Piping  
Operator: Not reported  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 791.1633811254045229881705842  
Source of Cleanup Funding: Piping  
Preliminary Site Assessment Workplan Submitted: 8/13/1990  
Preliminary Site Assessment Began: 8/13/1990

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #11-MBT (Continued)**

**S104406545**

Pollution Characterization Began: 3/21/1991  
Remediation Plan Submitted: Not reported  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: Not reported  
Hist Max MTBE Conc in Groundwater: Not reported  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Not reported  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: MOBIL OIL CORP.  
RP Address: 3800 ALAMEDA AVE W, STE 700, BURBANK, CA 91505  
Program: LUST  
Lat/Long: 33.8318631 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: 11/26/96 - ABANDONMENT OF 7 GW MONITORING WELLS

**D21**  
**ESE**  
**< 1/8**  
**0.041 mi.**  
**216 ft.**

**ACTA SOUTH - PARCEL SE-334**  
**E. CARSON ST.**  
**CARSON, CA 90810**

**Site 2 of 2 in cluster D**

**SLIC S106483574**  
**N/A**

**Relative:**  
**Lower**

**SLIC:**

**Actual:**  
**18 ft.**

Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 03/27/2003  
Global Id: SL0603782894  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.831626  
Longitude: -118.258626  
Case Type: Cleanup Program Site  
Case Worker: SH  
Local Agency: Not reported  
RB Case Number: 0747G5  
File Location: Not reported  
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:

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**E22**  
**NNW**  
**< 1/8**  
**0.047 mi.**  
**249 ft.**

**CARSON SHERIFF**  
**21356 AVALON BLVD**  
**CARSON, CA 90063**  
**Site 1 of 4 in cluster E**

**HIST UST**    **U001562237**  
**N/A**

**Relative:**  
**Lower**

HIST UST:

**Actual:**  
**18 ft.**

Region: STATE  
 Facility ID: 00000020854  
 Facility Type: Other  
 Other Type: SHERIFF  
 Contact Name: L.A. COUNTY MECHANICAL DEPARTM  
 Telephone: 2132672242  
 Owner Name: LOS ANGELES COUNTY MECHANICAL  
 Owner Address: 1100 N. EASTERN AVE.  
 Owner City,St,Zip: LOS ANGELES, CA 90063  
 Total Tanks: 0004

Tank Num: 001  
 Container Num: #1  
 Year Installed: Not reported  
 Tank Capacity: 00004000  
 Tank Used for: PRODUCT  
 Type of Fuel: 06  
 Container Construction Thickness: Not reported  
 Leak Detection: Stock Inventor

Tank Num: 002  
 Container Num: #2  
 Year Installed: Not reported  
 Tank Capacity: 00012000  
 Tank Used for: PRODUCT  
 Type of Fuel: UNLEADED  
 Container Construction Thickness: Not reported  
 Leak Detection: Stock Inventor

Tank Num: 003  
 Container Num: #3  
 Year Installed: Not reported  
 Tank Capacity: 00009000  
 Tank Used for: PRODUCT  
 Type of Fuel: UNLEADED  
 Container Construction Thickness: Not reported  
 Leak Detection: Stock Inventor

Tank Num: 004  
 Container Num: TANK #4  
 Year Installed: Not reported  
 Tank Capacity: 00001000  
 Tank Used for: PRODUCT  
 Type of Fuel: DIESEL  
 Container Construction Thickness: Not reported  
 Leak Detection: Stock Inventor

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

E23  
NNW  
< 1/8  
0.047 mi.  
249 ft.

21356 S AVALON BLVD  
CARSON, CA 90747  
Site 2 of 4 in cluster E

SWEEPS UST  
LOS ANGELES CO. HMS  
CDL

S103973961  
N/A

Relative:  
Lower

SWEEPS UST:

Status: Active  
Comp Number: 9859  
Number: 9  
Board Of Equalization: 44-008601  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-009859-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 2

Actual:  
18 ft.

Status: Active  
Comp Number: 9859  
Number: 9  
Board Of Equalization: 44-008601  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-009859-000002  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 010003-054333  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

CDL:

Facility ID: 200010120  
Date: 10/25/2000  
Lab Type: Illegal Drug Lab (L) - location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

E24  
NNW  
< 1/8  
0.047 mi.  
249 ft.

LA CO FACILITIES MGM DEPT  
21356 AVALON BLVD S  
CARSON, CA 90745  
  
Site 3 of 4 in cluster E

HIST CORTESE  
LUST  
ENF  
  
S102432386  
N/A

Relative:  
Lower

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: 907450034

Actual:  
18 ft.

LUST:  
Region: STATE  
Global Id: T0603701679  
Latitude: 33.8348471  
Longitude: -118.2635021  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 08/01/2007  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MB  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: 907450034  
LOC Case Number: Not reported  
File Location: Regional Board  
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:](#)

Contact:

Global Id: T0603701679  
Contact Type: Regional Board Caseworker  
Contact Name: MAGDY BAIADY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mbaiady@waterboards.ca.gov  
Phone Number: 2135766699

Global Id: T0603701679  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603701679  
Status: Open - Site Assessment  
Status Date: 01/14/2002

Global Id: T0603701679  
Status: Open - Remediation  
Status Date: 01/14/2002

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Global Id: T0603701679  
Status: Open - Remediation  
Status Date: 09/28/2005

Global Id: T0603701679  
Status: Open - Remediation  
Status Date: 10/06/2006

Global Id: T0603701679  
Status: Open - Remediation  
Status Date: 08/01/2007

Global Id: T0603701679  
Status: Open - Case Begin Date  
Status Date: 07/28/1988

Regulatory Activities:

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Interim Remedial Action Plan

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Remedial Progress Report

Global Id: T0603701679  
Action Type: ENFORCEMENT  
Date: 03/17/2014  
Action: Staff Letter

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 12/11/2008  
Action: Interim Remedial Action Plan

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	06/04/2012
Action:	Pilot Study / Treatability Workplan
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	05/21/2007
Action:	13267 Requirement
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Interim Remedial Action Plan
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2005
Action:	CAP/RAP - Final Remediation / Design Plan
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/20/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Date: 01/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 01/15/2014  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 01/15/2014  
Action: Monitoring Report - Semi-Annually

Global Id: T0603701679  
Action Type: ENFORCEMENT  
Date: 01/30/2013  
Action: Staff Letter

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: Other  
Date: 08/05/1988  
Action: Leak Stopped

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2014
Action:	Remedial Progress Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2014
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	12/13/2013
Action:	Pilot Study / Treatability Workplan - Regulator Responded
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	02/25/2009
Action:	Staff Letter
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	03/11/2013
Action:	Waste Discharge Requirements
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Remedial Progress Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2011
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Date: 10/15/2007  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Sensitive Receptor Survey Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Monitoring Report - Quarterly

Global Id: T0603701679  
Action Type: REMEDIATION  
Date: 10/10/2006  
Action: Free Product Removal

Global Id: T0603701679  
Action Type: REMEDIATION  
Date: 05/29/2000  
Action: Free Product Removal

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 05/15/2007  
Action: Interim Remedial Action Plan

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Soil and Water Investigation Report

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	03/28/2006
Action:	Notice of Violation
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	10/29/2003
Action:	13267 Requirement
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	05/13/2005
Action:	Staff Letter
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2009
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Date:	10/15/2010
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2005
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	Other
Date:	08/05/1988
Action:	Leak Discovery
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2012
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2012
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2012
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	01/14/2002
Action:	13267 Requirement
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	06/18/2008
Action:	Site Visit / Inspection / Sampling

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	10/26/2009
Action:	Site Visit / Inspection / Sampling
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	10/15/2011
Action:	Monitoring Report - Quarterly
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	04/15/2012
Action:	Conceptual Site Model
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	03/15/2007
Action:	Staff Letter
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	01/19/2007
Action:	Staff Letter
Global Id:	T0603701679
Action Type:	ENFORCEMENT
Date:	06/30/2014
Action:	Amendment to Order
Global Id:	T0603701679
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603701679
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Date: 10/15/2007  
Action: Interim Remedial Action Plan

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: Other  
Date: 07/28/1988  
Action: Leak Reported

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2013  
Action: Soil and Water Investigation Report

Global Id: T0603701679  
Action Type: RESPONSE  
Date: 07/15/2013  
Action: Conceptual Site Model

Global Id: T0603701679  
Action Type: ENFORCEMENT  
Date: 08/23/2006  
Action: Staff Letter

LUST REG 4:

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: 907450034  
Status: Remediation Plan  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: Not reported  
Global ID: T0603701679  
W Global ID: Not reported  
Staff: MB  
Local Agency: 19000  
Cross Street: 213TH  
Enforcement Type: DLLET  
Date Leak Discovered: 8/5/1988  
Date Leak First Reported: 7/28/1988  
Date Leak Record Entered: 9/10/1988  
Date Confirmation Began: Not reported  
Date Leak Stopped: 8/5/1988  
Date Case Last Changed on Database: 9/17/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: OM  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Operator: Not reported  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 1105.5832796595647094665139831  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: Not reported  
Pollution Characterization Began: 1/14/2002  
Remediation Plan Submitted: 1/14/2002  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: 1/1/1965  
Hist Max MTBE Conc in Groundwater: 414  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Yes  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: KATIE POPPEN  
RP Address: 4700 RAMONA BLVD.  
Program: LUST  
Lat/Long: 33.8348471 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: FREE PRODUCT PLUME UNDEFINED. MTBE DETECTED PREVIOUSLY, BUT ND THIS ROUND - YET HAVE FP.; 4/26/00 1ST QTR GW MON RPT 2000; 7/14/00 2ND QTR GW MON RPT 2000

ENF:

Region: 4  
Facility Id: 235814  
Agency Name: Los Angeles County  
Place Type: Facility  
Place Subtype: Not reported  
Facility Type: All other facilities  
Agency Type: County Agency  
# Of Agencies: 1  
Place Latitude: 33.834846  
Place Longitude: -118.2636  
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  
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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

# Of Places:	1
Source Of Facility:	Reg Meas
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:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	907450034
Reg Measure Id:	167908
Reg Measure Type:	Unregulated
Region:	4
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:	Never Active
Status Date:	02/20/2013
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:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229895
Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	02/14/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	5/3/2000
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 907450034
Description:	13267 Letter sent 2/14/00 directing RP to submit an adequate free product removal plan & site assessment workplan.
Program:	UST



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

LA CO FACILITIES MGM DEPT (Continued)

S102432386

Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: \$0.00  
Initial Assessed Amount: \$0.00  
Liability \$ Amount: \$0.00  
Project \$ Amount: \$0.00  
Liability \$ Paid: \$0.00  
Project \$ Completed: \$0.00  
Total \$ Paid/Completed Amount: \$0.00

E25  
NNW  
< 1/8  
0.047 mi.  
249 ft.

LA CO SHERIFF CARSON STA  
21356 AVALON BLVD  
CARSON, CA 90745  
Site 4 of 4 in cluster E

UST U003776391  
N/A

Relative:  
Lower

UST:  
Facility ID: 9859  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.83482  
Longitude: -118.26358

Actual:  
18 ft.

F26  
SE  
< 1/8  
0.048 mi.  
254 ft.

860 E CARSON ST  
CARSON, CA 90745  
Site 1 of 2 in cluster F

EDR US Hist Auto Stat 1015657887  
N/A

Relative:  
Higher

EDR Historical Auto Stations:  
Name: 4 05 HIGHWAY TOWING SVC 24 7  
Year: 2010  
Address: 860 E CARSON ST

Actual:  
21 ft.

F27  
SE  
< 1/8  
0.048 mi.  
254 ft.

860 E CARSON ST  
CARSON, CA 90745  
Site 2 of 2 in cluster F

EDR US Hist Cleaners 1015101792  
N/A

Relative:  
Higher

EDR Historical Cleaners:  
Name: BONITA CLEANER  
Year: 2004  
Address: 860 E CARSON ST  
  
Name: SOUTH COAST CLEANERS  
Year: 2006  
Address: 860 E CARSON ST  
  
Name: SOUTH COAST CLEANERS  
Year: 2007  
Address: 860 E CARSON ST

Actual:  
21 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**G28**  
**WSW**  
**< 1/8**  
**0.048 mi.**  
**255 ft.**

**655 E CARSON ST**  
**CARSON, CA 90745**

**EDR US Hist Auto Stat** **1015592311**  
**N/A**

**Site 1 of 6 in cluster G**

**Relative:**  
**Higher**

EDR Historical Auto Stations:

**Actual:**  
**23 ft.**

Name: EDS MOBIL SERVICE SERVICE STN  
Year: 1999  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE SERVICE STN  
Year: 2001  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE SERVICE STN  
Year: 2002  
Address: 655 E CARSON ST

Name: EDS MOBILE SERVICE  
Year: 2003  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE  
Year: 2004  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE  
Year: 2006  
Address: 655 E CARSON ST

Name: MOBIL OIL CORP  
Year: 2009  
Address: 655 E CARSON ST

Name: EDS MOBIL SVC  
Year: 2010  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE  
Year: 2011  
Address: 655 E CARSON ST

Name: EDS MOBIL SERVICE  
Year: 2012  
Address: 655 E CARSON ST

**G29**  
**WSW**  
**< 1/8**  
**0.048 mi.**  
**255 ft.**

**MOBIL OIL CORP S/S #18-MBT**  
**655 E CARSON ST**  
**CARSON, CA 90745**

**UST** **U003940701**  
**LOS ANGELES CO. HMS** **N/A**

**Site 2 of 6 in cluster G**

**Relative:**  
**Higher**

UST:

**Actual:**  
**23 ft.**

Facility ID: 62  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.8334495  
Longitude: -118.2628104

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL OIL CORP S/S #18-MBT (Continued)**

**U003940701**

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 000062-000062  
Facility Type: T0  
Facility Status: Permit  
Area: 22  
Permit Number: 00002671T  
Permit Status: Closed

**G30**  
**WSW**  
**< 1/8**  
**0.048 mi.**  
**255 ft.**

**MOBIL**  
**655 E CARSON ST**  
**CARSON, CA 90745**

**CA FID UST**  
**SWEEPS UST**  
**LOS ANGELES CO. HMS**

**S101630502**  
**N/A**

**Site 3 of 6 in cluster G**

**Relative:**  
**Higher**

CA FID UST:

Facility ID: 19002593  
Regulated By: UTNKA  
Regulated ID: 00039979  
Cortese Code: Not reported  
SIC Code: Not reported  
Facility Phone: 2138304792  
Mail To: Not reported  
Mailing Address: 3800 W ALAMEDA  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON 90745  
Contact: Not reported  
Contact Phone: Not reported  
DUNS Number: Not reported  
NPDES Number: Not reported  
EPA ID: Not reported  
Comments: Not reported  
Status: Active

**Actual:**  
**23 ft.**

SWEEPS UST:

Status: Active  
Comp Number: 62  
Number: 1  
Board Of Equalization: 44-000400  
Referral Date: 10-04-90  
Action Date: 10-04-90  
Created Date: 06-30-89  
Owner Tank Id: 1  
SWRCB Tank Id: 19-000-000062-000001  
Tank Status: A  
Capacity: 1000  
Active Date: 10-04-90  
Tank Use: OIL  
STG: W  
Content: Not reported  
Number Of Tanks: 4  
  
Status: Active  
Comp Number: 62  
Number: 1  
Board Of Equalization: 44-000400  
Referral Date: 10-04-90

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL (Continued)**

**S101630502**

Action Date: 10-04-90  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-000062-000002  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 62  
Number: 1  
Board Of Equalization: 44-000400  
Referral Date: 10-04-90  
Action Date: 10-04-90  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-000062-000003  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 62  
Number: 1  
Board Of Equalization: 44-000400  
Referral Date: 10-04-90  
Action Date: 10-04-90  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-000062-000004  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 000062-I00062  
Facility Type: I01  
Facility Status: Closed  
Area: 22  
Permit Number: 000002590  
Permit Status: Closed

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**G31**  
**WSW**  
**< 1/8**  
**0.048 mi.**  
**255 ft.**

**EXXONMOBIL OIL CORP 11578**  
**655 E CARSON ST**  
**CARSON, CA 90745**

**RCRA-LQG** **1000820250**  
**FINDS** **CAD983662842**

**Site 4 of 6 in cluster G**

**Relative:**  
**Higher**

RCRA-LQG:

Date form received by agency: 02/02/2010

Facility name: EXXONMOBIL OIL CORP 11578

Facility address: 655 E CARSON ST  
CARSON, CA 90745

EPA ID: CAD983662842

Mailing address: 800 E WASHINGTON ST  
EMES C O JD2 ENVIRONMENTAL INC  
WEST CHESTER, PA 19380

Contact: DONNA HYMES

Contact address: 800 E WASHINGTON ST EMES C O JD2 ENVIRONMENTAL INC  
WEST CHESTER, PA 19380

Contact country: US

Contact telephone: 610-430-8151

Contact email: DHYMES@JD2ENV.COM

EPA Region: 09

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: MAURICE REFOUA

Owner/operator address: 410 S BEVERLY DR  
BEVERLY HILLS, CA 90210

Owner/operator country: US

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 06/06/2005

Owner/Op end date: Not reported

Owner/operator name: EXXONMOBIL ENV SVCS

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: 01/01/2009

Owner/Op end date: Not reported

Handler Activities Summary:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EXXONMOBIL OIL CORP 11578 (Continued)**

**1000820250**

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  
Used 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: 03/23/1993  
Site name: ED YAMAUCHI SERVICE CENTER  
Classification: Small 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 PENSKEY-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: 110002895234

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.

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

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<b>C32</b>		<b>EDR US Hist Cleaners</b>	<b>1015019418</b>
<b>SW</b>	<b>21737 AVALON BLVD</b>		<b>N/A</b>
<b>&lt; 1/8</b>	<b>CARSON, CA 90745</b>		
<b>0.049 mi.</b>			
<b>261 ft.</b>	<b>Site 8 of 8 in cluster C</b>		
<b>Relative:</b>	EDR Historical Cleaners:		
<b>Higher</b>	Name:	COIN WASH LAUNDRY	
	Year:	1999	
<b>Actual:</b>	Address:	21737 AVALON BLVD	
<b>22 ft.</b>			

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<b>G33</b>		<b>SWRCY</b>	<b>S112283626</b>
<b>WSW</b>	<b>PONCE RECYCLING</b>		<b>N/A</b>
<b>&lt; 1/8</b>	<b>650 E CARSON ST</b>		
<b>0.056 mi.</b>	<b>CARSON, CA 90745</b>		
<b>294 ft.</b>	<b>Site 5 of 6 in cluster G</b>		
<b>Relative:</b>	SWRCY:		
<b>Higher</b>	Reg Id:	170081	
	Cert Id:	RC170081.001	
<b>Actual:</b>	Mailing Address:	5425 W 64th St	
<b>23 ft.</b>	Mailing City:	Los Angeles	
	Mailing State:	CA	
	Mailing Zip Code:	90056	
	Website:	Not reported	
	Email:	poncerecycling@aol.com	
	Phone Number:	(323) 533-4862	
	Grand Father:	N	
	Rural:	N	
	Operation Begin Date:	10/01/2012	
	Aluminium:	Y	
	Glass:	Y	
	Plastic:	Y	
	Bimetal:	Y	
	Agency:	N/A	
	Monday Hours Of Operation:	8:30 am - 4:30 pm	
	Tuesday Hours Of Operation:	8:30 am - 4:30 pm	
	Wednesday Hours Of Operation:	8:30 am - 4:30 pm	
	Thursday Hours Of Operation:	8:30 am - 4:30 pm	
	Friday Hours Of Operation:	8:30 am - 4:30 pm	
	Saturday Hours Of Operation:	8:30 am - 4:30 pm	
	Sunday Hours Of Operation:	8:30 am - 4:30 pm	
	Organization ID:	39719	
	Organization Name:	Ponce Recycling Inc	

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<b>H34</b>		<b>RCRA-LQG</b>	<b>1012175820</b>
<b>ESE</b>	<b>SHELL PIPELINE COMPANY LP - CARSON VAULT SIT</b>		<b>CAP000185280</b>
<b>&lt; 1/8</b>	<b>939 EAST CARSON STREET</b>		
<b>0.075 mi.</b>	<b>CARSON, CA 90745</b>		
<b>397 ft.</b>	<b>Site 1 of 3 in cluster H</b>		
<b>Relative:</b>	RCRA-LQG:		
<b>Lower</b>	Date form received by agency:	02/18/2008	
	Facility name:	SHELL PIPELINE COMPANY LP - CARSON VAULT SIT	
<b>Actual:</b>	Facility address:	939 EAST CARSON STREET	
<b>17 ft.</b>		CARSON, CA 90745	
	EPA ID:	CAP000185280	
	Mailing address:	P. O. BOX 2648	

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL PIPELINE COMPANY LP - CARSON VAULT SIT (Continued)**

**1012175820**

Contact: HOUSTON, TX 77252  
Contact address: SONDRA E BIENVENU  
Not reported  
Not reported  
Contact country: US  
Contact telephone: (713) 241-5036  
Contact email: SONDRA.BIENVENU@SHELL.COM  
EPA Region: 09  
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: SHELL PIPELINE COMPANY LP  
Owner/operator address: P. O. BOX 2648  
HOUSTON, TX 77252  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 05/01/2002  
Owner/Op end date: Not reported

Owner/operator name: SHELL PIPELINE COMPANY LP  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 05/01/2002  
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  
Used oil refiner: No  
Used oil fuel marketer to burner: No



MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL PIPELINE COMPANY LP - CARSON VAULT SIT (Continued)**

**1012175820**

Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Hazardous Waste Summary:

Waste code: D008  
Waste name: LEAD

Violation Status: No violations found

**35  
SW  
< 1/8  
0.084 mi.  
441 ft.**

**21734 AVALON BLVD  
CARSON, CA 90745**

**EDR US Hist Cleaners 1015019412  
N/A**

**Relative:  
Higher**

EDR Historical Cleaners:

Name: CARSON GEORGE SHOE RPR & CLNR  
Year: 2003  
Address: 21734 AVALON BLVD

**Actual:  
23 ft.**

**G36  
WSW  
< 1/8  
0.090 mi.  
473 ft.**

**TOWNE CLEANERS & LAUNDRY  
611 E CARSON  
LONG BEACH, CA  
Site 6 of 6 in cluster G**

**EDR US Hist Cleaners 1009163415  
N/A**

**Relative:  
Higher**

EDR Historical Cleaners:

Name: TOWNE CLEANERS & LAUNDRY  
Year: 1963  
Type: CLEANERS AND DYERS

**Actual:  
23 ft.**

**I37  
NW  
< 1/8  
0.097 mi.  
514 ft.**

**CARLOS GUTIERREZ  
21313 AVALON BLVD  
CARSON, CA 90745  
Site 1 of 11 in cluster I**

**HIST UST U001565726  
N/A**

**Relative:  
Lower**

HIST UST:

Region: STATE  
Facility ID: 00000026860  
Facility Type: Gas Station  
Other Type: Not reported  
Contact Name: Not reported  
Telephone: 0000000000  
Owner Name: ARCO PETROLEUM PRODUCTS CO.  
Owner Address: 515 SOUTH FLOWER STREET  
Owner City,St,Zip: LOS ANGELES, CA 90071  
Total Tanks: 0005

**Actual:  
17 ft.**

Tank Num: 001  
Container Num: 0000000001  
Year Installed: 1971  
Tank Capacity: 00006000  
Tank Used for: PRODUCT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARLOS GUTIERREZ (Continued)**

**U001565726**

Type of Fuel: 06  
Container Construction Thickness: 0000240  
Leak Detection: Stock Inventor, 10

Tank Num: 002  
Container Num: 0000000002  
Year Installed: 1979  
Tank Capacity: 00006000  
Tank Used for: PRODUCT  
Type of Fuel: 06  
Container Construction Thickness: 0000240  
Leak Detection: Stock Inventor, 10

Tank Num: 003  
Container Num: 0000000003  
Year Installed: 1979  
Tank Capacity: 00009000  
Tank Used for: PRODUCT  
Type of Fuel: 06  
Container Construction Thickness: 0000240  
Leak Detection: Stock Inventor, 10

Tank Num: 004  
Container Num: 0000000004  
Year Installed: 1979  
Tank Capacity: 00006000  
Tank Used for: PRODUCT  
Type of Fuel: 06  
Container Construction Thickness: 0000240  
Leak Detection: Stock Inventor, 10

Tank Num: 005  
Container Num: 0000000005  
Year Installed: Not reported  
Tank Capacity: 00000550  
Tank Used for: PRODUCT  
Type of Fuel: WASTE OIL  
Container Construction Thickness: 0000093  
Leak Detection: Stock Inventor

**I38  
NW  
< 1/8  
0.097 mi.  
514 ft.**

**ARCO PRODUCTS #06129  
21313 AVALON BLVD  
CARSON, CA 90745  
Site 2 of 11 in cluster I**

**UST U003938124  
N/A**

**Relative:  
Lower**

UST:  
Facility ID: 457  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.8363838  
Longitude: -118.2627565

**Actual:  
17 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**I39**  
**NW**  
**< 1/8**  
**0.097 mi.**  
**514 ft.**

**ARCO GAS STATION**  
**21313 S AVALON BLVD**  
**CARSON, CA 90479**  
**Site 3 of 11 in cluster I**

**CA FID UST**  
**SWEEPS UST**  
**LOS ANGELES CO. HMS**

**S101582924**  
**N/A**

**Relative:**  
**Lower**

CA FID UST:  
 Facility ID: 19001875  
 Regulated By: UTNKA  
 Regulated ID: 00026860  
 Cortese Code: Not reported  
 SIC Code: Not reported  
 Facility Phone: 8180000000  
 Mail To: Not reported  
 Mailing Address: 17315 STUDEBAKER RD  
 Mailing Address 2: Not reported  
 Mailing City,St,Zip: CARSON 90479  
 Contact: Not reported  
 Contact Phone: Not reported  
 DUNS Number: Not reported  
 NPDES Number: Not reported  
 EPA ID: Not reported  
 Comments: Not reported  
 Status: Active

**Actual:**  
**17 ft.**

**SWEEPS UST:**  
 Status: Active  
 Comp Number: 457  
 Number: 1  
 Board Of Equalization: 44-007447  
 Referral Date: 09-11-89  
 Action Date: 09-11-89  
 Created Date: 06-30-89  
 Owner Tank Id: Not reported  
 SWRCB Tank Id: 19-000-000457-000001  
 Tank Status: A  
 Capacity: 10000  
 Active Date: 09-11-89  
 Tank Use: M.V. FUEL  
 STG: P  
 Content: LEADED  
 Number Of Tanks: 3

Status: Active  
 Comp Number: 457  
 Number: 1  
 Board Of Equalization: 44-007447  
 Referral Date: 09-11-89  
 Action Date: 09-11-89  
 Created Date: 06-30-89  
 Owner Tank Id: Not reported  
 SWRCB Tank Id: 19-000-000457-000002  
 Tank Status: A  
 Capacity: 12000  
 Active Date: 08-24-89  
 Tank Use: M.V. FUEL  
 STG: P  
 Content: REG UNLEADED  
 Number Of Tanks: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO GAS STATION (Continued)**

**S101582924**

Status: Active  
Comp Number: 457  
Number: 1  
Board Of Equalization: 44-007447  
Referral Date: 09-11-89  
Action Date: 09-11-89  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-000457-000003  
Tank Status: A  
Capacity: 10000  
Active Date: 09-11-89  
Tank Use: M.V. FUEL  
STG: P  
Content: REG UNLEADED  
Number Of Tanks: Not reported

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 000455-037078  
Facility Type: T0  
Facility Status: Permit  
Area: 22  
Permit Number: 000337747  
Permit Status: Permit

**I40  
NW  
< 1/8  
0.097 mi.  
514 ft.**

**ARCO #6129  
21313 AVALON BLVD S  
CARSON, CA 90745  
  
Site 4 of 11 in cluster I**

**HIST CORTESE S102424309  
LUST N/A  
LOS ANGELES CO. HMS**

**Relative:  
Lower**

**HIST CORTESE:**  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-00457

**Actual:  
17 ft.**

**LUST:**

Region: STATE  
Global Id: T0603702712  
Latitude: 33.8351551  
Longitude: -118.2639351  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 01/11/2002  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: JW  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-00457  
LOC Case Number: Not reported  
File Location: Regional Board  
Potential Media Affect: Aquifer used for drinking water supply  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

[Click here to access the California GeoTracker records for this facility:](#)

**Contact:**

Global Id: T0603702712  
Contact Type: Regional Board Caseworker  
Contact Name: JIMMIE WOO  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 WEST 4TH STREET, SUITE 200  
City: LOS ANGELES  
Email: jwoo@waterboards.ca.gov  
Phone Number: 2135766600

Global Id: T0603702712  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

**Status History:**

Global Id: T0603702712  
Status: Open - Site Assessment  
Status Date: 01/11/2002

Global Id: T0603702712  
Status: Open - Remediation  
Status Date: 01/11/2002

Global Id: T0603702712  
Status: Open - Case Begin Date  
Status Date: 08/05/1988

Global Id: T0603702712  
Status: Open - Site Assessment  
Status Date: 10/04/1989

Global Id: T0603702712  
Status: Open - Site Assessment  
Status Date: 03/15/1990

**Regulatory Activities:**

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 03/20/2003  
Action: Staff Letter

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 06/18/2008  
Action: Site Visit / Inspection / Sampling

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 10/15/2003

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Action: Staff Letter

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2002  
Action: Sensitive Receptor Survey Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Conceptual Site Model

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Global Id:	T0603702712
Action Type:	Other
Date:	08/05/1988
Action:	Leak Stopped
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	01/15/2014
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2014
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	ENFORCEMENT
Date:	06/30/2008
Action:	Staff Letter
Global Id:	T0603702712
Action Type:	ENFORCEMENT
Date:	09/30/2011
Action:	Staff Letter
Global Id:	T0603702712
Action Type:	ENFORCEMENT
Date:	12/03/2014
Action:	Notification - Preclosure
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	10/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Date: 10/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 04/07/2011  
Action: Petition Submitted for Review

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 06/24/2003  
Action: Site Visit / Inspection / Sampling

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2011  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Global Id:	T0603702712
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	10/15/2011
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Conceptual Site Model
Global Id:	T0603702712
Action Type:	RESPONSE
Date:	01/15/2005
Action:	Soil and Water Investigation Report
Global Id:	T0603702712
Action Type:	REMEDIATION

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Date: 10/01/1989  
Action: Excavation

Global Id: T0603702712  
Action Type: REMEDIATION  
Date: 12/31/2002  
Action: Soil Vapor Extraction (SVE)

Global Id: T0603702712  
Action Type: REMEDIATION  
Date: 01/01/2003  
Action: Excavation

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Soil and Water Investigation Report

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Monitoring Report - Semi-Annually

Global Id: T0603702712  
Action Type: Other  
Date: 08/05/1988  
Action: Leak Discovery

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: ENFORCEMENT  
Date: 10/26/2009  
Action: Site Visit / Inspection / Sampling

Global Id: T0603702712  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Date: 07/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2013  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Sensitive Receptor Survey Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Soil and Water Investigation Report

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: Other  
Date: 08/05/1988  
Action: Leak Reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

ARCO #6129 (Continued)

S102424309

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Conceptual Site Model

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Monitoring Report - Semi-Annually

Global Id: T0603702712  
Action Type: RESPONSE  
Date: 07/15/2013  
Action: Conceptual Site Model

LUST REG 4:

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: I-00457  
Status: Remediation Plan  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: OT  
Global ID: T0603702712  
W Global ID: Not reported  
Staff: MB  
Local Agency: 19000  
Cross Street: 213TH  
Enforcement Type: DLSEL  
Date Leak Discovered: 8/5/1988  
Date Leak First Reported: 8/5/1988  
Date Leak Record Entered: Not reported  
Date Confirmation Began: Not reported  
Date Leak Stopped: 8/5/1988  
Date Case Last Changed on Database: 10/15/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: OM  
How Leak Stopped: Not reported  
Cause of Leak: Other Cause  
Leak Source: Other Source  
Operator: GANI, SUBIANTO  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 1060.5561757933965294539094341  
Source of Cleanup Funding: Other Source  
Preliminary Site Assessment Workplan Submitted: 10/4/1989  
Preliminary Site Assessment Began: 3/15/1990  
Pollution Characterization Began: 1/11/2002  
Remediation Plan Submitted: 1/11/2002  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: 1/1/1965

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ARCO #6129 (Continued)**

**S102424309**

Hist Max MTBE Conc in Groundwater: 10000  
Hist Max MTBE Conc in Soil: 6.9  
Significant Interim Remedial Action Taken: Not reported  
GW Qualifier: Not reported  
Soil Qualifier: =  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: RAY VOSE  
RP Address: 5882 BOLSA AVE., #200  
Program: LUST  
Lat/Long: 33.8351551 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: GW PLUME MIGRATING OFFSITE. POSSIBLY IMPACTING DOWNGRAIDENT SITES (FORMER OLD QUAKER PAINTS & FORMER ALL STAR INN).; 10/13/00 3RD QTR GW MON RPT 2000; 1/15/01 4TH QTR GW MON RPT 2000; 4/13/01 1ST QTR GW MON RPT 2001

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 000455-058993  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

**I41  
NW  
< 1/8  
0.097 mi.  
514 ft.**

**21313 AVALON BLVD  
CARSON, CA 90745  
Site 5 of 11 in cluster I**

**EDR US Hist Auto Stat 1015325422  
N/A**

**Relative:  
Lower  
Actual:  
17 ft.**

**EDR Historical Auto Stations:**

Name: AVALON GAS & FOOD MINI MARKET  
Year: 1999  
Address: 21313 AVALON BLVD  
  
Name: AVALON GAS & FOOD MINI MARKET  
Year: 2001  
Address: 21313 AVALON BLVD  
  
Name: AVALON GAS & FOOD MINI MARKET  
Year: 2002  
Address: 21313 AVALON BLVD  
  
Name: AVALON GAS & FOOD MINI MARKET  
Year: 2003  
Address: 21313 AVALON BLVD  
  
Name: AVALON GAS & FOOD MINI MARKET  
Year: 2004  
Address: 21313 AVALON BLVD

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**(Continued)**

**1015325422**

Name: AVALON GAS & FOOD MINI MARKET  
 Year: 2005  
 Address: 21313 AVALON BLVD

Name: AVALON GAS & FOOD MINI MARKET  
 Year: 2006  
 Address: 21313 AVALON BLVD

Name: AVALON GAS & FOOD MINI MARKET  
 Year: 2007  
 Address: 21313 AVALON BLVD

**I42  
 NNW  
 < 1/8  
 0.098 mi.  
 515 ft.**

**FARROKH DAI  
 21304 AVALON BLVD  
 CARSON, CA 90745**

**HIST UST U001565743  
 N/A**

**Site 6 of 11 in cluster I**

**Relative:  
 Lower**

HIST UST:  
 Region: STATE  
 Facility ID: 00000005386  
 Facility Type: Gas Station  
 Other Type: Not reported  
 Contact Name: SAME  
 Telephone: 2138303383  
 Owner Name: SHELL OIL COMPANY  
 Owner Address: P.O. BOX 4848  
 Owner City,St,Zip: ANAHEIM, CA 92803  
 Total Tanks: 0004

**Actual:  
 17 ft.**

Tank Num: 001  
 Container Num: 1  
 Year Installed: 1965  
 Tank Capacity: 00000550  
 Tank Used for: WASTE  
 Type of Fuel: WASTE OIL  
 Container Construction Thickness: 12  
 Leak Detection: Stock Inventor, 10

Tank Num: 002  
 Container Num: 2  
 Year Installed: 1983  
 Tank Capacity: 00010000  
 Tank Used for: PRODUCT  
 Type of Fuel: UNLEADED  
 Container Construction Thickness: 1/4  
 Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 003  
 Container Num: 3  
 Year Installed: 1983  
 Tank Capacity: 00010000  
 Tank Used for: PRODUCT  
 Type of Fuel: REGULAR  
 Container Construction Thickness: 1/4  
 Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 004

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FARROKH DAI (Continued)**

**U001565743**

Container Num: 4  
Year Installed: 1983  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: PREMIUM  
Container Construction Thickness: 1/4  
Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

**I43  
NNW  
< 1/8  
0.098 mi.  
515 ft.**

**SHELL #204-1312-0708  
21304 AVALON BLVD  
CARSON, CA 90745**

**HIST CORTESE S103641801  
LUST N/A**

**Site 7 of 11 in cluster I**

**Relative:  
Lower**

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-05882

**Actual:  
17 ft.**

LUST:

Region: STATE  
Global Id: T0603703120  
Latitude: 33.8352151  
Longitude: -118.2634971  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 07/15/2003  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MB  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-05882  
LOC Case Number: Not reported  
File Location: Regional Board  
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:

Contact:

Global Id: T0603703120  
Contact Type: Regional Board Caseworker  
Contact Name: MAGDY BAIADY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mbaady@waterboards.ca.gov  
Phone Number: 2135766699

Global Id: T0603703120  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Status History:

Global Id: T0603703120  
Status: Open - Site Assessment  
Status Date: 01/11/2002

Global Id: T0603703120  
Status: Open - Remediation  
Status Date: 01/11/2002

Global Id: T0603703120  
Status: Open - Remediation  
Status Date: 07/15/2003

Global Id: T0603703120  
Status: Open - Site Assessment  
Status Date: 11/01/1988

Global Id: T0603703120  
Status: Open - Site Assessment  
Status Date: 03/20/1990

Global Id: T0603703120  
Status: Open - Case Begin Date  
Status Date: 11/01/1988

Regulatory Activities:

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 10/02/2003  
Action: Staff Letter

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 01/07/2003  
Action: 13267 Requirement

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Global Id:	T0603703120
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Soil and Water Investigation Report
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Soil and Water Investigation Report
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2003
Action:	Soil and Water Investigation Report
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/15/2003
Action:	CAP/RAP - Final Remediation / Design Plan
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Soil and Water Investigation Report
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2012
Action:	Conceptual Site Model
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Conceptual Site Model
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/30/2013
Action:	Soil Vapor Intrusion Investigation Workplan
Global Id:	T0603703120
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Date: 07/15/2013  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: Other  
Date: 10/26/1990  
Action: Leak Reported

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2014  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 08/22/2014  
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 08/22/2014  
Action: Interim Remedial Action Plan

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 05/13/2005  
Action: Staff Letter

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Sensitive Receptor Survey Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2014  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 03/24/2014  
Action: Soil Vapor Intrusion Investigation Report

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 06/24/2003  
Action: Site Visit / Inspection / Sampling

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Date: 10/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2011  
Action: Site Assessment Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2011  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2008  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2010  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Date: 04/26/2007  
Action: Well Installation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/14/2009  
Action: Sensitive Receptor Survey Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Conceptual Site Model

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2012  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2011  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2012  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 12/30/2011  
Action: Site Assessment Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2012  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Date: 01/09/2012  
Action: Site Assessment Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/09/2012  
Action: Well Installation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2013  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2013  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: ENFORCEMENT  
Date: 06/18/2008  
Action: Site Visit / Inspection / Sampling

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Conceptual Site Model

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 08/03/2010  
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 12/30/2011  
Action: Well Installation Report

Global Id: T0603703120  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Conceptual Site Model

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S103641801**

Global Id:	T0603703120
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Conceptual Site Model
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	06/26/2012
Action:	Other Workplan
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	07/15/2012
Action:	Monitoring Report - Quarterly
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	04/15/2012
Action:	Monitoring Report - Quarterly
Global Id:	T0603703120
Action Type:	RESPONSE
Date:	06/10/2013
Action:	Interim Remedial Action Report

**I44  
 NNW  
 < 1/8  
 0.098 mi.  
 515 ft.**

**SHELL #204-1312-0708  
 21304 AVALON BLVD  
 CARSON, CA 90745  
 Site 8 of 11 in cluster I**

**LUST S102436984  
 N/A**

**Relative:  
 Lower  
 Actual:  
 17 ft.**

LUST REG 4:	
Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	I-05882
Status:	Remediation Plan
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Groundwater
Abatement Method Used at the Site:	Remove Free Product
Global ID:	T0603703120
W Global ID:	Not reported
Staff:	MB
Local Agency:	19000
Cross Street:	213TH ST
Enforcement Type:	DLSEL
Date Leak Discovered:	Not reported
Date Leak First Reported:	10/26/1990
Date Leak Record Entered:	12/5/1990
Date Confirmation Began:	Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL #204-1312-0708 (Continued)**

**S102436984**

Date Leak Stopped: Not reported  
Date Case Last Changed on Database: 10/15/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: Subsurface Monitoring  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK  
Operator: NAJMI, RANDY  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 1179.4938094279004267631974185  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: 11/1/1988  
Preliminary Site Assessment Began: 3/20/1990  
Pollution Characterization Began: 1/11/2002  
Remediation Plan Submitted: 7/15/2003  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: 10/21/2002  
Hist Max MTBE Conc in Groundwater: 680  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Yes  
GW Qualifier: =  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: JOE LENTINI  
RP Address: 511 N. BROOKHURST ST.  
Program: LUST  
Lat/Long: 33.8352151 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: FP REMOVAL (MANUAL BAILING) & GW MON ONGOING FOR 5 YRS. EXTENT OF SOIL CONTAMINATION NOT DEFINED. LEAK POSSIBLY FROM OLD/FORMER USTS. GW CONT. PLUME HAS MIGRATED OFFSITE.; 1/12/01 4TH QTR GW MON RPT 2000; 4/15/01 1ST QTR GW

**I45  
NNW  
< 1/8  
0.098 mi.  
515 ft.**

**TUNEUP MASTERS NO 63  
21304 AVALON BLVD  
CARSON, CA 90745**

**RCRA-SQG 1004678528  
FINDS CAR000110189  
HAZNET**

**Site 9 of 11 in cluster I**

**Relative:  
Lower**

RCRA-SQG:  
Date form received by agency: 07/24/2002  
Facility name: TUNEUP MASTERS NO 63  
Facility address: 21304 AVALON BLVD  
CARSON, CA 90745  
EPA ID: CAR000110189  
Mailing address: 810 GREENVIEW DR  
GRAND PRAIRIE, TX 75050  
Contact: JOHN LEDFORD  
Contact address: 810 GREENVIEW DR

**Actual:  
17 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TUNEUP MASTERS NO 63 (Continued)**

**1004678528**

GRAND PRAIRIE, TX 75050  
Contact country: US  
Contact telephone: (972) 641-7215  
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: SAGAPONACK PARTNERS L P  
Owner/operator address: 6450 5TH AVE 8TH FLOOR  
NEW YORK, NY 10022  
Owner/operator country: Not reported  
Owner/operator telephone: (212) 848-0276  
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: D000  
Waste name: Not Defined

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 PENSKEY-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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TUNEUP MASTERS NO 63 (Continued)**

**1004678528**

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.

Violation Status: No violations found

**FINDS:**

Registry ID: 110012248512

**Environmental Interest/Information System**

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART)  
provides California with information on hazardous waste shipments for  
generators, transporters, and treatment, storage, and disposal  
facilities.

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:**

envid: 1004678528  
Year: 2013  
GEPaid: CAR000110189  
Contact: ANDREA WING  
Telephone: 7147311050  
Mailing Name: Not reported  
Mailing Address: 20945 S WILMINGTON AVE  
Mailing City,St,Zip: CARSON, CA 90810  
Gen County: Los Angeles  
TSD EPA ID: CAT080013352  
TSD County: Los Angeles  
Waste Category: Not reported  
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,  
Organics Recovery Ect  
Tons: 0.22935  
Facility County: Not reported

envid: 1004678528  
Year: 2006  
GEPaid: CAR000110189  
Contact: John Ledford  
Telephone: 8004886387  
Mailing Name: Not reported  
Mailing Address: 750 WEST 5TH STREET STE 300  
Mailing City,St,Zip: FORT WORTH, TX 761020000  
Gen County: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TUNEUP MASTERS NO 63 (Continued)**

**1004678528**

TSD EPA ID: CAT080013352  
TSD County: Not reported  
Waste Category: Alkaline solution without metals pH >= 12.5  
Disposal Method: Recycler  
Tons: 0.22  
Facility County: Los Angeles

envid: 1004678528  
Year: 2002  
GEPaid: CAR000110189  
Contact: John Ledford  
Telephone: 8004886387  
Mailing Name: Not reported  
Mailing Address: 750 WEST 5TH STREET STE 300  
Mailing City,St,Zip: FORT WORTH, TX 761020000  
Gen County: Not reported  
TSD EPA ID: CAD982484933  
TSD County: Not reported  
Waste Category: Other empty containers 30 gallons or more  
Disposal Method: Recycler  
Tons: 1.5  
Facility County: Los Angeles

envid: 1004678528  
Year: 2002  
GEPaid: CAR000110189  
Contact: John Ledford  
Telephone: 8004886387  
Mailing Name: Not reported  
Mailing Address: 750 WEST 5TH STREET STE 300  
Mailing City,St,Zip: FORT WORTH, TX 761020000  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Empty containers less than 30 gallons  
Disposal Method: Transfer Station  
Tons: 0.05  
Facility County: Los Angeles

envid: 1004678528  
Year: 2002  
GEPaid: CAR000110189  
Contact: John Ledford  
Telephone: 8004886387  
Mailing Name: Not reported  
Mailing Address: 750 WEST 5TH STREET STE 300  
Mailing City,St,Zip: FORT WORTH, TX 761020000  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Other organic solids  
Disposal Method: Transfer Station  
Tons: 0.1  
Facility County: Los Angeles

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TUNEUP MASTERS NO 63 (Continued)**

**1004678528**

[Click this hyperlink](#) while viewing on your computer to access  
7 additional CA\_HAZNET: record(s) in the EDR Site Report.

**I46  
NNW  
< 1/8  
0.098 mi.  
515 ft.**

**DANS SHELL SERVICE  
21304 S AVALON BLVD  
CARSON, CA 90745**

**CA FID UST S101584403  
SWEEPS UST N/A**

**Site 10 of 11 in cluster I**

**Relative:  
Lower**

CA FID UST:

Facility ID: 19011141  
Regulated By: UTNKA  
Regulated ID: 00005386  
Cortese Code: Not reported  
SIC Code: Not reported  
Facility Phone: 3108303236  
Mail To: Not reported  
Mailing Address: PO BOX  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON 90745  
Contact: Not reported  
Contact Phone: Not reported  
DUNs Number: Not reported  
NPDES Number: Not reported  
EPA ID: Not reported  
Comments: Not reported  
Status: Active

**Actual:  
17 ft.**

SWEEPS UST:

Status: Active  
Comp Number: 5882  
Number: 9  
Board Of Equalization: 44-000074  
Referral Date: 04-01-92  
Action Date: 04-01-92  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-005882-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 4

Status: Active  
Comp Number: 5882  
Number: 9  
Board Of Equalization: 44-000074  
Referral Date: 04-01-92  
Action Date: 04-01-92  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-005882-000002  
Tank Status: A  
Capacity: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DANS SHELL SERVICE (Continued)**

**S101584403**

Active Date: 06-30-89  
 Tank Use: UNKNOWN  
 STG: W  
 Content: Not reported  
 Number Of Tanks: Not reported

Status: Active  
 Comp Number: 5882  
 Number: 9  
 Board Of Equalization: 44-000074  
 Referral Date: 04-01-92  
 Action Date: 04-01-92  
 Created Date: 06-30-89  
 Owner Tank Id: Not reported  
 SWRCB Tank Id: 19-000-005882-000003  
 Tank Status: A  
 Capacity: Not reported  
 Active Date: 06-30-89  
 Tank Use: UNKNOWN  
 STG: W  
 Content: Not reported  
 Number Of Tanks: Not reported

Status: Active  
 Comp Number: 5882  
 Number: 9  
 Board Of Equalization: 44-000074  
 Referral Date: 04-01-92  
 Action Date: 04-01-92  
 Created Date: 06-30-89  
 Owner Tank Id: Not reported  
 SWRCB Tank Id: 19-000-005882-000004  
 Tank Status: A  
 Capacity: Not reported  
 Active Date: 06-30-89  
 Tank Use: UNKNOWN  
 STG: W  
 Content: Not reported  
 Number Of Tanks: Not reported

**I47  
NNW  
< 1/8  
0.098 mi.  
515 ft.**

**DAN'S SHELL SERVICE  
21304 AVALON BLVD  
CARSON, CA 90745  
Site 11 of 11 in cluster I**

**UST U003984065  
N/A**

**Relative:  
Lower**

UST:  
 Facility ID: 26242  
 Permitting Agency: LOS ANGELES COUNTY  
 Latitude: 33.8353  
 Longitude: -118.26358

**Actual:  
17 ft.**



MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**H48**  
**ESE**  
**< 1/8**  
**0.109 mi.**  
**574 ft.**

**SHELL PIPELINE CORRIDOR - W/O DOMINGUEZ CHANNEL @ CARSON**  
**CARSON STREET**  
**CARSON, CA 90745**  
  
**Site 2 of 3 in cluster H**

**SLIC S111012714**  
**N/A**

**Relative:**  
**Lower**

**SLIC:**  
Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 05/03/2011  
Global Id: T10000003008  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8314602169759  
Longitude: -118.257458209991  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 1261B  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**19 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

**J49**  
**NW**  
**< 1/8**  
**0.123 mi.**  
**652 ft.**

**ALLSTAR INN SITE (FORMER)**  
**640-644 213TH ST E**  
**CARSON, CA 90745**  
  
**Site 1 of 2 in cluster J**

**LUST S106517262**  
**N/A**

**Relative:**  
**Lower**

**LUST:**  
Region: STATE  
Global Id: T0603705389  
Latitude: 33.8351671  
Longitude: -118.2647931  
Case Type: LUST Cleanup Site  
Status: Open - Site Assessment  
Status Date: 02/01/2008  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: JW  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: R-23210  
LOC Case Number: Not reported  
File Location: Regional Board  
Potential Media Affect: Aquifer used for drinking water supply  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

**Actual:**  
**17 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

**Contact:**  
Global Id: T0603705389  
Contact Type: Regional Board Caseworker  
Contact Name: JIMMIE WOO  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 WEST 4TH STREET, SUITE 200  
City: LOS ANGELES  
Email: jwoo@waterboards.ca.gov

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Phone Number: 2135766600  
  
Global Id: T0603705389  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603705389  
Status: Open - Site Assessment  
Status Date: 01/22/1996

Global Id: T0603705389  
Status: Open - Site Assessment  
Status Date: 10/21/1996

Global Id: T0603705389  
Status: Open - Site Assessment  
Status Date: 01/11/2002

Global Id: T0603705389  
Status: Open - Site Assessment  
Status Date: 08/31/2007

Global Id: T0603705389  
Status: Open - Site Assessment  
Status Date: 02/01/2008

Global Id: T0603705389  
Status: Open - Remediation  
Status Date: 01/11/2002

Global Id: T0603705389  
Status: Open - Case Begin Date  
Status Date: 12/28/1995

Regulatory Activities:

Global Id: T0603705389  
Action Type: ENFORCEMENT  
Date: 03/27/2008  
Action: Staff Letter

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Global Id:	T0603705389
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	10/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	08/28/2013
Action:	Request for Closure - Regulator Responded
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	Other
Date:	12/11/1996
Action:	Leak Reported
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	06/27/2008
Action:	Site Assessment Report
Global Id:	T0603705389
Action Type:	ENFORCEMENT
Date:	12/12/2007
Action:	Staff Letter
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	04/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	04/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	05/20/2014
Action:	Soil and Water Investigation Report
Global Id:	T0603705389
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Date: 08/11/2014  
Action: Request for Closure - Regulator Responded

Global Id: T0603705389  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Soil and Water Investigation Report

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Soil and Water Investigation Workplan

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603705389  
Action Type: REMEDIATION  
Date: 12/28/1997  
Action: Excavation

Global Id: T0603705389  
Action Type: REMEDIATION  
Date: 05/18/1998  
Action: Other (Use Description Field)

Global Id: T0603705389  
Action Type: Other  
Date: 12/28/1995  
Action: Leak Stopped

Global Id: T0603705389  
Action Type: ENFORCEMENT  
Date: 01/24/2003  
Action: Staff Letter

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603705389  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Global Id:	T0603705389
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	05/30/2008
Action:	Soil and Water Investigation Report
Global Id:	T0603705389
Action Type:	ENFORCEMENT
Date:	12/03/2014
Action:	Notification - Preclosure
Global Id:	T0603705389
Action Type:	Other
Date:	12/28/1995
Action:	Leak Discovery
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	07/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	ENFORCEMENT
Date:	03/30/2007
Action:	Staff Letter
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603705389
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Soil and Water Investigation Workplan
Global Id:	T0603705389
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Date: 07/15/2008  
Action: Monitoring Report - Quarterly  
  
Global Id: T0603705389  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Monitoring Report - Quarterly

**LUST REG 4:**

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: R-23210  
Status: Remediation Plan  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: Excavate and Dispose  
Global ID: T0603705389  
W Global ID: Not reported  
Staff: MB  
Local Agency: 19000  
Cross Street: AVALON BLVD  
Enforcement Type: None Taken  
Date Leak Discovered: 12/28/1995  
Date Leak First Reported: 12/11/1996  
Date Leak Record Entered: 2/28/1997  
Date Confirmation Began: 1/22/1996  
Date Leak Stopped: 12/28/1995  
Date Case Last Changed on Database: 7/29/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: Tank Closure  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK  
Operator: Not reported  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 876.6112239720436144242880665  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: 10/21/1996  
Pollution Characterization Began: 1/11/2002  
Remediation Plan Submitted: 1/11/2002  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: 1/1/1965  
Hist Max MTBE Conc in Groundwater: 15000  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Yes  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**ALLSTAR INN SITE (FORMER) (Continued)**

**S106517262**

Responsible Party: DON KOTT/JIM MILLER  
 RP Address: 212 S. AVALON BLVD.  
 Program: LUST  
 Lat/Long: 33.8351671 / -1  
 Local Agency Staff: Not reported  
 Beneficial Use: Not reported  
 Priority: Not reported  
 Cleanup Fund Id: Not reported  
 Suspended: Not reported  
 Assigned Name: Not reported  
 Summary: PAINTS SITE ACROSS STREET (DOWNGRADIENT). MIGHT HAVE AN UPGRDIENT SOURCE (ARCO STA. I-457); 1/15/00 QTRLY MON RPT; 7/15/00 QTRLY MONITORING RPT; 10/15/00 QTRLY GW MONITORING RPT.; 1/15/01 QTRLY MON RPT

**J50  
 NW  
 < 1/8  
 0.124 mi.  
 655 ft.**

**ALLSTAR INN SITE (FORMER)  
 640644 213TH  
 CARSON, CA 90745  
 Site 2 of 2 in cluster J**

**HIST CORTESE S102590604  
 N/A**

**Relative:  
 Lower  
 Actual:  
 17 ft.**

HIST CORTESE:  
 Region: CORTESE  
 Facility County Code: 19  
 Reg By: LTNKA  
 Reg Id: R-23210

**H51  
 ESE  
 1/8-1/4  
 0.126 mi.  
 666 ft.**

**1025 E CARSON ST  
 CARSON, CA 90745  
 Site 3 of 3 in cluster H**

**EDR US Hist Auto Stat 1015132048  
 N/A**

**Relative:  
 Higher  
 Actual:  
 20 ft.**

EDR Historical Auto Stations:  
 Name: CARSON UNION 76  
 Year: 2007  
 Address: 1025 E CARSON ST  
 Name: CARSON UNION 76  
 Year: 2008  
 Address: 1025 E CARSON ST  
 Name: CARSON UNION 76  
 Year: 2009  
 Address: 1025 E CARSON ST  
 Name: RICK LUBE & TUNE  
 Year: 2011  
 Address: 1025 E CARSON ST  
 Name: RICK LUBE & TUNE  
 Year: 2012  
 Address: 1025 E CARSON ST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**K52** **TOSCO/UNOCAL #31088**  
**East** **1025 E CARSON ST**  
**1/8-1/4** **CARSON, CA 90745**  
**0.144 mi.**  
**761 ft.**

**UST** **U003942448**  
**LOS ANGELES CO. HMS** **N/A**

**Relative:** **Higher**  
**Actual:** **21 ft.**

UST:  
Facility ID: 24785  
Permitting Agency: LOS ANGELES COUNTY  
Latitude: 33.833354  
Longitude: -118.255623

LOS ANGELES CO. HMS:  
Region: LA  
Facility Id: 002811-024785  
Facility Type: T0  
Facility Status: Closed  
Area: 22  
Permit Number: 000190171  
Permit Status: Closed

**K53** **76 PRODUCTS STATION #6082**  
**East** **1025 CARSON**  
**1/8-1/4** **CARSON, CA 90745**  
**0.144 mi.**  
**761 ft.**

**HIST CORTESE** **S102590630**  
**N/A**

**Relative:** **Higher**  
**Actual:** **21 ft.**

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-02903

**K54** **SERVICE STATION 6082**  
**East** **1025 E CARSON ST**  
**1/8-1/4** **CARSON, CA 93745**  
**0.144 mi.**  
**761 ft.**

**HIST UST** **U001593069**  
**SWEEPS UST** **N/A**  
**LOS ANGELES CO. HMS**

**Relative:** **Higher**  
**Actual:** **21 ft.**

HIST UST:  
Region: STATE  
Facility ID: 00000007696  
Facility Type: Gas Station  
Other Type: Not reported  
Contact Name: TAE AHN PYO  
Telephone: 2138301392  
Owner Name: UNION OIL COMPANY OF CALIFORNIA  
Owner Address: 3701 WILSHIRE BOULEVARD-SUITE  
Owner City,St,Zip: LOS ANGELES, CA 90010  
Total Tanks: 0003

Tank Num: 001  
Container Num: 6082-4  
Year Installed: 1968  
Tank Capacity: 00000550  
Tank Used for: WASTE  
Type of Fuel: WASTE OIL  
Container Construction Thickness: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SERVICE STATION 6082 (Continued)**

**U001593069**

Leak Detection: Stock Inventor, Pressure Test

Tank Num: 002  
Container Num: 6082-2  
Year Installed: 1968  
Tank Capacity: 00009940  
Tank Used for: PRODUCT  
Type of Fuel: PREMIUM  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003  
Container Num: 6082-1  
Year Installed: 1968  
Tank Capacity: 00009940  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: Not reported  
Leak Detection: Stock Inventor, Pressure Test

**SWEEPS UST:**

Status: Active  
Comp Number: 2903  
Number: 1  
Board Of Equalization: 44-001057  
Referral Date: 10-10-90  
Action Date: 10-10-90  
Created Date: 06-30-89  
Owner Tank Id: A  
SWRCB Tank Id: 19-000-002903-000001  
Tank Status: A  
Capacity: 12000  
Active Date: 10-10-90  
Tank Use: M.V. FUEL  
STG: P  
Content: REG UNLEADED  
Number Of Tanks: 3

Status: Active  
Comp Number: 2903  
Number: 1  
Board Of Equalization: 44-001057  
Referral Date: 10-10-90  
Action Date: 10-10-90  
Created Date: 06-30-89  
Owner Tank Id: C  
SWRCB Tank Id: 19-000-002903-000002  
Tank Status: A  
Capacity: 12000  
Active Date: 10-10-90  
Tank Use: M.V. FUEL  
STG: P  
Content: REG UNLEADED  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 2903

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SERVICE STATION 6082 (Continued)**

**U001593069**

Number: 1  
Board Of Equalization: 44-001057  
Referral Date: 10-10-90  
Action Date: 10-10-90  
Created Date: 06-30-89  
Owner Tank Id: W.O.  
SWRCB Tank Id: 19-000-002903-000003  
Tank Status: A  
Capacity: 500  
Active Date: 10-10-90  
Tank Use: OIL  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 002811-050609  
Facility Type: T0  
Facility Status: Permit  
Area: 22  
Permit Number: 000552453  
Permit Status: Permit

**K55  
East  
1/8-1/4  
0.144 mi.  
761 ft.**

**TOSCO - 76 STATION #6082  
1025 CARSON ST E  
CARSON, CA 90745  
Site 4 of 6 in cluster K**

**LUST S105692796  
N/A**

**Relative:  
Higher**

**LUST:**

Region: STATE  
Global Id: T0603702871  
Latitude: 33.8318880023522  
Longitude: -118.256921768188  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 10/20/2006  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: JW  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-02903  
LOC Case Number: Not reported  
File Location: Regional Board  
Potential Media Affect: Aquifer used for drinking water supply  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

**Actual:  
21 ft.**

Click here to access the California GeoTracker records for this facility:

**Contact:**

Global Id: T0603702871  
Contact Type: Regional Board Caseworker  
Contact Name: JIMMIE WOO  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 WEST 4TH STREET, SUITE 200  
City: LOS ANGELES  
Email: jwoo@waterboards.ca.gov

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Phone Number: 2135766600  
  
Global Id: T0603702871  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603702871  
Status: Open - Site Assessment  
Status Date: 08/16/2006  
  
Global Id: T0603702871  
Status: Open - Verification Monitoring  
Status Date: 08/22/1990  
  
Global Id: T0603702871  
Status: Open - Remediation  
Status Date: 04/12/2001  
  
Global Id: T0603702871  
Status: Open - Case Begin Date  
Status Date: 08/20/1990  
  
Global Id: T0603702871  
Status: Open - Remediation  
Status Date: 10/20/2006  
  
Global Id: T0603702871  
Status: Open - Site Assessment  
Status Date: 08/20/1990  
  
Global Id: T0603702871  
Status: Open - Site Assessment  
Status Date: 10/13/1990  
  
Global Id: T0603702871  
Status: Open - Site Assessment  
Status Date: 01/14/1993

Regulatory Activities:

Global Id: T0603702871  
Action Type: ENFORCEMENT  
Date: 10/29/2008  
Action: Staff Letter  
  
Global Id: T0603702871  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Monitoring Report - Quarterly  
  
Global Id: T0603702871

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Action Type:	RESPONSE
Date:	04/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	ENFORCEMENT
Date:	06/08/2011
Action:	13267 Requirement
Global Id:	T0603702871
Action Type:	ENFORCEMENT
Date:	07/21/2011
Action:	13267 Requirement
Global Id:	T0603702871
Action Type:	Other
Date:	08/22/1990
Action:	Leak Reported
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2014
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	Other
Date:	08/21/1990
Action:	Leak Stopped
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2003

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 12/15/2008  
Action: Other Report / Document

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 07/15/2014  
Action: Monitoring Report - Semi-Annually

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 05/24/2011  
Action: Remedial Progress Report

Global Id: T0603702871  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Global Id:	T0603702871
Action Type:	RESPONSE
Date:	09/04/2008
Action:	Well Installation Workplan
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	10/17/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	04/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	12/15/2008
Action:	Well Installation Report
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	04/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	REMEDIATION
Date:	03/16/2005
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0603702871
Action Type:	ENFORCEMENT
Date:	04/12/2001
Action:	Staff Letter
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: REMEDIATION  
Date: 05/01/2005  
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 08/16/2006  
Action: Soil and Water Investigation Workplan

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Remedial Progress Report

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: ENFORCEMENT  
Date: 09/20/2006  
Action: Staff Letter

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603702871  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Monitoring Report - Semi-Annually

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Global Id:	T0603702871
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	07/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	Other
Date:	08/21/1990
Action:	Leak Discovery
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	10/15/2012
Action:	Remedial Progress Report
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Remedial Progress Report
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	12/14/2011
Action:	Remedial Progress Report
Global Id:	T0603702871
Action Type:	ENFORCEMENT
Date:	04/26/2011
Action:	13267 Requirement
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603702871
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702871
Action Type:	ENFORCEMENT



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Date: 08/25/2011  
Action: Preparation of Record for Appeal/Referral/Petition  
  
Global Id: T0603702871  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Remedial Progress Report

**LUST REG 4:**

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: I-02903  
Status: Remediation Plan  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: Remove Free Product  
Global ID: T0603702871  
W Global ID: Not reported  
Staff: JW  
Local Agency: 19000  
Cross Street: 405 FWY  
Enforcement Type: LET  
Date Leak Discovered: 8/21/1990  
Date Leak First Reported: 8/22/1990  
Date Leak Record Entered: 12/2/1990  
Date Confirmation Began: Not reported  
Date Leak Stopped: 8/21/1990  
Date Case Last Changed on Database: 7/15/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: Tank Closure  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: Piping  
Operator: KATIRAI, KAMBRIZ  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 3083.2755515895958786977312829  
Source of Cleanup Funding: Piping  
Preliminary Site Assessment Workplan Submitted: 8/20/1990  
Preliminary Site Assessment Began: 10/13/1990  
Pollution Characterization Began: 1/14/1993  
Remediation Plan Submitted: 4/12/2001  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: 8/22/1990  
Enforcement Action Date: 4/12/2001  
Historical Max MTBE Date: 7/23/2002  
Hist Max MTBE Conc in Groundwater: 40000  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Not reported  
GW Qualifier: =  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**TOSCO - 76 STATION #6082 (Continued)**

**S105692796**

Responsible Party: CHRIS SWARTZ  
 RP Address: 555 ANTON  
 Program: LUST  
 Lat/Long: 33.8317272 / -1  
 Local Agency Staff: Not reported  
 Beneficial Use: Not reported  
 Priority: Not reported  
 Cleanup Fund Id: Not reported  
 Suspended: Not reported  
 Assigned Name: Not reported  
 Summary: ROUTINE TANK REPLACEMENT. WASTE OIL TANK HAD HOLES IN TOP & BOTTOM U/L87 TANK HAD CORROSION ON TANK END. WASTE OIL CONTAMINATION WAS RETRIEVED BY EXCAVATION. A LITTLE FREE PRODUCT IN ONE MONITORING WELL. HAS MTBE DATA; 10/2

**K56**  
**East**  
**1/8-1/4**  
**0.144 mi.**  
**761 ft.**

**UNION OIL SERVICE STATION 6082**  
**1025 E CARSON ST**  
**CARSON, CA 90745**  
**Site 5 of 6 in cluster K**

**HIST UST 1000166743**  
**N/A**

**Relative:**  
**Higher**

HIST UST:  
 Region: STATE  
 Facility ID: 00000055426  
 Facility Type: Gas Station  
 Other Type: Not reported  
 Contact Name: TAE AHN PYO  
 Telephone: 2138301392  
 Owner Name: UNION OIL COMPANY OF CALIFORNIA  
 Owner Address: 3701 WILSHIRE BOULEVARD-SUITE  
 Owner City,St,Zip: LOS ANGELES, CA 90010  
 Total Tanks: 0001  
  
 Tank Num: 001  
 Container Num: 6082-00  
 Year Installed: Not reported  
 Tank Capacity: 00000607  
 Tank Used for: WASTE  
 Type of Fuel: WASTE OIL  
 Container Construction Thickness: Not reported  
 Leak Detection: None

**Actual:**  
**21 ft.**

**K57**  
**East**  
**1/8-1/4**  
**0.144 mi.**  
**761 ft.**

**76 SERVICE STATION**  
**1025 E. CARSON STREET**  
**CARSON, CA 90746**  
**Site 6 of 6 in cluster K**

**SLIC S108203388**  
**N/A**

**Relative:**  
**Higher**

SLIC:  
 Region: STATE  
**Facility Status: Completed - Case Closed**  
 Status Date: 02/08/2012  
 Global Id: T10000003492  
 Lead Agency: LOS ANGELES RWQCB (REGION 4)  
 Lead Agency Case Number: Not reported  
 Latitude: 33.8319459314573

**Actual:**  
**21 ft.**

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**76 SERVICE STATION (Continued)**

**S108203388**

Longitude: -118.256953954697  
 Case Type: Cleanup Program Site  
 Case Worker: GB  
 Local Agency: Not reported  
 RB Case Number: 1271  
 File Location: Not reported  
 Potential Media Affected: Not reported  
 Potential Contaminants of Concern: Not reported  
 Site History: Investigation of possible LNAPL impacts to the Dominguez Channel.  
 This case remains active with the Regional Board UST program.

Click here to access the California GeoTracker records for this facility:

**58**  
**SSW**  
**1/8-1/4**  
**0.148 mi.**  
**784 ft.**

**21839 AVALON BLVD**  
**CARSON, CA 90745**

**EDR US Hist Auto Stat 1015330657**  
**N/A**

**Relative:**  
**Higher**

EDR Historical Auto Stations:  
 Name: DANIELS AUTO MAINTENANCE  
 Year: 1999  
 Address: 21839 AVALON BLVD

**Actual:**  
**25 ft.**

**59**  
**WSW**  
**1/8-1/4**  
**0.153 mi.**  
**807 ft.**

**555 E CARSON ST**  
**CARSON, CA 90745**

**EDR US Hist Cleaners 1015075077**  
**N/A**

**Relative:**  
**Higher**

EDR Historical Cleaners:  
 Name: JOHN MORGANS CARPET CLEANING  
 Year: 2005  
 Address: 555 E CARSON ST

**Actual:**  
**23 ft.**

Name: JOHN MORGAN S CARPET CLEANING  
 Year: 2007  
 Address: 555 E CARSON ST

Name: JOHN MORGAN S CARPET CLEANING  
 Year: 2008  
 Address: 555 E CARSON ST

**L60**  
**North**  
**1/8-1/4**  
**0.157 mi.**  
**828 ft.**

**CARSON CHRYSLER PLYMOUTH**  
**21126 S AVALON BLVD**  
**CARSON, CA**

**CA FID UST S101585472**  
**SWEEPS UST N/A**  
**LOS ANGELES CO. HMS**

**Site 1 of 3 in cluster L**

**Relative:**  
**Lower**

CA FID UST:  
 Facility ID: 19024092  
 Regulated By: UTNKA  
 Regulated ID: 00041705  
 Cortese Code: Not reported  
 SIC Code: Not reported

**Actual:**  
**17 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CARSON CHRYSLER PLYMOUTH (Continued)**

**S101585472**

Facility Phone: 8180000000  
Mail To: Not reported  
Mailing Address: 21126 S AVALON BLVD  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON  
Contact: Not reported  
Contact Phone: Not reported  
DUNs Number: Not reported  
NPDES Number: Not reported  
EPA ID: Not reported  
Comments: Not reported  
Status: Active

**SWEEPS UST:**

Status: Active  
Comp Number: 5809  
Number: 9  
Board Of Equalization: Not reported  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
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

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 005604-005809  
Facility Type: T0  
Facility Status: Removed  
Area: 22  
Permit Number: 00002344T  
Permit Status: Removed

Region: LA  
Facility Id: 005604-105809  
Facility Type: I01  
Facility Status: Closed  
Area: 22  
Permit Number: 000008811  
Permit Status: Closed

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**L61**  
**North**  
**1/8-1/4**  
**0.157 mi.**  
**828 ft.**

**DEAN CORBETT CHRYSLER PLYMOUTH**  
**21126 AVALON BLVD**  
**CARSON, CA 90745**  
**Site 2 of 3 in cluster L**

**HIST UST**    **U001565738**  
**N/A**

**Relative:**  
**Lower**

HIST UST:  
 Region: STATE  
 Facility ID: 00000041705  
 Facility Type: Other  
 Other Type: NEW CAR DEALER  
 Contact Name: Not reported  
 Telephone: 2135496880  
 Owner Name: DEAN CORBETT CHRYSLER PLYMOUTH  
 Owner Address: 21126 SOUTH AVALON  
 Owner City,St,Zip: CARSON, CA 90745  
 Total Tanks: 0001  
  
 Tank Num: 001  
 Container Num: 1  
 Year Installed: Not reported  
 Tank Capacity: 00000000  
 Tank Used for: WASTE  
 Type of Fuel: WASTE OIL  
 Container Construction Thickness: Not reported  
 Leak Detection: Visual

**L62**  
**North**  
**1/8-1/4**  
**0.157 mi.**  
**828 ft.**

**DON KOTT CHRYSLER PLYMOUTH**  
**21126 S AVALON**  
**CARSON, CA 90745**  
**Site 3 of 3 in cluster L**

**RCRA-SQG**    **1000121479**  
**FINDS**        **CAD981685241**  
**CA FID UST**  
**HIST UST**  
**SWEEPS UST**  
**LOS ANGELES CO. HMS**  
**HAZNET**  
**EMI**

**Relative:**  
**Lower**

**Actual:**  
**17 ft.**

RCRA-SQG:  
 Date form received by agency:09/01/1996  
 Facility name: DON KOTT CHRYSLER PLYMOUTH  
 Facility address: 21126 S AVALON  
                          CARSON, CA 90745  
 EPA ID: CAD981685241  
 Contact: Not reported  
 Contact address: Not reported  
                          Not reported  
 Contact country: US  
 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: CARSON CHRYSLER KOTT  
 Owner/operator address: NOT REQUIRED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

Owner/operator country: NOT REQUIRED, ME 99999  
Owner/operator telephone: Not reported  
Legal status: (415) 555-1212  
Owner/Operator Type: Private  
Owner/Op start date: Owner  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
Owner/operator country: NOT REQUIRED, ME 99999  
Owner/operator telephone: Not reported  
Legal status: (415) 555-1212  
Owner/Operator Type: Private  
Owner/Op start date: Operator  
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  
Site name: DON KOTT CHRYSLER PLYMOUTH  
Classification: Small Quantity Generator

Date form received by agency: 01/25/1995  
Site name: DON KOTT CHRYSLER PLYMOUTH  
Classification: Large Quantity Generator

Date form received by agency: 10/20/1986  
Site name: DON KOTT CHRYSLER PLYMOUTH  
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002752058

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

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.

CA FID UST:

Facility ID: 19007908  
Regulated By: UTNKA  
Regulated ID: 00041537  
Cortese Code: Not reported  
SIC Code: Not reported  
Facility Phone: 8180000000  
Mail To: Not reported  
Mailing Address: 21212 S AVALON BLVD  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON  
Contact: Not reported  
Contact Phone: Not reported  
DUNS Number: Not reported  
NPDES Number: Not reported  
EPA ID: Not reported  
Comments: Not reported  
Status: Active

HIST UST:

Region: STATE  
Facility ID: 00000041537  
Facility Type: Other  
Other Type: AUTO DEALER  
Contact Name: DON KOTT  
Telephone: 2135185770  
Owner Name: AVALON FORD INC  
Owner Address: 21212 S. AVALON BL  
Owner City,St,Zip: CARSON, CA 90745  
Total Tanks: 0002

Tank Num: 001  
Container Num: 1  
Year Installed: 1973  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Container Construction Thickness: Not reported  
Leak Detection: None

Tank Num: 002  
Container Num: 2  
Year Installed: 1973  
Tank Capacity: 00000500  
Tank Used for: WASTE  
Type of Fuel: WASTE OIL  
Container Construction Thickness: Not reported  
Leak Detection: None

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

**SWEEPS UST:**

Status: Active  
Comp Number: 5661  
Number: 9  
Board Of Equalization: Not reported  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
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

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 005604-056728  
Facility Type: I01  
Facility Status: Permit  
Area: 22  
Permit Number: 000769283  
Permit Status: Permit

Region: LA  
Facility Id: 005604-055737  
Facility Type: Not reported  
Facility Status: OPEN  
Area: 22  
Permit Number: Not reported  
Permit Status: Not reported

Region: LA  
Facility Id: 005460-005661  
Facility Type: T0  
Facility Status: Removed  
Area: 22  
Permit Number: 00002345T  
Permit Status: Removed

Region: LA  
Facility Id: 005460-058053  
Facility Type: I01  
Facility Status: Permit  
Area: 22  
Permit Number: 000750247  
Permit Status: Permit

Region: LA  
Facility Id: 005460-I05661  
Facility Type: I01  
Facility Status: Closed  
Area: 22



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

Permit Number: 000001583  
Permit Status: Closed

HAZNET:

envid: 1000121479  
Year: 2005  
GEPaid: CAD981685241  
Contact: LINDA ASLUP  
Telephone: 3108162800  
Mailing Name: Not reported  
Mailing Address: 21126 AVALON BLVD # S  
Mailing City,St,Zip: CARSON, CA 907452203  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Unspecified solvent mixture  
Disposal Method: Transfer Station  
Tons: 0.22  
Facility County: Los Angeles

envid: 1000121479  
Year: 2004  
GEPaid: CAD981685241  
Contact: LINDA ASLUP  
Telephone: 3108162800  
Mailing Name: Not reported  
Mailing Address: 21126 AVALON BLVD # S  
Mailing City,St,Zip: CARSON, CA 907452203  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Other organic solids  
Disposal Method: Transfer Station  
Tons: 0.13  
Facility County: Los Angeles

envid: 1000121479  
Year: 2004  
GEPaid: CAD981685241  
Contact: LINDA ASLUP  
Telephone: 3108162800  
Mailing Name: Not reported  
Mailing Address: 21126 AVALON BLVD # S  
Mailing City,St,Zip: CARSON, CA 907452203  
Gen County: Not reported  
TSD EPA ID: CAD028409019  
TSD County: Not reported  
Waste Category: Unspecified solvent mixture  
Disposal Method: Transfer Station  
Tons: 0.22  
Facility County: Los Angeles

envid: 1000121479  
Year: 2001  
GEPaid: CAD981685241  
Contact: LINDA ASLUP  
Telephone: 3108162800

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

Mailing Name: Not reported  
Mailing Address: 21126 AVALON BLVD # S  
Mailing City,St,Zip: CARSON, CA 907452203  
Gen County: Not reported  
TSD EPA ID: CAT000613893  
TSD County: Not reported  
Waste Category: Aqueous solution with total organic residues less than 10 percent  
Disposal Method: Transfer Station  
Tons: 0.3  
Facility County: Los Angeles

envid: 1000121479  
Year: 2000  
GEPAID: CAD981685241  
Contact: LINDA ASLUP  
Telephone: 3108162800  
Mailing Name: Not reported  
Mailing Address: 21126 AVALON BLVD # S  
Mailing City,St,Zip: CARSON, CA 907452203  
Gen County: Not reported  
TSD EPA ID: CAD099452708  
TSD County: Not reported  
Waste Category: Aqueous solution with total organic residues less than 10 percent  
Disposal Method: Recycler  
Tons: 2.79  
Facility County: Los Angeles

[Click this hyperlink](#) while viewing on your computer to access  
39 additional CA\_HAZNET: record(s) in the EDR Site Report.

**EMI:**

Year: 1987  
County Code: 19  
Air Basin: SC  
Facility ID: 35536  
Air District Name: SC  
SIC Code: 7515  
Air District Name: SOUTH COAST AQMD  
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: 1  
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 & Smlr Tons/Yr: 0

Year: 1990  
County Code: 19  
Air Basin: SC  
Facility ID: 35536  
Air District Name: SC  
SIC Code: 7515  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

Total Organic Hydrocarbon Gases Tons/Yr: 15  
Reactive Organic Gases Tons/Yr: 8  
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 & Smlr Tons/Yr: 0

Year: 2002  
County Code: 19  
Air Basin: SC  
Facility ID: 132711  
Air District Name: SC  
SIC Code: 7515  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 5  
Reactive Organic Gases Tons/Yr: 3  
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 & Smlr Tons/Yr: 0

Year: 2003  
County Code: 19  
Air Basin: SC  
Facility ID: 132711  
Air District Name: SC  
SIC Code: 7515  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 5  
Reactive Organic Gases Tons/Yr: 3  
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 & Smlr Tons/Yr: 0

Year: 2004  
County Code: 19  
Air Basin: SC  
Facility ID: 132711  
Air District Name: SC  
SIC Code: 7515  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 5.41589  
Reactive Organic Gases Tons/Yr: 3.28  
Carbon Monoxide Emissions Tons/Yr: 0.0044  
NOX - Oxides of Nitrogen Tons/Yr: 0.0164  
SOX - Oxides of Sulphur Tons/Yr: 0.000104  
Particulate Matter Tons/Yr: 0.028444

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**DON KOTT CHRYSLER PLYMOUTH (Continued)**

**1000121479**

Part. Matter 10 Micrometers & Smllr Tons/Yr: 0.02

Year: 2005  
 County Code: 19  
 Air Basin: SC  
 Facility ID: 132711  
 Air District Name: SC  
 SIC Code: 7515  
 Air District Name: SOUTH COAST AQMD  
 Community Health Air Pollution Info System: Not reported  
 Consolidated Emission Reporting Rule: Not reported  
 Total Organic Hydrocarbon Gases Tons/Yr: 1.04689  
 Reactive Organic Gases Tons/Yr: .692352086  
 Carbon Monoxide Emissions Tons/Yr: .0084  
 NOX - Oxides of Nitrogen Tons/Yr: .0312  
 SOX - Oxides of Sulphur Tons/Yr: .000195  
 Particulate Matter Tons/Yr: .0073  
 Part. Matter 10 Micrometers & Smllr Tons/Yr: .00708

**M63  
 NNW  
 1/8-1/4  
 0.166 mi.  
 879 ft.**

**21212 AVALON BLVD  
 CARSON, CA 90745  
 Site 1 of 2 in cluster M**

**EDR US Hist Auto Stat 1015324168  
 N/A**

**Relative:  
 Lower  
 Actual:  
 18 ft.**

EDR Historical Auto Stations:  
 Name: TERMINAL CAR LEASING INCORPORATED  
 Year: 1999  
 Address: 21212 AVALON BLVD

**M64  
 NNW  
 1/8-1/4  
 0.167 mi.  
 881 ft.**

**OLD QUAKER PAINT CO INC  
 21243 SO AVALON BLVD  
 CARSON, CA 90745  
 Site 2 of 2 in cluster M**

**RCRA-SQG 1000128935  
 ICIS CAD008261208  
 FINDS  
 HIST CORTESE  
 LUST  
 CA FID UST  
 HIST UST  
 SWEEPS UST  
 LA Co. Site Mitigation  
 LOS ANGELES CO. HMS  
 ENVIROSTOR**

**Relative:  
 Lower  
 Actual:  
 18 ft.**

RCRA-SQG:  
 Date form received by agency:09/01/1996  
 Facility name: OLD QUAKER PAINT CO INC  
 Facility address: 21243 SO AVALON BLVD  
 CARSON, CA 90745  
 EPA ID: CAD008261208  
 Contact: Not reported  
 Contact address: Not reported  
 Not reported  
 Contact country: US  
 Contact telephone: Not reported  
 Contact email: Not reported  
 EPA Region: 09  
 Classification: Small Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

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: OLD QUAKER PAINT COMPANY 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  
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: 07/18/1980  
Site name: OLD QUAKER PAINT CO INC  
Classification: Large Quantity Generator

Violation Status: No violations found

ICIS:

Enforcement Action ID: 09-1988-0004  
FRS ID: 110002631171  
Program ID: FRS 110002631171  
Action Name: OLD QUAKER PAINT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Full Address: 21243 SO AVALON BLVD CARSON CA 90745-2206  
State: California  
Facility Name: OLD QUAKER PAINT CO INC  
Facility Address: 21243 SO AVALON BLVD  
CARSON, CA 90745-2206  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1988-0004  
FRS ID: 110002631171  
Program ID: NEI NEICA0371490  
Action Name: OLD QUAKER PAINT  
Full Address: 21243 SO AVALON BLVD CARSON CA 90745-2206  
State: California  
Facility Name: Not reported  
Facility Address: 21243 SO AVALON BLVD  
CARSON, CA 90745-2206  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1988-0004  
FRS ID: 110002631171  
Program ID: EIS 1359011  
Action Name: OLD QUAKER PAINT  
Full Address: 21243 SO AVALON BLVD CARSON CA 90745-2206  
State: California  
Facility Name: OLD QUAKER PAINT COMPANY  
Facility Address: 21243 SO AVALON BLVD  
CARSON, CA 90745-2206  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Enforcement Action ID: 09-1988-0004  
FRS ID: 110002631171  
Program ID: RCRAINFO CAD008261208  
Action Name: OLD QUAKER PAINT  
Full Address: 21243 SO AVALON BLVD CARSON CA 90745-2206  
State: California  
Facility Name: OLD QUAKER PAINT CO INC  
Facility Address: 21243 SO AVALON BLVD  
CARSON, CA 90745-2206  
Enforcement Action Type: Civil Judicial Action  
Facility County: LOS ANGELES  
EPA Region #: 9

Program ID: EIS 1359011  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2851

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Program ID: EIS 1359011  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5231

Program ID: FRS 110002631171  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2851

Program ID: FRS 110002631171  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5231

Program ID: NEI NEICA0371490  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2851

Program ID: NEI NEICA0371490  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5231

Program ID: RCRAINFO CAD008261208  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 2851

Program ID: RCRAINFO CAD008261208  
Facility Name: OLD QUAKER PAINT CO INC  
Address: 21243 SO AVALON BLVD  
Tribal Indicator: N  
Fed Facility: No  
NAIC Code: Not reported  
SIC Code: 5231

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

FINDS:

Registry ID: 110002631171

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.

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

HIST CORTESE:

Region: CORTESE  
Facility County Code: 19  
Reg By: CALSI  
Reg Id: 19280371

Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: 907450098

LUST:

Region: STATE  
Global Id: T0603701681  
Latitude: 33.8358461  
Longitude: -118.2639371  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 10/15/2002  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: MB  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: 907450098  
LOC Case Number: Not reported  
File Location: Not reported  
Potential Media Affect: Aquifer used for drinking water supply



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Potential Contaminants of Concern: Gasoline  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0603701681  
Contact Type: Regional Board Caseworker  
Contact Name: MAGDY BAIADY  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: LOS ANGELES  
Email: mbaiady@waterboards.ca.gov  
Phone Number: 2135766699

Global Id: T0603701681  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603701681  
Status: Open - Site Assessment  
Status Date: 08/12/1994

Global Id: T0603701681  
Status: Open - Site Assessment  
Status Date: 08/26/1994

Global Id: T0603701681  
Status: Open - Site Assessment  
Status Date: 07/07/2000

Global Id: T0603701681  
Status: Open - Case Begin Date  
Status Date: 08/10/1993

Global Id: T0603701681  
Status: Open - Remediation  
Status Date: 08/16/1995

Global Id: T0603701681  
Status: Open - Remediation  
Status Date: 07/05/1996

Global Id: T0603701681  
Status: Completed - Case Closed  
Status Date: 10/15/2002

Global Id: T0603701681  
Status: Open - Site Assessment  
Status Date: 03/06/1994

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Regulatory Activities:

Global Id:	T0603701681
Action Type:	ENFORCEMENT
Date:	06/13/2002
Action:	Staff Letter
Global Id:	T0603701681
Action Type:	Other
Date:	08/17/1993
Action:	Leak Stopped
Global Id:	T0603701681
Action Type:	ENFORCEMENT
Date:	10/15/2002
Action:	Closure/No Further Action Letter
Global Id:	T0603701681
Action Type:	ENFORCEMENT
Date:	10/15/2002
Action:	Staff Letter
Global Id:	T0603701681
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Other Report / Document
Global Id:	T0603701681
Action Type:	Other
Date:	08/10/1993
Action:	Leak Discovery
Global Id:	T0603701681
Action Type:	Other
Date:	08/15/1993
Action:	Leak Reported

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	907450098
Status:	Case Closed
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Groundwater
Abatement Method Used at the Site:	VE
Global ID:	T0603701681
W Global ID:	Not reported
Staff:	MB
Local Agency:	19000
Cross Street:	213TH STREET
Enforcement Type:	CLOS
Date Leak Discovered:	8/10/1993
Date Leak First Reported:	8/15/1993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Date Leak Record Entered: 1/24/1995  
Date Confirmation Began: 3/6/1994  
Date Leak Stopped: 8/17/1993  
Date Case Last Changed on Database: 7/29/2002  
Date the Case was Closed: 10/15/2002  
How Leak Discovered: Tank Closure  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: Tank  
Operator: Not reported  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 1233.5530920752449898584134364  
Source of Cleanup Funding: Tank  
Preliminary Site Assessment Workplan Submitted: 8/12/1994  
Preliminary Site Assessment Began: 8/26/1994  
Pollution Characterization Began: 7/7/2000  
Remediation Plan Submitted: 8/16/1995  
Remedial Action Underway: 7/5/1996  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: 1/1/1965  
Hist Max MTBE Conc in Groundwater: 24000  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Yes  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: GENE AUGUSTINE  
RP Address: 12401 INDUSTRIAL BLVD.  
Program: LUST  
Lat/Long: 33.8358461 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: 2A4  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: REDEVELOPMENT AREA PROJECT. MTBE IN GW PROBABLY FROM UPGRADIENT ARCO STATION. ; 10/15/00 QTRLY GW MON RPT 2000; 1/15/01 QTRLY GW MON RPT

**CA FID UST:**

Facility ID: 19028214  
Regulated By: UTNKA  
Regulated ID: 00017485  
Cortese Code: Not reported  
SIC Code: Not reported  
Facility Phone: 8180000000  
Mail To: Not reported  
Mailing Address: 21243 S AVALON BLVD  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON  
Contact: Not reported  
Contact Phone: Not reported  
DUNs Number: Not reported  
NPDES Number: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

EPA ID: Not reported  
Comments: Not reported  
Status: Active

**HIST UST:**

Region: STATE  
Facility ID: 00000017485  
Facility Type: Other  
Other Type: PAINT MANUFACTURING  
Contact Name: RENE ROCHA  
Telephone: 2137753369  
Owner Name: OLD QUAKER PAINT CO.  
Owner Address: 2209 SOUTH MAIN STREET  
Owner City,St,Zip: SANTA ANA, CA 92707  
Total Tanks: 0003

Tank Num: 001  
Container Num: 6801  
Year Installed: 1980  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Container Construction Thickness: 1/4  
Leak Detection: Visual, Stock Inventor

Tank Num: 002  
Container Num: 58401  
Year Installed: 1984  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 1/4  
Leak Detection: Visual, Stock Inventor, Sensor Instrument

Tank Num: 003  
Container Num: 58402  
Year Installed: 1984  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Container Construction Thickness: 1/4  
Leak Detection: Visual, Stock Inventor, Sensor Instrument

**SWEEPS UST:**

Status: Active  
Comp Number: 2486  
Number: 9  
Board Of Equalization: 44-007646  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-002486-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 3

Status: Active  
Comp Number: 2486  
Number: 9  
Board Of Equalization: 44-007646  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-002486-000002  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 2486  
Number: 9  
Board Of Equalization: 44-007646  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-002486-000003  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

LA Co. Site Mitigation:

Facility ID: FA0003974  
Site ID: SD0010700  
Jurisdiction: County  
Case ID: RO0010700  
Abated: Not reported  
Assigned To: Not reported  
Entered Date: 05/11/2004

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 002402-002486  
Facility Type: T0  
Facility Status: Removed  
Area: 22  
Permit Number: 00001845T  
Permit Status: Removed

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Region: LA  
Facility Id: 002402-I02486  
Facility Type: I09  
Facility Status: Removed  
Area: 22  
Permit Number: 000002694  
Permit Status: Removed

Region: LA  
Facility Id: 002402-023979  
Facility Type: I02  
Facility Status: Closed  
Area: 22  
Permit Number: 000194270  
Permit Status: Closed

**ENVIROSTOR:**

Facility ID: 19280371  
Status: Refer: EPA  
Status Date: 08/24/2007  
Site Code: Not reported  
Site Type: Evaluation  
Site Type Detailed: Evaluation  
Acres: 1  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: \* Greg Holmes  
Division Branch: Cleanup Cypress  
Assembly: 64  
Senate: 35  
Special Program: EPA - PASI  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 33.83559  
Longitude: -118.2654  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: \* Sludge - Paint \* UNSPECIFIED AQUEOUS SOLUTION  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: 19280371  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 03/26/1980  
Comments: FACILITY IDENTIFIED IW SURVEY QUESTIONNAIRE 12580 QUESTIONNAIRE RECEIVED

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OLD QUAKER PAINT CO INC (Continued)**

**1000128935**

Completed Date: 12/07/1994  
Comments: IN 1985 PA RECOMMENDED NFA UNDER CERCLA AND REFERRED THE SITE TO L.A. COUNTY. THE SITE IS LISTED ON SWAT WHICH IS DUE IN 1997.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 03/01/1988  
Comments: SITE SCREENING DONE PA HIGH RECOM. DUE TO DOCUMENTED ON-SITE WASTE DISPOSAL OF PAINTS.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 06/16/2006  
Comments: Site Screening has been completed.

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

**N65**  
**WSW**  
**1/8-1/4**  
**0.208 mi.**  
**1100 ft.**

**520 E CARSON ST**  
**CARSON, CA 90745**

**EDR US Hist Cleaners 1015071400**  
**N/A**

**Site 1 of 2 in cluster N**

**Relative:**  
**Higher**

EDR Historical Cleaners:

**Actual:**  
**24 ft.**

Name: MORGANS JOHN CARPET CLEANING  
Year: 1999  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2001  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2002  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2003  
Address: 520 E CARSON ST

Name: JOHN MORGANS CARPET CLEANING  
Year: 2004  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2005  
Address: 520 E CARSON ST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

1015071400

Name: JOHN MORGANS CARPET CLEANING  
Year: 2006  
Address: 520 E CARSON ST

Name: JOHN MORGANS CARPET CLEANING  
Year: 2007  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2008  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2011  
Address: 520 E CARSON ST

Name: MORGANS JOHN CARPET CLEANING  
Year: 2012  
Address: 520 E CARSON ST

N66  
WSW  
1/8-1/4  
0.208 mi.  
1100 ft.

520 E CARSON ST  
CARSON, CA 90745

EDR US Hist Auto Stat 1015536868  
N/A

Site 2 of 2 in cluster N

Relative:  
Higher

EDR Historical Auto Stations:

Name: G & R BODY SHOP  
Year: 2003  
Address: 520 E CARSON ST

Actual:  
24 ft.

O67  
SSW  
1/8-1/4  
0.213 mi.  
1123 ft.

21906 AVALON BLVD  
CARSON, CA 90745

EDR US Hist Auto Stat 1015331383  
N/A

Site 1 of 5 in cluster O

Relative:  
Higher

EDR Historical Auto Stations:

Name: AUTO WORKS  
Year: 2005  
Address: 21906 AVALON BLVD

Actual:  
27 ft.

P68  
SW  
1/8-1/4  
0.216 mi.  
1141 ft.

JESSES AUTO SERVICE  
645 E 219 ST APT NO 5  
CARSON, CA 90745

RCRA-SQG 1000380495  
FINDS CAD981614126

Site 1 of 6 in cluster P

Relative:  
Higher

RCRA-SQG:

Date form received by agency: 01/21/1987  
Facility name: JESSES AUTO SERVICE  
Facility address: 645 E 219 ST APT NO 5  
CARSON, CA 90745  
EPA ID: CAD981614126  
Mailing address: 1610 W SECOND HUNDRED FORTY EI

Actual:  
27 ft.



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JESSES AUTO SERVICE (Continued)**

**1000380495**

Contact: HARBOR CITY, CA 90710  
Contact address: ENVIRONMENTAL MANAGER  
645 E 219 ST APT NO 5  
CARSON, CA 90745  
Contact country: US  
Contact telephone: (213) 835-3615  
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: JESSE GALLARDO  
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  
Used 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:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JESSES AUTO SERVICE (Continued)**

**1000380495**

Registry ID: 110002724044

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.

**P69**  
**SW**  
**1/8-1/4**  
**0.216 mi.**  
**1141 ft.**

**645 E 219TH ST**  
**CARSON, CA 90745**

**EDR US Hist Auto Stat 1015589196**  
**N/A**

**Site 2 of 6 in cluster P**

**Relative:**  
**Higher**

EDR Historical Auto Stations:

**Actual:**  
**27 ft.**

Name: T & T MOTORS  
Year: 1999  
Address: 645 E 219TH ST

Name: J DS AUTO REPAIR  
Year: 2001  
Address: 645 E 219TH ST

Name: J DS AUTO REPAIR  
Year: 2002  
Address: 645 E 219TH ST

Name: OSCARS AUTO ELECTRIC  
Year: 2004  
Address: 645 E 219TH ST

Name: CHUYS AUTO INTERIOR  
Year: 2005  
Address: 645 E 219TH ST

Name: CHUYS AUTO INTERIOR  
Year: 2007  
Address: 645 E 219TH ST

Name: CHUYS AUTO INTERIOR  
Year: 2008  
Address: 645 E 219TH ST

Name: R & J AUTO & BODY  
Year: 2009  
Address: 645 E 219TH ST

Name: CHUYS AUTO INTERIOR  
Year: 2010  
Address: 645 E 219TH ST

Name: CHUYS AUTO INTERIOR  
Year: 2011  
Address: 645 E 219TH ST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**P70**  
**SW**  
**1/8-1/4**  
**0.219 mi.**  
**1154 ft.**

**637 E 219TH ST**  
**CARSON, CA 90745**

**Site 3 of 6 in cluster P**

**EDR US Hist Auto Stat**    **1015586367**  
**N/A**

**Relative:**  
**Higher**

EDR Historical Auto Stations:

**Actual:**  
**27 ft.**

Name: FRANCISCOS AUTO REPAIR  
Year: 1999  
Address: 637 E 219TH ST

Name: 3 RS AUTO DIAGNOSIS & REPAIR  
Year: 2000  
Address: 637 E 219TH ST

Name: FRANCISCOS AUTO REPAIR  
Year: 2001  
Address: 637 E 219TH ST

Name: FRANCISCOS AUTO REPAIR  
Year: 2002  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2003  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2004  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2005  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2006  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2007  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2008  
Address: 637 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2009  
Address: 637 E 219TH ST

Name: FRANCISCOS AUTO REPAIR  
Year: 2010  
Address: 637 E 219TH ST

Name: FRANCISCOS AUTO REPAIR  
Year: 2011  
Address: 637 E 219TH ST

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

1015586367

Name: FRANCISCOS AUTO REPAIR  
Year: 2012  
Address: 637 E 219TH ST

P71  
SW  
1/8-1/4  
0.220 mi.  
1163 ft.

644 E 219TH ST  
CARSON, CA 90745  
Site 4 of 6 in cluster P

EDR US Hist Auto Stat 1015588894  
N/A

Relative:  
Higher

EDR Historical Auto Stations:

Name: RDA AUTO REPAIR  
Year: 2001  
Address: 644 E 219TH ST

Actual:  
27 ft.

Name: DNA AUTO RPR & USED CAR SALES  
Year: 2002  
Address: 644 E 219TH ST

Name: RDA AUTO REPAIR  
Year: 2004  
Address: 644 E 219TH ST

P72  
SW  
1/8-1/4  
0.222 mi.  
1171 ft.

640 E 219TH ST  
CARSON, CA 90745  
Site 5 of 6 in cluster P

EDR US Hist Auto Stat 1015587276  
N/A

Relative:  
Higher

EDR Historical Auto Stations:

Name: CHARLES TRANSMISSION  
Year: 2001  
Address: 640 E 219TH ST

Actual:  
27 ft.

Name: CHARLIES TRANSMISSION  
Year: 2003  
Address: 640 E 219TH ST

P73  
SW  
1/8-1/4  
0.223 mi.  
1175 ft.

638 E 219TH ST  
CARSON, CA 90745  
Site 6 of 6 in cluster P

EDR US Hist Auto Stat 1015586546  
N/A

Relative:  
Higher

EDR Historical Auto Stations:

Name: EDS AUTOMOTIVE  
Year: 1999  
Address: 638 E 219TH ST

Actual:  
27 ft.

Name: EDS AUTOMOTIVE  
Year: 2001  
Address: 638 E 219TH ST

Name: EDS AUTOMOTIVE  
Year: 2002

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

1015586546

Address: 638 E 219TH ST

O74  
SSW  
1/8-1/4  
0.228 mi.  
1205 ft.

21932 AVALON BLVD  
CARSON, CA 90745  
Site 2 of 5 in cluster O

EDR US Hist Auto Stat 1015331508  
N/A

Relative:  
Higher

EDR Historical Auto Stations:  
Name: WINSTON TIRE CO  
Year: 2005  
Address: 21932 AVALON BLVD

Actual:  
27 ft.

75  
SSE  
1/8-1/4  
0.229 mi.  
1207 ft.

BONITA STREET ELEMENTARY SCHOOL  
21929 BONITA ST  
CARSON, CA 90745

RCRA-LQG 1011488214  
CAR000193706

Relative:  
Higher

RCRA-LQG:  
Date form received by agency: 07/10/2008  
Facility name: BONITA STREET ELEMENTARY SCHOOL  
Facility address: 21929 BONITA ST  
CARSON, CA 90745  
EPA ID: CAR000193706  
Mailing address: 333 S BEAUDRY AVE  
LAUSD OEHS 20TH FL  
LOS ANGELES, CA 90017  
Contact: SOE AUNG  
Contact address: 333 S BEAUDRY AVE LAUSD OEHS 20TH FL  
LOS ANGELES, CA 90017  
Contact country: US  
Contact telephone: 213-241-3904  
Contact email: SOE.AUNG@LAUSD.NET  
EPA Region: 09  
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

Actual:  
24 ft.

Owner/Operator Summary:

Owner/operator name: BONITA STREET ELEMENTARY SCHOOL  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: Not reported  
Owner/operator telephone: Not reported  
Legal status: District

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BONITA STREET ELEMENTARY SCHOOL (Continued)**

**1011488214**

Owner/Operator Type: Operator  
Owner/Op start date: 11/14/1989  
Owner/Op end date: Not reported  
  
Owner/operator name: LOS ANGELES UNIFIED SCHOOL DIST  
Owner/operator address: 333 S BEAUDRY AVE  
LOS ANGELES, CA 90017  
  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: District  
Owner/Operator Type: Owner  
Owner/Op start date: 11/14/1989  
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: D008  
Waste name: LEAD

Violation Status: No violations found

**O76**  
**SSW**  
**1/8-1/4**  
**0.239 mi.**  
**1262 ft.**

**21950 AVALON BLVD**  
**CARSON, CA 90745**  
**Site 3 of 5 in cluster O**

**EDR US Hist Cleaners 1015019828**  
**N/A**

**Relative:**  
**Higher**

EDR Historical Cleaners:

Name: LAUNDROMAT  
Year: 2002  
Address: 21950 AVALON BLVD

**Actual:**  
**28 ft.**

Name: GIANT CLEANERS  
Year: 2004  
Address: 21950 AVALON BLVD

Name: LAUNDROMAT  
Year: 2004  
Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
Year: 2005

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**(Continued)**

**1015019828**

Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
 Year: 2006  
 Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
 Year: 2009  
 Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
 Year: 2010  
 Address: 21950 AVALON BLVD

Name: LAUNDROMAT  
 Year: 2010  
 Address: 21950 AVALON BLVD

Name: LAUNDROMAT  
 Year: 2011  
 Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
 Year: 2011  
 Address: 21950 AVALON BLVD

Name: LAUNDROMAT  
 Year: 2012  
 Address: 21950 AVALON BLVD

Name: GIANT CLEANERS  
 Year: 2012  
 Address: 21950 AVALON BLVD

**O77**  
**SSW**  
**1/8-1/4**  
**0.239 mi.**  
**1262 ft.**

**GIANT CLEANERS**  
**21950 AVALON BLVD STE E**  
**CARSON, CA 90745**  
**Site 4 of 5 in cluster O**

**DRYCLEANERS** **S108207834**  
**N/A**

**Relative:**  
**Higher**

**DRYCLEANERS:**  
 EPA Id: CAL000300247  
 NAICS Code: 81232  
 NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)  
 SIC Code: 7211  
 SIC Description: Power Laundries, Family and Commercial  
 Create Date: 11/09/2005  
 Facility Active: No  
 Inactive Date: 06/30/2010  
 Facility Addr2: Not reported  
 Owner Name: CHONG IM KIM  
 Owner Address: 21950 AVALON BLVD STE E  
 Owner Address 2: Not reported  
 Owner Telephone: 3105496486  
 Contact Name: CHONG IM KIM  
 Contact Address: 23920 ANZA AVE #219  
 Contact Address 2: Not reported  
 Contact Telephone: 3105496486

**Actual:**  
**28 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GIANT CLEANERS (Continued)**

**S108207834**

Mailing Name: Not reported  
Mailing Address 1: 21950 AVALON BLVD STE E  
Mailing Address 2: Not reported  
Mailing City: CARSON  
Mailing State: CA  
Mailing Zip: 907457177  
Owner Fax: Not reported  
Region Code: 3

**O78**  
**SSW**  
**1/8-1/4**  
**0.239 mi.**  
**1262 ft.**

**GIANT CLEANERS, JUSTINE HA DBA**  
**21950 AVALON BLVD**  
**CARSON, CA 90745**  
**Site 5 of 5 in cluster O**

**DRYCLEANERS** **S106077051**  
**EMI** **N/A**

**Relative:**  
**Higher**

**Actual:**  
**28 ft.**

DRYCLEANERS:  
EPA Id: CAL000268224  
NAICS Code: 81232  
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)  
SIC Code: 7211  
SIC Description: Power Laundries, Family and Commercial  
Create Date: 03/25/2003  
Facility Active: No  
Inactive Date: 06/30/2004  
Facility Addr2: Not reported  
Owner Name: JUSTIN HA  
Owner Address: 21950 AVALON BLVD UNIT F  
Owner Address 2: Not reported  
Owner Telephone: 3105496486  
Contact Name: JUSTIN HA, OWNER  
Contact Address: 21950 AVALON BLVD UNIT F  
Contact Address 2: Not reported  
Contact Telephone: 3105496486  
Mailing Name: Not reported  
Mailing Address 1: 21950 AVALON BLVD UNIT F  
Mailing Address 2: Not reported  
Mailing City: CARSON  
Mailing State: CA  
Mailing Zip: 907450000  
Owner Fax: Not reported  
Region Code: 3

**EMI:**

Year: 2002  
County Code: 19  
Air Basin: SC  
Facility ID: 134343  
Air District Name: SC  
SIC Code: 7212  
Air District Name: SOUTH COAST AQMD  
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



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GIANT CLEANERS, JUSTINE HA DBA (Continued)**

**S106077051**

Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003  
County Code: 19  
Air Basin: SC  
Facility ID: 134343  
Air District Name: SC  
SIC Code: 7212  
Air District Name: SOUTH COAST AQMD  
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 & Smlr Tons/Yr: 0

Year: 2004  
County Code: 19  
Air Basin: SC  
Facility ID: 134343  
Air District Name: SC  
SIC Code: 7212  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0.148717  
Reactive Organic Gases Tons/Yr: 0.14  
Carbon Monoxide Emissions Tons/Yr: 0.00462  
NOX - Oxides of Nitrogen Tons/Yr: 0.0055  
SOX - Oxides of Sulphur Tons/Yr: 0.000033  
Particulate Matter Tons/Yr: 0.000418  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

**Q79**  
**East**  
**1/8-1/4**  
**0.250 mi.**  
**1318 ft.**

**1135 E CARSON ST**  
**CARSON, CA 90745**  
**Site 1 of 2 in cluster Q**

**EDR US Hist Auto Stat 1015164733**  
**N/A**

**Relative:**  
**Higher**  
**Actual:**  
**21 ft.**

EDR Historical Auto Stations:  
Name: MOBIL ARMOR LIMITED  
Year: 1999  
Address: 1135 E CARSON ST

Name: MOBILE ARMOR  
Year: 2005  
Address: 1135 E CARSON ST

Name: MOBILE ARMOR  
Year: 2006  
Address: 1135 E CARSON ST

Name: MOBILE ARMOR  
Year: 2007

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

1015164733

Address: 1135 E CARSON ST

80  
NNW  
1/4-1/2  
0.259 mi.  
1365 ft.

**CHRYSLER - CARSON**  
21121 AVALON BLVD  
CARSON, CA 90745

SLIC S104404748  
N/A

Relative:  
Higher

SLIC:

Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 05/02/1996  
Global Id: SL0603796239  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.837656  
Longitude: -118.263761  
Case Type: Cleanup Program Site  
Case Worker: Not reported  
Local Agency: Not reported  
RB Case Number: 0538A  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

Actual:  
20 ft.

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 4:

Region: 4  
Facility Status: No further action required  
SLIC: 0538A  
Substance: TPH/V  
Staff: Wendy Liu

Q81  
East  
1/4-1/2  
0.266 mi.  
1406 ft.

**BP PIPELINE - DOMINGUEZ CHANNEL @ CARSON**  
CARSON STREET  
CARSON, CA 90745

SLIC S111012716  
N/A

Relative:  
Lower

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 05/03/2011  
Global Id: T10000003010  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8321509110525  
Longitude: -118.25468480587  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 1263  
File Location: Not reported  
Potential Media Affected: Not reported

Actual:  
16 ft.

Site 2 of 2 in cluster Q

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**BP PIPELINE - DOMINGUEZ CHANNEL @ CARSON (Continued)**

**S111012716**

Potential Contaminants of Concern: Not reported  
 Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**R82**  
**ESE**  
**1/4-1/2**  
**0.332 mi.**  
**1753 ft.**

**TESORO PIPELINE - DOMINGUEZ CHANNEL @ CARSON**  
**CARSON STREET**  
**CARSON, CA 90745**

**SLIC S111012715**  
**N/A**

**Site 1 of 3 in cluster R**

**Relative:**  
**Lower**

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**

**Actual:**  
**18 ft.**

Status Date: 05/03/2011  
 Global Id: T10000003009  
 Lead Agency: LOS ANGELES RWQCB (REGION 4)  
 Lead Agency Case Number: Not reported  
 Latitude: 33.8306402890212  
 Longitude: -118.253700435162  
 Case Type: Cleanup Program Site  
 Case Worker: GB  
 Local Agency: Not reported  
 RB Case Number: 1262  
 File Location: Not reported  
 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:](#)

**83**  
**ENE**  
**1/4-1/2**  
**0.339 mi.**  
**1789 ft.**

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA)**  
**INTERSECTION OF ALVAR STREET AND WINGATE STREET, BORDERED TO**  
**CARSON, CA 90745**

**DEED S107737301**  
**VCP N/A**  
**ENVIROSTOR**

**Relative:**  
**Lower**

DEED:

Area: PROJECT WIDE  
 Sub Area: Not reported  
 Site Type: VOLUNTARY CLEANUP  
 Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY  
 Agency: Not reported  
 Covenant Uploaded: Not reported  
 Deed Date(s): 01/17/2012  
 EDR Link ID: 60000140

**Actual:**  
**17 ft.**

VCP:

Facility ID: 60000140  
 Site Type: Voluntary Cleanup  
 Site Type Detail: Voluntary Cleanup  
 Site Mgmt. Req.: NONE SPECIFIED  
 Acres: 1  
 National Priorities List: NO  
 Cleanup Oversight Agencies: SMBRP  
 Lead Agency: SMBRP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA) (Continued)**

**S107737301**

Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Not reported  
Supervisor: John Scandura  
Division Branch: Cleanup Cypress  
Site Code: 401295  
Assembly: 64  
Senate: 35  
Special Programs Code: Not reported  
Status: Certified O&M - Land Use Restrictions Only  
Status Date: 05/14/2012  
Restricted Use: YES  
Funding: Responsible Party  
Lat/Long: 33.83396 / -118.2536  
APN: NONE SPECIFIED  
Past Use: AGRICULTURAL - LIVESTOCK  
Potential COC: 30018, 30019, 30272, 30384, 30475, 30577  
Confirmed COC: 30019-NO,30272,30384,30475,30577,30018  
Potential Description: SOIL  
Alias Name: 110033610091  
Alias Type: EPA (FRS #)  
Alias Name: 401295  
Alias Type: Project Code (Site Code)  
Alias Name: 60000140  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Cost Recovery Closeout Memo  
Completed Date: 08/02/2012  
Comments: Close out Memo to CRU.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/12/2009  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Land Use Restriction  
Completed Date: 01/17/2012  
Comments: Land Use Covenant Recorded by County

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Workplan  
Completed Date: 12/14/2006  
Comments: PEA Workplan approved.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 09/24/2008  
Comments: DTSC approved the document. RWQCB retains jurisdiction over the Perry Street area groundwater.

Completed Area Name: PROJECT WIDE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA) (Continued)**

**S107737301**

Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Workplan  
Completed Date: 06/07/2010  
Comments: Public comments addressed, Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Completion Report  
Completed Date: 01/24/2011  
Comments: RACR approved. Land use covenant needed for parcel #6 to prevent excavation below 7.5 feet.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/24/2011  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 03/15/2012  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: CEQA - Notice of Exemption  
Completed Date: 06/07/2010  
Comments: Notice of Exemption approved.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 01/10/2006  
Comments: Voluntary Agreement was fully executed.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 12/07/2007  
Comments: DTSC sent to RP letter: 2008 ANNUAL COST ESTIMATE: SEA CREST PARCEL PART OF THE PERRY STREET INVESTIGATION AREA; CARSON, CALIFORNIA.

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

**ENVIROSTOR:**

Facility ID: 60000140  
Status: Certified O&M - Land Use Restrictions Only  
Status Date: 05/14/2012

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA) (Continued)**

**S107737301**

Site Code: 401295  
Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 1  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Not reported  
Supervisor: John Scandura  
Division Branch: Cleanup Cypress  
Assembly: 64  
Senate: 35  
Special Program: Not reported  
Restricted Use: YES  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 33.83396  
Longitude: -118.2536  
APN: NONE SPECIFIED  
Past Use: AGRICULTURAL - LIVESTOCK  
Potential COC: Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs Ethylbenzene Methylene chloride Benz[a]anthracene 1,2,4-Trimethylbenzene  
Confirmed COC: 30019-NO Ethylbenzene Methylene chloride Benz[a]anthracene 1,2,4-Trimethylbenzene Polychlorinated biphenyls (PCBs  
Potential Description: SOIL  
Alias Name: 110033610091  
Alias Type: EPA (FRS #)  
Alias Name: 401295  
Alias Type: Project Code (Site Code)  
Alias Name: 60000140  
Alias Type: Envirostor ID Number  
Completed Info:  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Cost Recovery Closeout Memo  
Completed Date: 08/02/2012  
Comments: Close out Memo to CRU.  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/12/2009  
Comments: Not reported  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Land Use Restriction  
Completed Date: 01/17/2012  
Comments: Land Use Covenant Recorded by County  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Workplan  
Completed Date: 12/14/2006  
Comments: PEA Workplan approved.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA) (Continued)**

**S107737301**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 09/24/2008  
Comments: DTSC approved the document. RWQCB retains jurisdiction over the Perry Street area groundwater.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Workplan  
Completed Date: 06/07/2010  
Comments: Public comments addressed, Removal Action Workplan approved.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Completion Report  
Completed Date: 01/24/2011  
Comments: RACR approved. Land use covenant needed for parcel #6 to prevent excavation below 7.5 feet.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/24/2011  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 03/15/2012  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: CEQA - Notice of Exemption  
Completed Date: 06/07/2010  
Comments: Notice of Exemption approved.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 01/10/2006  
Comments: Voluntary Agreement was fully executed.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 12/07/2007  
Comments: DTSC sent to RP letter: 2008 ANNUAL COST ESTIMATE: SEA CREST PARCEL PART OF THE PERRY STREET INVESTIGATION AREA; CARSON, CALIFORNIA.

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

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**SEA CREST PARCEL (A.K.A. PERRY STREET INVESTIGATION AREA) (Continued)**

**S107737301**

Schedule Document Type: Not reported  
 Schedule Due Date: Not reported  
 Schedule Revised Date: Not reported

**S84**  
**East**  
**1/4-1/2**  
**0.374 mi.**  
**1973 ft.**

**SHELL PIPELINE L-PACIFIC YACHT**  
**21611 PERRY ST S**  
**CARSON, CA 90745**  
**Site 1 of 3 in cluster S**

**NPDES** **S103437934**  
**HIST CORTESE** **N/A**  
**LUST**  
**SLIC**

**Relative:**  
**Lower**

**NPDES:**

Npdes Number: CAS000002  
 Facility Status: Terminated  
 Agency Id: 0  
 Region: 4  
 Regulatory Measure Id: 415248  
 Order No: 2009-0009-DWQ  
 Regulatory Measure Type: Enrollee  
 Place Id: Not reported  
 WDID: 4 19C361025  
 Program Type: Construction  
 Adoption Date Of Regulatory Measure: Not reported  
 Effective Date Of Regulatory Measure: 05/19/2011  
 Expiration Date Of Regulatory Measure: Not reported  
 Termination Date Of Regulatory Measure: 02/09/2012  
 Discharge Name: SHELL PIPELINE COMPANY  
 Discharge Address: 20945 S WLMINGTON AVE  
 Discharge City: CARSON  
 Discharge State: California  
 Discharge Zip: 90810

**Actual:**  
**17 ft.**

**HIST CORTESE:**

Region: CORTESE  
 Facility County Code: 19  
 Reg By: LTNKA  
 Reg Id: I-05839

**LUST REG 4:**

Region: 4  
 Regional Board: 04  
 County: Los Angeles  
 Facility Id: I-05839  
 Status: Pollution Characterization  
 Substance: Solvents  
 Substance Quantity: Not reported  
 Local Case No: Not reported  
 Case Type: Groundwater  
 Abatement Method Used at the Site: Not reported  
 Global ID: T0603703116  
 W Global ID: Not reported  
 Staff: SLC  
 Local Agency: 19000  
 Cross Street: CARSON ST  
 Enforcement Type: Not reported  
 Date Leak Discovered: 5/4/1990  
 Date Leak First Reported: 7/16/1990  
 Date Leak Record Entered: 10/13/1990



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL PIPELINE L-PACIFIC YACHT (Continued)**

**S103437934**

Date Confirmation Began: 6/7/1990  
Date Leak Stopped: 5/4/1990  
Date Case Last Changed on Database: 1/27/1994  
Date the Case was Closed: Not reported  
How Leak Discovered: Tank Closure  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK  
Operator: RICH, GABLE  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 4172.9080688862384778424020626  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: 7/2/1990  
Preliminary Site Assessment Began: 6/6/1991  
Pollution Characterization Began: 1/27/1994  
Remediation Plan Submitted: Not reported  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: Not reported  
Hist Max MTBE Conc in Groundwater: Not reported  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Not reported  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: PACIFIC YACHT  
RP Address: 6125 EL POMAR DR., TEMPLETON, 93465  
Program: SLIC  
Lat/Long: 33.8323003 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: LOP/MODERATE - POTENTIAL HEALTH/SAFETY/ENVIRONMENTAL IMPACT  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: SOLVENT CONTAMINATION BENEATH FORMER 3000GAL CONCRETE VAULT (UST) & WIDESPREAD REGIONAL TPH CONTAMINATION. REFER TO SLIC #490C

**SLIC:**

Region: STATE  
**Facility Status:** **Open - Remediation**  
Status Date: 09/18/2014  
Global Id: SL204EC2405  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8320395091596  
Longitude: -118.253252506256  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 0490C  
File Location: Not reported  
Potential Media Affected: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SHELL PIPELINE L-PACIFIC YACHT (Continued)**

**S103437934**

Potential Contaminants of Concern: Not reported  
Site History: Site had several industrial facilities. On-site sources included a former septic system that had been converted into a waste oil tank. The site has been delineated and demonstrated to have some chlorinated solvent impacts but also petroleum impacts. The chlorinated solvent impacts are believed to be sourced from the former septic/waste-oil system. The petroleum impacts are believed to be associated with a release from pipelines in Perry Street and Carson Street adjacent to the site. As of September 2014, the most-impacted soil at the site is being excavated.

Click here to access the California GeoTracker records for this facility:

Region: STATE  
**Facility Status:** **Open - Site Assessment**  
Status Date: 01/27/1994  
Global Id: T0603703116  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8323003  
Longitude: -118.2529398  
Case Type: Cleanup Program Site  
Case Worker: SLC  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-05839  
File Location: Not reported  
Potential Media Affected: Aquifer used for drinking water supply  
Potential Contaminants of Concern: \* Solvents  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:  
Region: 4  
Facility Status: Site Assessment  
SLIC: 0490C  
Substance: TPH  
Staff: PGN

**T85**  
**East**  
**1/4-1/2**  
**0.374 mi.**  
**1975 ft.**

**TEXACO SERVICE STATION (FORMER)**  
**1209 CARSON**  
**CARSON, CA 90801**

**SLIC S106387020**  
**N/A**

**Site 1 of 7 in cluster T**

**Relative:**  
**Lower**

SLIC REG 4:  
Region: 4  
Facility Status: Site Assessment  
SLIC: 0490D  
Substance: Not reported  
Staff: PGN

**Actual:**  
**18 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**T86** **TEXACO SERVICE STATION (FORMER)**  
**East** **1209 CARSON ST. E.**  
**1/4-1/2** **CARSON, CA 90801**  
**0.374 mi.**  
**1975 ft.** **Site 2 of 7 in cluster T**

**LUST** **S107138461**  
**N/A**

**Relative:**  
**Lower**

LUST:

**Actual:**  
**18 ft.**

Region: STATE  
Global Id: T0603722212  
Latitude: 33.8319503875407  
Longitude: -118.252512216568  
Case Type: LUST Cleanup Site  
Status: Open - Eligible for Closure  
Status Date: 06/12/2013  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: JW  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: R-05994  
LOC Case Number: Not reported  
File Location: Not reported  
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:](#)

Contact:

Global Id: T0603722212  
Contact Type: Local Agency Caseworker  
Contact Name: TIM SMITH  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S. FREMONT AVE.  
City: ALHAMBRA  
Email: tsmith@dpw.lacounty.gov  
Phone Number: Not reported

Global Id: T0603722212  
Contact Type: Regional Board Caseworker  
Contact Name: JIMMIE WOO  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 WEST 4TH STREET, SUITE 200  
City: LOS ANGELES  
Email: jwoo@waterboards.ca.gov  
Phone Number: 2135766600

Status History:

Global Id: T0603722212  
Status: Open - Site Assessment  
Status Date: 03/01/1996

Global Id: T0603722212  
Status: Open - Eligible for Closure  
Status Date: 06/12/2013

Global Id: T0603722212  
Status: Open - Case Begin Date  
Status Date: 03/01/1996

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TEXACO SERVICE STATION (FORMER) (Continued)**

**S107138461**

Regulatory Activities:

Global Id:	T0603722212
Action Type:	RESPONSE
Date:	04/25/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	01/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	Other
Date:	03/01/1996
Action:	Leak Discovery
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	04/26/2012
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603722212
Action Type:	ENFORCEMENT
Date:	04/26/2011
Action:	13267 Requirement
Global Id:	T0603722212
Action Type:	ENFORCEMENT
Date:	06/15/2009
Action:	Staff Letter
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	ENFORCEMENT
Date:	07/21/2011
Action:	13267 Requirement
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	10/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	Other
Date:	03/01/1996
Action:	Leak Reported
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603722212

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TEXACO SERVICE STATION (FORMER) (Continued)**

**S107138461**

Action Type:	RESPONSE
Date:	07/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	ENFORCEMENT
Date:	06/08/2011
Action:	13267 Requirement
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2014
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	06/25/2010
Action:	Request for Closure
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603722212
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Conceptual Site Model
Global Id:	T0603722212
Action Type:	ENFORCEMENT
Date:	08/25/2011

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TEXACO SERVICE STATION (FORMER) (Continued)**

**S107138461**

Action: Preparation of Record for Appeal/Referral/Petition

Global Id: T0603722212  
Action Type: ENFORCEMENT  
Date: 09/09/2014  
Action: Notification - Preclosure

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 11/05/2012  
Action: Request for Closure

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 07/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603722212  
Action Type: ENFORCEMENT  
Date: 06/28/2002  
Action: Staff Letter

Global Id: T0603722212  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**T87**      **FORMER TEXACO SERVICE STATION**      **SLIC**      **U003061784**  
**East**      **1209 E. CARSON STREET**      **LOS ANGELES CO. HMS**      **N/A**  
**1/4-1/2**      **CARSON, CA 90746**  
**0.375 mi.**  
**1980 ft.**      **Site 3 of 7 in cluster T**

**Relative:**      **SLIC:**  
**Lower**      Region:      STATE  
                 **Facility Status:**      **Completed - Case Closed**  
**Actual:**      Status Date:      02/08/2012  
**18 ft.**      Global Id:      T10000003493  
                 Lead Agency:      LOS ANGELES RWQCB (REGION 4)  
                 Lead Agency Case Number:      Not reported  
                 Latitude:      33.8319726679541  
                 Longitude:      -118.252445161343  
                 Case Type:      Cleanup Program Site  
                 Case Worker:      GB  
                 Local Agency:      Not reported  
                 RB Case Number:      1272  
                 File Location:      Not reported  
                 Potential Media Affected:      Not reported  
                 Potential Contaminants of Concern:      Not reported  
                 Site History:      Investigation of possible LNAPL impacts to the Dominguez Channel.  
                      This case remains active within the Regional Board UST program.

[Click here to access the California GeoTracker records for this facility:](#)

LOS ANGELES CO. HMS:

Region:      LA  
Facility Id:      005784-I05994  
Facility Type:      I01  
Facility Status:      Closed  
Area:      22  
Permit Number:      000010993  
Permit Status:      Closed

Region:      LA  
Facility Id:      005784-050183  
Facility Type:      I01  
Facility Status:      Closed  
Area:      22  
Permit Number:      000546323  
Permit Status:      Closed

**S88**      **PERRY STREET**      **VCP**      **S105557594**  
**East**      **21502-21526 PERRY STREET**      **ENVIROSTOR**      **N/A**  
**1/4-1/2**      **CARSON, CA 90745**  
**0.377 mi.**  
**1988 ft.**      **Site 2 of 3 in cluster S**

**Relative:**      **VCP:**  
**Lower**      Facility ID:      19460004  
                 Site Type:      Voluntary Cleanup  
**Actual:**      Site Type Detail:      Voluntary Cleanup  
**16 ft.**      Site Mgmt. Req.:      NONE SPECIFIED  
                 Acres:      0.5  
                 National Priorities List:      NO  
                 Cleanup Oversight Agencies:      SMBRP  
                 Lead Agency:      SMBRP

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PERRY STREET (Continued)**

**S105557594**

Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Safouh Sayed  
Supervisor: Emad Yemut  
Division Branch: Cleanup Cypress  
Site Code: 400989  
Assembly: 64  
Senate: 35  
Special Programs Code: Voluntary Cleanup Program  
Status: No Further Action  
Status Date: 10/17/2003  
Restricted Use: NO  
Funding: Responsible Party  
Lat/Long: 33.83171 / -118.2528  
APN: NONE SPECIFIED  
Past Use: NONE  
Potential COC: 30003  
Confirmed COC: 30003  
Potential Description: SOIL  
Alias Name: 110033610545  
Alias Type: EPA (FRS #)  
Alias Name: 400989  
Alias Type: Project Code (Site Code)  
Alias Name: 19460004  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 11/30/2001  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 10/17/2003  
Comments: PEA - PEA: DTSC oversaw the site investigation and reviewed the Preliminary Endangerment Assessment for the subject site. Based upon the analytical data and the evaluation of the health risk assessment, DTSC determined that Site is suitable for a park and other recreational uses.

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

ENVIROSTOR:

Facility ID: 19460004  
Status: No Further Action  
Status Date: 10/17/2003  
Site Code: 400989



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PERRY STREET (Continued)**

**S105557594**

Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 0.5  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Safouh Sayed  
Supervisor: Emad Yemut  
Division Branch: Cleanup Cypress  
Assembly: 64  
Senate: 35  
Special Program: Voluntary Cleanup Program  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 33.83171  
Longitude: -118.2528  
APN: NONE SPECIFIED  
Past Use: NONE  
Potential COC: Benzene  
Confirmed COC: Benzene  
Potential Description: SOIL  
Alias Name: 110033610545  
Alias Type: EPA (FRS #)  
Alias Name: 400989  
Alias Type: Project Code (Site Code)  
Alias Name: 19460004  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 11/30/2001  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Endangerment Assessment Report  
Completed Date: 10/17/2003  
Comments: PEA - PEA: DTSC oversaw the site investigation and reviewed the Preliminary Endangerment Assessment for the subject site. Based upon the analytical data and the evaluation of the health risk assessment, DTSC determined that Site is suitable for a park and other recreational uses.

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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**S89**  
**East**  
**1/4-1/2**  
**0.377 mi.**  
**1988 ft.**

**SHELL PIPELINE LEAK - ALEXANDER/CUTANIA**  
**21500 PERRY ST**  
**CARSON, CA 90745**

**SLIC S106387019**  
**N/A**

**Site 3 of 3 in cluster S**

**Relative:**  
**Lower**

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 09/08/2000  
Global Id: SLT43288286  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8332693780119  
Longitude: -118.252801895142  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 0490B  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**16 ft.**

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region: 4  
Facility Status: Site Assessment  
SLIC: 0490B  
Substance: BTEX  
Staff: PGN

**R90**  
**ESE**  
**1/4-1/2**  
**0.377 mi.**  
**1988 ft.**

**DOMINGUEZ CHANNEL @ CARSON STREET (RELLC)**  
**CARSON STREET**  
**CARSON, CA 90745**

**SLIC S111012726**  
**N/A**

**Site 2 of 3 in cluster R**

**Relative:**  
**Lower**

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 06/14/2011  
Global Id: T10000003058  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8303996564984  
Longitude: -118.252973556519  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 1264  
File Location: Not reported  
Potential Media Affected: Contaminated Surface / Structure, Other Groundwater (uses other than drinking water), Sediments, Soil, Soil Vapor, Surface water, Under Investigation  
Potential Contaminants of Concern: Gasoline, Other Petroleum  
Site History: Not reported

**Actual:**  
**17 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DOMINGUEZ CHANNEL @ CARSON STREET (RELLC) (Continued)**

**S111012726**

[Click here to access the California GeoTracker records for this facility:](#)

**91**  
**SSW**  
**1/4-1/2**  
**0.378 mi.**  
**1996 ft.**

**F A SHERRY INC**  
**22127 AVALON BLVD S**  
**CARSON, CA 90745**

**HIST CORTESE**  
**LUST**  
**SWEEPS UST**  
**LOS ANGELES CO. HMS**

**S101295767**  
**N/A**

**Relative:**  
**Higher**

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-14767

**Actual:**  
**30 ft.**

LUST:  
Region: STATE  
Global Id: T0603704205  
Latitude: 33.8263928  
Longitude: -118.2636135  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 02/03/1994  
Lead Agency: LOS ANGELES COUNTY  
Case Worker: JOA  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-14767  
LOC Case Number: Not reported  
File Location: Not reported  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:  
Global Id: T0603704205  
Contact Type: Regional Board Caseworker  
Contact Name: YUE RONG  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 W. 4TH ST., SUITE 200  
City: Los Angeles  
Email: yrong@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0603704205  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:  
Global Id: T0603704205  
Status: Completed - Case Closed

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**F A SHERRY INC (Continued)**

**S101295767**

Status Date: 02/03/1994

Global Id: T0603704205  
Status: Open - Case Begin Date  
Status Date: 12/31/1990

Global Id: T0603704205  
Status: Open - Site Assessment  
Status Date: 01/23/1991

Regulatory Activities:

Global Id: T0603704205  
Action Type: Other  
Date: 01/23/1991  
Action: Leak Reported

Global Id: T0603704205  
Action Type: Other  
Date: 12/31/1990  
Action: Leak Stopped

Global Id: T0603704205  
Action Type: Other  
Date: 12/31/1990  
Action: Leak Discovery

**LUST REG 4:**

Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: I-14767  
Status: Case Closed  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Soil  
Abatement Method Used at the Site: Not reported  
Global ID: T0603704205  
W Global ID: Not reported  
Staff: UNK  
Local Agency: 19000  
Cross Street: 223RD ST  
Enforcement Type: Not reported  
Date Leak Discovered: 12/31/1990  
Date Leak First Reported: 1/23/1991  
Date Leak Record Entered: 2/8/1991  
Date Confirmation Began: Not reported  
Date Leak Stopped: 12/31/1990  
Date Case Last Changed on Database: 2/8/1991  
Date the Case was Closed: 2/3/1994  
How Leak Discovered: Tank Closure  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: UNK  
Operator: MEYERS, RICHARD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**F A SHERRY INC (Continued)**

**S101295767**

Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 2701.629518204098123197853729  
Source of Cleanup Funding: UNK  
Preliminary Site Assessment Workplan Submitted: Not reported  
Preliminary Site Assessment Began: 1/23/1991  
Pollution Characterization Began: Not reported  
Remediation Plan Submitted: Not reported  
Remedial Action Underway: Not reported  
Post Remedial Action Monitoring Began: Not reported  
Enforcement Action Date: Not reported  
Historical Max MTBE Date: Not reported  
Hist Max MTBE Conc in Groundwater: Not reported  
Hist Max MTBE Conc in Soil: Not reported  
Significant Interim Remedial Action Taken: Not reported  
GW Qualifier: Not reported  
Soil Qualifier: Not reported  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: BLANK RP  
RP Address: Not reported  
Program: LUST  
Lat/Long: 33.8263122 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported  
Assigned Name: Not reported  
Summary: OLD CASE #020891-14

**SWEEPS UST:**

Status: Active  
Comp Number: 14767  
Number: 9  
Board Of Equalization: Not reported  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
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

**LOS ANGELES CO. HMS:**

Region: LA  
Facility Id: 014235-014767  
Facility Type: Not reported  
Facility Status: Removed  
Area: 22  
Permit Number: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**F A SHERRY INC (Continued)**

**S101295767**

Permit Status: Not reported

**U92**  
**NNE**  
**1/4-1/2**  
**0.379 mi.**  
**2002 ft.**

**GARDENA VALLEY #6 (FORD CENTER)**  
**21007 CHICO STREET**  
**CARSON, CA 90745**

**SWF/LF** **S102360894**  
**N/A**

**Site 1 of 2 in cluster U**

**Relative:**  
**Higher**

SWF/LF (SWIS):

**Actual:**  
**22 ft.**

Region: STATE  
Facility ID: 19-AQ-0016  
Lat/Long: 33.8389999 / -118.2572  
Owner Name: Don Knott Ford  
Owner Telephone: Not reported  
Owner Address: Not reported  
Owner Address2: 21001 Chico St.  
Owner City,St,Zip: Carson  
Operational Status: Closed  
Operator: N/A  
Operator Phone: Not reported  
Operator Address: Not reported  
Operator Address2: Not reported  
Operator City,St,Zip: Not reported  
Permit Date: Not reported  
Permit Status: Not reported  
Permitted Acreage: 0  
Activity: Solid Waste Disposal Site  
Regulation Status: Pre-regulations  
Landuse Name: Urban,Commercial  
GIS Source: Map  
Category: Disposal  
Unit Number: 01  
Inspection Frequency: Quarterly  
Accepted Waste: Not reported  
Closure Date: Not reported  
Closure Type: Not reported  
Disposal Acreage: 0  
SWIS Num: 19-AQ-0016  
Waste Discharge Requirement Num: Not reported  
Program Type: Not reported  
Permitted Throughput with Units: 0  
Actual Throughput with Units: Not reported  
Permitted Capacity with Units: 0  
Remaining Capacity: 0  
Remaining Capacity with Units: Not reported  
Lat/Long: 33.8389999 / -118.2572

**LOS ANGELES CO. LF:**

Site ID: 1943  
Alt. Address: 21001 Chico Street, Carson, CA; 21107 Chico Street, Carson, CA 90745  
Site Contact: Not reported  
Site Contact Phone: Not reported  
Site Email: Not reported  
Site Website: Not reported  
Site Type: Municipal Solid Waste Landfill  
Site SWIS Number: 19-AQ-0016  
Beginning Operation Date: Nov-62

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**GARDENA VALLEY #6 (FORD CENTER) (Continued)**

**S102360894**

Disposal Area(Acre): Apr-65  
 Local Enforcement Agency: County Public Health  
 Maximum Depth Fill(Ft): 40  
 Permitted Capacity: Not reported  
 Present Use: Vacant; Commercial  
 Remaining Capacity(Million): Not reported  
 Status: Closed  
 Waste Accepted: Not reported  
 Hours of Operation: Not reported  
 Area: 7.7

Detail As Of 01/2014:

Operator Name: Unknown  
 Operator Address: Not reported  
 Operator City/State/Zip: Not reported  
 Operator Contact: Not reported  
 Operator Telephone: Not reported  
 Operator Email: Not reported  
 Owner Name: Don Knott Ford  
 Owner Address: 21001 Chico St  
 Owner City/State/Zip: Carson, CA 90745  
 Owner Contact: Not reported  
 Owner Telephone: Not reported  
 Owner Email: Not reported

**R93**  
**ESE**  
 1/4-1/2  
 0.381 mi.  
 2014 ft.

**DOMINGUEZ CHANNEL @ CARSON STREET (LADPW)**  
**DOMINGUEZ CHANNEL**  
**CARSON, CA 90745**  
 Site 3 of 3 in cluster R

**SLIC S111012710**  
**N/A**

**Relative:**  
**Lower**

SLIC:

Region: STATE  
**Facility Status: Completed - Case Closed**  
 Status Date: 02/17/2012  
 Global Id: T10000003004  
 Lead Agency: LOS ANGELES RWQCB (REGION 4)  
 Lead Agency Case Number: Not reported  
 Latitude: 33.8302659714708  
 Longitude: -118.252930641174  
 Case Type: Cleanup Program Site  
 Case Worker: GB  
 Local Agency: Not reported  
 RB Case Number: 1258  
 File Location: Not reported  
 Potential Media Affected: Contaminated Surface / Structure, Other Groundwater (uses other than drinking water), Sediments, Soil, Soil Vapor, Surface water, Under Investigation  
 Potential Contaminants of Concern: Diesel, Gasoline, Other Petroleum  
 Site History: Investigation and containment of LNAPL within the Dominguez Channel, approximately 400 feet south of Carson Street in Carson, California.

**Actual:**  
**16 ft.**

Click here to access the California GeoTracker records for this facility:

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**U94**  
**NNE**  
**1/4-1/2**  
**0.382 mi.**  
**2017 ft.**

**GARDENA VALLEY LANDFILL NO. 6**  
**CHICO AND DOMINGUEZ STREET**  
**CARSON, CA 90746**

**CA BOND EXP. PLAN**  
**VCP**  
**ENVIROSTOR**

**S105960474**  
**N/A**

**Site 2 of 2 in cluster U**

**Relative:**  
**Higher**

CA BOND EXP. PLAN:

Responsible Party: BACKLOG SITE CLEANUP PLANNING REPORT

Project Revenue Source Company: Not reported

Project Revenue Source Addr: Not reported

Project Revenue Source City,St,Zip: Not reported

Project Revenue Source Desc: This site is projected for cleanup funded by responsible parties with reimbursement to DHS for staff and related costs. However, if the responsible parties fail to provide funding for the cleanup another source of funds will need to be established.

Site Description: The site encompasses an area of approximately six acres. The site was used for disposal of household and commercial wastes from November of 1962 through April of 1965.

Hazardous Waste Desc: The fill contains numerous hazardous wastes derived from households and commercial uses. Methane has been detected in the fill at the facility. The fill depth ranges from 35 to 40 feet over the site. Ground water was not encountered at depths of 30 to 40 feet below ground surface.

Threat To Public Health & Env: The landfill is suspected of containing hazardous wastes in addition to the methane gas hazard. Efforts are being made by private parties to characterize this site and assess the potential hazards present. The landfill gas and ground water contamination are of primary concern.

Site Activity Status: The responsible party is conducting a remedial investigation and a feasibility study with minimal DHS participation.

VCP:

Facility ID: 19490105  
 Site Type: Voluntary Cleanup  
 Site Type Detail: Voluntary Cleanup  
 Site Mgmt. Req.: NONE SPECIFIED  
 Acres: 16  
 National Priorities List: NO  
 Cleanup Oversight Agencies: SMBRP  
 Lead Agency: SMBRP  
 Lead Agency Description: DTSC - Site Cleanup Program  
 Project Manager: Daniel Zogaib  
 Supervisor: Emad Yemut  
 Division Branch: Southern California Schools & Brownfields Outreach  
 Site Code: 401269  
 Assembly: 64  
 Senate: 35  
 Special Programs Code: Voluntary Cleanup Program  
 Status: Active  
 Status Date: 11/01/2004  
 Restricted Use: NO  
 Funding: Responsible Party  
 Lat/Long: 33.84055 / -118.2572  
 APN: NONE SPECIFIED  
 Past Use: LANDFILL - DOMESTIC  
 Potential COC: 30013, 30153  
 Confirmed COC: NONE SPECIFIED  
 Potential Description: OTH, SOIL  
 Alias Name: 110033619671  
 Alias Type: EPA (FRS #)  
 Alias Name: P43068



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Alias Type: PCode  
Alias Name: 300069  
Alias Type: Project Code (Site Code)  
Alias Name: 400069  
Alias Type: Project Code (Site Code)  
Alias Name: 401269  
Alias Type: Project Code (Site Code)  
Alias Name: 19490105  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 08/29/2011  
Comments: Final demand letter sent certified mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/01/2009  
Comments: Annual Cost Estimation letter sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 07/23/2010  
Comments: 2nd Request for payment of invoices sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 07/26/2011  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Design - Preliminary/Intermediate  
Completed Date: 06/02/2008  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Workplan  
Completed Date: 03/02/2011  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Design  
Completed Date: 05/19/2011  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Monitoring Plan  
Completed Date: 07/25/2011  
Comments: Approved

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Well Decommissioning Workplan  
Completed Date: 03/28/2014  
Comments: Completed

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Design  
Completed Date: 07/28/2014  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 06/16/2011  
Comments: Collection reminder letter sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 03/25/2011  
Comments: Reminder of unpaid past due invoice balances: 09SM3186, 10SM0439, 10SM1630

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 11/17/2010  
Comments: Final request for unpaid invoice balances sent certified mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 09/16/2010  
Comments: First collection letter sent for outstanding balances on invoices 09SM1978 & 09SM3186.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: CEQA - Initial Study/ Neg. Declaration  
Completed Date: 03/02/2011  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 04/15/1982  
Comments: FACILITY IDENTIFIED LA CO 630 SERIES BASE COORD MAP (1973)

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 06/23/2010  
Comments: Collection letter sent for unpaid invoice balances.

Completed Area Name: Operable Unit 2 (OU2)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 11/25/2013  
Comments: Completed

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 10/28/2011  
Comments: Collection reminder letter sent for unpaid past due invoice balances.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 11/28/2011  
Comments: Second request for unpaid invoice balances sent certified mail (invoices 10SM0439, 10SM1630, 10SM3059, 11SM0139).

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Technical Workplan  
Completed Date: 03/29/2005  
Comments: Workplan was found to be acceptable. we are now waiting for them to implement it.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 05/04/2011  
Comments: Second Collection letter sent certified mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 11/15/2007  
Comments: Sent letter to RP's lawyer on November 15, 2007 via both email and US Mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 11/01/2004  
Comments: DTSC entered into a Voluntary Cleanup Agreement with Inter Group Investment, LLC to provide oversight for a limited Removal Action at the northern 9-acre portion of the Fomer Landfill.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 09/09/2014  
Comments: Cost estimate letter mailed to RP on 09/10/14.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Form 1479 - Site and Collections Summary  
Completed Date: 02/19/2014  
Comments: 1479 Completed.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 08/24/2010  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 10/18/2010  
Comments: Second Collection letter sent for outstanding balances on invoice #09SM1978 and 09SM3186.

Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Remedy Constructed: Operating Properly & Successfully  
Future Due Date: 2021  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Public Participation Plan / Community Relations Plan  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Public Notice  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Community Profile  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Fact Sheets  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Remedial Investigation / Feasibility Study  
Future Due Date: 2017  
Future Area Name: Operable Unit 2 (OU2)  
Future Sub Area Name: Not reported  
Future Document Type: Removal Action Completion Report  
Future Due Date: 2015  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: CEQA - Initial Study/ Neg. Declaration  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Remedial Action Completion Report  
Future Due Date: 2019  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Remedial Action Plan  
Future Due Date: 2017  
Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Design/Implementation Workplan  
Future Due Date: 2018

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Future Area Name: PROJECT WIDE  
Future Sub Area Name: Not reported  
Future Document Type: Operations and Maintenance Plan  
Future Due Date: 2019  
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

**ENVIROSTOR:**

Facility ID: 19490105  
Status: Active  
Status Date: 11/01/2004  
Site Code: 401269  
Site Type: Voluntary Cleanup  
Site Type Detailed: Voluntary Cleanup  
Acres: 16  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Daniel Zogaib  
Supervisor: Emad Yemut  
Division Branch: Southern California Schools & Brownfields Outreach  
Assembly: 64  
Senate: 35  
Special Program: Voluntary Cleanup Program  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 33.84055  
Longitude: -118.2572  
APN: NONE SPECIFIED  
Past Use: LANDFILL - DOMESTIC  
Potential COC: Lead Chromium VI  
Confirmed COC: NONE SPECIFIED  
Potential Description: OTH, SOIL  
Alias Name: 110033619671  
Alias Type: EPA (FRS #)  
Alias Name: P43068  
Alias Type: PCode  
Alias Name: 300069  
Alias Type: Project Code (Site Code)  
Alias Name: 400069  
Alias Type: Project Code (Site Code)  
Alias Name: 401269  
Alias Type: Project Code (Site Code)  
Alias Name: 19490105  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 08/29/2011  
Comments: Final demand letter sent certified mail.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 10/01/2009  
Comments: Annual Cost Estimation letter sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 07/23/2010  
Comments: 2nd Request for payment of invoices sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 07/26/2011  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Design - Preliminary/Intermediate  
Completed Date: 06/02/2008  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Workplan  
Completed Date: 03/02/2011  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Design  
Completed Date: 05/19/2011  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Monitoring Plan  
Completed Date: 07/25/2011  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Well Decommissioning Workplan  
Completed Date: 03/28/2014  
Comments: Completed

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Design  
Completed Date: 07/28/2014  
Comments: Approved

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Completed Date: 06/16/2011  
Comments: Collection reminder letter sent.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 03/25/2011  
Comments: Reminder of unpaid past due invoice balances: 09SM3186, 10SM0439, 10SM1630

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 11/17/2010  
Comments: Final request for unpaid invoice balances sent certified mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 09/16/2010  
Comments: First collection letter sent for outstanding balances on invoices 09SM1978 & 09SM3186.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: CEQA - Initial Study/ Neg. Declaration  
Completed Date: 03/02/2011  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 04/15/1982  
Comments: FACILITY IDENTIFIED LA CO 630 SERIES BASE COORD MAP (1973)

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 06/23/2010  
Comments: Collection letter sent for unpaid invoice balances.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 11/25/2013  
Comments: Completed

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 10/28/2011  
Comments: Collection reminder letter sent for unpaid past due invoice balances.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 11/28/2011

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Comments: Second request for unpaid invoice balances sent certified mail (invoices 10SM0439, 10SM1630, 10SM3059, 11SM0139).

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Technical Workplan  
Completed Date: 03/29/2005  
Comments: Workplan was found to be acceptable. we are now waiting for them to implement it.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 05/04/2011  
Comments: Second Collection letter sent certified mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Correspondence  
Completed Date: 11/15/2007  
Comments: Sent letter to RP's lawyer on November 15, 2007 via both email and US Mail.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Voluntary Cleanup Agreement  
Completed Date: 11/01/2004  
Comments: DTSC entered into a Voluntary Cleanup Agreement with Inter Group Investment, LLC to provide oversight for a limited Removal Action at the northern 9-acre portion of the Fomer Landfill.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Annual Oversight Cost Estimate  
Completed Date: 09/09/2014  
Comments: Cost estimate letter mailed to RP on 09/10/14.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Form 1479 - Site and Collections Summary  
Completed Date: 02/19/2014  
Comments: 1479 Completed.

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 08/24/2010  
Comments: Not reported

Completed Area Name: Operable Unit 2 (OU2)  
Completed Sub Area Name: Not reported  
Completed Document Type: Letter - Demand  
Completed Date: 10/18/2010  
Comments: Second Collection letter sent for outstanding balances on invoice #09SM1978 and 09SM3186.

Future Area Name: PROJECT WIDE



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GARDENA VALLEY LANDFILL NO. 6 (Continued)**

**S105960474**

Future Sub Area Name:	Not reported
Future Document Type:	Remedy Constructed: Operating Properly & Successfully
Future Due Date:	2021
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Public Participation Plan / Community Relations Plan
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Public Notice
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Community Profile
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Fact Sheets
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Investigation / Feasibility Study
Future Due Date:	2017
Future Area Name:	Operable Unit 2 (OU2)
Future Sub Area Name:	Not reported
Future Document Type:	Removal Action Completion Report
Future Due Date:	2015
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	CEQA - Initial Study/ Neg. Declaration
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Action Completion Report
Future Due Date:	2019
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Remedial Action Plan
Future Due Date:	2017
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Design/Implementation Workplan
Future Due Date:	2018
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Plan
Future Due Date:	2019
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

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**95**  
**ESE**  
**1/4-1/2**  
**0.383 mi.**  
**2020 ft.**

**SHELL PIPELINE 0367 - DOMINGUEZ CHANNEL @ CARSON**  
**CARSON STREET**  
**CARSON, CA 90745**

**SLIC S111012713**  
**N/A**

**Relative:**  
**Lower**

SLIC:  
Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 05/03/2011  
Global Id: T10000003007  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8299518108331  
Longitude: -118.253029882908  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 1261A  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**18 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

**V96**  
**ESE**  
**1/4-1/2**  
**0.384 mi.**  
**2029 ft.**

**CHEVRON PIPELINE - DOMINGUEZ CHANNEL @ CARSON**  
**CARSON STREET**  
**CARSON, CA 90745**

**SLIC S111012711**  
**N/A**

**Site 1 of 2 in cluster V**

**Relative:**  
**Lower**

SLIC:  
Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 05/03/2011  
Global Id: T10000003005  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8308675524486  
Longitude: -118.252715393901  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 1259  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**18 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**V97**      **CRIMSON PIPELINE - DOMINGUEZ CHANNEL @ CARSON**  
**ESE**      **CARSON STREET**  
**1/4-1/2**      **CARSON, CA 90745**  
**0.385 mi.**  
**2031 ft.**      **Site 2 of 2 in cluster V**

**SLIC**      **S111012712**  
**N/A**

**Relative:**      **SLIC:**  
**Lower**      Region:      STATE  
**Actual:**      **Facility Status:**      **Open - Site Assessment**  
**18 ft.**      Status Date:      05/03/2011  
                  Global Id:      T10000003006  
                  Lead Agency:      LOS ANGELES RWQCB (REGION 4)  
                  Lead Agency Case Number:      Not reported  
                  Latitude:      33.8308564120986  
                  Longitude:      -118.252710700035  
                  Case Type:      Cleanup Program Site  
                  Case Worker:      GB  
                  Local Agency:      Not reported  
                  RB Case Number:      1260  
                  File Location:      Not reported  
                  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:

**T98**      **COURTLAND PROWELL PROPERTY**  
**East**      **1216 CARSON**  
**1/4-1/2**      **CARSON, CA 90745**  
**0.391 mi.**  
**2063 ft.**      **Site 4 of 7 in cluster T**

**SLIC**      **S105721878**  
**N/A**

**Relative:**      **SLIC REG 4:**  
**Lower**      Region:      4  
                  Facility Status:      Site Assessment  
**Actual:**      **SLIC:**      1110B  
**19 ft.**      Substance:      BTEX, TPH  
                  Staff:      Not reported

**T99**      **COURTLAND PROWELL**  
**East**      **1216 CARSON STREET, EAST**  
**1/4-1/2**      **CARSON, CA 90810**  
**0.391 mi.**  
**2063 ft.**      **Site 5 of 7 in cluster T**

**SLIC**      **S106487312**  
**N/A**

**Relative:**      **SLIC:**  
**Lower**      Region:      STATE  
**Actual:**      **Facility Status:**      **Completed - Case Closed**  
**19 ft.**      Status Date:      02/01/2002  
                  Global Id:      SL0603720103  
                  Lead Agency:      LOS ANGELES RWQCB (REGION 4)  
                  Lead Agency Case Number:      Not reported  
                  Latitude:      33.8314067436534  
                  Longitude:      -118.253102302551  
                  Case Type:      Cleanup Program Site  
                  Case Worker:      GB  
                  Local Agency:      Not reported  
                  RB Case Number:      1110B

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**COURTLAND PROWELL (Continued)**

**S106487312**

File Location: Not reported  
 Potential Media Affected: Not reported  
 Potential Contaminants of Concern: Not reported  
 Site History: This site was closed on September 20, 2013. Petroleum impacts remain at the site and are being addressed under Regional Board SCP Case No. 1264 (GeoTracker Global ID No. T10000003058).

[Click here to access the California GeoTracker records for this facility:](#)

**T100**  
**ESE**  
**1/4-1/2**  
**0.394 mi.**  
**2081 ft.**

**NICHOLSON INVESTMENT GROUP**  
**1202 CARSON**  
**CARSON, CA 90745**  
**Site 6 of 7 in cluster T**

**SLIC S105721877**  
**N/A**

**Relative:**  
**Lower**

SLIC REG 4:  
 Region: 4  
 Facility Status: Site Assessment  
 SLIC: 1110A  
 Substance: BTEX, TPH  
 Staff: Not reported

**Actual:**  
**19 ft.**

**T101**  
**ESE**  
**1/4-1/2**  
**0.394 mi.**  
**2081 ft.**

**NICHOLSON INVESTMENT GROUP**  
**1202 CARSON STREET, EAST**  
**CARSON, CA 90810**  
**Site 7 of 7 in cluster T**

**SLIC S106487353**  
**N/A**

**Relative:**  
**Lower**

SLIC:  
 Region: STATE  
**Facility Status: Completed - Case Closed**  
 Status Date: 09/20/2013  
 Global Id: SL0603755004  
 Lead Agency: Not reported  
 Lead Agency Case Number: Not reported  
 Latitude: 33.831299796908  
 Longitude: -118.252544403076  
 Case Type: Cleanup Program Site  
 Case Worker: Not reported  
 Local Agency: Not reported  
 RB Case Number: Not reported  
 File Location: Not reported  
 Potential Media Affected: Not reported  
 Potential Contaminants of Concern: Not reported  
 Site History: This site was closed on September 20, 2013. Petroleum impacts remain at the site and are being addressed under Regional Board SCP Case No. 1264 (GeoTracker Global ID No. T10000003058).

**Actual:**  
**19 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**102**  
**East**  
**1/4-1/2**  
**0.430 mi.**  
**2270 ft.**

**SHELL PIPELINE LEAK - COLONY HOLDINGS**  
**1211 CARSON AVE.**  
**CARSON, CA 90810**

**SLIC S106485944**  
**N/A**

**Relative:**  
**Lower**

SLIC:  
Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 08/04/2010  
Global Id: SLT4L4901823  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.8321731914137  
Longitude: -118.251836299896  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 0490A  
File Location: Regional Board  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**18 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

**W103**  
**SSW**  
**1/4-1/2**  
**0.455 mi.**  
**2401 ft.**

**PROPOSED 7-11**  
**22225 AVALON**  
**CARSON, CA 90745**

**HIST CORTESE S102435491**  
**LUST N/A**

**Site 1 of 3 in cluster W**

**Relative:**  
**Higher**

HIST CORTESE:  
Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: 004037

**Actual:**  
**30 ft.**

LUST REG 4:  
Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: 004037  
Status: Pollution Characterization  
Substance: Hydrocarbons  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Soil  
Abatement Method Used at the Site: Not reported  
Global ID: T0603700041  
W Global ID: Not reported  
Staff: UNK  
Local Agency: 19000  
Cross Street: 223RD  
Enforcement Type: Not reported  
Date Leak Discovered: Not reported  
Date Leak First Reported: 7/19/1985  
Date Leak Record Entered: 8/12/1987  
Date Confirmation Began: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**PROPOSED 7-11 (Continued)**

**S102435491**

Date Leak Stopped: Not reported  
 Date Case Last Changed on Database: 7/19/1985  
 Date the Case was Closed: Not reported  
 How Leak Discovered: Not reported  
 How Leak Stopped: Not reported  
 Cause of Leak: UNK  
 Leak Source: UNK  
 Operator: Not reported  
 Water System: Not reported  
 Well Name: Not reported  
 Approx. Dist To Production Well (ft): 2891.7953446161698996467323329  
 Source of Cleanup Funding: UNK  
 Preliminary Site Assessment Workplan Submitted: Not reported  
 Preliminary Site Assessment Began: Not reported  
 Pollution Characterization Began: 7/19/1985  
 Remediation Plan Submitted: Not reported  
 Remedial Action Underway: Not reported  
 Post Remedial Action Monitoring Began: Not reported  
 Enforcement Action Date: Not reported  
 Historical Max MTBE Date: Not reported  
 Hist Max MTBE Conc in Groundwater: Not reported  
 Hist Max MTBE Conc in Soil: Not reported  
 Significant Interim Remedial Action Taken: Not reported  
 GW Qualifier: Not reported  
 Soil Qualifier: Not reported  
 Organization: Not reported  
 Owner Contact: Not reported  
 Responsible Party: BLANK RP  
 RP Address: Not reported  
 Program: LUST  
 Lat/Long: 33.8251992 / -118.263804  
 Local Agency Staff: Not reported  
 Beneficial Use: Not reported  
 Priority: Not reported  
 Cleanup Fund Id: Not reported  
 Suspended: Not reported  
 Assigned Name: Not reported  
 Summary: Not reported

**W104**  
**SSW**  
**1/4-1/2**  
**0.455 mi.**  
**2401 ft.**

**SOUTHLAND CORP SS**  
**22225 S AVALON BLVD**  
**CARSON, CA 90745**  
**Site 2 of 3 in cluster W**

**LUST**  
**SWEEPS UST**  
**LOS ANGELES CO. HMS**

**U003060027**  
**N/A**

**Relative:**  
**Higher**

LUST:  
 Region: STATE  
 Global Id: T0603700041  
 Latitude: 33.8251992  
 Longitude: -118.263804  
 Case Type: LUST Cleanup Site  
 Status: Open - Site Assessment  
 Status Date: 07/19/1985  
 Lead Agency: SWRCB  
 Case Worker: MC  
 Local Agency: LOS ANGELES COUNTY  
 RB Case Number: Not reported  
 LOC Case Number: Not reported

**Actual:**  
**30 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHLAND CORP SS (Continued)**

**U003060027**

File Location: Not reported  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0603700041  
Contact Type: Local Agency Caseworker  
Contact Name: KATTYA BATRES RINZE  
Organization Name: LOS ANGELES COUNTY  
Address: 900 SOUTH FREMONT AVE  
City: ALHAMBRA  
Email: gbatres@dpw.lacounty.gov  
Phone Number: Not reported

Global Id: T0603700041  
Contact Type: Regional Board Caseworker  
Contact Name: MATTHEW COHEN  
Organization Name: SWRCB  
Address: 1001 I Street  
City: SACRAMENTO  
Email: mcohen@waterboards.ca.gov  
Phone Number: 9163415751

Status History:

Global Id: T0603700041  
Status: Open - Case Begin Date  
Status Date: 07/19/1985

Global Id: T0603700041  
Status: Open - Site Assessment  
Status Date: 07/19/1985

Regulatory Activities:

Global Id: T0603700041  
Action Type: RESPONSE  
Date: 03/19/1985  
Action: Other Report / Document

Global Id: T0603700041  
Action Type: ENFORCEMENT  
Date: 02/20/1986  
Action: Site Visit / Inspection / Sampling

Global Id: T0603700041  
Action Type: ENFORCEMENT  
Date: 05/08/2013  
Action: Referral to Regional Board

Global Id: T0603700041  
Action Type: RESPONSE  
Date: 05/24/1985  
Action: Correspondence

Global Id: T0603700041

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHLAND CORP SS (Continued)**

**U003060027**

Action Type: RESPONSE  
Date: 04/29/1987  
Action: Correspondence  
  
Global Id: T0603700041  
Action Type: Other  
Date: 07/19/1985  
Action: Leak Reported

**SWEEPS UST:**

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 6

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000002  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000003  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHLAND CORP SS (Continued)**

**U003060027**

Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000004  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000005  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 3907  
Number: 9  
Board Of Equalization: 44-002251  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-003907-000006  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SOUTHLAND CORP SS (Continued)**

**U003060027**

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 003780-I03907  
Facility Type: I01  
Facility Status: Closed  
Area: 22  
Permit Number: 000006049  
Permit Status: Closed

Region: LA  
Facility Id: 003780-003907  
Facility Type: T0  
Facility Status: Removed  
Area: 22  
Permit Number: 00005059T  
Permit Status: Removed

105  
ENE  
1/4-1/2  
0.461 mi.  
2433 ft.

**SHELL OIL CO  
PERRY STREET  
CARSON, CA**

**SLIC S106483942  
N/A**

Relative:  
Lower

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 03/01/1999  
Global Id: SL2044R1599  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Lead Agency Case Number: Not reported  
Latitude: 33.835327  
Longitude: -118.251895  
Case Type: Cleanup Program Site  
Case Worker: GB  
Local Agency: Not reported  
RB Case Number: 0490B  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

Actual:  
17 ft.

[Click here to access the California GeoTracker records for this facility:](#)

W106  
SSW  
1/4-1/2  
0.466 mi.  
2462 ft.

**MOBIL #18-MBJ (FORMER 11-MBJ)  
22240 AVALON BLVD S  
CARSON, CA 90745  
Site 3 of 3 in cluster W**

**HIST CORTESE S101295761  
LUST N/A  
LOS ANGELES CO. HMS  
ENF**

Relative:  
Higher

HIST CORTESE:

Region: CORTESE  
Facility County Code: 19  
Reg By: LTNKA  
Reg Id: I-06555

Actual:  
30 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

LUST:

Region: STATE  
Global Id: T0603703230  
Latitude: 33.8247713  
Longitude: -118.263394  
Case Type: LUST Cleanup Site  
Status: Open - Remediation  
Status Date: 04/15/2005  
Lead Agency: LOS ANGELES RWQCB (REGION 4)  
Case Worker: JW  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: I-06555  
LOC Case Number: Not reported  
File Location: Regional Board  
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:](#)

Contact:

Global Id: T0603703230  
Contact Type: Regional Board Caseworker  
Contact Name: JIMMIE WOO  
Organization Name: LOS ANGELES RWQCB (REGION 4)  
Address: 320 WEST 4TH STREET, SUITE 200  
City: LOS ANGELES  
Email: jwoo@waterboards.ca.gov  
Phone Number: 2135766600

Global Id: T0603703230  
Contact Type: Local Agency Caseworker  
Contact Name: JOHN AWUJO  
Organization Name: LOS ANGELES COUNTY  
Address: 900 S FREMONT AVE  
City: ALHAMBRA  
Email: jawujo@dpw.lacounty.gov  
Phone Number: 6264583507

Status History:

Global Id: T0603703230  
Status: Open - Site Assessment  
Status Date: 01/16/2001

Global Id: T0603703230  
Status: Open - Site Assessment  
Status Date: 03/07/2001

Global Id: T0603703230  
Status: Open - Verification Monitoring  
Status Date: 06/03/1987

Global Id: T0603703230  
Status: Open - Case Begin Date  
Status Date: 05/26/1987

Global Id: T0603703230

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Status: Open - Remediation  
Status Date: 07/26/2001

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 08/08/2001

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 10/15/2002

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 02/24/2003

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 07/29/2003

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 10/15/2004

Global Id: T0603703230  
Status: Open - Remediation  
Status Date: 04/15/2005

Global Id: T0603703230  
Status: Open - Site Assessment  
Status Date: 06/01/1991

Global Id: T0603703230  
Status: Open - Site Assessment  
Status Date: 06/01/1992

**Regulatory Activities:**

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703230

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Action Type:	RESPONSE
Date:	10/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Soil and Water Investigation Report
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Remedial Progress Report
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Conceptual Site Model
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	07/15/2013
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	10/15/2003
Action:	Soil and Water Investigation Report
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	04/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Conceptual Site Model
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603703230
Action Type:	Other
Date:	06/03/1987
Action:	Leak Reported
Global Id:	T0603703230
Action Type:	Other
Date:	05/26/1987
Action:	Leak Stopped
Global Id:	T0603703230
Action Type:	RESPONSE
Date:	07/15/2009

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2002  
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Sensitive Receptor Survey Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2004  
Action: Remedial Progress Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Remedial Progress Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2011  
Action: Monitoring Report - Semi-Annually

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2006  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2011  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: ENFORCEMENT  
Date: 06/15/2009  
Action: Staff Letter

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2008  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Date: 10/15/2008  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2002  
Action: Remedial Progress Report

Global Id: T0603703230  
Action Type: REMEDIATION  
Date: 04/01/2004  
Action: Soil Vapor Extraction (SVE)

Global Id: T0603703230  
Action Type: REMEDIATION  
Date: 11/19/2001  
Action: Free Product Removal

Global Id: T0603703230  
Action Type: ENFORCEMENT  
Date: 01/11/2002  
Action: Staff Letter

Global Id: T0603703230  
Action Type: ENFORCEMENT  
Date: 07/26/2001  
Action: 13267 Requirement

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2002  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2008  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Soil and Water Investigation Report



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/30/2002  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2002  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2002  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2010  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2007  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Date: 07/15/2005  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2008  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2007  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2009  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2006  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Monitoring Report - Quarterly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2005  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 04/15/2009  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: Other  
Date: 05/26/1987  
Action: Leak Discovery

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2011  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2007  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2007  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 10/15/2009  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2010  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: RESPONSE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Date: 07/15/2003  
Action: Soil and Water Investigation Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2003  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2004  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2010  
Action: Conceptual Site Model

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/19/2010  
Action: Remedial Progress Report

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 01/15/2013  
Action: Monitoring Report - Semi-Annually

Global Id: T0603703230  
Action Type: ENFORCEMENT  
Date: 02/24/2003  
Action: Staff Letter

Global Id: T0603703230  
Action Type: ENFORCEMENT  
Date: 09/22/2004  
Action: Staff Letter

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2005  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 08/27/2012  
Action: Soil and Water Investigation Workplan

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 07/15/2012  
Action: Monitoring Report - Quarterly

Global Id: T0603703230  
Action Type: RESPONSE  
Date: 08/28/2012  
Action: Pilot Study / Treatability Workplan

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

LUST REG 4:  
Region: 4  
Regional Board: 04  
County: Los Angeles  
Facility Id: I-06555  
Status: Remediation Plan  
Substance: Gasoline  
Substance Quantity: Not reported  
Local Case No: Not reported  
Case Type: Groundwater  
Abatement Method Used at the Site: VE  
Global ID: T0603703230  
W Global ID: Not reported  
Staff: JW  
Local Agency: 19000  
Cross Street: 223RD  
Enforcement Type: DLSEL  
Date Leak Discovered: 5/26/1987  
Date Leak First Reported: 6/3/1987  
Date Leak Record Entered: 8/12/1987  
Date Confirmation Began: 6/1/1991  
Date Leak Stopped: 5/26/1987  
Date Case Last Changed on Database: 7/15/2002  
Date the Case was Closed: Not reported  
How Leak Discovered: Tank Test  
How Leak Stopped: Not reported  
Cause of Leak: UNK  
Leak Source: Tank  
Operator: HASTY, ANTHONY  
Water System: Not reported  
Well Name: Not reported  
Approx. Dist To Production Well (ft): 2774.9555409163718543475769667  
Source of Cleanup Funding: Tank  
Preliminary Site Assessment Workplan Submitted: 3/7/2001  
Preliminary Site Assessment Began: 6/1/1992  
Pollution Characterization Began: 1/16/2001  
Remediation Plan Submitted: 7/29/2003  
Remedial Action Underway: 7/26/2001  
Post Remedial Action Monitoring Began: 6/3/1987  
Enforcement Action Date: 3/12/2001  
Historical Max MTBE Date: 5/20/2002  
Hist Max MTBE Conc in Groundwater: 460  
Hist Max MTBE Conc in Soil: 37000  
Significant Interim Remedial Action Taken: Yes  
GW Qualifier: =  
Soil Qualifier: =  
Organization: Not reported  
Owner Contact: Not reported  
Responsible Party: MR. NICK PUIG  
RP Address: 3700 W. 190TH ST., TPT2  
Program: LUST  
Lat/Long: 33.8247713 / -1  
Local Agency Staff: Not reported  
Beneficial Use: Not reported  
Priority: Not reported  
Cleanup Fund Id: Not reported  
Suspended: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

Assigned Name: Not reported  
Summary: 7/12/00 2ND QTR GW MON RPT 2000; 10/13/00 3RD QTR GW MON RPT 2000;  
1/4/01 4TH QTR GW MON RPT 2000; 3/8/01 FEE TITLE HOLDER INFO.; 3/20/01  
1ST QTR GW MON RPT 2001

LOS ANGELES CO. HMS:

Region: LA  
Facility Id: 006337-058412  
Facility Type: I01  
Facility Status: Permit  
Area: 22  
Permit Number: 000761268  
Permit Status: Permit

ENF:

Region: 4  
Facility Id: 243162  
Agency Name: Mobil Business Resources Corporation  
Place Type: Facility  
Place Subtype: Not reported  
Facility Type: All other facilities  
Agency Type: Privately-Owned Business  
# Of Agencies: 1  
Place Latitude: 33.824999  
Place Longitude: -118.263589  
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  
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: 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: UST  
Program Category1: TANKS  
Program Category2: TANKS  
# Of Programs: 1  
WDID: I-06555  
Reg Measure Id: 168114  
Reg Measure Type: Unregulated  
Region: 4  
Order #: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**MOBIL #18-MBJ (FORMER 11-MBJ) (Continued)**

**S101295761**

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:	Never Active
Status Date:	02/20/2013
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:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	228697
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	01/16/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	01/16/2001
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - I-06555
Description:	Notice of Violation sent 1/16/01 for overdue fee title holder information.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	\$0.00
Initial Assessed Amount:	\$0.00
Liability \$ Amount:	\$0.00
Project \$ Amount:	\$0.00
Liability \$ Paid:	\$0.00
Project \$ Completed:	\$0.00
Total \$ Paid/Completed Amount:	\$0.00

107  
 North  
 1/4-1/2  
 0.467 mi.  
 2466 ft.

**PEP BOYS  
 810 DOMINGUEZ ST E  
 CARSON, CA 90746**

**SLIC S108418375  
 N/A**

**Relative:  
 Higher**

SLIC:  
 Region: STATE  
**Facility Status: Completed - Case Closed**  
 Status Date: 03/06/2007  
 Global Id: SL0603745222

**Actual:  
 21 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**PEP BOYS (Continued)**

**S108418375**

Lead Agency: LOS ANGELES COUNTY  
Lead Agency Case Number: 011878-011946  
Latitude: 33.840557  
Longitude: -118.261398  
Case Type: Cleanup Program Site  
Case Worker: MRR  
Local Agency: LOS ANGELES COUNTY  
RB Case Number: Not reported  
File Location: Not reported  
Potential Media Affected: Under Investigation  
Potential Contaminants of Concern: Arsenic  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**108  
WNW  
1/2-1  
0.576 mi.  
3042 ft.**

**MARTIN ADAMS DUMP  
213 ST TO 21111 DOLORES  
CARSON, CA 90745**

**CERCLIS 1000412290  
SWF/LF CAD981399520  
CHMIRS  
LA Co. Site Mitigation  
ENVIROSTOR**

**Relative:  
Higher**

CERCLIS:  
Site ID: 0902315  
EPA ID: CAD981399520  
Facility County: LOS ANGELES  
Short Name: MARTIN ADAMS DUMP  
Congressional District: 31  
IFMS ID: Not reported  
SMSA Number: 4480  
USGC Hydro Unit: 18070104  
Federal Facility: Not a Federal Facility  
DMNSN Number: 0.00000  
Site Orphan Flag: N  
RCRA ID: Not reported  
USGS Quadrangle: Not reported  
Site Init By Prog: Not reported  
NFRAP Flag: Not reported  
Parent ID: Not reported  
RST Code: Not reported  
EPA Region: 09  
Classification: Not reported  
Site Settings Code: Not reported  
NPL Status: Not on the NPL  
DMNSN Unit Code: Not reported  
RBRAC Code: Not reported  
RResp Fed Agency Code: Not reported  
Non NPL Status: Assessment Complete - Decision Needed  
Non NPL Status Date: 03/22/13  
Site Fips Code: 06037  
CC Concurrence Date: / /  
CC Concurrence FY: Not reported  
Alias EPA ID: Not reported  
Site FUDS Flag: Not reported

**Actual:  
22 ft.**

CERCLIS Site Contact Name(s):  
Contact ID: 13003854.00000  
Contact Name: Leslie Ramirez



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

**1000412290**

Contact Tel: (415) 972-3978  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

Contact ID: 13003858.00000  
Contact Name: Sharon Murray  
Contact Tel: (415) 972-4250  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

Contact ID: 13004003.00000  
Contact Name: Carl Brickner  
Contact Tel: Not reported  
Contact Title: Site Assessment Manager (SAM)  
Contact Email: Not reported

CERCLIS Site Alias Name(s):

Alias ID: 101  
Alias Name: IMPERIAL MOBLIL EST MOBLIE HOME PK  
Alias Address: Not reported  
CA

Alias ID: 201  
Alias Name: MARTIN ADAMS,VIRGLE&LUZ CHACON (OWNERS)  
Alias Address: Not reported  
CA

Alias ID: 201  
Alias ID: 101  
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977PREVIOUS EPA ID# AZD 981 416 977

Site Description: Site needs to be addressed for possible inclusion into the remediation taking place in the vicinity of Del Amo and Victoria Golf Course CA DTSC  
ENVIROSTOR LOC DATA: MARTIN ADAMS DUMP (19530002) - (MAP) - (GOOGLE MAP)  
21111 DOLORES STREET CARSON , CA 90745 ACTIVITIES REPORT  
LOS ANGELES COUNTY

CERCLIS Assessment History:

Action Code: 001  
Action: DISCOVERY  
Date Started: / /  
Date Completed: 05/01/86  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Action Code: 001  
Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 12/01/87  
Priority Level: Low priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

**1000412290**

Action Anomaly: Not reported

Action Code: 002  
Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 06/01/88  
Priority Level: Low priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Action Code: 001  
Action: SITE INSPECTION  
Date Started: / /  
Date Completed: 09/12/89  
Priority Level: Higher priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Action Code: 001  
Action: EXPANDED SITE INSPECTION  
Date Started: 09/27/95  
Date Completed: 11/12/02  
Priority Level: Low priority for further assessment  
Operable Unit: SITEWIDE  
Primary Responsibility: State, Fund Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

SWF/LF (SWIS):  
Region: STATE  
Facility ID: 19-AQ-0006  
Lat/Long: 33.8369399 / -118.27278  
Owner Name: Coogan/Browning Reality  
Owner Telephone: 7145469911  
Owner Address: Not reported  
Owner Address2: 2009 Swan Dr  
Owner City,St,Zip: Costa Mesa, CA 92626  
Operational Status: Closed  
Operator: Adams, M  
Operator Phone: 7134652347  
Operator Address: Not reported  
Operator Address2: 12910 Figaro  
Operator City,St,Zip: Houston, TX 77024  
Permit Date: Not reported  
Permit Status: Not reported  
Permitted Acreage: 20

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

**1000412290**

Activity: Solid Waste Disposal Site  
Regulation Status: Pre-regulations  
Landuse Name: Residential  
GIS Source: Map  
Category: Disposal  
Unit Number: 01  
Inspection Frequency: Quarterly  
Accepted Waste: Not reported  
Closure Date: 12/31/1958  
Closure Type: Estimated  
Disposal Acreage: 20  
SWIS Num: 19-AQ-0006  
Waste Discharge Requirement Num: Not reported  
Program Type: Not reported  
Permitted Throughput with Units: Not reported  
Actual Throughput with Units: Not reported  
Permitted Capacity with Units: Not reported  
Remaining Capacity: Not reported  
Remaining Capacity with Units: Not reported  
Lat/Long: 33.8369399 / -118.27278

**LOS ANGELES CO. LF:**

Site ID: 1963  
Alt. Address: Not reported  
Site Contact: Not reported  
Site Contact Phone: Not reported  
Site Email: Not reported  
Site Website: Not reported  
Site Type: Unknown  
Site SWIS Number: 19-AQ-0006  
Beginning Operation Date: 1948  
Disposal Area(Acre): Dec-58  
Local Enforcement Agency: County Public Health  
Maximun Depth Fill(Ft): 34  
Permitted Capacity: Not reported  
Present Use: Residential  
Remaining Capacity(Million): Not reported  
Status: Closed  
Waste Accepted: Commercial; Inert; Liquid; Residential  
Hours of Operation: Not reported  
Area: 20

**Detail As Of 01/2014:**

Operator Name: M. Adams  
Operator Address: 12910 Figaro Drive  
Operator City/State/Zip: HUSTON, TX 77024  
Operator Contact: Not reported  
Operator Telephone: (713) 465-2347  
Operator Email: Not reported  
Owner Name: Coogan-Browning Reality  
Owner Address: 2009 Swan Drive  
Owner City/State/Zip: Costa Mesa, CA 92626  
Owner Contact: Wayne Browning  
Owner Telephone: (714) 546-9911  
Owner Email: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

1000412290

CHMIRS:

OES Incident Number: '10-7307  
OES notification: 12/06/2010  
OES Date: Not reported  
OES Time: Not reported  
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  
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  
Facility Telephone: Not reported  
Waterway Involved: Yes  
Waterway: storm drain  
Spill Site: Residence  
Cleanup By: Contractor  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Unknown  
Other: Not reported  
Date/Time: 1000  
Year: 2010  
Agency: City of Carson  
Incident Date: 12/6/2010  
Admin Agency: LACoFD Health Haz-Mat  
Amount: Not reported  
Contained: Unknown  
Site Type: storm drain  
E Date: Not reported  
Substance: Sewage  
Unknown: Not reported  
Substance #2: Not reported  
Substance #3: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
#1 Pipeline: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

**1000412290**

#2 Pipeline: Not reported  
#3 Pipeline: Not reported  
#1 Vessel >= 300 Tons: Not reported  
#2 Vessel >= 300 Tons: Not reported  
#3 Vessel >= 300 Tons: Not reported  
Evacs: Not reported  
Injuries: Not reported  
Fatals: Not reported  
Comments: Not reported  
Description: The caller is reporting a sewage spill from a private residence. The sewage spilled into the gutter and into a storm drain. The storm drain has been diked off.

LA Co. Site Mitigation:

Facility ID: Not reported  
Site ID: SD0010698  
Jurisdiction: State  
Case ID: RO0000996  
Abated: Not reported  
Assigned To: Not reported  
Entered Date: 05/11/2004

ENVIROSTOR:

Facility ID: 19530002  
Status: Refer: EPA  
Status Date: 02/08/2008  
Site Code: 400551  
Site Type: Evaluation  
Site Type Detailed: Evaluation  
Acres: 20  
NPL: NO  
Regulatory Agencies: US EPA  
Lead Agency: US EPA  
Program Manager: Not reported  
Supervisor: \* Greg Holmes  
Division Branch: Cleanup Cypress  
Assembly: 64  
Senate: 35  
Special Program: EPA - PASI  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: EPA Grant  
Latitude: 33.83688  
Longitude: -118.2726  
APN: NONE SPECIFIED  
Past Use: LANDFILL - CONSTRUCTION, LANDFILL - DOMESTIC, LANDFILL - HAZARDOUS WASTE  
Potential COC: \* UNSPECIFIED ACID SOLUTION \* OTHER SPENT CATALYST Benzene Methane Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Acetone Carbon tetrachloride Chlorobenzene Cyclohexane 1,2-Dichloroethylene (cis Ethylbenzene Methyl ethyl ketone (2-Butanone Toluene Xylenes  
Confirmed COC: 20013-NO 10193-NO Benzene Methane Tetrachloroethylene (PCE 1,1,1-Trichloroethane (TCA Acetone Cyclohexane 1,2-Dichloroethylene (cis Ethylbenzene Toluene Carbon tetrachloride Xylenes Vinyl chloride Trichloroethylene (TCE Methyl ethyl ketone (2-Butanone Chlorobenzene

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARTIN ADAMS DUMP (Continued)**

**1000412290**

Potential Description: IA, SOIL, SV  
Alias Name: IMPERIAL CARSON MOBILE ESTATES TRAILR PK  
Alias Type: Alternate Name  
Alias Name: CAD981399520  
Alias Type: EPA Identification Number  
Alias Name: 400551  
Alias Type: Project Code (Site Code)  
Alias Name: 19530002  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 01/15/1981  
Comments: FACILITY IDENTIFIED CO ENGR. INDEX

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \*Site Inspection (SI) Report  
Completed Date: 02/10/1998  
Comments: Sampled soil and groundwater and used results to prepare an Expanded Site Inspection Report (ESI) per USEPA standards. ESI sent to U.S. EPA.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 09/12/1989  
Comments: SITE SCREENING DONE EPA COMPLETED SCREENING SITE INSPECTION AND RECOMMEND LISTING SITE INSPECTION.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 06/22/2006  
Comments: Site Screening Completed

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

109  
NE  
1/2-1  
0.577 mi.  
3047 ft.

**GOLDEN WEST CIRCUITS, INC. - CARSON**  
**1139 E. DOMINGUEZ STREET #A**  
**CARSON, CA 90746**

**ENVIROSTOR S110493874**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**15 ft.**

ENVIROSTOR:  
Facility ID: 71002805  
Status: Refer: Other Agency  
Status Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GOLDEN WEST CIRCUITS, INC. - CARSON (Continued)**

**S110493874**

Site Code: Not reported  
Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Not reported  
Division Branch: Cleanup Chatsworth  
Assembly: Not reported  
Senate: Not reported  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 0  
Longitude: 0  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD981395320  
Alias Type: EPA Identification Number  
Alias Name: 71002805  
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

X110  
South  
1/2-1  
0.807 mi.  
4260 ft.

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS**  
**900 E WATSON CENTER RD**  
**CARSON, CA 90745**  
**Site 1 of 2 in cluster X**

**RCRA-TSDF 1015732729**  
**CERC-NFRAP CAD044429884**  
**CORRACTS**  
**RCRA-LQG**  
**FINDS**

**Relative:**  
**Higher**

RCRA-TSDF:

Date form received by agency: 06/17/2014  
Facility name: HUCK INTL INC DBA ALCOA FASTENING SYSTEMS  
Facility address: 900 E WATSON CENTER RD  
CARSON, CA 90745  
EPA ID: CAD044429884  
Contact: SHWETA KABRE

**Actual:**  
**34 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Contact address: 900 E WATSON CENTER RD  
CARSON, CA 90745

Contact country: US

Contact telephone: 310-847-8130

Contact email: SHWETA.KABRE@ALCOA.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: HUCK INTERNATIONAL INC

Owner/operator address: E WATSON CENTER RD  
CARSON, CA 90745

Owner/operator country: Not reported

Owner/operator telephone: (310) 847-8130

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 03/22/1965

Owner/Op end date: Not reported

Owner/operator name: ALCOA INC

Owner/operator address: 201 ISABELLA ST  
PITTSBURGH, 15212

Owner/operator country: US

Owner/operator telephone: 412-553-2918

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 06/01/2000

Owner/Op end date: Not reported

Owner/operator name: HUCK INTERNATIONAL INC DBA ALC FA SYS

Owner/operator address: E WATSON CENTER RD  
CARSON, CA 90745

Owner/operator country: US

Owner/operator telephone: (310) 847-8130

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 03/22/1965

Owner/Op end date: Not reported

Owner/operator name: HUCK INTL INC DBA ALCOA FASTEN

Owner/operator address: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Owner/operator country: Not reported  
Owner/operator telephone: US  
Legal status: Not reported  
Owner/Operator Type: Private  
Owner/Op start date: Operator  
Owner/Op end date: 11/01/1991  
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:03/01/2014  
Site name: HUCK INTERNATIONAL INC DBA ALCOA FASTENING SYSTEMS  
Classification: Large Quantity Generator

Date form received by agency:03/01/2012  
Site name: HUCK INTERNATIONAL INC. D.B.A. ALCOA FASTENING SYSTEMS  
Classification: Large Quantity Generator

Date form received by agency:09/16/2010  
Site name: HUCK INTERNATIONAL INC DBA ALCOA FASTENING SYSTEMS  
Classification: Large Quantity Generator

Date form received by agency:04/10/2008  
Site name: HUCK INTERNATIONAL INC DBA ALCOA FASTENING SYSTEMS  
Classification: Large Quantity Generator

Date form received by agency:02/27/2008  
Site name: HUCK INTERNATIONAL INC DBA ALCOA FASTENING SYSTEMS  
Classification: Large Quantity Generator

Date form received by agency:02/27/2006  
Site name: HUCK INTERNATIONAL INC.  
Classification: Large Quantity Generator

Date form received by agency:02/27/2004  
Site name: HUCK INTL INC.  
Classification: Large Quantity Generator

Date form received by agency:02/26/2002  
Site name: HUCK INTERNATIONAL INC.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Classification: Large Quantity Generator

Date form received by agency: 10/12/2000  
Site name: HUCK INTERNATIONAL, INC.  
Classification: Large Quantity Generator

Date form received by agency: 09/19/2000  
Site name: HUCK INTERNATIONAL INC  
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999  
Site name: HUCK INTERNATIONAL, INC.  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Site name: HUCK INTERNATIONAL INC  
Classification: Large Quantity Generator

Date form received by agency: 02/27/1996  
Site name: HUCK INTERNATIONAL, INC.  
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994  
Site name: HUCK INTERNATIONAL, INC  
Classification: Large Quantity Generator

Date form received by agency: 02/25/1992  
Site name: HUCK INTERNATIONAL, INC.  
Classification: Large Quantity Generator

Date form received by agency: 04/04/1990  
Site name: HUCK MFG CO  
Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: 121  
Waste name: 121

Waste code: 171  
Waste name: 171

Waste code: 181  
Waste name: 181

Waste code: 331  
Waste name: 331

Waste code: 352  
Waste name: 352

Waste code: 551  
Waste name: 551

Waste code: 711  
Waste name: 711

Waste code: 723

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Waste name: 723

Waste code: 791  
Waste name: 791

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 PENSKEY-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: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D010  
Waste name: SELENIUM

Waste code: D035  
Waste name: METHYL ETHYL KETONE

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

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 PENSKEY-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.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D003  
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D009  
Waste name: MERCURY

Waste code: D010  
Waste name: SELENIUM

Waste code: D035  
Waste name: METHYL ETHYL KETONE

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

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 PENSKEY-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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D003  
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D008  
Waste name: LEAD

Waste code: D009  
Waste name: MERCURY

Waste code: D010  
Waste name: SELENIUM

Waste code: D035  
Waste name: METHYL ETHYL KETONE

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: U002  
Waste name: ACETONE (I)

Waste code: U220  
Waste name: BENZENE, METHYL-

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 PENSKEY-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.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D003  
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D004  
Waste name: ARSENIC

Waste code: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D008  
Waste name: LEAD

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F008  
Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D003

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D005  
Waste name: BARIUM

Waste code: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D010  
Waste name: SELENIUM

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: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: 121  
Waste name: 121

Waste code: 122  
Waste name: 122

Waste code: 132

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Waste code: 132

Waste code: 134

Waste name: 134

Waste code: 141

Waste name: 141

Waste code: 171

Waste name: 171

Waste code: 181

Waste name: 181

Waste code: 331

Waste name: 331

Waste code: 352

Waste name: 352

Waste code: 513

Waste name: 513

Waste code: 711

Waste name: 711

Waste code: 723

Waste name: 723

Waste code: 791

Waste name: 791

Waste code: 792

Waste name: 792

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 PENSKEY-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: D006

Waste name: CADMIUM

Waste code: D007



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Waste name:	CHROMIUM
Waste code:	D008
Waste name:	LEAD
Waste code:	D009
Waste name:	MERCURY
Waste code:	D010
Waste name:	SELENIUM
Waste code:	D035
Waste name:	METHYL ETHYL KETONE
Waste code:	F006
Waste name:	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
Waste code:	F009
Waste name:	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
Waste code:	U002
Waste name:	ACETONE (I)
Waste code:	U220
Waste name:	BENZENE, METHYL-
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 PENSKEY-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:	D006
Waste name:	CADMIUM
Waste code:	D007
Waste name:	CHROMIUM

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Waste code: D010  
Waste name: SELENIUM

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: 121  
Waste name: 121

Waste code: 131  
Waste name: 131

Waste code: 132  
Waste name: 132

Waste code: 141  
Waste name: 141

Waste code: 171  
Waste name: 171

Waste code: 181  
Waste name: 181

Waste code: 214  
Waste name: 214

Waste code: 711  
Waste name: 711

Waste code: 723  
Waste name: 723

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 PENSKEY-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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D008  
Waste name: LEAD

Waste code: F008  
Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

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 PENSKEY-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: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D008  
Waste name: LEAD

Waste code: D009  
Waste name: MERCURY

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code:	F007
Waste name:	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
Waste code:	F008
Waste name:	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
Waste code:	F009
Waste name:	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
Waste code:	121
Waste name:	121
Waste code:	122
Waste name:	122
Waste code:	131
Waste name:	131
Waste code:	132
Waste name:	132
Waste code:	141
Waste name:	141
Waste code:	171
Waste name:	171
Waste code:	181
Waste name:	181
Waste code:	214
Waste name:	214
Waste code:	331
Waste name:	331
Waste code:	711
Waste name:	711
Waste code:	723
Waste name:	723
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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: D003  
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D006  
Waste name: CADMIUM

Waste code: D007  
Waste name: CHROMIUM

Waste code: D008  
Waste name: LEAD

Waste code: D010  
Waste name: SELENIUM

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Waste code: F008  
Waste name: PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.

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 PENSKEY-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): 8164

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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.  
Amount (Lbs): 120837

Waste code: D003  
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.  
Amount (Lbs): 1324

Waste code: D006  
Waste name: CADMIUM  
Amount (Lbs): 113708

Waste code: D007  
Waste name: CHROMIUM  
Amount (Lbs): 124124

Waste code: D009  
Waste name: MERCURY  
Amount (Lbs): 28

Waste code: D010  
Waste name: SELENIUM  
Amount (Lbs): 57400

Waste code: D035  
Waste name: METHYL ETHYL KETONE  
Amount (Lbs): 1554

Waste code: F006  
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.  
Amount (Lbs): 52308

Waste code: F009  
Waste name: SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.  
Amount (Lbs): 43200

**Corrective Action Summary:**

Event date: 08/01/1990  
Event: RFA Completed, Assessment was a PA-Plus.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Event date: 08/27/1990  
Event: RFA Completed, Assessment was a PA-Plus.

Event date: 01/09/1991  
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 01/09/1991  
Event: CA074ME

Event date: 01/09/1991  
Event: CA029ST

Event date: 01/09/1991  
Event: CA049PA

Event date: 09/19/1994  
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: 09/19/1994  
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 12/29/1995  
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 12/29/1995  
Event: RFA Completed

Event date: 12/29/1995  
Event: RFA Completed, Assessment was an RFA.

Event date: 02/04/1998  
Event: RFI Workplan Received

Event date: 06/18/1998  
Event: RFI Report Received

Event date: 08/27/1998  
Event: RFI Workplan Received

Event date: 11/10/1998  
Event: RFI Workplan Approved

Event date: 03/29/1999  
Event: RFI Report Received

Event date: 05/11/1999  
Event: Corrective Action Process Terminated, No Further Action

Event date: 08/05/2010

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 08/05/2010  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 12/08/2010  
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 12/08/2010  
Event: CA550RC

Event date: 12/08/2010  
Event: CA550RC

Event date: 12/08/2010  
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: Not reported  
Event: CA03192

Facility Has Received Notices of Violations:

Regulation violated: FR - 262.30-34.C  
Area of violation: Generators - General  
Date violation determined: 03/29/1995  
Date achieved compliance: 03/29/1995  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Enforcement action date: 03/29/1995  
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: FR - 264.170-177.I  
Area of violation: TSD - General  
Date violation determined: 03/29/1995  
Date achieved compliance: 03/29/1995  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 03/29/1995  
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: 12/08/1992  
Date achieved compliance: 03/12/1993  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 02/24/1993  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: 1100  
Final penalty amount: 1100  
Paid penalty amount: 1100

Regulation violated: F - 264.50-56.D  
Area of violation: TSD - General  
Date violation determined: 12/08/1992  
Date achieved compliance: 03/12/1993  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 02/24/1993  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: 1100  
Final penalty amount: 1100  
Paid penalty amount: 1100

Regulation violated: F - 264.10-18.B  
Area of violation: TSD - General  
Date violation determined: 12/08/1992  
Date achieved compliance: 03/12/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/08/1992

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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 - 264.50-56.D  
Area of violation: TSD - General  
Date violation determined: 12/08/1992  
Date achieved compliance: 03/12/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/08/1992  
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 - 264.30-37.C  
Area of violation: TSD - General  
Date violation determined: 12/08/1992  
Date achieved compliance: 03/12/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/08/1992  
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 ALL  
Area of violation: LDR - General  
Date violation determined: 05/23/1988  
Date achieved compliance: 08/09/1988  
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: 05/23/1988  
Date achieved compliance: 08/09/1988  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 06/30/1988  
Enf. disposition status: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

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: 05/23/1988  
Date achieved compliance: 08/09/1988  
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 - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 05/19/1988  
Date achieved compliance: 05/25/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/26/1988  
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  
Paid penalty amount: Not reported

**Evaluation Action Summary:**

Evaluation date: 07/07/2010  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 09/07/2005  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: Local

Evaluation date: 03/29/1995  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 03/29/1995  
Evaluation lead agency: State

Evaluation date: 03/29/1995  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 03/29/1995

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Evaluation lead agency: State

Evaluation date: 07/06/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 10/27/1992  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 03/12/1993  
Evaluation lead agency: State

Evaluation date: 10/05/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/23/1988  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 08/09/1988  
Evaluation lead agency: State

Evaluation date: 05/23/1988  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 08/09/1988  
Evaluation lead agency: State

Evaluation date: 05/19/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 05/25/1990  
Evaluation lead agency: State

**CERC-NFRAP:**

Site ID: 0903297  
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: 13288132.00000  
Person ID: 13003854.00000

Contact Sequence ID: 13293727.00000  
Person ID: 13003858.00000

Contact Sequence ID: 13299585.00000  
Person ID: 13004003.00000

**Program Priority:**

Description: RCRA Deferral Audit

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Description: RCRA Deferral - Lead Confirmed

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY  
Date Started: / /  
Date Completed: 06/08/90  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 01/09/91  
Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 01/23/96  
Priority Level: Not reported

CORRACTS:

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100805  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 20100805  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20101208  
Action: CA550RC  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 20101208  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20101208  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 20101208  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19990511

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

Action: CA999NF - Corrective Action Process Terminated, No Further Action  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 19990710  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: 50 SQ FT-SOIL BY RAIL SPUR/30 SQ FT PROD  
Actual Date: 19951229  
Action: CA050RF - RFA Completed, Assessment was an RFA  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19951229  
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 19951229  
Schedule end date: Not reported

EPA ID: CAD044429884  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19951229  
Action: CA050 - RFA Completed  
NAICS Code(s): 332722  
Bolt, Nut, Screw, Rivet, and Washer Manufacturing  
Original schedule date: 19951229  
Schedule end date: Not reported

**FINDS:**

Registry ID: 110000499103

**Environmental Interest/Information System**

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

**OSHA ESTABLISHMENT**

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.

**STATE MASTER**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC DBA ALCOA FASTENING SYSTEMS (Continued)**

**1015732729**

HAZARDOUS WASTE BIENNIAL REPORTER

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

X111  
South  
1/2-1  
0.807 mi.  
4260 ft.

**HUCK INTL INC.  
900 WATSONCENTER ROAD  
CARSON, CA**

Site 2 of 2 in cluster X

Relative:  
Higher

Actual:  
34 ft.

TRIS 1000266794  
NPDES 90745HCKMN900WA  
CA FID UST  
HIST UST  
SWEEPS UST  
LA Co. Site Mitigation  
EMI  
ENVIROSTOR  
2020 COR ACTION  
WDS  
HWP

TRIS:

[Click this hyperlink](#) while viewing on your computer to access  
4 additional US\_TRIS: record(s) in the EDR Site Report.

NPDES:

Npdes Number: CAS000001  
Facility Status: Active  
Agency Id: 0  
Region: 4  
Regulatory Measure Id: 188589  
Order No: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 4 19I000323  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 03/06/1992  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Huck International Inc dba Alcoa Fastening Systems  
Discharge Address: 900 E Watson Center Rd  
Discharge City: Carson  
Discharge State: California  
Discharge Zip: 90745

CA FID UST:

Facility ID: 19053581  
Regulated By: UTNKA  
Regulated ID: 00008054  
Cortese Code: Not reported  
SIC Code: Not reported  
Facility Phone: 8180000000  
Mail To: Not reported  
Mailing Address: 0 BOX  
Mailing Address 2: Not reported  
Mailing City,St,Zip: CARSON  
Contact: Not reported  
Contact Phone: Not reported  
DUNs Number: Not reported  
NPDES Number: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

EPA ID: Not reported  
Comments: Not reported  
Status: Active

HIST UST:

Region: STATE  
Facility ID: 00000008054  
Facility Type: Other  
Other Type: MANUFACTURING  
Contact Name: RON GROSSE PL ENGINEER  
Telephone: 2138308200  
Owner Name: FEDERAL - MOGUL CORPORATION  
Owner Address: P.O. BOX 1966  
Owner City,St,Zip: DETROIT, MI 48235  
Total Tanks: 0005

Tank Num: 001  
Container Num: 1  
Year Installed: 1973  
Tank Capacity: 00000600  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Container Construction Thickness: 6  
Leak Detection: None

Tank Num: 002  
Container Num: 2  
Year Installed: 1973  
Tank Capacity: 00003200  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Container Construction Thickness: 8  
Leak Detection: None

Tank Num: 003  
Container Num: 3  
Year Installed: 1974  
Tank Capacity: 00006000  
Tank Used for: WASTE  
Type of Fuel: WASTE OIL  
Container Construction Thickness: Not reported  
Leak Detection: None

Tank Num: 004  
Container Num: 4  
Year Installed: 1973  
Tank Capacity: 00012185  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Container Construction Thickness: 8  
Leak Detection: None

Tank Num: 005  
Container Num: 5  
Year Installed: 1973  
Tank Capacity: 00002500  
Tank Used for: WASTE



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Type of Fuel: Not reported  
Container Construction Thickness: 8  
Leak Detection: None

**SWEEPS UST:**

Status: Active  
Comp Number: 1799  
Number: 9  
Board Of Equalization: 44-007587  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-001799-000001  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: 5

Status: Active  
Comp Number: 1799  
Number: 9  
Board Of Equalization: 44-007587  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-001799-000002  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 1799  
Number: 9  
Board Of Equalization: 44-007587  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-001799-000003  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Comp Number: 1799  
Number: 9  
Board Of Equalization: 44-007587  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-001799-000004  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

Status: Active  
Comp Number: 1799  
Number: 9  
Board Of Equalization: 44-007587  
Referral Date: 06-30-89  
Action Date: Not reported  
Created Date: 06-30-89  
Owner Tank Id: Not reported  
SWRCB Tank Id: 19-000-001799-000005  
Tank Status: A  
Capacity: Not reported  
Active Date: 06-30-89  
Tank Use: UNKNOWN  
STG: W  
Content: Not reported  
Number Of Tanks: Not reported

LA Co. Site Mitigation:

Facility ID: FA0029265  
Site ID: SD0012157  
Jurisdiction: County  
Case ID: RO0012157  
Abated: Not reported  
Assigned To: Not reported  
Entered Date: 05/11/2004

EMI:

Year: 1987  
County Code: 19  
Air Basin: SC  
Facility ID: 8961  
Air District Name: SC  
SIC Code: 3429  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 8  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	8961
Air District Name:	SC
SIC Code:	3429
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	42
Reactive Organic Gases Tons/Yr:	22
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	1993
County Code:	19
Air Basin:	SC
Facility ID:	8961
Air District Name:	SC
SIC Code:	3429
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	16
Reactive Organic Gases Tons/Yr:	11
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 & Smlr Tons/Yr:	0
Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	8961
Air District Name:	SC
SIC Code:	3429
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	16
Reactive Organic Gases Tons/Yr:	11
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 & Smlr Tons/Yr:	0
Year:	1996
County Code:	19

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Air Basin: SC  
Facility ID: 8961  
Air District Name: SC  
SIC Code: 3429  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 20  
Reactive Organic Gases Tons/Yr: 20  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2005  
County Code: 19  
Air Basin: SC  
Facility ID: 8961  
Air District Name: SC  
SIC Code: 3471  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .37556  
Reactive Organic Gases Tons/Yr: .326500921  
Carbon Monoxide Emissions Tons/Yr: .38822  
NOX - Oxides of Nitrogen Tons/Yr: 1.34698  
SOX - Oxides of Sulphur Tons/Yr: .00536  
Particulate Matter Tons/Yr: .409235  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .22961551

Year: 2006  
County Code: 19  
Air Basin: SC  
Facility ID: 8961  
Air District Name: SC  
SIC Code: 3471  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 4.729946017367747194  
Reactive Organic Gases Tons/Yr: 3.351  
Carbon Monoxide Emissions Tons/Yr: .395  
NOX - Oxides of Nitrogen Tons/Yr: 1.255  
SOX - Oxides of Sulphur Tons/Yr: .004  
Particulate Matter Tons/Yr: .392  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .169964

Year: 2007  
County Code: 19  
Air Basin: SC  
Facility ID: 8961  
Air District Name: SC  
SIC Code: 3471  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 4.729946017367747194  
Reactive Organic Gases Tons/Yr: 3.351  
Carbon Monoxide Emissions Tons/Yr: .395  
NOX - Oxides of Nitrogen Tons/Yr: 1.255  
SOX - Oxides of Sulphur Tons/Yr: .004  
Particulate Matter Tons/Yr: .392  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .169964

Year: 2008  
County Code: 19  
Air Basin: SC  
Facility ID: 153546  
Air District Name: SC  
SIC Code: 3399  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.978316856636438398  
Reactive Organic Gases Tons/Yr: 1.0668414125  
Carbon Monoxide Emissions Tons/Yr: .35330633  
NOX - Oxides of Nitrogen Tons/Yr: 1.33  
SOX - Oxides of Sulphur Tons/Yr: .0052191465  
Particulate Matter Tons/Yr: .26869553647155  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .1838314055545945

Year: 2009  
County Code: 19  
Air Basin: SC  
Facility ID: 153546  
Air District Name: SC  
SIC Code: 3399  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.36780508145414  
Reactive Organic Gases Tons/Yr: 0.880592400000000005  
Carbon Monoxide Emissions Tons/Yr: 0.363310000000000002  
NOX - Oxides of Nitrogen Tons/Yr: 1.360000000000000001  
SOX - Oxides of Sulphur Tons/Yr: 5.3629999999999997E-3  
Particulate Matter Tons/Yr: 0.24284597999999999  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.19450385219999999

Year: 2010  
County Code: 19  
Air Basin: SC  
Facility ID: 153546  
Air District Name: SC  
SIC Code: 3399  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 3.6481305032334101  
Reactive Organic Gases Tons/Yr: 2.7200301873899999  
Carbon Monoxide Emissions Tons/Yr: 0.41572999999999999  
NOX - Oxides of Nitrogen Tons/Yr: 1.52047  
SOX - Oxides of Sulphur Tons/Yr: 0.00745

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Particulate Matter Tons/Yr: 0.29272999999999999  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.22511696

Year: 2011  
County Code: 19  
Air Basin: SC  
Facility ID: 153546  
Air District Name: SC  
SIC Code: 3399  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.1182220385  
Reactive Organic Gases Tons/Yr: 0.60874  
Carbon Monoxide Emissions Tons/Yr: 0.33059  
NOX - Oxides of Nitrogen Tons/Yr: 1.27859  
SOX - Oxides of Sulphur Tons/Yr: 0.00483  
Particulate Matter Tons/Yr: 0.2756110267  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.20768613507

Year: 2012  
County Code: 19  
Air Basin: SC  
Facility ID: 153546  
Air District Name: SC  
SIC Code: 3399  
Air District Name: SOUTH COAST AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2.2912140527  
Reactive Organic Gases Tons/Yr: 1.82883311  
Carbon Monoxide Emissions Tons/Yr: 0.30539  
NOX - Oxides of Nitrogen Tons/Yr: 1.03939  
SOX - Oxides of Sulphur Tons/Yr: 0.00364105  
Particulate Matter Tons/Yr: 0.276505  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.21534188

**ENVIROSTOR:**

Facility ID: 80001388  
Status: No Further Action  
Status Date: 04/07/2011  
Site Code: Not reported  
Site Type: Corrective Action  
Site Type Detailed: Corrective Action  
Acres: 8.6  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: WM  
Program Manager: Maria Fabella  
Supervisor: Philip Chandler  
Division Branch: Cleanup Chatsworth  
Assembly: 64  
Senate: 35  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Latitude: 33.82011  
Longitude: -118.2596  
APN: 7315033039  
Past Use: AEROSPACE MANUFACTURING/MAINTENANCE  
Potential COC: 1,1,1-Trichloroethane (TCA Cadmium and compounds Chromium III Copper and compounds Cyanide (free Nickel Zinc  
Confirmed COC: NONE SPECIFIED  
Potential Description: NMA  
Alias Name: 7315033039  
Alias Type: APN  
Alias Name: CAD044429884  
Alias Type: EPA Identification Number  
Alias Name: 80001388  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Order  
Completed Date: 05/30/1996  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Order  
Completed Date: 08/01/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 08/01/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: No Further Action Letter  
Completed Date: 05/11/1999  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 12/08/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 08/05/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Workplan  
Completed Date: 11/10/1998  
Comments: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 10/30/1990  
Comments: PA conducted by USEPA

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedy Constructed  
Completed Date: 12/08/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 12/29/1995  
Comments: RFA completed by DTSC. Identifies two AOC 1) Rail spur 2) bulk oil storage

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 09/19/1994  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 08/27/1990  
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

Facility ID: 71003680  
Status: Refer: Other Agency  
Status Date: Not reported  
Site Code: Not reported  
Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Not reported  
Division Branch: Cleanup Chatsworth  
Assembly: 64  
Senate: 35  
Special Program: Not reported



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 33.81936  
Longitude: -118.2589  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD044429884  
Alias Type: EPA Identification Number  
Alias Name: 71003680  
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

Facility ID: 71003679  
Status: Refer: Other Agency  
Status Date: Not reported  
Site Code: Not reported  
Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Not reported  
Division Branch: Cleanup Chatsworth  
Assembly: 64  
Senate: 35  
Special Program: Not reported  
Restricted Use: NO  
Site Mgmt Req: NONE SPECIFIED  
Funding: Not reported  
Latitude: 33.81936  
Longitude: -118.2589  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED  
Potential Description: NONE SPECIFIED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Alias Name: CAD044429884  
Alias Type: EPA Identification Number  
Alias Name: 71003679  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Inspections/Visit (Non LUR)  
Completed Date: 11/29/1999  
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

2020 COR ACTION:

EPA ID: CAD044429884  
Region: 9  
Action: Not reported

CA WDS:

Facility ID: 4 19I000323  
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 Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.  
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board  
Subregion: 4  
Facility Telephone: 3108308200  
Facility Contact: PAUL RAPHAEL  
Agency Name: HUCK INT INC  
Agency Address: 900 E Watson Center Rd  
Agency City,St,Zip: Carson 907454201  
Agency Contact: PAUL RAPHAEL  
Agency Telephone: 3108308200  
Agency Type: Private  
SIC Code: 0  
SIC Code 2: Not reported  
Primary Waste Type: Not reported  
Primary Waste: Not reported  
Waste Type2: Not reported  
Waste2: Not reported  
Primary Waste Type: Not reported  
Secondary Waste: Not reported  
Secondary Waste Type: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Design Flow: 0  
Baseline Flow: 0  
Reclamation: Not reported  
POTW: Not reported  
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.  
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who 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.

**HWP:**

EPA Id: CAD044429884  
Cleanup Status: NON-OPERATING  
Latitude: 33.82011  
Longitude: -118.2596  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 64  
Senate District: 35  
Public Information Officer: Not reported

**Activities:**

EPA Id: CAD044429884  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED  
Actual Date: 09/16/1988

EPA Id: CAD044429884  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - APPLICATION PART B RECEIVED  
Actual Date: 04/08/1983

EPA Id: CAD044429884  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - CALL-IN LETTER ISSUED  
Actual Date: 04/04/1983

EPA Id: CAD044429884  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - APPLICATION PART A RECEIVED  
Actual Date: 11/19/1980

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HUCK INTL INC. (Continued)**

**1000266794**

Closure:

EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - CLOSURE PLAN RECEIVED
Actual Date:	01/18/1991
EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - RECEIVE CLOSURE CERTIFICATION
Actual Date:	05/26/1994
EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - CLOSURE PLAN APPROVED
Actual Date:	06/30/1995
EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - CLOSURE PLAN REQUESTED
Actual Date:	12/23/1992
EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - ISSUE CLOSURE VERIFICATION
Actual Date:	06/30/1995
EPA Id:	CAD044429884
Facility Type:	Historical - Non-Operating
Unit Names:	CONTAIN1
Event Description:	Closure - 1ST NOTICE OF DEFICIENCY ISSUED
Actual Date:	01/29/1992

Count: 5 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CARSON	S111075480	GIANT CLEANERS	21950 AVALON BLVD STE E & F	90745	DRYCLEANERS
CARSON	S113020332	CITY OF CARSON	33 E CARSON ST	90746	HAZNET
CARSON	S101480710	TED HAMMETT (CARSON)	EAST OF ALAMEDA & NORTH OF SEP	90745	ENVIROSTOR
CARSON	S111075957	K & S RUBBISH	26300 SOUTH VERMONT AVENUE		SWF/LF
LONG BEACH	S111075872	CROSBY AND OVERTON	5875 OBISBO AVENUE		SWF/LF

# 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: 09/29/2014	Source: EPA
Date Data Arrived at EDR: 10/08/2014	Telephone: N/A
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/08/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/20/2015
	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: 09/29/2014	Source: EPA
Date Data Arrived at EDR: 10/08/2014	Telephone: N/A
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/08/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/20/2015
	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	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	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: 09/29/2014	Source: EPA
Date Data Arrived at EDR: 10/08/2014	Telephone: N/A
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/08/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/20/2015
	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	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	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: 07/21/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/07/2014	Telephone: 703-603-8704
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/20/2015
	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	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/09/2014  
Date Data Arrived at EDR: 12/29/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 31

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 12/09/2014  
Date Data Arrived at EDR: 12/29/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 31

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 12/09/2014  
Date Data Arrived at EDR: 12/29/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 31

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 12/09/2014  
Date Data Arrived at EDR: 12/29/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 31

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 12/09/2014  
Date Data Arrived at EDR: 12/29/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 31

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
Data Release Frequency: Varies



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***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: 09/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/19/2014	Telephone: 703-603-0695
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/03/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 03/16/2015
	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: 09/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/19/2014	Telephone: 703-603-0695
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/03/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 03/16/2015
	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: 12/03/2014	Source: Department of the Navy
Date Data Arrived at EDR: 12/12/2014	Telephone: 843-820-7326
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 11/17/2014
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/02/2015
	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: 09/29/2014	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 09/30/2014	Telephone: 202-267-2180
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 12/29/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 04/13/2015
	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: 11/03/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/04/2014	Telephone: 916-323-3400
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 11/04/2014
Number of Days to Update: 38	Next Scheduled EDR Contact: 02/16/2015
	Data Release Frequency: Quarterly

## ***State- and tribal - equivalent CERCLIS***

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies 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: 11/03/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/04/2014	Telephone: 916-323-3400
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 11/04/2014
Number of Days to Update: 38	Next Scheduled EDR Contact: 02/16/2015
	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 inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/17/2014	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 11/19/2014	Telephone: 916-341-6320
Date Made Active in Reports: 12/24/2014	Last EDR Contact: 11/19/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/02/2015
	Data Release Frequency: Quarterly

## **State and tribal leaking storage tank lists**

### LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calaveras, 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	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	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	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	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	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 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: 12/12/2014  
Date Data Arrived at EDR: 12/15/2014  
Date Made Active in Reports: 01/05/2015  
Number of Days to Update: 21

Source: State Water Resources Control Board  
Telephone: see region list  
Last EDR Contact: 01/21/2015  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Quarterly

## 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 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 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 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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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

## 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: 12/12/2014  
Date Data Arrived at EDR: 12/15/2014  
Date Made Active in Reports: 01/05/2015  
Number of Days to Update: 21

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 01/21/2015  
Next Scheduled EDR Contact: 03/30/2015  
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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 09/11/2007	Telephone: 858-467-2980
Date Made Active in Reports: 09/28/2007	Last EDR Contact: 08/08/2011
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/21/2011
	Data Release Frequency: Annually

## INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014	Source: EPA Region 10
Date Data Arrived at EDR: 06/10/2014	Telephone: 206-553-2857
Date Made Active in Reports: 08/22/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 73	Next Scheduled EDR Contact: 05/11/2015
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013	Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 01/08/2015
Number of Days to Update: 42	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

## INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

## INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014	Source: EPA Region 6
Date Data Arrived at EDR: 10/29/2014	Telephone: 214-665-6597
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 19	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

## INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014	Source: EPA Region 4
Date Data Arrived at EDR: 08/12/2014	Telephone: 404-562-8677
Date Made Active in Reports: 08/22/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Semi-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	Source: EPA Region 1
Date Data Arrived at EDR: 05/01/2013	Telephone: 617-918-1313
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 10/31/2014
Number of Days to Update: 184	Next Scheduled EDR Contact: 02/09/2015
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 11/03/2014	Source: EPA, Region 5
Date Data Arrived at EDR: 11/05/2014	Telephone: 312-886-7439
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

## 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: 11/04/2014	Source: EPA Region 8
Date Data Arrived at EDR: 11/07/2014	Telephone: 303-312-6271
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

### **State and tribal registered storage tank lists**

#### UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 01/20/2015	Source: SWRCB
Date Data Arrived at EDR: 01/21/2015	Telephone: 916-341-5851
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 01/21/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/30/2015
	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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 12/23/2014
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/13/2015
	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: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/11/2015
	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: 11/04/2014	Source: EPA Region 8
Date Data Arrived at EDR: 11/07/2014	Telephone: 303-312-6137
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/11/2015
	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)

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/30/2014  
Date Data Arrived at EDR: 08/12/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 10

Source: EPA Region 4  
Telephone: 404-562-9424  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 10/31/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

## 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: 05/20/2014  
Date Data Arrived at EDR: 06/10/2014  
Date Made Active in Reports: 08/15/2014  
Number of Days to Update: 66

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Quarterly

## 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: 10/06/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 8

Source: EPA Region 6  
Telephone: 214-665-7591  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Semi-Annually

## 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: 11/03/2014  
Date Data Arrived at EDR: 11/05/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 12

Source: EPA Region 5  
Telephone: 312-886-6136  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Varies

## 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: 08/14/2014  
Date Data Arrived at EDR: 08/15/2014  
Date Made Active in Reports: 08/22/2014  
Number of Days to Update: 7

Source: EPA Region 9  
Telephone: 415-972-3368  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Quarterly

## FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/12/2015  
Next Scheduled EDR Contact: 04/27/2015  
Data Release Frequency: Varies

## ***State and tribal voluntary cleanup sites***

### **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: 09/29/2014  
Date Data Arrived at EDR: 10/01/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 36

Source: EPA, Region 1  
Telephone: 617-918-1102  
Last EDR Contact: 12/31/2014  
Next Scheduled EDR Contact: 04/13/2015  
Data Release Frequency: Varies

### **INDIAN VCP R7: Voluntary Cleanup Priority Listing**

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

### **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: 11/03/2014  
Date Data Arrived at EDR: 11/04/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 38

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 11/04/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Quarterly

## **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: 12/22/2014  
Date Data Arrived at EDR: 12/22/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 38

Source: Environmental Protection Agency  
Telephone: 202-566-2777  
Last EDR Contact: 12/22/2014  
Next Scheduled EDR Contact: 04/06/2015  
Data Release Frequency: Semi-Annually

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: No Update Planned

## SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/15/2014  
Date Data Arrived at EDR: 12/15/2014  
Date Made Active in Reports: 01/26/2015  
Number of Days to Update: 42

Source: Department of Conservation  
Telephone: 916-323-3836  
Last EDR Contact: 12/15/2014  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Quarterly

## HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 12/01/2014  
Date Data Arrived at EDR: 12/01/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 53

Source: Integrated Waste Management Board  
Telephone: 916-341-6422  
Last EDR Contact: 11/12/2014  
Next Scheduled EDR Contact: 03/02/2015  
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: 10/29/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Varies

## 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: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **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: 07/25/2014	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/09/2014	Telephone: 202-307-1000
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/25/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 03/16/2015
	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	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	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: 11/03/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/04/2014	Telephone: 916-323-3400
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 11/04/2014
Number of Days to Update: 38	Next Scheduled EDR Contact: 02/16/2015
	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	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: 06/30/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 09/02/2014	Telephone: 916-255-6504
Date Made Active in Reports: 09/24/2014	Last EDR Contact: 01/12/2015
Number of Days to Update: 22	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 07/25/2014	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/09/2014	Telephone: 202-307-1000
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 11/25/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 03/16/2015
	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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	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	Source: Department of Public Health
Date Data Arrived at EDR: 09/23/2009	Telephone: 707-463-4466
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 12/24/2014
Number of Days to Update: 8	Next Scheduled EDR Contact: 03/16/2015
	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/25/1991	Telephone: 916-341-5851
Date Made Active in Reports: 02/12/1991	Last EDR Contact: 07/26/2001
Number of Days to Update: 18	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/18/2014  
Date Data Arrived at EDR: 03/18/2014  
Date Made Active in Reports: 04/24/2014  
Number of Days to Update: 37

Source: Environmental Protection Agency  
Telephone: 202-564-6023  
Last EDR Contact: 10/27/2014  
Next Scheduled EDR Contact: 02/09/2015  
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: 12/15/2014  
Date Data Arrived at EDR: 12/18/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 36

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 12/05/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 12/08/2014  
Date Data Arrived at EDR: 12/09/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 45

Source: DTSC and SWRCB  
Telephone: 916-323-3400  
Last EDR Contact: 12/09/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 09/30/2014  
Date Data Arrived at EDR: 10/01/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 36

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 12/30/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 10/27/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 12/10/2014  
Number of Days to Update: 42

Source: Office of Emergency Services  
Telephone: 916-845-8400  
Last EDR Contact: 01/28/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 12/12/2014  
Date Data Arrived at EDR: 12/15/2014  
Date Made Active in Reports: 01/05/2015  
Number of Days to Update: 21

Source: State Water Quality Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 01/21/2015  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 12/12/2014	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/15/2014	Telephone: 866-480-1028
Date Made Active in Reports: 01/05/2015	Last EDR Contact: 01/21/2015
Number of Days to Update: 21	Next Scheduled EDR Contact: 03/30/2015
	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	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	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: 12/09/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/29/2014	Telephone: (415) 495-8895
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 11/04/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 02/16/2015
	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	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/15/2015
Number of Days to Update: 62	Next Scheduled EDR Contact: 04/27/2015
	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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/06/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 09/18/2014  
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285  
Last EDR Contact: 12/12/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 12/24/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 12/12/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
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: 12/30/2014  
Date Data Arrived at EDR: 12/31/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 12/30/2014  
Next Scheduled EDR Contact: 03/16/2015  
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: 01/29/2015  
Next Scheduled EDR Contact: 03/09/2015  
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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 01/15/2015  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 14

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 12/22/2014  
Next Scheduled EDR Contact: 04/06/2015  
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: 11/19/2014  
Next Scheduled EDR Contact: 03/09/2015  
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: 11/19/2014  
Next Scheduled EDR Contact: 03/09/2015  
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.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 07/31/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 11/06/2014  
Number of Days to Update: 8

Source: Environmental Protection Agency  
Telephone: 202-564-5088  
Last EDR Contact: 01/09/2015  
Next Scheduled EDR Contact: 04/27/2015  
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: 07/01/2014  
Date Data Arrived at EDR: 10/15/2014  
Date Made Active in Reports: 11/17/2014  
Number of Days to Update: 33

Source: EPA  
Telephone: 202-566-0500  
Last EDR Contact: 01/16/2015  
Next Scheduled EDR Contact: 04/27/2015  
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: 12/29/2014  
Date Data Arrived at EDR: 01/08/2015  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 21

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169  
Last EDR Contact: 12/04/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 10/07/2014  
Date Data Arrived at EDR: 10/08/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 12

Source: Environmental Protection Agency  
Telephone: 202-343-9775  
Last EDR Contact: 01/08/2015  
Next Scheduled EDR Contact: 04/20/2015  
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: 08/16/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 40

Source: EPA  
Telephone: (415) 947-8000  
Last EDR Contact: 12/09/2014  
Next Scheduled EDR Contact: 03/23/2015  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	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: 08/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/12/2014	Telephone: 202-564-8600
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 86	Next Scheduled EDR Contact: 05/11/2015
	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	Source: EPA/NTIS
Date Data Arrived at EDR: 02/26/2013	Telephone: 800-424-9346
Date Made Active in Reports: 04/19/2013	Last EDR Contact: 11/26/2014
Number of Days to Update: 52	Next Scheduled EDR Contact: 03/09/2015
	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	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/17/2014	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/19/2014	Telephone: 916-445-9379
Date Made Active in Reports: 12/29/2014	Last EDR Contact: 11/19/2014
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/02/2015
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014	Source: Department of Conservation
Date Data Arrived at EDR: 12/15/2014	Telephone: 916-445-2408
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/15/2014
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Varies

## 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: 09/29/2014	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 09/30/2014	Telephone: 916-323-3400
Date Made Active in Reports: 11/19/2014	Last EDR Contact: 12/29/2014
Number of Days to Update: 50	Next Scheduled EDR Contact: 04/13/2015
	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 [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/01/1993	Telephone: 916-445-3846
Date Made Active in Reports: 11/19/1993	Last EDR Contact: 12/18/2014
Number of Days to Update: 18	Next Scheduled EDR Contact: 04/06/2015
	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: 06/28/2014	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 07/03/2014	Telephone: 916-327-4498
Date Made Active in Reports: 08/21/2014	Last EDR Contact: 12/22/2014
Number of Days to Update: 49	Next Scheduled EDR Contact: 03/23/2015
	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	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 12/23/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 11/10/2014	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/12/2014	Telephone: 916-445-9379
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 30	Next Scheduled EDR Contact: 05/11/2015
	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: 12/31/2013	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/15/2014	Telephone: 916-255-1136
Date Made Active in Reports: 11/19/2014	Last EDR Contact: 01/16/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/27/2015
	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: 12/31/2012	Source: California Air Resources Board
Date Data Arrived at EDR: 03/25/2014	Telephone: 916-322-2990
Date Made Active in Reports: 04/28/2014	Last EDR Contact: 12/24/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/06/2015
	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	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/15/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/27/2015
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 11/18/2014
Number of Days to Update: 54	Next Scheduled EDR Contact: 02/02/2015
	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: 11/13/2014	Source: Department of Public Health
Date Data Arrived at EDR: 12/09/2014	Telephone: 916-558-1784
Date Made Active in Reports: 01/26/2015	Last EDR Contact: 12/09/2014
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/23/2015
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 10/16/2014	Source: EPA
Date Data Arrived at EDR: 10/31/2014	Telephone: 202-564-2496
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 12/23/2014
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Annually

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014	Source: EPA
Date Data Arrived at EDR: 10/31/2014	Telephone: 202-564-2496
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 12/23/2014
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Annually

## WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 11/19/2014
Number of Days to Update: 9	Next Scheduled EDR Contact: 03/09/2015
	Data Release Frequency: Quarterly

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 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	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/29/2015
Number of Days to Update: 3	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/05/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 11/14/2014
Number of Days to Update: 88	Next Scheduled EDR Contact: 02/23/2015
	Data Release Frequency: Quarterly

## PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/15/2014	Source: Department of Conservation
Date Data Arrived at EDR: 12/15/2014	Telephone: 916-323-3836
Date Made Active in Reports: 01/26/2015	Last EDR Contact: 12/15/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/30/2015
	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: 11/24/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/25/2014	Telephone: 916-323-3400
Date Made Active in Reports: 12/30/2014	Last EDR Contact: 11/25/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/09/2015
	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: 10/14/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/15/2014	Telephone: 916-440-7145
Date Made Active in Reports: 11/19/2014	Last EDR Contact: 01/13/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Quarterly

## 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	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 01/15/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 04/27/2015
	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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/15/2015  
Next Scheduled EDR Contact: 04/27/2015  
Data Release Frequency: N/A

## 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: 10/31/2014  
Next Scheduled EDR Contact: 02/09/2015  
Data Release Frequency: Varies

## 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: 07/01/2014  
Date Data Arrived at EDR: 09/10/2014  
Date Made Active in Reports: 10/20/2014  
Number of Days to Update: 40

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 12/12/2014  
Next Scheduled EDR Contact: 03/23/2015  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/28/2014  
Date Data Arrived at EDR: 10/30/2014  
Date Made Active in Reports: 12/10/2014  
Number of Days to Update: 41

Source: Department of Toxic Substances Control  
Telephone: 916-255-3628  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 11/17/2014  
Date Data Arrived at EDR: 11/18/2014  
Date Made Active in Reports: 12/29/2014  
Number of Days to Update: 41

Source: California Integrated Waste Management Board  
Telephone: 916-341-6066  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/02/2015  
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: 11/19/2014  
Date Data Arrived at EDR: 11/21/2014  
Date Made Active in Reports: 01/29/2015  
Number of Days to Update: 69

Source: Environmental Protection Agency  
Telephone: 202-566-1917  
Last EDR Contact: 11/11/2014  
Next Scheduled EDR Contact: 03/02/2015  
Data Release Frequency: Quarterly

## 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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/14/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Varies

## **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 RECOVERED GOVERNMENT ARCHIVES**

### ***Exclusive Recovered Govt. Archives***



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	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: 10/21/2014	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 11/07/2014	Telephone: 510-567-6700
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 12/29/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Semi-Annually

#### Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/21/2014	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 11/07/2014	Telephone: 510-567-6700
Date Made Active in Reports: 12/15/2014	Last EDR Contact: 12/29/2014
Number of Days to Update: 38	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Semi-Annually

### AMADOR COUNTY:

#### CUPA Facility List

Cupa Facility List

Date of Government Version: 12/08/2014	Source: Amador County Environmental Health
Date Data Arrived at EDR: 12/11/2014	Telephone: 209-223-6439
Date Made Active in Reports: 01/23/2015	Last EDR Contact: 12/05/2014
Number of Days to Update: 43	Next Scheduled EDR Contact: 03/23/2015
	Data Release Frequency: Varies

### BUTTE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility Listing

Cupa facility list.

Date of Government Version: 11/20/2014  
Date Data Arrived at EDR: 11/24/2014  
Date Made Active in Reports: 01/07/2015  
Number of Days to Update: 44

Source: Public Health Department  
Telephone: 530-538-7149  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 04/27/2015  
Data Release Frequency: No Update Planned

## CALVERAS COUNTY:

### CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 10/06/2014  
Date Data Arrived at EDR: 10/07/2014  
Date Made Active in Reports: 11/19/2014  
Number of Days to Update: 43

Source: Calveras County Environmental Health  
Telephone: 209-754-6399  
Last EDR Contact: 01/12/2015  
Next Scheduled EDR Contact: 04/13/2015  
Data Release Frequency: Quarterly

## COLUSA COUNTY:

### CUPA Facility List

Cupa facility list.

Date of Government Version: 06/11/2014  
Date Data Arrived at EDR: 06/13/2014  
Date Made Active in Reports: 07/07/2014  
Number of Days to Update: 24

Source: Health & Human Services  
Telephone: 530-458-0396  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 02/23/2015  
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: 11/17/2014  
Date Data Arrived at EDR: 11/19/2014  
Date Made Active in Reports: 01/06/2015  
Number of Days to Update: 48

Source: Contra Costa Health Services Department  
Telephone: 925-646-2286  
Last EDR Contact: 11/03/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Semi-Annually

## DEL NORTE COUNTY:

### CUPA Facility List

Cupa Facility list

Date of Government Version: 11/03/2014  
Date Data Arrived at EDR: 11/04/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 38

Source: Del Norte County Environmental Health Division  
Telephone: 707-465-0426  
Last EDR Contact: 11/03/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Varies

## EL DORADO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

CUPA facility list.

Date of Government Version: 11/19/2014  
Date Data Arrived at EDR: 11/21/2014  
Date Made Active in Reports: 12/29/2014  
Number of Days to Update: 38

Source: El Dorado County Environmental Management Department  
Telephone: 530-621-6623  
Last EDR Contact: 11/03/2014  
Next Scheduled EDR Contact: 02/16/2015  
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: 09/30/2014  
Date Data Arrived at EDR: 10/14/2014  
Date Made Active in Reports: 11/19/2014  
Number of Days to Update: 36

Source: Dept. of Community Health  
Telephone: 559-445-3271  
Last EDR Contact: 01/05/2015  
Next Scheduled EDR Contact: 04/20/2015  
Data Release Frequency: Semi-Annually

## HUMBOLDT COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 12/11/2014  
Date Data Arrived at EDR: 12/15/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 39

Source: Humboldt County Environmental Health  
Telephone: N/A  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## IMPERIAL COUNTY:

### CUPA Facility List

Cupa facility list.

Date of Government Version: 11/03/2014  
Date Data Arrived at EDR: 11/04/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 38

Source: San Diego Border Field Office  
Telephone: 760-339-2777  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 11/19/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## KERN COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014  
Date Data Arrived at EDR: 11/12/2014  
Date Made Active in Reports: 12/19/2014  
Number of Days to Update: 37

Source: Kern County Environment Health Services Department  
Telephone: 661-862-8700  
Last EDR Contact: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
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: 11/21/2014  
Date Data Arrived at EDR: 11/25/2014  
Date Made Active in Reports: 12/30/2014  
Number of Days to Update: 35

Source: Kings County Department of Public Health  
Telephone: 559-584-1411  
Last EDR Contact: 11/21/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## LAKE COUNTY:

### CUPA Facility List

Cupa facility list

Date of Government Version: 10/20/2014  
Date Data Arrived at EDR: 10/21/2014  
Date Made Active in Reports: 01/05/2015  
Number of Days to Update: 26

Source: Lake County Environmental Health  
Telephone: 707-263-1164  
Last EDR Contact: 01/19/2015  
Next Scheduled EDR Contact: 05/04/2015  
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: 12/18/2014  
Next Scheduled EDR Contact: 04/06/2015  
Data Release Frequency: No Update Planned

### HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/31/2014  
Date Data Arrived at EDR: 06/06/2014  
Date Made Active in Reports: 07/17/2014  
Number of Days to Update: 41

Source: Department of Public Works  
Telephone: 626-458-3517  
Last EDR Contact: 01/12/2015  
Next Scheduled EDR Contact: 04/27/2015  
Data Release Frequency: Semi-Annually

### List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/20/2014  
Date Data Arrived at EDR: 10/22/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 51

Source: La County Department of Public Works  
Telephone: 818-458-5185  
Last EDR Contact: 01/20/2015  
Next Scheduled EDR Contact: 05/04/2015  
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: 01/19/2015  
Next Scheduled EDR Contact: 05/04/2015  
Data Release Frequency: Varies

## Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/2014  
Date Data Arrived at EDR: 02/25/2014  
Date Made Active in Reports: 03/25/2014  
Number of Days to Update: 28

Source: Community Health Services  
Telephone: 323-890-7806  
Last EDR Contact: 01/19/2015  
Next Scheduled EDR Contact: 05/04/2015  
Data Release Frequency: Annually

## City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 10/20/2014  
Date Data Arrived at EDR: 10/22/2014  
Date Made Active in Reports: 12/15/2014  
Number of Days to Update: 54

Source: City of El Segundo Fire Department  
Telephone: 310-524-2236  
Last EDR Contact: 01/19/2015  
Next Scheduled EDR Contact: 05/04/2015  
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: 12/01/2014  
Date Data Arrived at EDR: 12/11/2014  
Date Made Active in Reports: 01/27/2015  
Number of Days to Update: 47

Source: City of Long Beach Fire Department  
Telephone: 562-570-2563  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Annually

## City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/08/2015  
Date Data Arrived at EDR: 01/15/2015  
Date Made Active in Reports: 01/27/2015  
Number of Days to Update: 12

Source: City of Torrance Fire Department  
Telephone: 310-618-2973  
Last EDR Contact: 01/12/2015  
Next Scheduled EDR Contact: 04/27/2015  
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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/02/2014  
Date Data Arrived at EDR: 10/03/2014  
Date Made Active in Reports: 11/20/2014  
Number of Days to Update: 48

Source: Madera County Environmental Health  
Telephone: 559-675-7823  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## MARIN COUNTY:

### Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014  
Date Data Arrived at EDR: 10/22/2014  
Date Made Active in Reports: 12/15/2014  
Number of Days to Update: 54

Source: Public Works Department Waste Management  
Telephone: 415-499-6647  
Last EDR Contact: 01/05/2015  
Next Scheduled EDR Contact: 04/20/2015  
Data Release Frequency: Semi-Annually

## MERCED COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 11/25/2014  
Date Data Arrived at EDR: 11/26/2014  
Date Made Active in Reports: 12/29/2014  
Number of Days to Update: 33

Source: Merced County Environmental Health  
Telephone: 209-381-1094  
Last EDR Contact: 11/21/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## MONO COUNTY:

### CUPA Facility List

CUPA Facility List

Date of Government Version: 12/01/2014  
Date Data Arrived at EDR: 12/05/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 49

Source: Mono County Health Department  
Telephone: 760-932-5580  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/16/2015  
Data Release Frequency: Varies

## MONTEREY COUNTY:

### CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 12/18/2014  
Date Data Arrived at EDR: 12/19/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 35

Source: Monterey County Health Department  
Telephone: 831-796-1297  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## NAPA COUNTY:

### Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/25/2014  
Next Scheduled EDR Contact: 03/16/2015  
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: 11/25/2014  
Next Scheduled EDR Contact: 03/16/2015  
Data Release Frequency: No Update Planned

## NEVADA COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 09/16/2014  
Date Data Arrived at EDR: 09/18/2014  
Date Made Active in Reports: 09/25/2014  
Number of Days to Update: 7

Source: Community Development Agency  
Telephone: 530-265-1467  
Last EDR Contact: 12/15/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Varies

## ORANGE COUNTY:

### List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2014  
Date Data Arrived at EDR: 11/12/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 30

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Annually

### List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/01/2014  
Date Data Arrived at EDR: 11/12/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 30

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Quarterly

### List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2014  
Date Data Arrived at EDR: 11/10/2014  
Date Made Active in Reports: 12/15/2014  
Number of Days to Update: 35

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 11/10/2014  
Next Scheduled EDR Contact: 02/23/2015  
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: 12/08/2014  
Date Data Arrived at EDR: 12/09/2014  
Date Made Active in Reports: 01/26/2015  
Number of Days to Update: 48

Source: Placer County Health and Human Services  
Telephone: 530-745-2363  
Last EDR Contact: 12/05/2014  
Next Scheduled EDR Contact: 03/23/2015  
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: 10/08/2014  
Date Data Arrived at EDR: 10/10/2014  
Date Made Active in Reports: 11/20/2014  
Number of Days to Update: 41

Source: Department of Environmental Health  
Telephone: 951-358-5055  
Last EDR Contact: 12/22/2014  
Next Scheduled EDR Contact: 01/05/2015  
Data Release Frequency: Quarterly

### Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/08/2014  
Date Data Arrived at EDR: 10/10/2014  
Date Made Active in Reports: 11/25/2014  
Number of Days to Update: 46

Source: Department of Environmental Health  
Telephone: 951-358-5055  
Last EDR Contact: 12/22/2014  
Next Scheduled EDR Contact: 04/06/2015  
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: 02/06/2014  
Date Data Arrived at EDR: 04/08/2014  
Date Made Active in Reports: 04/29/2014  
Number of Days to Update: 21

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 01/07/2015  
Next Scheduled EDR Contact: 04/20/2015  
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: 10/21/2014  
Date Data Arrived at EDR: 10/28/2014  
Date Made Active in Reports: 12/15/2014  
Number of Days to Update: 48

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 01/05/2015  
Next Scheduled EDR Contact: 04/20/2015  
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.



# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/02/2014  
Date Data Arrived at EDR: 12/04/2014  
Date Made Active in Reports: 01/26/2015  
Number of Days to Update: 53

Source: San Bernardino County Fire Department Hazardous Materials Division  
Telephone: 909-387-3041  
Last EDR Contact: 11/10/2014  
Next Scheduled EDR Contact: 02/23/2015  
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: 12/04/2014  
Next Scheduled EDR Contact: 03/23/2015  
Data Release Frequency: Quarterly

### Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014  
Date Data Arrived at EDR: 11/21/2014  
Date Made Active in Reports: 12/29/2014  
Number of Days to Update: 38

Source: Department of Health Services  
Telephone: 619-338-2209  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
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: 12/04/2014  
Next Scheduled EDR Contact: 03/23/2015  
Data Release Frequency: No Update Planned

## SAN FRANCISCO COUNTY:

### Local Oversight 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: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
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: 11/05/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Quarterly

## SAN JOAQUIN COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 01/08/2015  
Date Data Arrived at EDR: 01/12/2015  
Date Made Active in Reports: 01/27/2015  
Number of Days to Update: 15

Source: Environmental Health Department  
Telephone: N/A  
Last EDR Contact: 01/05/2015  
Next Scheduled EDR Contact: 04/06/2015  
Data Release Frequency: Semi-Annually

## SAN LUIS OBISPO COUNTY:

### CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/21/2014  
Date Data Arrived at EDR: 11/24/2014  
Date Made Active in Reports: 12/30/2014  
Number of Days to Update: 36

Source: San Luis Obispo County Public Health Department  
Telephone: 805-781-5596  
Last EDR Contact: 11/21/2014  
Next Scheduled EDR Contact: 03/09/2015  
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: 10/06/2014  
Date Data Arrived at EDR: 10/10/2014  
Date Made Active in Reports: 11/19/2014  
Number of Days to Update: 40

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 12/15/2014  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Annually

### Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/15/2014  
Date Data Arrived at EDR: 12/18/2014  
Date Made Active in Reports: 01/26/2015  
Number of Days to Update: 39

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 12/11/2014  
Next Scheduled EDR Contact: 03/30/2015  
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: 11/19/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## SANTA CLARA COUNTY:

### Cupa Facility List

Cupa facility list

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/25/2014  
Date Data Arrived at EDR: 11/26/2014  
Date Made Active in Reports: 12/30/2014  
Number of Days to Update: 34

Source: Department of Environmental Health  
Telephone: 408-918-1973  
Last EDR Contact: 11/21/2014  
Next Scheduled EDR Contact: 03/09/2015  
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: 11/25/2014  
Next Scheduled EDR Contact: 03/16/2015  
Data Release Frequency: Annually

## Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/10/2014  
Date Data Arrived at EDR: 11/10/2014  
Date Made Active in Reports: 12/15/2014  
Number of Days to Update: 35

Source: City of San Jose Fire Department  
Telephone: 408-535-7694  
Last EDR Contact: 11/07/2014  
Next Scheduled EDR Contact: 02/23/2015  
Data Release Frequency: Annually

## SANTA CRUZ COUNTY:

### CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/24/2014  
Date Data Arrived at EDR: 11/25/2014  
Date Made Active in Reports: 12/31/2014  
Number of Days to Update: 36

Source: Santa Cruz County Environmental Health  
Telephone: 831-464-2761  
Last EDR Contact: 11/21/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## SHASTA COUNTY:

### CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/09/2014  
Date Data Arrived at EDR: 12/11/2014  
Date Made Active in Reports: 01/23/2015  
Number of Days to Update: 43

Source: Shasta County Department of Resource Management  
Telephone: 530-225-5789  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Varies

## SOLANO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014  
Date Data Arrived at EDR: 11/24/2014  
Date Made Active in Reports: 01/05/2015  
Number of Days to Update: 42

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 12/11/2014  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Quarterly

## Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014  
Date Data Arrived at EDR: 12/01/2014  
Date Made Active in Reports: 01/27/2015  
Number of Days to Update: 57

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 12/11/2014  
Next Scheduled EDR Contact: 03/30/2015  
Data Release Frequency: Quarterly

## SONOMA COUNTY:

### Cupa Facility List

Cupa Facility list

Date of Government Version: 09/30/2014  
Date Data Arrived at EDR: 10/02/2014  
Date Made Active in Reports: 11/20/2014  
Number of Days to Update: 49

Source: County of Sonoma Fire & Emergency Services Department  
Telephone: 707-565-1174  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
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: 10/01/2014  
Date Data Arrived at EDR: 10/03/2014  
Date Made Active in Reports: 11/20/2014  
Number of Days to Update: 48

Source: Department of Health Services  
Telephone: 707-565-6565  
Last EDR Contact: 12/29/2014  
Next Scheduled EDR Contact: 04/13/2015  
Data Release Frequency: Quarterly

## SUTTER COUNTY:

### Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/08/2014  
Date Data Arrived at EDR: 12/08/2014  
Date Made Active in Reports: 01/27/2015  
Number of Days to Update: 50

Source: Sutter County Department of Agriculture  
Telephone: 530-822-7500  
Last EDR Contact: 12/05/2014  
Next Scheduled EDR Contact: 03/23/2015  
Data Release Frequency: Semi-Annually

## TUOLUMNE COUNTY:

### CUPA Facility List

Cupa facility list

Date of Government Version: 10/28/2014  
Date Data Arrived at EDR: 10/29/2014  
Date Made Active in Reports: 12/12/2014  
Number of Days to Update: 44

Source: Division of Environmental Health  
Telephone: 209-533-5633  
Last EDR Contact: 01/26/2015  
Next Scheduled EDR Contact: 05/11/2015  
Data Release Frequency: Varies

## VENTURA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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: 10/29/2014	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 11/24/2014	Telephone: 805-654-2813
Date Made Active in Reports: 12/29/2014	Last EDR Contact: 11/17/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/02/2015
	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	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 01/05/2015
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/20/2015
	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	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 11/17/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 03/02/2015
	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: 09/26/2014	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 10/29/2014	Telephone: 805-654-2813
Date Made Active in Reports: 12/12/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 44	Next Scheduled EDR Contact: 05/11/2015
	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: 08/26/2014	Source: Environmental Health Division
Date Data Arrived at EDR: 09/17/2014	Telephone: 805-654-2813
Date Made Active in Reports: 10/28/2014	Last EDR Contact: 12/15/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

## YOLO COUNTY:

### Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2014	Source: Yolo County Department of Health
Date Data Arrived at EDR: 12/23/2014	Telephone: 530-666-8646
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 12/18/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/06/2015
	Data Release Frequency: Annually

## YUBA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 11/17/2014  
Date Data Arrived at EDR: 11/18/2014  
Date Made Active in Reports: 12/30/2014  
Number of Days to Update: 42

Source: Yuba County Environmental Health Department  
Telephone: 530-749-7523  
Last EDR Contact: 11/17/2014  
Next Scheduled EDR Contact: 02/16/2015  
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: 11/17/2014  
Next Scheduled EDR Contact: 03/02/2015  
Data Release Frequency: No Update Planned

### 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: 01/12/2015  
Next Scheduled EDR Contact: 04/27/2015  
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: 11/01/2014  
Date Data Arrived at EDR: 11/05/2014  
Date Made Active in Reports: 11/24/2014  
Number of Days to Update: 19

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 11/05/2014  
Next Scheduled EDR Contact: 02/16/2015  
Data Release Frequency: Annually

### PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013  
Date Data Arrived at EDR: 07/21/2014  
Date Made Active in Reports: 08/25/2014  
Number of Days to Update: 35

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 01/19/2015  
Next Scheduled EDR Contact: 05/04/2015  
Data Release Frequency: Annually

### RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013  
Date Data Arrived at EDR: 07/15/2014  
Date Made Active in Reports: 08/13/2014  
Number of Days to Update: 29

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 11/26/2014  
Next Scheduled EDR Contact: 03/09/2015  
Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013

Date Data Arrived at EDR: 06/20/2014

Date Made Active in Reports: 08/07/2014

Number of Days to Update: 48

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 12/12/2014

Next Scheduled EDR Contact: 03/30/2015

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.

**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<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

CARSON CITY HALL  
701 EAST CARSON STREET  
CARSON, CA 90745

### **TARGET PROPERTY COORDINATES**

Latitude (North):	33.8326 - 33° 49' 57.36"
Longitude (West):	118.2616 - 118° 15' 41.76"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	383259.7
UTM Y (Meters):	3744117.0
Elevation:	20 ft. above sea level

### **USGS TOPOGRAPHIC MAP**

Target Property Map:	33118-G3 TORRANCE, CA
Most Recent Revision:	1981
East Map:	33118-G2 LONG BEACH (DIGITAL), CA
Most Recent Revision:	1964

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).

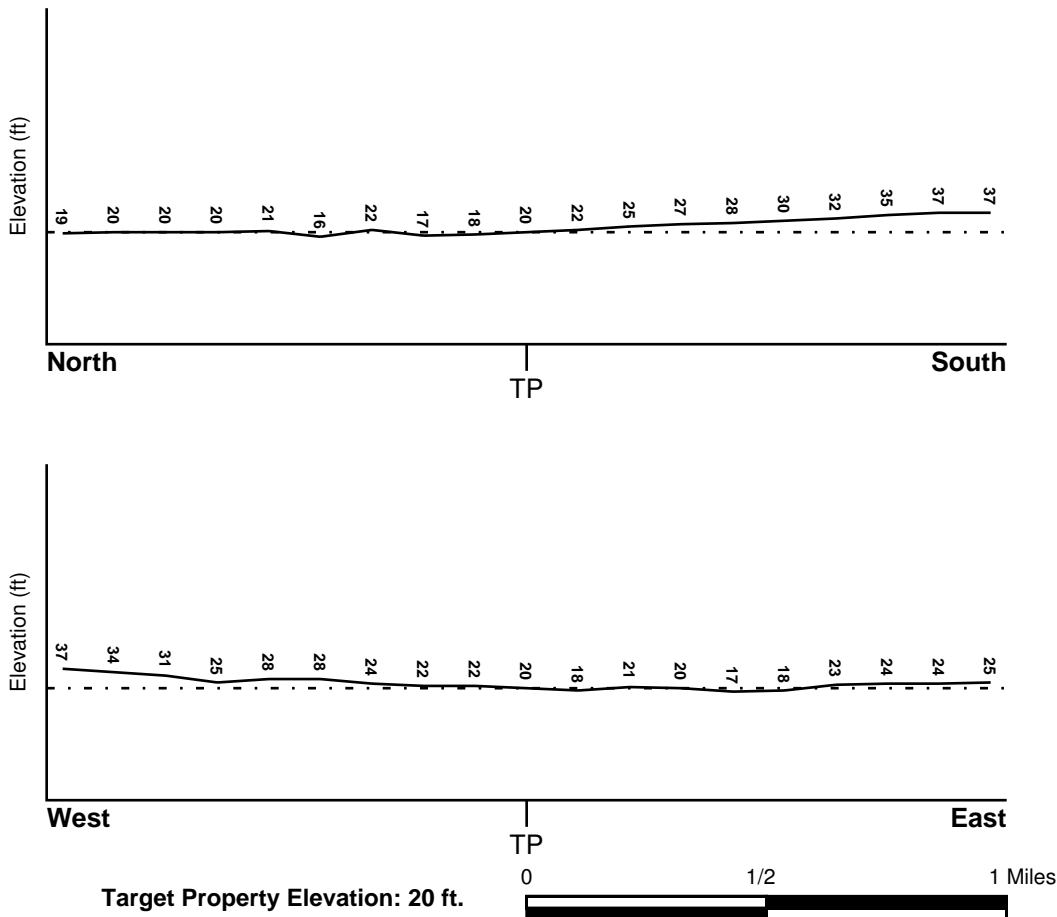
## TOPOGRAPHIC INFORMATION

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 North

## 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

<u>Target Property County</u>	FEMA Flood <u>Electronic Data</u>
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

## NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	NWI Electronic <u>Data Coverage</u>
TORRANCE	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
Location Relative to TP:	1/2 - 1 Mile WNW
Site Name:	Martin Adams Dump
Site EPA ID Number:	CAD981399520
Groundwater Flow Direction:	SE IN MOST OF THE AQUIFERS UNDERLYING THE SITE, BUT ENE IN THE SILVERADO AQUIFER THAT IS FOUND AT A DEPTH OF 450 FEET TO 700 FEET BELOW SEA LEVEL.
Measured Depth to Water:	not available.
Hydraulic Connection:	A hydraulic connection between aquifers underlying the site occurs in the vicinity of the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

## 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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
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## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
1	1/8 - 1/4 Mile WSW	Varies
2	1/8 - 1/4 Mile NNW	SSW
7	1/2 - 1 Mile SSW	Not Reported
8	1/2 - 1 Mile WSW	Not Reported

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: Quaternary  
Series: Quaternary  
Code: Q (*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).

### 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. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam  
 gravelly - sandy loam  
 silt loam  
 clay  
 fine sand  
 gravelly - sand  
 sand  
 fine sandy loam

Surficial Soil Types: sandy loam  
 gravelly - sandy loam  
 silt loam  
 clay  
 fine sand  
 gravelly - sand  
 sand  
 fine sandy loam

Shallow Soil Types: fine sandy loam  
 gravelly - loam  
 sandy clay  
 sandy clay loam  
 clay  
 silty clay  
 sand

Deeper Soil Types: gravelly - sandy loam  
 sandy loam  
 very gravelly - sandy loam  
 stratified  
 very fine sandy loam  
 weathered bedrock  
 sand  
 gravelly - fine sandy loam  
 silty clay loam  
 clay loam

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## 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

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B5	USGS40000138498	1/4 - 1/2 Mile West
B6	USGS40000138490	1/4 - 1/2 Mile WSW

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

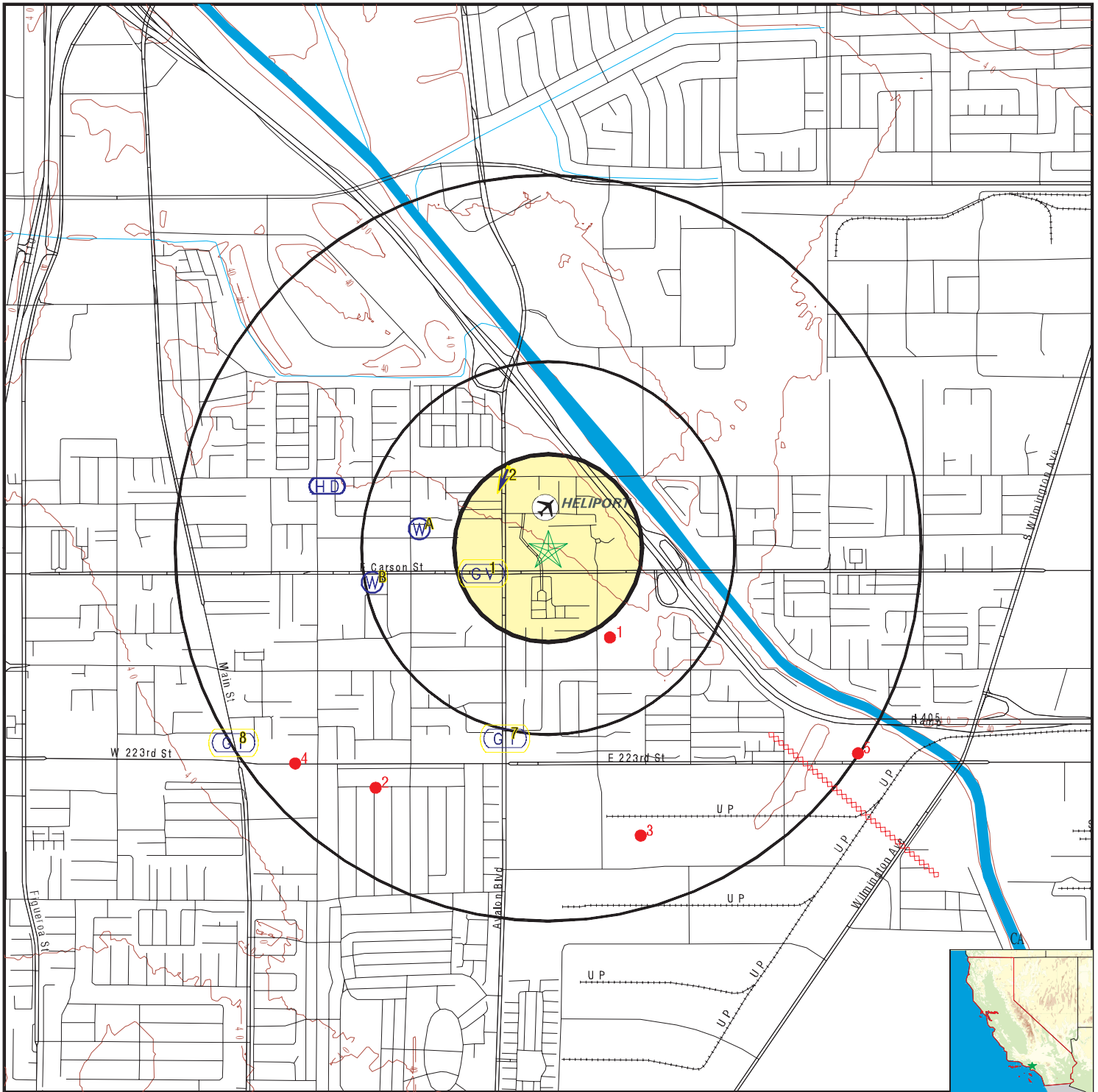
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A3	5353	1/4 - 1/2 Mile West
A4	5352	1/4 - 1/2 Mile West

## OTHER STATE DATABASE INFORMATION

## STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG9A000019179	1/4 - 1/2 Mile SE
2	CAOG9A000018850	1/2 - 1 Mile SW
3	CAOG9A000018696	1/2 - 1 Mile SSE
4	CAOG9A000018929	1/2 - 1 Mile SW
5	CAOG9A000018953	1/2 - 1 Mile ESE

# PHYSICAL SETTING SOURCE MAP - 4195320.2s



- 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
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Carson City Hall  
 ADDRESS: 701 East Carson Street  
 Carson CA 90745  
 LAT/LONG: 33.8326 / 118.2616

CLIENT: AMEC Environment & Infrastructure, Inc.  
 CONTACT: Ellen Smith  
 INQUIRY #: 4195320.2s  
 DATE: January 30, 2015 2:34 pm



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

<b>1</b> <b>WSW</b> <b>1/8 - 1/4 Mile</b> <b>Higher</b>	Site ID: I-00062 Groundwater Flow: Varies Shallow Water Depth: Not Reported Deep Water Depth: Not Reported Average Water Depth: 28 Date: 10/04/1996	<b>AQUIFLOW</b>	<b>55238</b>
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<b>2</b> <b>NNW</b> <b>1/8 - 1/4 Mile</b> <b>Lower</b>	Site ID: I-00067 Groundwater Flow: SSW Shallow Water Depth: Not Reported Deep Water Depth: Not Reported Average Water Depth: 12.5 Date: 07/10/1995	<b>AQUIFLOW</b>	<b>55233</b>
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<b>A3</b> <b>West</b> <b>1/4 - 1/2 Mile</b> <b>Higher</b>		<b>CA WELLS</b>	<b>5353</b>
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**Water System Information:**

Prime Station Code: 04S/13W-17D02 S	User ID: 4TH
FRDS Number: 1910033020	County: Los Angeles
District Number: 07	Station Type: WELL/AMBNT/MUN/INTAKE
Water Type: Well/Groundwater	Well Status: Active Raw
Source Lat/Long: 335000.0 1181600.0	Precision: 1,000 Feet (10 Seconds)
Source Name: WELL 19-A	
System Number: 1910033	
System Name: DOMINGUEZ WATER CORP	
Organization That Operates System:	
P.O. BOX 9351	
LONG BEACH, CA 90810	
Pop Served: 100000	Connections: 32000
Area Served: Not Reported	

<b>A4</b> <b>West</b> <b>1/4 - 1/2 Mile</b> <b>Higher</b>		<b>CA WELLS</b>	<b>5352</b>
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**Water System Information:**

Prime Station Code: 04S/13W-17D01 S	User ID: 4TH
FRDS Number: 1910033006	County: Los Angeles
District Number: 07	Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type: Well/Groundwater	Well Status: Destroyed
Source Lat/Long: 335000.0 1181600.0	Precision: Undefined
Source Name: WELL 19 - DESTROYED	
System Number: 1910033	
System Name: DOMINGUEZ WATER CORP	
Organization That Operates System:	
P.O. BOX 9351	
LONG BEACH, CA 90810	
Pop Served: 100000	Connections: 32000
Area Served: Not Reported	

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**B5**  
**West**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000138498**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334953118160701		
Monloc name:	004S013W17D002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070104	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8314059
Longitude:	-118.2695163	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	22.5
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported		
Welldepth units:	ft	Welldepth:	685
Wellholedepth units:	Not Reported	Wellholedepth:	Not Reported

Ground-water levels, Number of Measurements: 0

**B6**  
**WSW**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS40000138490**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334952118160901		
Monloc name:	004S013W17D001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070104	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8311282
Longitude:	-118.2700718	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	660
Construction date:	Not Reported	Wellholedepth:	930
Welldepth units:	ft		
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

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<b>7</b>	Site ID:	I-02985		
<b>SSW</b>	Groundwater Flow:	Not Reported	<b>AQUIFLOW</b>	<b>55220</b>
<b>1/2 - 1 Mile</b>	Shallow Water Depth:	Not Reported		
<b>Higher</b>	Deep Water Depth:	Not Reported		
	Average Water Depth:	82		
	Date:	12/05/1989		

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<b>8</b>	Site ID:	I-02985		
<b>WSW</b>	Groundwater Flow:	Not Reported	<b>AQUIFLOW</b>	<b>55221</b>
<b>1/2 - 1 Mile</b>	Shallow Water Depth:	Not Reported		
<b>Higher</b>	Deep Water Depth:	Not Reported		
	Average Water Depth:	82		
	Date:	12/05/1989		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance

Database      EDR ID Number

**1**  
**SE**  
**1/4 - 1/2 Mile**

**OIL\_GAS      CAOG9A000019179**

Districtnu:	1	Apinumber:	03705332
Blmwel:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	B
Operatorna:	Harry Crinklaw		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	17		
Township:	04S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	33.829124		
Glong:	-118.258722		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	AOG	Site id:	CAOG9A000019179

**2**  
**SW**  
**1/2 - 1 Mile**

**OIL\_GAS      CAOG9A000018850**

Districtnu:	1	Apinumber:	03705805
Blmwel:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Rio Grande Oil Company		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	17		
Township:	04S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	33.823276		
Glong:	-118.269644		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Watson	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000018850

**3**  
**SSE**  
**1/2 - 1 Mile**

**OIL\_GAS      CAOG9A000018696**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Districtnu:	1	Apinumber:	03705858
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Selbar Oil Co.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	17		
Township:	04S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	33.821415		
Glong:	-118.257285		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Watson	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000018696

**4  
SW  
1/2 - 1 Mile**

**OIL\_GAS      CAOG9A000018929**

Districtnu:	1	Apinumber:	03705217
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	F. A. Black		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	17		
Township:	04S	Range:	13W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	33.824223		
Glong:	-118.273395		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000018929

**5  
ESE  
1/2 - 1 Mile**

**OIL\_GAS      CAOG9A000018953**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Districtnu:	1	Apinumber:	03705102
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Airways Petro. Corp.	Fieldname:	Any Field
Countyname:	Los Angeles	Range:	13W
Areaname:	Any Area	Elevation:	Not Reported
Section:	16		
Township:	04S		
Basemeridi:	SB		
Locationde:	Not Reported		
Glat:	33.824616		
Glong:	-118.247155		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Santa Susana	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-DEC-99
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000018953

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CA Radon

### Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90745	8	0

Federal EPA Radon Zone for LOS ANGELES County: 2

- 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.

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### Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

# 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<sup>R</sup> 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.

## OTHER STATE DATABASE INFORMATION

### 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.

### 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.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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## ATTACHMENT B

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Owner – and User – Provided Information

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

**Subject Property:** Carson City Hall and Civic Center  
701 East Carson Street, Carson, CA 90745

**Project:** Phase I Environmental Site Assessment

**Introduction:** The following questionnaire has been prepared in accordance with ASTM International (ASTM) Standard E1527-13, Standard Practice for Environmental Site Assessments, adopted by the ASTM as part of the Phase I Environmental Site Assessment standard process. ASTM E1527-13 complies with U.S. Environmental Protection Agency (EPA) All Appropriate Inquiries Final Rule [Code of Federal Regulations (CFR) Title 40, Part 312], which took effect on November 1, 2006.

**Questionnaire Purpose:** Amec Foster Wheeler has been retained by the California Department of Toxic Substances Control (DTSC) to conduct an environmental site assessment of the subject property. The purpose of the assessment is to evaluate the property for evidence of hazardous waste or hazardous material releases to the environment. As the property owner, owner's representative, or current or past lessee/tenant, your input in the assessment is requested to collect information that is not found in the public record or is not visually apparent. Please answer the following questions by circling the appropriate response. If an employee has better knowledge of property history related to hazardous waste or hazardous material releases, please have him or her complete a copy of the questionnaire by circling the appropriate answer to each of the following questions. The completed questionnaire should be signed by the preparer and returned to Amec Foster Wheeler. You may send the completed questionnaire to:

Amec Foster Wheeler  
121 Innovation Drive, Suite 200  
Irvine, CA 92617  
Attention: Ellen Smith  
or by facsimile to (949) 642-4474  
or by email to [ellen.smith@amecfw.com](mailto:ellen.smith@amecfw.com)

**QUESTIONNAIRE PART I: ESA BACKGROUND INFORMATION**

**A.** Please provide current and historical addresses for the subject property:  
701 E. Carson St., Carson, CA 90745 & 801 E. Carson St., Carson, CA 90745

**B.** Please provide a brief chronology of the subject property ownership and history\_\_\_\_  
n/a

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

**QUESTIONNAIRE PART II: ENVIRONMENTAL QUESTIONS**

**A.** To your knowledge, is the subject property and/or adjoining property used or have/has been used in the past in the following manner:

1. Any industrial use
- ② Gasoline station
3. Motor or equipment repair facility
4. Commercial printing facility
5. Dry cleaners
6. Photo developing laboratory
- ⑦ Junkyard or landfill
8. A waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes (Circle all that apply)       No       Unknown

Comments:

Former junkyard

1 & 3 possibly

*relative to junkyard*

**B.** Are there currently or have there been in the past any of the following materials stored at, used at, or brought onto the subject property or facility and/or adjoining property or facility (if applicable, identify which):

- ① Automotive or industrial batteries
2. Pesticides
3. Paint
4. Other chemicals
5. Fill dirt originated from a contaminated site or of an unknown origin (if applicable, identify which)?

Yes (Circle all that apply)       No       Unknown

Comments:

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

**C.** Are there currently or have there been in the past any of the following features located on the property and/or adjoining property:

1. Pits
2. Lagoons or ponds
3. Clarifiers or sumps
4. Stained soil
5. Registered or unregistered storage tanks (above or underground) (if applicable, identify which)?

Yes (Circle all that apply)       No       Unknown

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**D.** To your knowledge, are there currently or have there been in the past any of the following objects or evidence located on the property or adjacent to any structure located on the property and/or adjoining property:

1. Vent pipes
2. Fill pipes
3. Access ways indicating a fill pipe protruding from the ground
4. Leaks, spill, or staining by substances other than water (if applicable, identify which)
5. Foul odors associated with any flooring, drains, walls, ceilings, or exposed ground (if applicable, identify which)?

Yes (Circle all that apply)       No       Unknown

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

E. If the property and/or adjoining property is served by a private well or non-public water system, do you have any knowledge that:

1. Contaminants have been identified in the well or system that exceed guidelines applicable to the water system
2. The well has been designated by any government environmental/health agency as being contaminated?

Yes (Circle all that apply)       No       Unknown

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F. With respect to the property or any facility located on the property and/or adjoining property, do you have any knowledge of or have you been informed of:

1. Past or current existence of hazardous substances or petroleum products.
2. Past or current existence of environmental violations
3. Any permits, orders, or waste discharge requirements issued by or requested from any environmental regulatory agency in relation to the properties.
4. Any environmental assessment indicating the presence or contamination of hazardous substances or petroleum products or recommended further assessment
5. Any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products?

Yes (Circle all that apply)       No       Unknown

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

**G.** Has the property and/or adjoining property discharged, dumped above grade, buried and/or burned any of the following materials on or adjacent to the property and/or into a storm water or sanitary sewer system (if applicable, identity which):

1. Wastewater (not including sanitary waste or storm water)
2. Any hazardous substances or petroleum products
3. Unidentified waste materials
4. Tires
5. Automotive or industrial batteries
6. Any other waste materials?

Yes (Circle all that apply)       No       Unknown

Comments:

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**H.** Are there or have there been any of the following equipment for which there are any records indicating the presence of polychlorinated biphenyls (PCBs)?

1. Transformer
2. Capacitor
3. Any hydraulic equipment?

Yes (Circle all that apply)       No       Unknown

Comments:

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**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

I. To your knowledge, have any environmental or geotechnical assessments of the property and/or adjoining property been conducted? Please provide the nature and dates of these assessments, if known.

- 1. Environmental
- 2. Geotechnical
- 3. Other?

Yes (Circle all that apply)

No

Unknown

Comments:

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J. Are you aware of any environmental cleanup liens against the property, governmental orders, consent decrees, cleanup and abatement orders, or lawsuits that are filed or recorded under federal, state, tribal or local law?

Yes

No

Unknown

Comments:

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**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE**  
**Property Owner/Representative or Facility Manager**

**K.** Are you aware of any activity or land use limitations, such as engineering controls, land use restrictions or institutional controls, that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)? Please provide the nature and dates of these assessments, if known.

1. Engineering Controls (e.g., engineered cap, subsurface barrier wall, etc.)
2. Land Use Restrictions (e.g., industrial only, no groundwater removal, etc.)
3. Institutional Controls (e.g., deed restrictions, financial assurances, etc.)

Yes (Circle all that apply)

No

Unknown

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**This questionnaire was completed by:**

Name Linda Mann

Title Housing Program Manager

Representing City of Carson

Address 701 E. Carson St.

City, State, Zip Carson, CA 90745

Phone Number 310-830-7600

Signature \_\_\_\_\_

Date \_\_\_\_\_

8 6 4 8 2 0 0 - 7 7 7  
Accommodation

Recorded at the Request of:

WESTSIDE TITLE COMPANY

When Received Mail To:

HOME SAVINGS AND LOAN ASSOCIATION  
9243 WILSHIRE BOULEVARD  
BEVERLY HILLS, CALIFORNIA  
Attn. Susan Harzog

2941

RECORDED IN OFFICIAL RECORDS  
OF LOS ANGELES COUNTY, CALIF.  
FOR TITLE INSURANCE & TRUST CO.  
54 Min. 2 P.M. JUL 12 1966  
RAY E. LEE, County Recorder

FEE \$3.60 3N

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MS **Trustee's Deed Upon Sale** I.R.S. # 102.30  
RE: DEED OF TRUST EXECUTED BY: JACK D. MULLIGAN, DUDLEY GRAY and NEAL F. HARTE, each  
as to an undivided one-third interest.

WESTSIDE TITLE COMPANY, a limited partnership, as Trustee, or Successor Trustee, or Substituted Trustee, under the Deed of Trust hereinafter more particularly described, does hereby GRANT and CONVEY to

HOME SAVINGS AND LOAN ASSOCIATION, a California corporation

(herein called grantees), but without covenant or warranty, express or implied, all right, title, and interest conveyed to and now held by it as such Trustee under said Deed of Trust in and to the property situated in

County of Los Angeles State of California, described as follows:

SEE ATTACHED LEGAL

This Conveyance is made in compliance with the terms and provisions of the Deed of Trust recorded July 17, 1963 in book T3136, page 08 of official records in the office of the Recorder of Los Angeles County, California, under the authority and powers vested in said Trustee by the substitution of Trustee recorded March 7, 1966 in book T4854, page 41 of said official records, and pursuant to the Notice of Default and Election to Sell under deed of trust recorded in book M2146, page 496 of said official records, trustee having complied with all applicable statutory requirements of the State of California and performed all duties required by the Deed of Trust. Notice of Trustee's Sale was published once a week for three consecutive weeks commencing June 16, 1966 in Compton Herald a newspaper, and at least twenty days before the date fixed therein for sale a copy of the Notice of Trustee's Sale was posted in a conspicuous place on the property described above and in one public place in the city where the sale was to be held. At the time and place fixed in said notice, Trustee did, by public announcement, as in said deed previously proposed the sale from ~~the~~ ~~time~~ ~~thereafter~~ and did sell the property described above on July 8, 1966 at public auction to the grantee herein, it being the highest qualified bidder therefor, for \$ 92,897.98 cash, lawful money of the United States, receipt whereof is hereby acknowledged in full satisfaction of the debt secured by said Deed of Trust.

In Witness Whereof, WESTSIDE TITLE COMPANY, as such Trustee, has this day, July 8, 1966 caused its name to be hereunto affixed by its partner thereunto duly authorized by its partnership agreement.

TF 17423  
Loan # 66-17275

WESTSIDE TITLE COMPANY  
as such Trustee  
By  
WESTERN DEED CORPORATION

County of Los Angeles }  
State of California } ss

By Wayne H. Mathews

On July 8, 1966 before me, the undersigned, a Notary Public in and for said County and State, personally appeared Wayne H. Mathews known to me to be the authorized officer of WESTERN DEED CORPORATION, the corporation that executed the within instrument and known to me to be the person who executed the within instrument on behalf of said corporation, said corporation being known to me to be one of the partners of WESTSIDE TITLE COMPANY, the partnership that executed the within instrument, and acknowledged to me that such corporation executed the same as such partner and that such partnership executed the same.

Witness my hand and official seal.

Jackie J. Caydon  
Notary Public in and for said County and State

JACKIE J. CAYDON  
NOTARY PUBLIC - CALIFORNIA  
PRINCIPAL OFFICE IN  
LOS ANGELES COUNTY

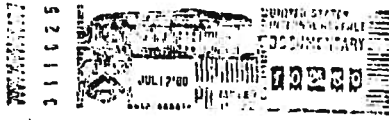
My Commission Expires November 14, 1969

\* Mail tax bill to the above

WV-18-A

JUL 12 1966

2941



JUL 12 1966

2941

APR 26 1973

738

2367-

RECORDING REQUESTED BY

Carson Redevelopment Agency  
c/o Richards, Watson, Dreyfuss  
& Gershon  
615 South Flower Street  
Los Angeles, California 90017

AND WHEN RECORDED MAIL TO  
Carson Redevelopment Agency  
c/o Richards, Watson, Dreyfuss  
& Gershon  
615 South Flower Street  
Los Angeles, California  
90017

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MAIL TAX STATEMENTS TO  
Carson Redevelopment Agency  
c/o Richards, Watson, Dreyfuss  
& Gershon  
615 South Flower Street  
Los Angeles, California  
90017

Documentary transfer tax \$ NONE  
 Computed on full value of property conveyed, or  
 Computed on full value less liens & encumbrances  
remaining thereon at time of sale.

Signature of declarant or agent *John T. Gilboy* SECURITY TITLE INSURANCE COMPANY  
 Unincorporated area City of Carson  
FREE DOCUMENT, Government Code No. 6103

### Corporation Grant Deed

Document necessary. Agency  
acquiring City Title.  
AFFIX I.R.S. \$

THIS FORM FURNISHED BY SECURITY TITLE INSURANCE COMPANY

APR 26 73 SEC. II 8:01

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

HOME SAVINGS AND LOAN ASSOCIATION,

a corporation organized under the laws of the State of California  
hereby GRANT(S) to

CARSON REDEVELOPMENT AGENCY, a Public Body, Corporate and Politic

the following described real property in the City of Carson,  
county of Los Angeles, state of California:

That portion of Lot 56 of Tract No. 3848, in the City of Carson, in  
the County of Los Angeles, State of California, as per map recorded  
in Book 42, Pages 68 and 69 of Maps, in the Office of the County  
Recorder of said County, lying Southerly of that certain course in  
the Southerly line of Desford Street, 40 feet wide, shown on the map  
of Tract No. 26399, recorded in Book 699, Pages 91 and 92 of Maps, in  
the Office of the County Recorder of said County, as having a bearing  
and length of North 89° 39' 26" East 620.02 feet. A portion of this  
description is now shown as:

Lots 1 to 11, inclusive, of Tract No. 29846, in the County of Los  
Angeles, State of California, as per map recorded in Book 727, Pages  
98 and 99 of Maps, in the Office of the County Recorder of said  
County.

Dated April 12, 1973

HOME SAVINGS AND LOAN ASSOCIATION

By: *John T. Gilboy*  
John T. Gilboy, Vice President

By: *Elaine McConnell*  
Elaine McConnell, Asst. Secretary

STATE OF CALIFORNIA  
COUNTY OF Los Angeles } ss.  
On April 13, 1973 before me, the under-  
signed, a Notary Public in and for said County and State, personally  
appeared John T. Gilboy Vice President, and  
Elaine McConnell known to me to be  
Asst. Secretary of the corporation that executed the  
within instrument, known to me to be the persons who executed the  
within instrument on behalf of the corporation therein named, and  
acknowledged to me that such corporation executed the within  
instrument pursuant to its bylaws or resolution of its board of  
directors.

*Elaine McConnell*  
Signature of Notary

Name (Typed or Printed) of Notary

FOR NOTARY SEAL OR STAMP



Title Order No. \_\_\_\_\_ Escrow No. \_\_\_\_\_

738

APR 26 1973

APR 26 73 SEC. II 801

THIS IS TO CERTIFY THAT THE INTEREST IN REAL PROPERTY CONVEYED BY THE WITHIN DEED OR GRANT TO THE REDEVELOPMENT AGENCY OF THE CITY OF CARSON, IS HEREBY ACCEPTED BY ORDER OF THE REDEVELOPMENT AGENCY ON 18 December 1972, AND THE GRANTEE CONSENTS TO THE RECORDATION THEREOF BY ITS DULY AUTHORIZED OFFICER.

DATED: 21 March 1973

CITY OF CARSON

BY E. Fredrick Bin  
EXECUTIVE OFFICER

738

RECORDING REQUESTED BY

315669

AND WHEN RECORDED MAIL TO

NAME RICHARDS, WATSON, DREYFUSS & GERSON  
ADDRESS 333 So. Hope Street, 38th Floor  
CITY Los Angeles, California 90071  
STATE

RECORDED IN OFFICIAL RECORDS  
OF LOS ANGELES COUNTY, CA  
MIN.  
47 PAST 4 P.M. MAR 29 1977  
Recorder's Office

Title Order No. \_\_\_\_\_ Edition No. \_\_\_\_\_

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MAIL TAX STATEMENTS TO

NAME  
ADDRESS  
CITY &  
STATE

FREE N  
ADDITIONAL \$ ✓

### Corporation Grant Deed

THIS FORM FURNISHED BY SECURITY TITLE INSURANCE COMPANY

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged

CARSON REDEVELOPMENT AGENCY, a Public Body, Corporate and Politic

has GRANTED to

CITY OF CARSON, a Municipal Corporation

the following described real property in the  
County of Los Angeles State of California

As shown in Exhibit "A" attached hereto and made a  
part hereof.

Dated December 7, 1976

*Carson Redevelopment Agency*  
BY *John A. Markut*  
Chairman

BY *William S. Kuewen*  
Secretary

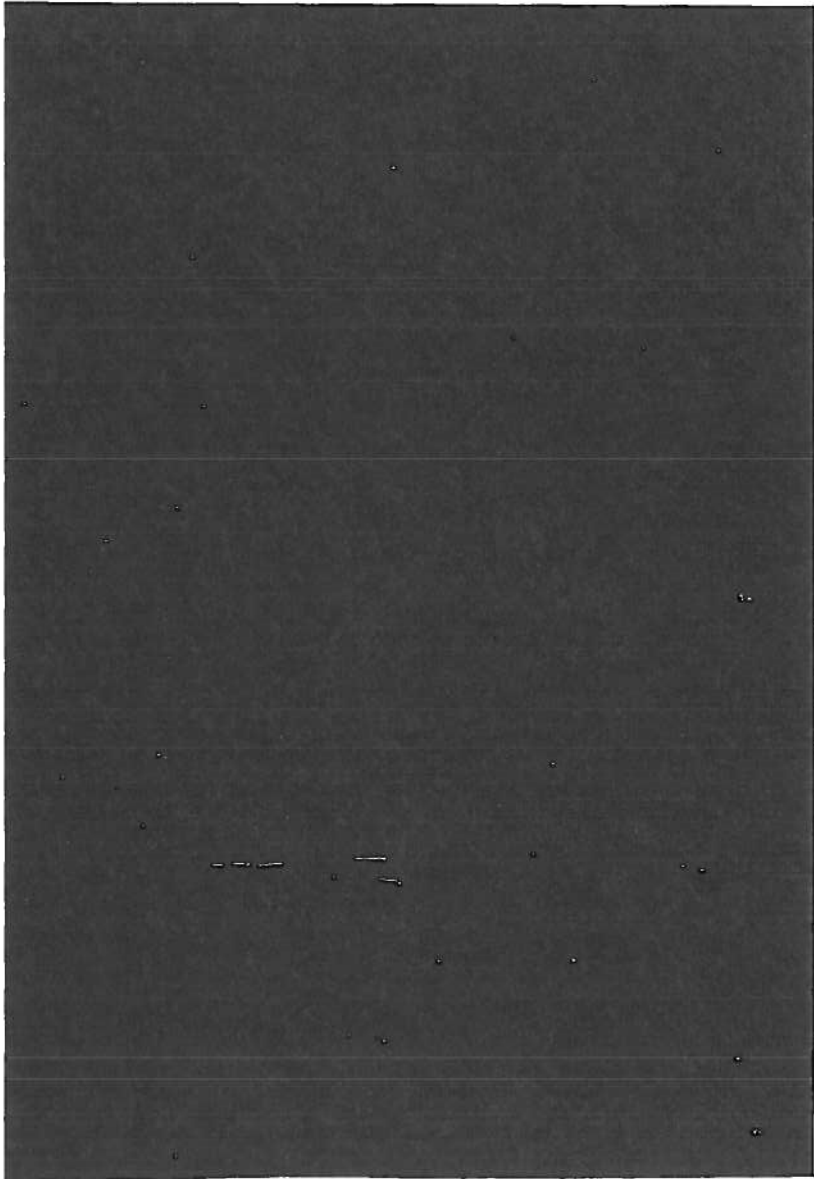
STATE OF CALIFORNIA  
COUNTY OF \_\_\_\_\_  
I, \_\_\_\_\_  
Notary Public in and for the State of California, do hereby certify  
that the foregoing is a true and correct copy of the original  
instrument as the same appears in my records.

Notary Public in and for the State of California, do hereby certify  
that the foregoing is a true and correct copy of the original  
instrument as the same appears in my records.

Signature of Notary

Name of Notary in full

FOR NOTARY SEAL OR STAMP



CERTIFICATE OF ACCEPTANCE

THIS IS TO CERTIFY THAT THE INTEREST  
IN REAL PROPERTY CONVEYED BY THE  
WITHIN DEED OR GRANT TO THE CITY OF  
CARSON, A POLITICAL CORPORATION AND/  
OR GOVERNMENTAL AGENCY, IS HEREBY  
ACCEPTED BY ORDER OF THE CITY COUNCIL  
ON 14 OCTOBER 1968, AND THE  
GRANTEE CONSENTS TO THE RECORDATION  
THEREOF BY ITS DULY AUTHORIZED OFFICER.

DATE: 7 January 1977

CITY OF CARSON

BY: E. Harold Bier  
City Administrator

11- 315669



PARCEL 1:

(a) The East 335 feet of Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County.

EXCEPT the southerly 20 feet thereof.

(b) Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County.

EXCEPT THEREFROM the easterly 335 feet.

ALSO EXCEPT the southerly 125 feet of the westerly 160 feet.

ALSO EXCEPT the southerly 20 feet from the remainder thereof.

ALSO EXCEPT the westerly 25 feet from the remainder thereof.

PARCEL 2:

(a) The South 125 feet of the West 140 feet of Lot 54 of Tract No. 3848 in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County.

EXCEPT the westerly 25 feet of said land.

ALSO EXCEPT that portion of said land included within the following described boundaries:

Beginning at the intersection of the southerly line of said lot with the easterly line of the westerly 140 feet of said lot; thence northerly along said easterly line 20.00 feet to the northerly line of the southerly 20 feet of said lot; thence westerly along said northerly line 98.00 feet to a point distant easterly thereon 17.00 feet from the easterly line of the westerly 25 feet of said lot; thence northwesterly in a direct line 24.03 feet to a point in said last mentioned easterly line distant northerly thereon 17.00 feet from the northerly line of the southerly 20 feet of said lot; thence southerly along said last mentioned easterly line to said southerly line of said lot; thence easterly along said southerly line to the point of beginning.

(b) The South 125 feet of the West 160 feet of Lot 54 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County.

EXCEPT THEREFROM the West 140 feet thereof.

ALSO EXCEPT THEREFROM the southerly 20 feet thereof.

PARCEL 3:

Lot 55 of Tract No. 3848, in the City of Carson, in the County of Los Angeles, State of California, as per map recorded in Book 42 Pages 68 and 69 of Maps, in the office of the County Recorder of said County.

EXCEPT the westerly 25 feet of the southerly 165 feet of said lot.

PARCEL 4:

Lots 1 to 11, inclusive, of Tract No. 29846, in the County of Los Angeles, State of California, as per map recorded in Book 727 Pages 98 and 99 of Maps, in the office of the County Recorder of said County.

EXHIBIT "A"

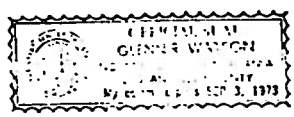
17- 315669

STATE OF CALIFORNIA )  
 ) ss.  
COUNTY OF LOS ANGELES )

On December 7, 1976, before me, the undersigned, a Notary Public in and for said County and State, personally appeared JOHN A. MARBUT and HELEN S. KAWAGOE, known to me to be the Chairman and Secretary, respectively, of the public body that executed the within Instrument, known to me to be the persons who executed the within Instrument on behalf of the public body therein named, and acknowledged to me that such public body executed the within Instrument pursuant to its by-laws or resolution of its board of directors.

  
Glenn R. Watson

FOR NOTARY SEAL OR STAMP



7- 315669



**Carson City Hall**

701 East Carson Street  
Carson, CA 90745

Inquiry Number: 4195320.9

February 02, 2015

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th Floor  
Shelton, Connecticut 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://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.

**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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**Date EDR Searched Historical Sources:**

Aerial Photography February 02, 2015

**Target Property:**

701 East Carson Street

Carson, CA 90745

<u><i>Year</i></u>	<u><i>Scale</i></u>	<u><i>Details</i></u>	<u><i>Source</i></u>
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	USGS
1947	Aerial Photograph. Scale: 1"=500'	Flight Year: 1947	Fairchild
1952	Aerial Photograph. Scale: 1"=500'	Flight Year: 1952	USGS
1963	Aerial Photograph. Scale: 1"=500'	Flight Year: 1963	USGS
1970	Aerial Photograph. Scale: 1"=500'	Flight Year: 1970	USGS
1972	Aerial Photograph. Scale: 1"=500'	Flight Year: 1972	USGS
1983	Aerial Photograph. Scale: 1"=500'	Flight Year: 1983	USGS
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	USGS/DOQQ
2002	Aerial Photograph. Scale: 1"=500'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP



## ATTACHMENT E

---

EDR – Historical Topographic Map Report



**Carson City Hall**

701 East Carson Street  
Carson, CA 90745

Inquiry Number: 4195320.4  
January 30, 2015

# EDR Historical Topographic Map Report



6 Armstrong Road, 4th Floor  
Shelton, Connecticut 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://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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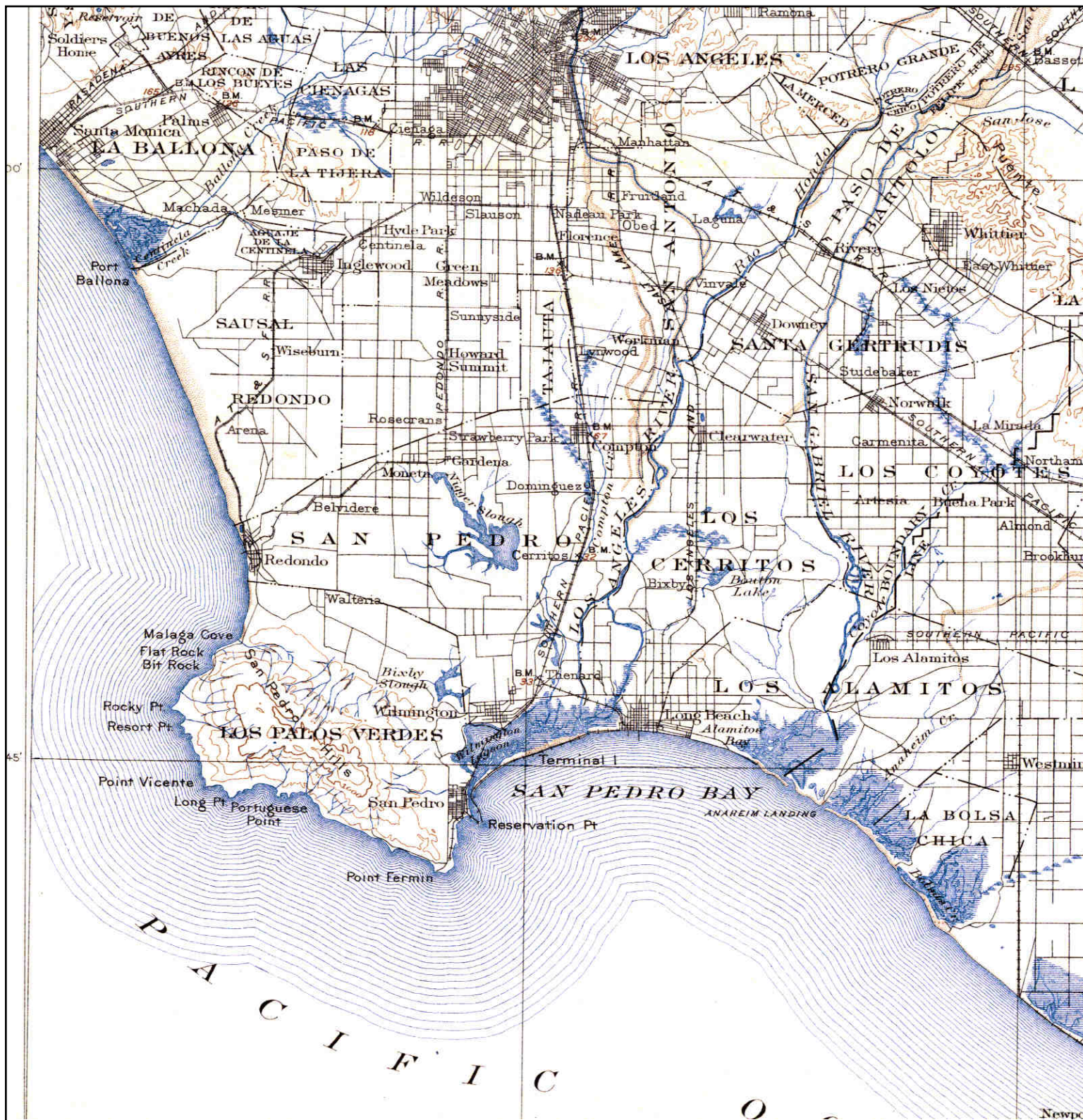


# Historical Topographic Map



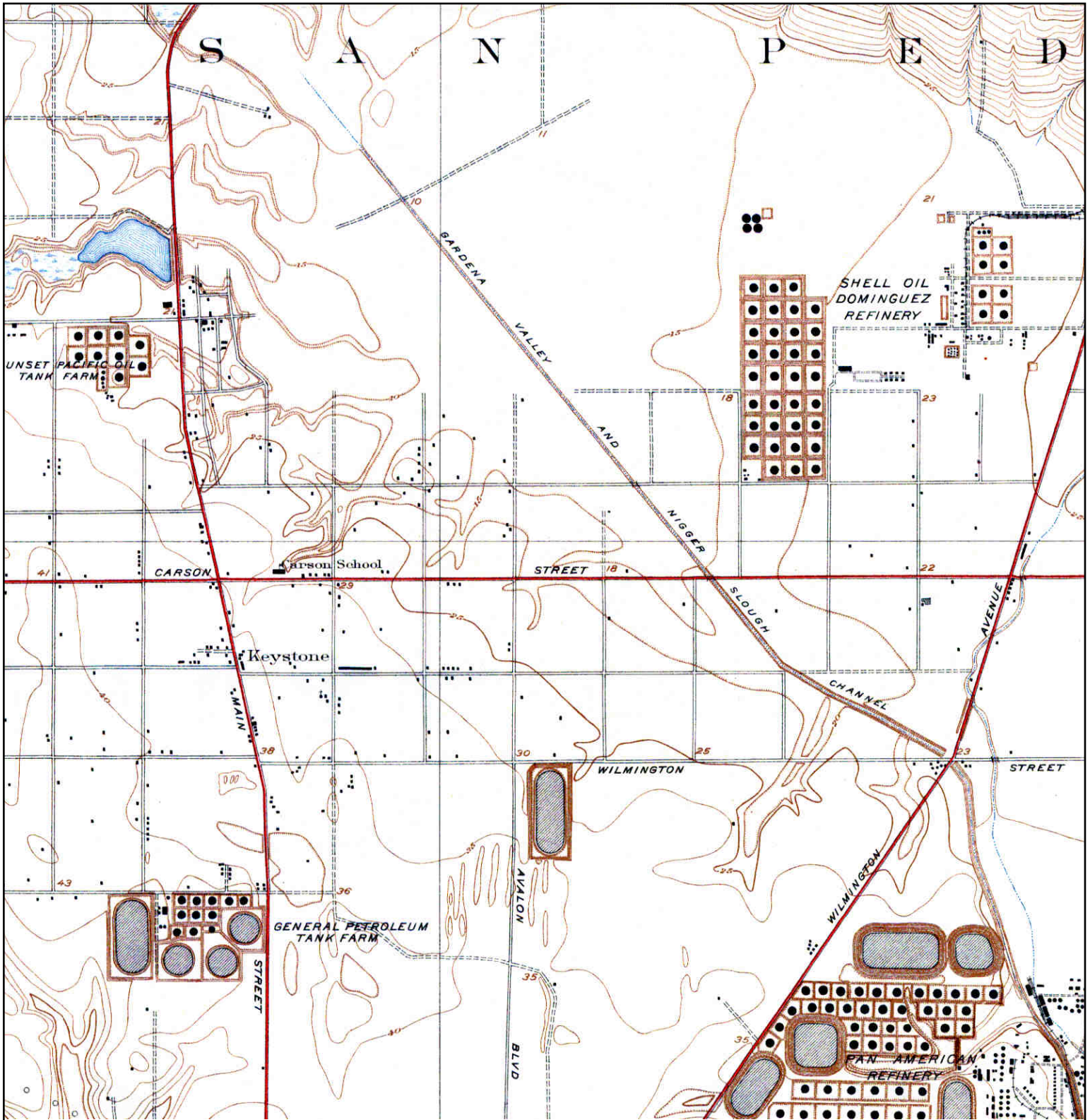
<b>N</b> 	<b>TARGET QUAD</b> NAME: REDONDO MAP YEAR: 1896	SITE NAME: Carson City Hall ADDRESS: 701 East Carson Street Carson, CA 90745 LAT/LONG: 33.8326 / -118.2616	CLIENT: AMEC Environment & Infrastructure, Inc. CONTACT: Ellen Smith INQUIRY#: 4195320.4 RESEARCH DATE: 01/30/2015
	SERIES: 15 SCALE: 1:62500		

# Historical Topographic Map



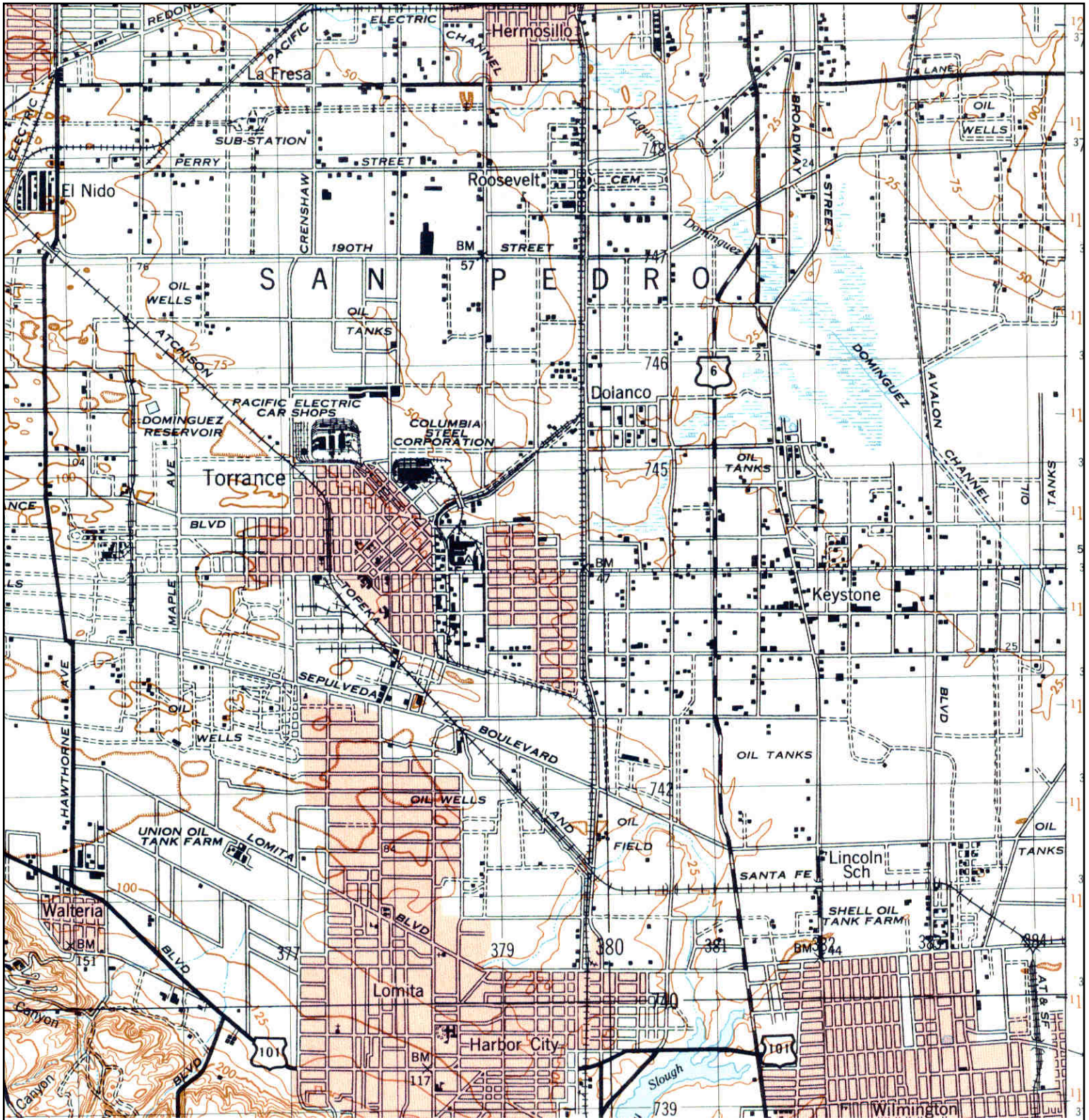
<p>N</p>	<p><b>TARGET QUAD</b></p> <p>NAME: SOUTHERN CA SHEET 1</p> <p>MAP YEAR: 1901</p>	<p>SITE NAME: Carson City Hall</p> <p>ADDRESS: 701 East Carson Street Carson, CA 90745</p> <p>LAT/LONG: 33.8326 / -118.2616</p>	<p>CLIENT: AMEC Environment &amp; Infrastructure, Inc.</p> <p>CONTACT: Ellen Smith</p> <p>INQUIRY#: 4195320.4</p> <p>RESEARCH DATE: 01/30/2015</p>
	<p>SERIES: 60</p> <p>SCALE: 1:250000</p>		


# Historical Topographic Map



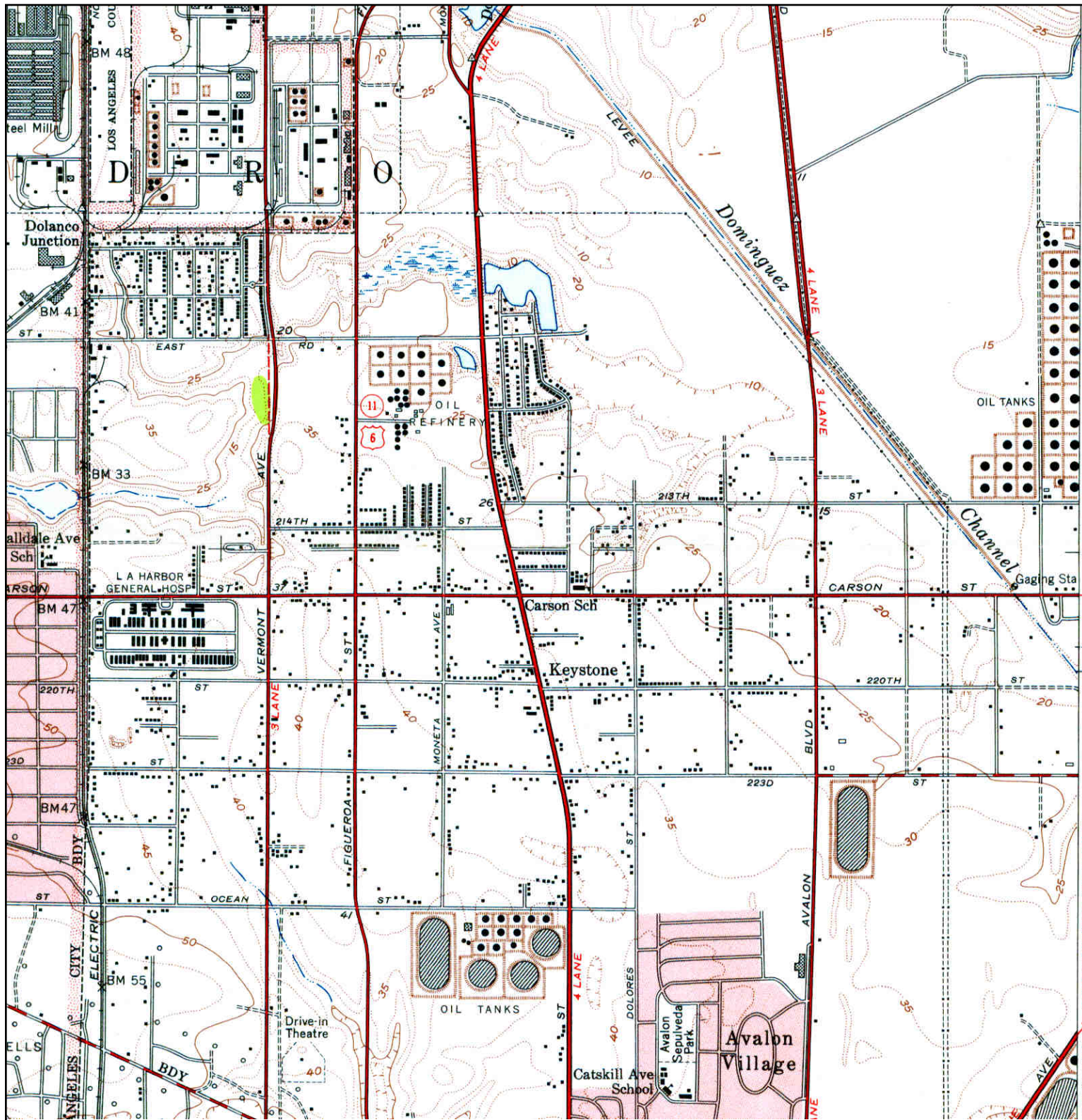
<p>N ↑</p>	<p><b>TARGET QUAD</b>                  NAME: COMPTON                  MAP YEAR: 1930</p>	<p><b>SITE NAME:</b> Carson City Hall  <b>ADDRESS:</b> 701 East Carson Street                  Carson, CA 90745  <b>LAT/LONG:</b> 33.8326 / -118.2616</p>	<p><b>CLIENT:</b> AMEC Environment &amp; Infrastructure, Inc.  <b>CONTACT:</b> Ellen Smith  <b>INQUIRY#:</b> 4195320.4  <b>RESEARCH DATE:</b> 01/30/2015</p>
	<p>SERIES: 6</p>		
	<p>SCALE: 1:24000</p>		


# Historical Topographic Map



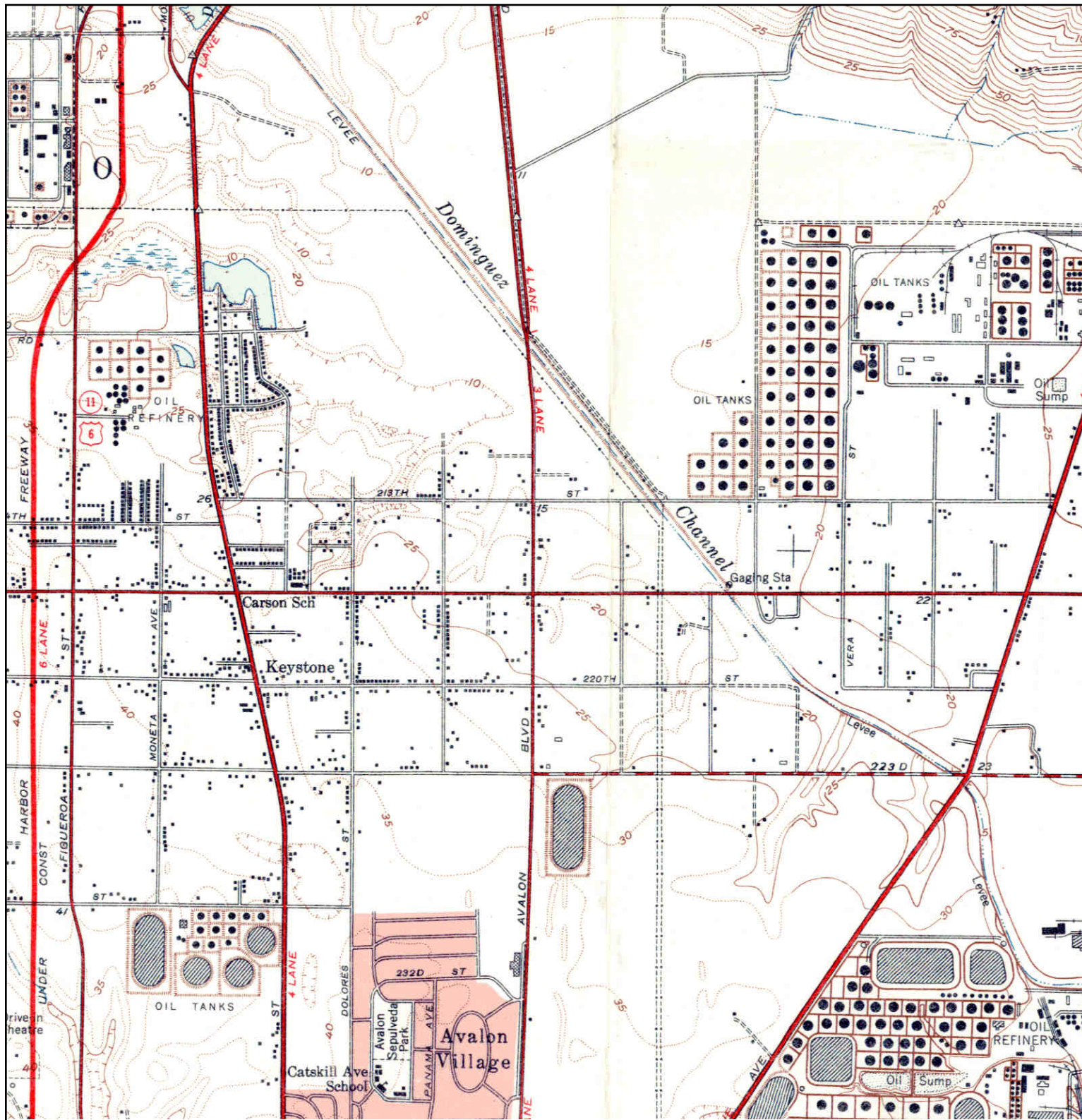
	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Carson City Hall	<b>CLIENT:</b> AMEC Environment & Infrastructure, Inc.	
	<b>NAME:</b> REDONDO	<b>ADDRESS:</b> 701 East Carson Street	<b>CONTACT:</b> Ellen Smith	
	<b>MAP YEAR:</b> 1948	<b>LAT/LONG:</b> 33.8326 / -118.2616	<b>INQUIRY#:</b> 4195320.4	<b>RESEARCH DATE:</b> 01/30/2015
	<b>SERIES:</b> 15			
	<b>SCALE:</b> 1:50000			


# Historical Topographic Map



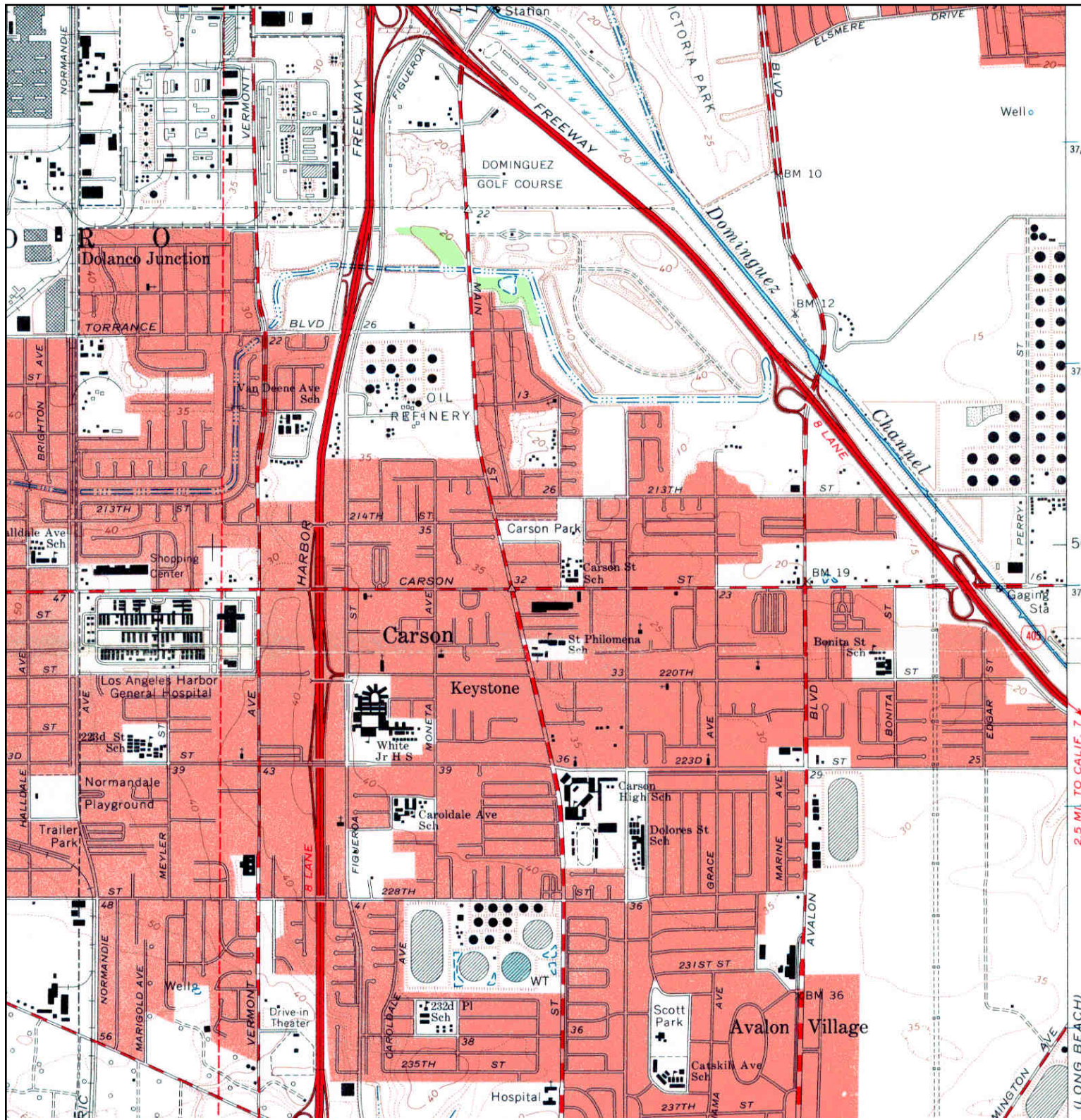
	<b>TARGET QUAD</b> NAME: TORRANCE MAP YEAR: 1951	SITE NAME: Carson City Hall ADDRESS: 701 East Carson Street Carson, CA 90745 LAT/LONG: 33.8326 / -118.2616	CLIENT: AMEC Environment & Infrastructure, Inc. CONTACT: Ellen Smith INQUIRY#: 4195320.4 RESEARCH DATE: 01/30/2015
	SERIES: 7.5		
	SCALE: 1:24000		

# Historical Topographic Map



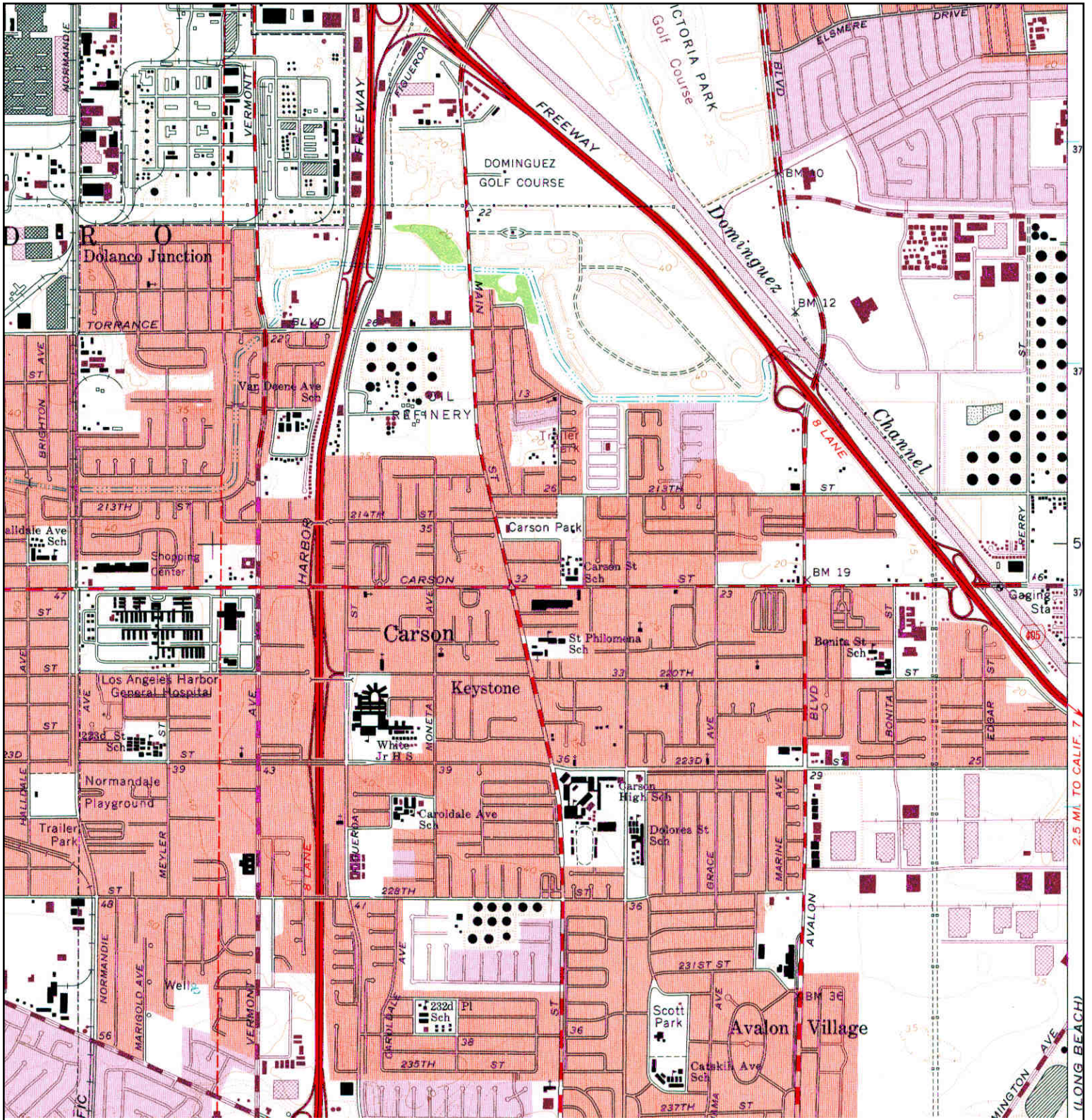
 <b>N</b>	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Carson City Hall	<b>CLIENT:</b> AMEC Environment & Infrastructure, Inc.
	<b>NAME:</b> LONGBEACH VICINITY 20F3	<b>ADDRESS:</b> 701 East Carson Street Carson, CA 90745	<b>CONTACT:</b> Ellen Smith
	<b>MAP YEAR:</b> 1951	<b>LAT/LONG:</b> 33.8326 / -118.2616	<b>INQUIRY#:</b> 4195320.4
	<b>SERIES:</b> 7.5		<b>RESEARCH DATE:</b> 01/30/2015
	<b>SCALE:</b> 1:24000		

# Historical Topographic Map



<p>N</p>	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Carson City Hall	<b>CLIENT:</b> AMEC Environment & Infrastructure, Inc.
	<b>NAME:</b> TORRANCE	<b>ADDRESS:</b> 701 East Carson Street	<b>CONTACT:</b> Ellen Smith
	<b>MAP YEAR:</b> 1964	<b>LAT/LONG:</b> 33.8326 / -118.2616	<b>INQUIRY#:</b> 4195320.4
	<b>SERIES:</b> 7.5		<b>RESEARCH DATE:</b> 01/30/2015
	<b>SCALE:</b> 1:24000		

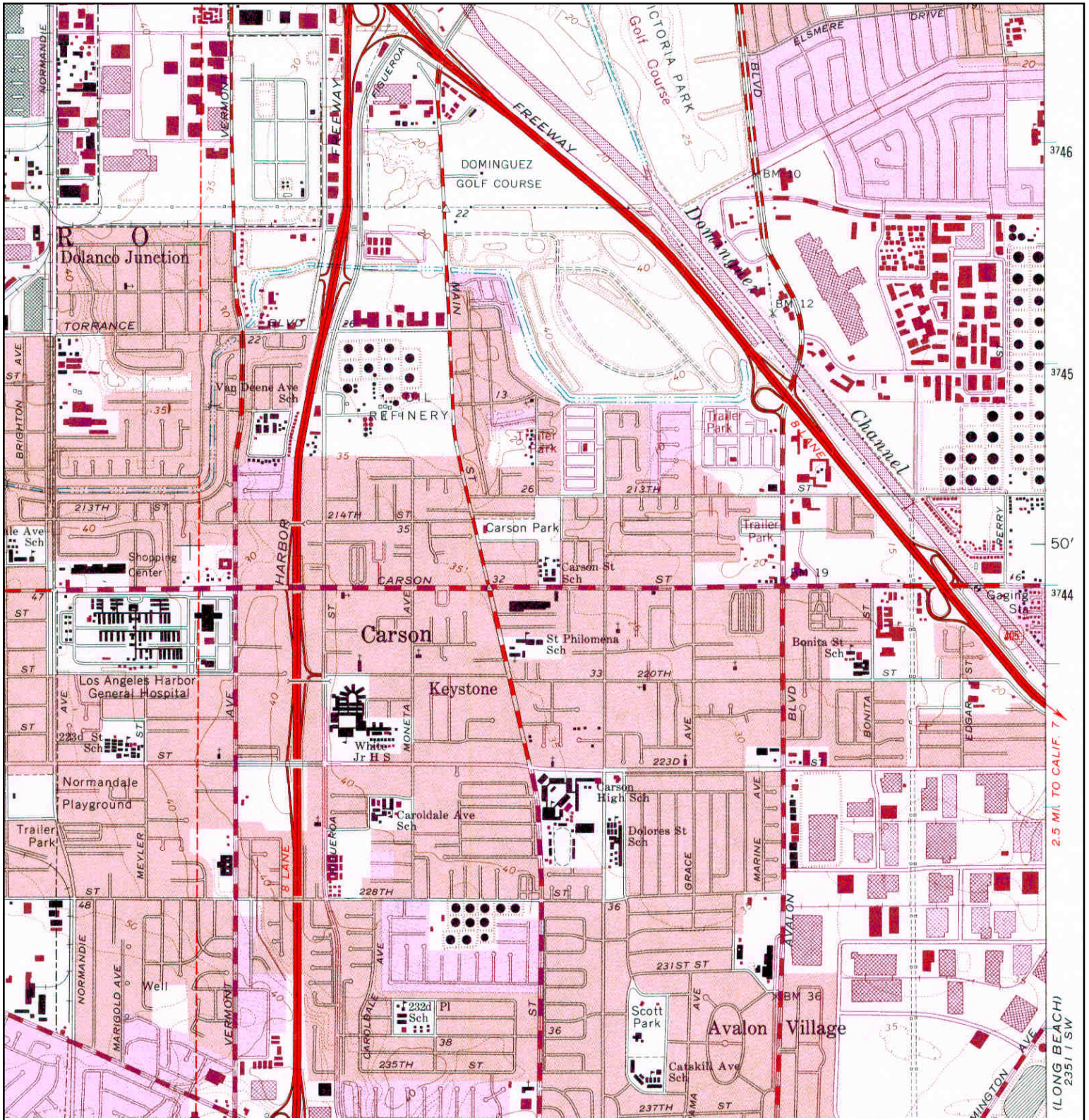
# Historical Topographic Map



<p>N ↑</p>	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Carson City Hall	<b>CLIENT:</b> AMEC Environment & Infrastructure, Inc.
	NAME: TORRANCE	<b>ADDRESS:</b> 701 East Carson Street	<b>CONTACT:</b> Ellen Smith
	MAP YEAR: 1972	Carson, CA 90745	<b>INQUIRY#:</b> 4195320.4
	PHOTOREVISED FROM :1964	<b>LAT/LONG:</b> 33.8326 / -118.2616	<b>RESEARCH DATE:</b> 01/30/2015
	SERIES: 7.5		
	SCALE: 1:24000		



# Historical Topographic Map



<p>N ↑</p>	<b>TARGET QUAD</b>	<b>SITE NAME:</b> Carson City Hall	<b>CLIENT:</b> AMEC Environment & Infrastructure, Inc.
	<b>NAME:</b> TORRANCE	<b>ADDRESS:</b> 701 East Carson Street	<b>CONTACT:</b> Ellen Smith
	<b>MAP YEAR:</b> 1981	Carson, CA 90745	<b>INQUIRY#:</b> 4195320.4
	<b>PHOTOREVISED FROM :</b> 1964	<b>LAT/LONG:</b> 33.8326 / -118.2616	<b>RESEARCH DATE:</b> 01/30/2015
	<b>SERIES:</b> 7.5		
	<b>SCALE:</b> 1:24000		



## ATTACHMENT F

---

EDR – City Directory Abstract

**Carson City Hall**

701 East Carson Street  
Carson, CA 90745

Inquiry Number: 4195320.5  
January 30, 2015

# The EDR-City Directory Abstract

## TABLE OF CONTENTS

### SECTION

Executive Summary

Findings

City Directory Images

*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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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 1920 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.

### 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.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	X	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	X	X	X	-
2000	Pacific Bell Telephone	-	-	-	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	X	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	-	X	X	-
1981	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	-	X	X	-
1976	Pacific Telephone	-	X	X	-
1975	Pacific Telephone	-	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	-	-	-
1966	Pacific Telephone	-	-	-	-

## EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1965	Pacific Telephone	-	-	-	-
1964	Pacific Telephone	-	X	X	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1961	Luskey Brothers & Co	-	-	-	-
1960	Pacific Telephone	-	X	X	-
1958	Pacific Telephone	-	-	-	-
1957	Pacific Telephone	-	X	X	-
1956	General Telephone Company Publishers	-	-	-	-
1955	Home Directory Service	-	-	-	-
1954	R. L. Polk & Co.	-	X	X	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Pacific Directory Co.	-	-	-	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Western Directory Co.	-	-	-	-
1945	The Glendale Directory Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	-	-	-
1940	Glendale Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Co.	-	-	-	-
1930	Glendale Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Kaasen Directory Company Publishers	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

## EXECUTIVE SUMMARY

### SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
801 east carson street	Client Entered	X

# FINDINGS

## TARGET PROPERTY INFORMATION

### ADDRESS

701 East Carson Street  
Carson, CA 90745

### FINDINGS DETAIL

Target Property research detail.

## E CARSON ST

### **701 E CARSON ST**

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CITY OF CARSON	Cole Information Services
2008	CARRIAGE CREST PARK VOLUN CARSON CENTER CARSON CITY HALL CITY OF CARSON COUNTY OF LOS ANGELES	Cole Information Services Cole Information Services Cole Information Services Cole Information Services Cole Information Services
2006	CARSON CARSON CTY CENTER CARSON CTY CONFERENCE CTR CARSONCTY ENGINEERING CARSON CTY HALL JAYS CATERING MAINTENANCE MASTROIANNIS STREET	Haines Company, Inc. Haines Company, Inc. Haines Company, Inc. Haines Company, Inc. Haines Company, Inc. Haines Company, Inc. Haines Company, Inc. Haines Company, Inc.
2001	CARSONCITYOF	Haines & Company, Inc.
1995	Carson City Of CITY HALL Carson City Of Redevelopment Agency Carson Community Center Carson Conference Center Mastroiannis Jays Catering	Pacific Bell Pacific Bell Pacific Bell Pacific Bell Pacific Bell

### **801 E CARSON ST**

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CITY OF CARSON	Cole Information Services
2008	JAYS CATERING	Cole Information Services
2006	CARSON CENTER CARSONCTY	Haines Company, Inc. Haines Company, Inc.



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	DEVELOPMENT	Haines Company, Inc.
	ENGINEERING JAYS CATERING	Haines Company, Inc.
	SERV CARSON CTY	Haines Company, Inc.
2001	CARSONCENTER	Haines & Company, Inc.
1995	Carson Center	Pacific Bell
	Carson City Of CARSON COMMUNITY CENTER	Pacific Bell
	Carson City Of CARSON CONFERENCE CENTER	Pacific Bell
	Carson City Of CITY OF CARSON COMMUNITY CENTER	Pacific Bell

### east carson street

#### 801 east carson street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CARSON CENTER	Haines Company, Inc.
	CARSONCTY	Haines Company, Inc.
	DEVELOPMENT	Haines Company, Inc.
	ENGINEERING JAYS CATERING	Haines Company, Inc.
	SERV CARSON CTY	Haines Company, Inc.
2001	CARSONCENTER	Haines & Company, Inc.
1995	Carson Center	Pacific Bell
	Carson City Of CARSON COMMUNITY CENTER	Pacific Bell
	Carson City Of CARSON CONFERENCE CENTER	Pacific Bell
	Carson City Of CITY OF CARSON COMMUNITY CENTER	Pacific Bell

## FINDINGS

### ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

#### AVALON BLVD

##### 21521 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	HARBOR COMMUNITY CHAPEL	Cole Information Services
2006	CHAPEL	Haines Company, Inc.
	HARB OR CMNTY	Haines Company, Inc.
	CHURCH OF GOD	Haines Company, Inc.
1980	CHURCH OF GOD ANDERSON INDIANA	Pacific Telephone

##### 21611 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	FUNCADE	Cole Information Services

##### 21613 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	GREGORY OWENS STATE FARM INSURANCE	Cole Information Services
2008	GREGORY C OWENS AGENCY	Cole Information Services
	STATE FARM INSURANCE	Cole Information Services
2006	GREGORY C OWENS	Haines Company, Inc.
	AGENCY STATE FARMINS	Haines Company, Inc.
	AGENT	Haines Company, Inc.

##### 21615 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	HAPPY CLEANERS	Cole Information Services
2006	HAPPY CLEANERS	Haines Company, Inc.

##### 21617 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	ESTEREOS ONLINE	Cole Information Services
	HTB MARKETING INC	Cole Information Services
	ASSOCIATED CONSTRUCTION & DEVELOPMEN	Cole Information Services
2008	MOBILE VIDEO SYSTEMS INC	Cole Information Services
	E STEREOS ONLINE INC	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	HTB MARKETING INC	Cole Information Services
2006	ASSOCTD CONSTR	Haines Company, Inc.
	HTB MARKETING	Haines Company, Inc.
	A DEVL P E STEREOS ONLINE	Haines Company, Inc.
<b>21619 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ZENIS GIFTS	Pacific Bell
<b>21621 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	LAWSON S COMPU-TAX SERVICE CARSON	Pacific Bell
<b>21629 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	LE CHIC FASHIONS	Cole Information Services
2008	LE CHIC FASHIONS	Cole Information Services
2006	LE CHIC FASHIONS	Haines Company, Inc.
<b>21633 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	NAIL OF OBSESSION	Cole Information Services
2008	NAILS OBSESSION	Cole Information Services
2006	NAIL OF OBSESSION	Haines Company, Inc.
<b>21635 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	DANIELS ANTIQUES	Cole Information Services
<b>21702 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	CIS DRIVING SCHOOL	Cole Information Services
<b>21703 AVALON BLVD</b>		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CARLS JR	Cole Information Services
2008	CARL KARCHER ENTERPRISES INC	Cole Information Services
2006	Res TAURANTS	Haines Company, Inc.
	Res TAURANTS CARLS JR	Haines Company, Inc.
	CARLSJR	Haines Company, Inc.

## FINDINGS

### 21716 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	IHOP	Cole Information Services
2008	IHOP 772	Cole Information Services
2006	INTLHOUSEOF PANCAKES	Haines Company, Inc. Haines Company, Inc.

### 21720 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.

### 21728 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ALTIMA INSURANCE SERVICES	Cole Information Services
	C I S DRIVING ACADEMY	Cole Information Services
2006	SERVICES CIS DRIVING ALTIMA INSURANCE SCHOOL	Haines Company, Inc. Haines Company, Inc. Haines Company, Inc.

### 21730 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ELMERENGON	Haines Company, Inc.

### 21732 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	NAILS BY ANNA	Cole Information Services
	HAIR 2000 BEAUTY SALON	Cole Information Services
	HAIR 2000	Cole Information Services
2006	HAIR	Haines Company, Inc.

### 21734 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	REPAIR	Haines Company, Inc.
	CARSONSHOE	Haines Company, Inc.

### 21736 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ARTISTIC BALLOONS	Cole Information Services
2006	ARTISTIC BALLOONS	Haines Company, Inc. Haines Company, Inc.

## FINDINGS

### 21737 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	TOGOSBASKIN ROBBINS EATERY	Cole Information Services
2006	TOGOS EATERY	Haines Company, Inc.

### 21738 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	E Z CHECK ADVANCE	Cole Information Services
2008	EZ CHECK ADVANCE	Cole Information Services
2006	ADVANCE	Haines Company, Inc.
	E ZCHECK	Haines Company, Inc.

### 21739 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	LEE KRISTEN OD	Cole Information Services
2008	DR ROBERT S REINER	Cole Information Services

### 21740 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	CHAMPION LIQUOR	Cole Information Services
2006	CHAMPION LIQUOR	Haines Company, Inc.
	CHAMPION LIQUOR	Haines Company, Inc.

### 21741 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	ALTIMA INSURANCE	Cole Information Services
2006	REALTORS	Haines Company, Inc.
	HUNDREDISLAND	Haines Company, Inc.

### 21743 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CARRILLO FURNITURE	Cole Information Services
2008	CARRILLO FURNITURE	Cole Information Services
2006	FURNITURE	Haines Company, Inc.
	CARRILLO	Haines Company, Inc.

### 21801 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	PROFESSIONAILS	Cole Information Services
2008	PROFESSIONAL NAILS	Cole Information Services
2006	PROFESSIO NAILS	Haines Company, Inc.

## FINDINGS

### 21802 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.

### 21803 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	UNLIMITED HAIR	Cole Information Services
2006	UNLIMITEDHAIR	Haines Company, Inc.
1995	Alberts Affair With Hair	Pacific Bell

### 21804 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	MAEGANS GRILL	Cole Information Services
2006	MAEGANS GRILL	Haines Company, Inc.

### 21805 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	SERVI MAX	Cole Information Services

### 21808 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	TERESITAS MEXICAN BAKERY	Cole Information Services
2006	LIZA Waller	Haines Company, Inc.
	TERes ITAS	Haines Company, Inc.
	MEXICAN BAKERY ii FIGUEROA Arminda	Haines Company, Inc.

### 21809 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	FREEWAY CLOTHING	Cole Information Services
	WESTERN APPAREL SALES CORP	Cole Information Services
2006	CLOTHING	Haines Company, Inc.
	FREEWAY	Haines Company, Inc.

### 21810 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	o RODRIGUEZAdilene	Haines Company, Inc.

### 21814 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LAS PALMAS TRUE	Haines Company, Inc.

## FINDINGS

### 21819 AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	OREILLY AUTO PARTS	Cole Information Services
2008	KRAGEN AUTO PARTS	Cole Information Services
	CSK AUTO INC	Cole Information Services
2006	KRAGENAUTO PARTS	Haines Company, Inc. Haines Company, Inc.

### AVALON BLVD S

#### 21521 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	HARBOR COMMUNITY CHAPEL	Pacific Bell
1990	HARBOR COMMUNITY CHAPEL	Pacific Bell

#### 21601 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	A ART OF DANCING THE	Pacific Bell

#### 21611 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	ART OF DANCING THE	Pacific Bell
1990	FUNCADE	Pacific Bell

#### 21615 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	HAPPY CLEANERS	Pacific Bell
1990	FUTURE UNLIMITED INVESTMENT CORP	Pacific Bell
	CIVIC CLEANERS	Pacific Bell

#### 21617 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	FLOWERS MARY MD	Pacific Bell
1990	KARATE FOR KIDS	Pacific Bell

#### 21625 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	POINT AFTER SPORTS LOUNGE THE	Pacific Bell
	THE POINT AFTER	Pacific Bell
1990	UNIFIED ESCROW CORP	Pacific Bell
	UNIFIED INVESTMENT SERVICES	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	T M C O PROPERTY MANAGEMENT COMPANY	Pacific Bell

### 21629 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	LE CHIC FASHIONS	Pacific Bell
1990	LE CHIC FASHIONS	Pacific Bell

### 21631 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	SHORT STOP PHARMACY	Pacific Bell
1990	SHORT STOP PHARMACY	Pacific Bell

### 21635 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	HARRYS NO 2 DONUTS	Pacific Bell

### 21703 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	CARLS JR RESTAURANTS	Pacific Bell
1990	CARLS JR RESTAURANTS	Pacific Bell

### 21716 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	INTERNATIONAL HOUSE OF PANCAKES	Pacific Bell
1990	TONYS RESTAURANT	Pacific Bell

### 21728 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	PANTS & TOPS R US INC	Pacific Bell

### 21728 1/2 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	NAIL SHOP THE	Pacific Bell
	TURANG PAUL J	Pacific Bell
	FACES N FOCUS	Pacific Bell

### 21730 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	NORMAS BEAUTY SALON	Pacific Bell



## FINDINGS

### 21732 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	DEWEYS TAX SERVICE	Pacific Bell
1990	FLOWER TALK	Pacific Bell

### 21734 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	BAL SHOE REPAIR	Pacific Bell
1990	BAL SHOE REPAIR	Pacific Bell

### 21736 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	ARTISTIC BALLOONS	Pacific Bell

### 21737 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	COIN WASH LAUNDRY	Pacific Bell
1990	COIN WASH LAUNDRY	Pacific Bell

### 21738 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	ARTISTIC CRAFTS	Pacific Bell

### 21739 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	REINER ROBERT S	Pacific Bell
1990	REINER ROBERT S	Pacific Bell

### 21740 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	CHAMPION LIQUOR	Pacific Bell
1990	MAGIC LIQUOR	Pacific Bell

### 21741 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	QUALITY CLEANERS	Pacific Bell

### 21801 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	A VIDEO	Pacific Bell

## FINDINGS

### 21802 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	REAR KITTELSRUD J & P	Pacific Bell
1990	GONZALEZ CARMEN	Pacific Bell

### 21803 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	ALBERTS AFFAIR WITH HAIR	Pacific Bell

### 21804 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	3 PEPPERS	Pacific Bell
1990	JINOS PIZZA THE ORIGINAL	Pacific Bell

### 21805 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	RUDYS BAIL BONDS	Pacific Bell
1990	PIP PRINTING	Pacific Bell

### 21808 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	TERESITAS MEXICAN BAKERY	Pacific Bell

### 21809 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	RED WEST PIZZA	Pacific Bell
1990	RED WEST PIZZA	Pacific Bell

### 21814 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	LAS PALMAS TRUE VALUE HARDWARE STORE	Pacific Bell
1990	LAS PALMAS TRUE VALUE HARDWARE STORE	Pacific Bell

### 21819 AVALON BLVD S

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	FREEWAY CLOTHING	Pacific Bell
1990	FREEWAY CLOTHING	Pacific Bell

## FINDINGS

### CARSON ST

#### 750 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	SEMENUK L	Pacific Bell

#### 800F CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	APOLLO ANSWERING SERVICE	Pacific Telephone

### E CARSON ST

#### 610 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	JAVIERS NURSERY	Haines Company, Inc.
2001	JAVIERSNURSERY	Haines & Company, Inc.

#### 616 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	AVALON CARSON MOBILE HOME PARK	Cole Information Services
2001	CARSON AVLNT 9 LRPK APALATEARudolpn	Haines & Company, Inc.
	CARSON AVLNT 9 LRPK APALATEARudolpn	Haines & Company, Inc.
1995	Albertson ARTESIA	Pacific Bell
	Apalatea Rudolph	Pacific Bell
	Avallon Don Jr	Pacific Bell
	Avalon Carson Mobile Home Park	Pacific Bell
	Barnett H	Pacific Bell
	Braney Judy	Pacific Bell
	Carson Avalon Mobile Home Park	Pacific Bell
	Cassity Chas C	Pacific Bell
	Chaney Herschel	Pacific Bell
	Tryba M L	Pacific Bell
	Covington Dolores	Pacific Bell
	Garcia Robt & Alice	Pacific Bell
	Hass Jas A	Pacific Bell
	Headrick Robt	Pacific Bell
	Hopper Harold R	Pacific Bell
	Houck J	Pacific Bell
	Jackson Charles E	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Kuchera John A	Pacific Bell
	Labate Vincent A Jr	Pacific Bell
	Main David	Pacific Bell
	Moran John H	Pacific Bell
	Plantz E	Pacific Bell
	Rehrs Dick	Pacific Bell
	Richardson Ernest L	Pacific Bell
	Robidoux George	Pacific Bell
	Robinow Jeffrey	Pacific Bell
	Simpson L	Pacific Bell
	Snyder Goldie	Pacific Bell
	Whitcher Judd T	Pacific Bell
	Weatherly C	Pacific Bell
1970	Chapline Walter A	Pacific Bell
	CIPOLLA JOS	Pacific Telephone
	ROUTH BYRON S	Pacific Telephone
	ANDERSON ROY A	Pacific Telephone

### 625 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	RELATORES AURORA DDS	Cole Information Services
2008	AURORA S RELATORES DDS	Cole Information Services
2006	RELATORES A DDS	Haines Company, Inc.
	RELATORES A DDS	Haines Company, Inc.
2001	RELATORESADDS	Haines & Company, Inc.
1995	Relatores Aurora DDS	Pacific Bell
	Relatores Aurora DDS	Pacific Bell

### 645 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	SHORT STOP PHARMACY	Cole Information Services
2008	SHORT STOP PHARMACY	Cole Information Services
2006	PHARMACY OFC	Haines Company, Inc.
	SHORT STOP	Haines Company, Inc.
2001	SHORTSTOP	Haines & Company, Inc.
1995	Dales Cocktail Lounge	Pacific Bell

## FINDINGS

### 647 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	YOUNGS BEAUTY SUPPLY	Cole Information Services
2008	JK BEAUTY SUPPLY	Cole Information Services
2006	JK BEAUTY SUPPLY	Haines Company, Inc.
2001	JKBEAUTYS	Haines & Company, Inc.
1990	B & G PROPERTY MANAGEMENT CARSON	Pacific Bell
	B & G REALTY CARSON	Pacific Bell
	ECONO HOMES SERVICES CARSON	Pacific Bell
1986	B & G REALTY CARSON	Pacific Bell
1981	B & G REALTY CARSON	Pacific Telephone

### 649 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	SERENETY SPA	Cole Information Services
2008	HAIR SOLUTIONS	Cole Information Services
2006	HAIRSOLUTIONS	Haines Company, Inc.
2001	WILD ABOUT HAIR 31030 7 M	Haines & Company, Inc.
1995	Wild About Hair	Pacific Bell

### 650 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	RALPHS	Cole Information Services
2008	RALPHS GROCERY	Cole Information Services
2006	CO STORE	Haines Company, Inc.
	RALPHS GROCERY	Haines Company, Inc.
2001	RALPHSGROCERYCO 31 M	Haines & Company, Inc.
1995	Boys Market	Pacific Bell

### 651 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	PHILIPPINE INDEPENDENCE DAY FOUNDATI	Cole Information Services
	TRINITY AFRICAN GENERAL STORE	Cole Information Services

### 655 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	CARSON AUTO CARE	Cole Information Services
	EDS MOBIL SERVICE	Cole Information Services
2008	MOBIL OIL CORP	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ED YAMAUCHI SERVICE CENTER	Cole Information Services
2006	SERVICE	Haines Company, Inc.
	EDSMOBIL	Haines Company, Inc.
2001	EDS MOBILSERVICE	Haines & Company, Inc.
1995	Eds Mobil Service serv strn	Pacific Bell

### 659 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	COMMITTEE TO RE ELECT JULIE RU	Cole Information Services
2006	E &H MANAGEMENT	Haines Company, Inc.
	TRIMS	Haines Company, Inc.
	GLOBAL HOUSE OF	Haines Company, Inc.
2001	TIMESMARKET	Haines & Company, Inc.
1995	Woodys Liquor Store & Mkt	Pacific Bell

### 670 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	ROOKIES	Cole Information Services

### 708 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	BALDECK INC	Cole Information Services
	ECONO LUBE & TUNE	Cole Information Services
2006	ECONOLUBEN	Haines Company, Inc.
2001	ECONOLUBENTUNE	Haines & Company, Inc.
1995	Econo Lube N Tune Service Centers	Pacific Bell
	Carson	Pacific Bell
1970	JESSE S 66 AUTO REPAIR	Pacific Telephone

### 716 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	TACOS EL CHARRO INC	Cole Information Services
2006	TACOSELCHARRO	Haines Company, Inc.
2001	TACOSELCHARROINC	Haines & Company, Inc.
1995	EI Charro Restaurant	Pacific Bell

### 724 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	CARSON BAIL BONDS VERA ROBLES DEWI	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BAILBONDS IN	Haines Company, Inc.
	CARSN CARSON BAIL	Haines Company, Inc.
	BONDS CARSON BAIL	Haines Company, Inc.
	BONDS VERA	Haines Company, Inc.
2001	BAILBONDSINCARSN	Haines & Company, Inc.
1995	Carson Cellular Paging	Pacific Bell
	Carson Bail Bonds	Pacific Bell
	Carson Bail Bonds	Pacific Bell
	Bail Bonds In Carson	Pacific Bell
	Bail Bonds By Carson	Pacific Bell
	Dominquez Family Shelter	Pacific Bell

### 726 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	COMPANY	Haines Company, Inc.
	WORLD LABEL	Haines Company, Inc.
	COPIES N PRINT	Haines Company, Inc.
2001	COPIES NPRINT	Haines & Company, Inc.
1995	Copies N Print	Pacific Bell

### 728 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	CIVIC TRAVEL	Cole Information Services
2006	CIVIC TRAVEL	Haines Company, Inc.
2001	CIVICTRAVEL	Haines & Company, Inc.
1995	Civic Travel	Pacific Bell

### 730 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ROSSOFRANKSMD	Haines & Company, Inc.
1995	Rosso Frank S MD Inc	Pacific Bell

### 750 E CARSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2013	PARK AVALON MOBILE ESTATES	Cole Information Services
2008	PARK AVALON MOBILE ESTATES	Cole Information Services
	ERICKSONS UPHOLSTERY	Cole Information Services
2006	RAMIREZ Frandsco	Haines Company, Inc.
	Javier	Haines Company, Inc.
	RICO Jose	Haines Company, Inc.

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	RIOSJase Antonio	Haines Company, Inc.
	RITKE Stephen	Haines Company, Inc.
	SANABRIAAlexandra	Haines Company, Inc.
	SANCHEZ Miguel	Haines Company, Inc.
	SISCOViviwan	Haines Company, Inc.
	SPENCEKathy	Haines Company, Inc.
	STRAWN Gerald L	Haines Company, Inc.
	TAYLOR Leona S	Haines Company, Inc.
	THOMAS Lawanda	Haines Company, Inc.
	THOMAS Lawanda	Haines Company, Inc.
	THOMPSON Denver	Haines Company, Inc.
	URIETA Thomas	Haines Company, Inc.
	VALLESJohn	Haines Company, Inc.
	VEGAFrancsco	Haines Company, Inc.
	VERA Francisco	Haines Company, Inc.
	VERA Luz	Haines Company, Inc.
	WHITE Glenn	Haines Company, Inc.
	WILSON Angelina	Haines Company, Inc.
	WORRELL Placida	Haines Company, Inc.
	PARK AVALN TRLR LOG ANDERSON Joanne	Haines Company, Inc.
	AVESEnnco	Haines Company, Inc.
	BLANK Mary L	Haines Company, Inc.
	CARRILLOAntonio	Haines Company, Inc.
	CHASE Banrry	Haines Company, Inc.
	CORTEZ Virginia	Haines Company, Inc.
	CORTEZ Virginia	Haines Company, Inc.
	GONZALEZ Yolanda	Haines Company, Inc.
	GUERRERO Elisa	Haines Company, Inc.
	GUILLEN Juan	Haines Company, Inc.
	GUZMAN Erica	Haines Company, Inc.
	HALLAmy	Haines Company, Inc.
	HEREDIA Maunlio	Haines Company, Inc.
	LAGROU Raymond	Haines Company, Inc.
	LARSEN M	Haines Company, Inc.
	LLANOS Bertha A	Haines Company, Inc.
	LOPEZFrancisco	Haines Company, Inc.
	MARINAmado	Haines Company, Inc.
	MARTINEZ Raul	Haines Company, Inc.



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MAZARIEGOS	Haines Company, Inc.
	Reginaldo MCAVOY William E	Haines Company, Inc.
	MCCAGUE Eaine	Haines Company, Inc.
	MICHEL Imelda	Haines Company, Inc.
	MILLER Pnncess	Haines Company, Inc.
	NEELAND Eileen	Haines Company, Inc.
	NICHOLSDee	Haines Company, Inc.
	ORTIZRosario	Haines Company, Inc.
	PARK AVALON MBL	Haines Company, Inc.
	EST PENASergio	Haines Company, Inc.
2001	POLeoenla D	Haines Company, Inc.
	PARK AVALNTRLR LDG ACEVEDOJose	Haines & Company, Inc.
1995	PARK AVALNTRLR LDG ACEVEDOJose	Haines & Company, Inc.
	Adriano Benny & Fe	Pacific Bell
	Alicias Mexican Food	Pacific Bell
	Barger Warren E	Pacific Bell
	Blank Mary L	Pacific Bell
	Bouthillier Arthur F	Pacific Bell
	Brooks Steven	Pacific Bell
	Carlson Edward G	Pacific Bell
	Chase Jewell B	Pacific Bell
	Cuss Ludwig	Pacific Bell
	Dale Geo W	Pacific Bell
	Doster Frances	Pacific Bell
	Fontaine Robt D	Pacific Bell
	Godfrey Jane	Pacific Bell
	Gregori Brad	Pacific Bell
	Guppy Fred A	Pacific Bell
	Hobson Emily & Betty	Pacific Bell
	Hoel Raymond C	Pacific Bell
	Innes Robt B	Pacific Bell
	Kusznir Phillip S	Pacific Bell
	La Grou Raymond	Pacific Bell
Leasure Etta K	Pacific Bell	
Lopez Maria Teresa	Pacific Bell	
Malin Frank	Pacific Bell	
Malo Paul	Pacific Bell	
Mc Avoy William E	Pacific Bell	

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Mendoza Enrique V	Pacific Bell
	Montes David A	Pacific Bell
	Neeland Eileen F	Pacific Bell
	Norwood F M	Pacific Bell
	Orthman Marsha G	Pacific Bell
	Park Avalon Mobile Estates	Pacific Bell
	Sater D R	Pacific Bell
	Semenuk L	Pacific Bell
	Sisco Rick	Pacific Bell
	Smith Jas W	Pacific Bell
	Taylor Leona S	Pacific Bell
	Waller Michael	Pacific Bell
	Watkins Earl A	Pacific Bell
	Williams Ronald & Joan	Pacific Bell
Wood K M	Pacific Bell	
1970	ERVIN JAS F	Pacific Telephone
	HOBSON EMILY & BETTY	Pacific Telephone
	HOBSON EMILY & BETTY	Pacific Telephone
	HARRINGTON JEAN	Pacific Telephone
	STROSNIDER ORVILLE N	Pacific Telephone

### **S AVALON BLVD**

#### **21521 S AVALON BLVD**

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	CHURCH OF GOD	Haines & Company, Inc.
1995	Carson	Pacific Bell
	Harbor Community Chapel	Pacific Bell
1985	HARBOR PRE-SCHOOL NRSRY SCHL	Pacific Bell
	CHURCH OF GOD-ANDERSON INDIANA	Pacific Bell
	HARBOR COMMUNITY CHAPEL CARSON	Pacific Bell
1980	HARBOR PRE-SCHOOL NRSRY SCHL	Pacific Telephone
	HARBOR COMMUNIT CHAPEL	Pacific Telephone
1975	HARBOR PRE-SCHOOL NRSRY SCHL	Pacific Telephone
	CHURCH OF GOD ANDERSON INDIANA	Pacific Telephone
	HARBOR COMMUNITY CHAPEL	Pacific Telephone

## FINDINGS

### 21601 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	JAAKOV FURNITURE	Haines & Company, Inc.
1995	ARTESIAOf Dancing The	Pacific Bell

### 21605 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	BONS MIKE	Pacific Telephone
1960	ERVIN JAS	Pacific Telephone
	ERVIN BENNIE	Pacific Telephone
1957	ERVIN JAS	Pacific Telephone
	E8VIN BENNY HILL	Pacific Telephone
	NICIEL & DIME AUTOMATIC LAUNDRY	Pacific Telephone

### 21607 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	DUNCAN WM	Pacific Telephone
1957	THRESHER H E	Pacific Telephone

### 21611 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ADVANTAGEHOMES	Haines & Company, Inc.
1995	Funcade	Pacific Bell
1985	FUNCADE 7	Pacific Bell

### 21613 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1990	ITT FINANCIAL SERVICES	Pacific Bell

### 21615 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	HAPPYCLEANERS	Haines & Company, Inc.
1995	Happy Cleaners	Pacific Bell
1986	CIVIC TRAVEL CARSON	Pacific Bell
1985	CIVIC TRAVEL	Pacific Bell

### 21617 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Simpson William MD	Pacific Bell
	Parts Dept	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Plaza Sports Medical Group	Pacific Bell
	Flowers Mary MD	Pacific Bell
	Carson Plaza Medical Clinic	Pacific Bell

### 21617 1/2 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	ST FRANCIS APTS	Pacific Telephone

### 21619 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1995	AAA Escrow Corp	Pacific Bell
1957	TURNER ARTHUR R	Pacific Telephone

### 21621 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1986	JONES JACOB & ASSOCIATES CARSON	Pacific Bell

### 21625 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	THE POINT AFTER	Haines & Company, Inc.
1985	UNIFIED ESCROW CORP	Pacific Bell
	LAWSON S COMPU-TAX SERVICE	Pacific Bell
	ITT FINANCIAL SERVICES	Pacific Bell
	UNIFIED INVESTMENT SERVICES	Pacific Bell
	UNIFIED U-HAUL	Pacific Bell
1964	CARL S RADIATOR SERV	Pacific Telephone
1960	AVALON U DRIVE	Pacific Telephone
1957	AVALON U DRIVE	Pacific Telephone
1954	AVALON U DRIVE	R. L. Polk & Co.
	ERVIN JAS JR AVALON U DRIVE	R. L. Polk & Co.
	ERVIN U DRIVE TRUCKS	R. L. Polk & Co.
1950	ERVIN JAS JR AVALON U DRIVE	Pacific Telephone
	AVALON U DRIVE	Pacific Telephone
	ERVIN U DRIVE TRUCKS	Pacific Telephone

## FINDINGS

### 21628 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1954	JACK S AUTO SERV	R. L. Polk & Co.

### 21629 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	LECHIC FASHIONS	Haines & Company, Inc.
1995	Le Chic Fashions	Pacific Bell
1985	LE CHIC FASHIONS	Pacific Bell

### 21631 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1985	PACIFIC PERSONNEL SERVICE	Pacific Bell

### 21633 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	NAILOFOBSESSION	Haines & Company, Inc.
1985	AAIME ADVERTISING	Pacific Bell
	AAIME ADVERTISING	Pacific Bell
	CIVIC CENTER CHECK CASHING	Pacific Bell

### 21635 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Unified Property Management	Pacific Bell
1985	HARRY S NO 2 DONUTS	Pacific Bell

### 21639 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	POLYNESIAAIRLINES	Haines & Company, Inc.

### 21703 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	CARLSJR	Haines & Company, Inc.
1995	Carls Jr Restaurants Carson	Pacific Bell
	From Downey Telephones Call	Pacific Bell
1985	CARL S JR RESTAURANTS	Pacific Bell
1980	DENNIS CHEVRON	Pacific Telephone
1975	CHEVRON-STANDARD STATIONS	Pacific Telephone
1964	CHEVRON SERV STNS	Pacific Telephone
	BENDA BEN USD CARS	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	CHEVRON SERV STNS	Pacific Telephone
	BENDA BEN CHEVRON SERY STN	Pacific Telephone
	BENDA BEN USED CARS	Pacific Telephone
1957	BENDA BEN CHEVRON SERV STN	Pacific Telephone
1954	BENDA BEN CHEVRON SERV STN	R. L. Polk & Co.
1950	BENDA BEN CHEVRON SERV STANTON	Pacific Telephone

### 21716 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	INTLHOUSE	Haines & Company, Inc.
1985	DALLAS SALOON	Pacific Bell
1981	GABELE S HOUSE RESTRNT CARSON	Pacific Telephone
1980	GABELE S HOUSE RESTRNT	Pacific Telephone
1975	AVALON ROOM	Pacific Telephone
1964	LOST WEEK END CLUB CEC S	Pacific Telephone
	CEC S LOST WEEK END	Pacific Telephone
1960	LOST WEEK END CLUB CEC S	Pacific Telephone
	CECS LOST WEEK END	Pacific Telephone
1957	CEC S LOST WEEKEND CLUB	Pacific Telephone
1954	CARSON CITY CLUB	R. L. Polk & Co.

### 21720 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	OCALAS Kathenne	Haines & Company, Inc.
1964	CALAS JOHN D	Pacific Telephone
1960	CALAS JOHN D	Pacific Telephone
1957	ICK S PIZZA CAFE	Pacific Telephone
	CALAS JOHN D	Pacific Telephone
1954	CALAS JOHN D R	R. L. Polk & Co.

### 21720 1/2 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	WARD I R	Pacific Bell

### 21721 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1980	BIG BIMP CARSON	Pacific Telephone
1975	BIG BIMP	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	BIG BUMP	Pacific Telephone
1960	WHITE HUT THE	Pacific Telephone
1957	THE WHITE HUT	Pacific Telephone
1954	WHITE HUT CAFE	R. L. Polk & Co.
1950	WHITE HUT CAFE	Pacific Telephone

### 21728 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ALTIMA INSURANCE	Haines & Company, Inc.
	eCIS DRIVING	Haines & Company, Inc.
1995	Hula Halau O Lilinoe	Pacific Bell
	Kellis Place	Pacific Bell
1985	CALAS KAY INVESTMENTS	Pacific Bell
1980	CALAS KAY INVESTMENTS	Pacific Telephone
1964	COZY ROOM THE	Pacific Telephone
1960	SCOTTIES DO-NUT SHOP NO 2	Pacific Telephone
1954	NICK S PIZZA CAFE	R. L. Polk & Co.
1950	LARRY S AVALON CLNRS	Pacific Telephone

### 21728 1/2 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ONLY NAILS	Pacific Bell
1980	AMERICAN PHOTOGRAPHIC SERVICE	Pacific Telephone
1975	CARSON LOCK LAWN & GYCLERY	Pacific Telephone
1964	PAT S TV SERV	Pacific Telephone
1960	CARSON TEE VEE	Pacific Telephone

### 217281/2 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	CARSON TEE VEE	Pacific Telephone

### 21730 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1995	Normas Beauty Salon	Pacific Bell
1985	NORMA S BEAUTY SALON	Pacific Bell
1980	NORMAS BEAUTY SALON	Pacific Telephone
1975	NORMA S BEAUTY SALON	Pacific Telephone
1964	NORMA S BEAUTY SALON	Pacific Telephone
1960	NORMA S BEAUTY SALON	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	ROSE BEAUTY SALON	Pacific Telephone
1954	ROSE BEAUTY SALON	R. L. Polk & Co.

### 21732 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1995	Kemet Queens Books & Novelties	Pacific Bell
	Deweys Tax Service	Pacific Bell
1985	PANAPA MKT	Pacific Bell
1980	ALO S YARDAGE & GROCERY STORE	Pacific Telephone
1964	TEDESCO S PIZZERIA	Pacific Telephone
1960	AVALON SUNDRIES	Pacific Telephone
	MITCHELL JAS H AVALON SUNDRIES	Pacific Telephone
1957	AEALON SUNDRIES	Pacific Telephone
	PITCHEID JAS H AVALON SUNDRIES	Pacific Telephone
1954	MITCELL AS HSUNDIES	R. L. Polk & Co.

### 21734 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	CARSON SHOE REPAIR	Haines & Company, Inc.
1995	Bal Shoe Repair	Pacific Bell
1985	BAL SHOE REPAIR	Pacific Bell
1980	CARSON FLORIST	Pacific Telephone
1975	CARSON FLORIST	Pacific Telephone
1964	COTA S FLOWER SHOP	Pacific Telephone
1960	TERRY S CLEANERS & DYERS	Pacific Telephone
1957	FAYETTE CLNRS	Pacific Telephone
1954	FAYETTE CLNRS	R. L. Polk & Co.

### 21736 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ARTISTIC BALLOONS	Haines & Company, Inc.
1995	Artistic Balloons	Pacific Bell
1950	CALAS LIQUOR STORE	Pacific Telephone

### 21737 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	TOGOSEATERY	Haines & Company, Inc.
1995	Coin Wash Laundry	Pacific Bell
1976	A C Auto Parts Carson	Pacific Telephone



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	A C AUTO PARTS	Pacific Telephone
1971	A C Auto Parts	Pacific Telephone

### 21738 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ARTISTIC CRAFTS	Haines & Company, Inc.
1995	Bay Cities Copier Co Carson	Pacific Bell
	Artistic Crafts	Pacific Bell
	Ofc	Pacific Bell
1985	Carson Carson Security Center	Pacific Bell
	THOMPSONS SHEET METAL CO	Pacific Bell
	WESTERN UNION PUBLIC SERVICES PUBLIC OFFICES	Pacific Bell
	CARSON POSTAL RENTAL SERVICE	Pacific Bell
	NUMETHOD EPOXY SYSTEMS	Pacific Bell
1980	DE TROPHY SHOPPE	Pacific Telephone

### 21739 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	REINERROBERTSOD	Haines & Company, Inc.
1995	Reiner Robert S OD	Pacific Bell
1985	QUALITY CLEANERS	Pacific Bell

### 21740 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	CHAMPION LIQUOR	Haines & Company, Inc.
1995	Champion Liquor	Pacific Bell
1990	MAGIC LIQUOR CARSON	Pacific Bell
1986	MAGIC LIQUOR CARSON	Pacific Bell
1985	MAGIC LIQUOR	Pacific Bell
1975	MAGIC LIQUOR	Pacific Telephone
1964	CALAS LIQUOR STORE & DELICATESSEN	Pacific Telephone
1960	CALAS LIQUOR STORE	Pacific Telephone
1957	CALAS LIQUOR STORE	Pacific Telephone
1954	CALAS LIQUOR STORE	R. L. Polk & Co.

### 21741 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1985	CARSON DISCOUNT FURNITURE	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1971	Mr Normans Catalog Furniture Store	Pacific Telephone

### 21743 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1995	Carson Fashion Outlet	Pacific Bell
1985	JOYCES PLANT & ACCESSORIES	Pacific Bell
1980	E R A HOUSTON & ASSOCIATES	Pacific Telephone
1975	CONROY J & ASSOCIATES	Pacific Telephone
	CONROY J & ASSOCIATES	Pacific Telephone

### 21801 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ACNE MEDICAL CENTER	Pacific Bell
1980	GOLDEN STUDIO OF DANCING	Pacific Telephone
1964	CROW ROSE RCAL ESTATE	Pacific Telephone

### 21802 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	BERMUCEZHertver	Haines & Company, Inc.
1995	Kittelsrud J & P	Pacific Bell
1985	GONZALEZ ARSENIO	Pacific Bell
1980	GONZALEZ ARSENIA	Pacific Telephone
1975	GONZALEZ ARSENIO	Pacific Telephone
1964	GONZALEZ ARSENIO	Pacific Telephone
1960	GONZALEZ ARSENIO	Pacific Telephone
1957	GONZALEZ AISENIO	Pacific Telephone
1954	GONZALEZ ARSENIO	R. L. Polk & Co.
1950	GONZALEZ ARSENIO R	Pacific Telephone

### 21803 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	UNLIMITED HAIR	Haines & Company, Inc.
1995	Harden Kimberly	Pacific Bell
1985	ALBERT S AFFAIR WITH HAIR	Pacific Bell
1964	ROSE BEAUTY SALON	Pacific Telephone
1960	ROSE BEAUTY SALON	Pacific Telephone

## FINDINGS

### 21804 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	EDDIESFAMILY	Haines & Company, Inc.
1985	JINOS PIZZA	Pacific Bell
1980	DON RICARDOS MEXICAN FOOD	Pacific Telephone
1975	DON RICARDO S MEXICAN FOOD	Pacific Telephone
1960	MI MEXICO CAFE	Pacific Telephone
1957	SOPHIE S TAVERN	Pacific Telephone

### 21805 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1995	Rudys Bail Bonds	Pacific Bell
1985	BR & ASSOCIATES A TOUCH OF CLASS	Pacific Bell
1980	FER PETE PLUMBING & SUPPLY CO	Pacific Telephone
1975	FER PETE PLUMBING & SUPPLY CO	Pacific Telephone
1964	TOWN AIRE CLEANERS TORRANCE	Pacific Telephone

### 21808 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	TERESITASMXCN	Haines & Company, Inc.
	a BERMUDEZJose L	Haines & Company, Inc.
1995	Teresitas Mexican Bakery	Pacific Bell
1985	ERICKSONS UPHOLSTERY	Pacific Bell
1980	ERICKSON S UPHOLSTERY CARSON	Pacific Telephone
	MENDEZ ALEJANDRA	Pacific Telephone
1975	ERICKSON S UPHOLSTERY	Pacific Telephone
1960	LAS PALMAS MKT	Pacific Telephone
	YEE WM LAS PALMAS MKT	Pacific Telephone
1957	LAS PALMAS MKT	Pacific Telephone
1954	LAS PALMAS IVMKT	R. L. Polk & Co.
	YEE WM LAS PALMAS MKT	R. L. Polk & Co.

### 21809 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	FREEWAY CLOTHING	Haines & Company, Inc.
1995	Red West Pizza	Pacific Bell
1980	FREEWAY SURPLUS CARSON	Pacific Telephone
1975	FLOYD OFFICE MACHINE CO	Pacific Telephone
	FLOYD S TYPEWRITER SERVICE	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	PENNY S FACTORY SHOE MART TORRANCE	Pacific Telephone
1960	PENNY S FACTORY SHOE MART	Pacific Telephone
1957	S A Y CENTRE	Pacific Telephone
	S AY CENTRE	Pacific Telephone

### 21810 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1980	MORAGA ALBERTO B	Pacific Telephone
1975	LAFOLETTE DOYLE EDUARD	Pacific Telephone
1964	SCHOOLEY ALBERT F	Pacific Telephone
1960	SCHOOLEY ALBERT F	Pacific Telephone
1957	SCHOOLEY ALBERT F	Pacific Telephone
1954	SCHOOLEY ALBERT F	R. L. Polk & Co.

### 21814 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	LAS PALMAS TRUE VLU	Haines & Company, Inc.
1995	True Value Hardware Store	Pacific Bell
	Las Palmas True Value Hardware Store	Pacific Bell
	Gonzalez A Las Palmas True Value Hardware Store	Pacific Bell
1985	GONZALEZ A LAS PALMAS HARDWARE STORE	Pacific Bell
	LAS PALMAS HARDWARE STORE	Pacific Bell
1980	LAS PALMAS HARDWARE STORE	Pacific Telephone
	GONZALEZ A LAS PALMAS HARDWARE STORE	Pacific Telephone
1975	LAS PALMAS HARDWARE STORE	Pacific Telephone
	GONZALEZ A LAS PALMAS HARDWARE STORE	Pacific Telephone
1964	LAS PALMAS HDWE STORE	Pacific Telephone
	GONZALEZ A LAS PALMAS HDWE STORE	Pacific Telephone
1960	LAS PALMAS HOWE STORE	Pacific Telephone
	GONZALEZ A LAS PALMAS HDWE STORE	Pacific Telephone
1957	LAS PALMAS HDWE STORE	Pacific Telephone
	GONZALNZ A LAS PALMAS HDWE STORE	Pacific Telephone

## FINDINGS

### 21817 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

### 21819 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	KRAGEN AUTO PARTS	Haines & Company, Inc.
1995	Freeway Clothing	Pacific Bell
1985	FREEWAY SURPLUS	Pacific Bell

### 21821 S AVALON BLVD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	STATE SALVAGE	Pacific Telephone
	STATE AUTO WRECKING CO	Pacific Telephone
1960	STATE AUTO WRECKING CO	Pacific Telephone
	STATE SALVAGE	Pacific Telephone
1957	STATE AUTO WRECKING CO	Pacific Telephone
1954	WEST COAST JUNK & SALVAGE	R. L. Polk & Co.

## 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

701 East Carson Street

#### Address Not Identified in Research Source

2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

### 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

21521 AVALON BLVD

#### Address Not Identified in Research Source

2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21521 AVALON BLVD

2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21521 AVALON BLVD S

2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21521 S AVALON BLVD

2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21601 AVALON BLVD S

2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21601 S AVALON BLVD

2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

21605 S AVALON BLVD

2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1963, 1962, 1961, 1958, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920





































## ATTACHMENT G

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EDR – Certified Sanborn Map Report



**Carson City Hall**

701 East Carson Street  
Carson, CA 90745

Inquiry Number: 4195320.3

January 30, 2015

## Certified Sanborn® Map Report



6 Armstrong Road, 4th Floor  
Shelton, Connecticut 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

1/30/15

**Site Name:**

Carson City Hall  
701 East Carson Street  
Carson, CA 90745

**Client Name:**

AMEC Environment &  
121 Innovation Drive, Suite 200  
Irvine, CA 92617-0000



EDR Inquiry # 4195320.3

Contact: Ellen Smith

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by AMEC Environment & Infrastructure, Inc. 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](http://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:** Carson City Hall  
**Address:** 701 East Carson Street  
**City, State, Zip:** Carson, CA 90745  
**Cross Street:**  
**P.O. #** NA  
**Project:** carson city hall  
**Certification #** 38E9-49DA-B411



Sanborn® Library search results  
Certification # 38E9-49DA-B411

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

*The Sanborn Library LLC Since 1866™*

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## ATTACHMENT H

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Photo Log



**Photo 1**

View to north of City Hall entrance.



**Photo 2**

View to the southwest of north side of Community Center building.



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AMEC REP ES  
DATE February 2015

Carson City Hall Renovation Project  
701 and 801 East Carson Street  
Carson, California  
SITE RECONNAISSANCE PHOTOS



**Photo 3**

View to south of maintenance yard on north side of Community Center building.



**Photo 4**

View to northeast of Community Center entrance.



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**Photo 5**

View of typical parking lot located in the northern and eastern portions of the site.



**Photo 6**

View of loading dock and generator room on east side of City Hall building.



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**Photo 7**

View of emergency generator inside generator room. No stains, spills, or leaks were visible.



**Photo 8**

View of chiller room in City Hall basement. Chillers were installed in 1995. No stains, leaks, or spills were visible.



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**Photo 9**

Another view of chiller room.



**Photo 10**

View of chiller room hazardous substances on secondary containment.



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**Photo 11**

View of boiler room located in City Hall basement. Floor drains are connected to the sanitary sewer. No leaks or spills were observed, and staining was considered minor. Boilers were installed in 2011.



**Photo 12**

View of boiler room showing minor staining near floor drain.



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**Photo 13**

View of air compressor room in City Hall basement. Air compressor was dated 1976. No leaks, spills, or stains were visible.



**Photo 14**

Electrical room in City Hall basement.



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**Photo 15**

View of 4,000-gallon diesel UST area (under black pad), located in loading dock area on east side of City Hall.



**Photo 16**

View of pad-mounted transformer on east side of City Hall. No stains, leaks, or spills were visible.



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**Photo 17**

View of clarifier in maintenance yard, Community Center building.



**Photo 18**

View of generator and associated double-walled 25-gallon diesel AST adjacent to southeastern exterior of Community Center building.



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**Photo 19**

View to north of Los Angeles Sheriff Station entrance. Desford Street is in the foreground.



**Photo 20**

View to north of groundwater monitoring well located in Desford Street. The building behind the concrete wall is the Los Angeles County Sheriff Station. The site is to the south.



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**Photo 21**

View to northeast of groundwater monitoring well located in Desford Street, north of the site.



**Photo 22**

View to northwest of ARCO Gas Station, located at 213<sup>th</sup> Street and Avalon Boulevard. Former Shell Station is off to the right side of the photograph. The site is to the southeast.



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**Photo 23**

View of Tosco – 76 Station, located east of the site.



**Photo 24**

View to west of a mobile home park. Avalon Boulevard is in the foreground. The site is to the east.



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**Photo 25**

View to northeast showing One Civic Plaza; Merchants Bank, located east of the site.



**Photo 26**

View to east showing Two Civic Plaza; Double Tree Inn, located east of the site.



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**Photo 27**

View of Tosco – 76 Station, located east of the site.



**Photo 28**

View to west of a mobile home park. Avalon Boulevard is in the foreground. The site is to the east.



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**Photo 29**

View to the south of 860 Bonita Street, currently a restaurant and formerly Bonita Cleaners. East Carson Street is in the foreground. The site is to the north.



**Photo 30**

View to south of intersection of Carson Street (in foreground) and Avalon Boulevard (on right). IHOP restaurant (formerly an Econo Lube N' Tune) is at the southeast corner of the intersection. Site is to the north.



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**Photo 31**

View to southwest of Avalon Boulevard and Carson Street. Chevron Gas Station (formerly an Exxon Mobil Station) is on the right, located west of the site. Carl's Jr. (formerly a Chevron Gas Station) is on the left, located southwest of the site.



**Photo 32**

View to west of strip mall, including Happy Cleaners. Avalon Boulevard is in foreground. The site is to the east.



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SITE RECONNAISSANCE PHOTOS



## ATTACHMENT I

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Resumes



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## Ellen D. Smith

### Staff Geologist

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#### Core skills

- ▶ Remedial Investigation
  - ▶ Property Assessments
  - ▶ Soil and Groundwater Characterization
  - ▶ Remediation Oversight
- 

#### Professional summary

Ms. Smith provides 16 years of expertise in remedial investigations and property assessments, with emphasis on characterization and remediation of soil and groundwater contaminated by hazardous substances. She has conducted environmental compliance inspections and completed phase I environmental site assessments (PEAs) for both private sector and government clients. Ms. Smith has directed site characterizations, remedial investigations, remedial action planning, and remediation of site where soils and groundwater were contaminated by hydrocarbons, solvents, metals, oilfield wastes, or pesticides. Her field activities have included well construction design and supervision, aquifer testing and analyses, water quality sampling, and implementation of remedial systems.

#### Education

B.A., Geology, Occidental College, 1981

#### Employment history

Amec Foster Wheeler Environment & Infrastructure, Inc., Senior Associate Geologist, Irvine, CA, 2015 to present  
AMEC Environment & Infrastructure, Inc., Staff Geologist, 2012 to 2015  
Geomatrix Consultants, Project Hydrogeologist, 1990 to 1994  
Environmental Science and Engineering, Project Geologist, 1987-1990  
Woodward-Clyde Consultants, Staff Geologist, 1986-1987  
McAnally and Associates, Seismic Data Broker, 1984-1985  
Enserch Exploration, Inc., Petroleum Geologist, 1981-1984

#### Representative projects

##### Phase I Environmental Site Assessment, Somis, CA

Ms. Smith conducted a Phase I ESA at the proposed location of the Somis Union School replacement school site. The Somis Union School District is relocating the Somis Union School because of environmental concerns associated with the current school location. The Phase I ESA was funded through a grant from the United States Environmental Protection Agency (U.S. EPA). The work, conducted in accordance ASTM International (ASTM) Standard E 1527-13, included assessing environmental concerns associated with agricultural use of the site and identifying recognized environmental conditions (RECs).

##### Phase I and Phase II Environmental Site Assessments (ESAs), Various Clients, CA, UT, Japan

Ms. Smith has completed Phase I and Phase II ESAs for the acquisition or divestiture of real property for developers and other private clients in the United States, Asia, and Europe. The Phase I ESA's were conducted in general conformance with ASTM Standard 1527 to determine current and historical environmental impacts and to evaluate potential environmental risks; and included various manufacturing, industrial, medical, military, and commercial properties. The Phase II ESA's covered a broad range of services that included an assessment of hazardous building materials, RECs, potential vapor intrusion issues, potential health risks related to impacted soil and groundwater, and consideration of redevelopment restrictions.

##### Phase I Environmental Site Assessment, Caltrans, CA

Ms. Smith conducted a Phase I ESA involving imminent domain of approximately 30 parcels along portions of a major interstate in California. The work, conducted in accordance with ASTM Standard 1527, included assessing environmental concerns associated with national priorities list (NPL) sites, metal foundries, military ordinance facilities, and soil and groundwater impacted by volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH).

### Phase I Environmental Site Assessments, Confidential Aerospace Client, 20 undisclosed location throughout the United States

Conducted rapid turn-around Phase I ESAs for 20 locations throughout the U.S. The work was conducted in general conformance with ASTM Standard 1527 for the purpose of evaluating current and historical environmental impacts and potential environmental risks of parcels prior to purchase. These parcels included international airports, Formerly Used Defense Sites (FUDS), agricultural/farming use land, military bases, and complex industrial properties. Tasks involved online research, agency reviews, site reconnaissance, REC findings, consideration of redevelopment restrictions, report writing.

### Environmental Compliance Assessment Program, U.S. Army Corps of Engineers, Multiple Locations, AZ and CA

Assisted with completion of environmental compliance assessment activities under the United States Army Corps of Engineers (USACE) for eleven flood control basins and baseyards located in California and Arizona. These assessment activities were conducted according to the Environmental Review Guide for Operation (ERGO) program developed by ACOE to facilitate and monitor regulatory compliance. Sites ranged from wastewater treatment plants, golf courses, maintenance yards, regional parks, equestrian centers, shooting/archery parks, aquatic centers, restaurants, and dams. Where environmental compliance issues were identified, findings were prepared to describe the condition and regulation requirement. Finding preparation activities included an analysis of observations, research to clarify the information in The Environmental Assessment and Management (TEAM) Guide and in the supplements for the TEAM Guide, preparation of ERGO finding sheets, and a quality assurance/quality control review.

### Subsurface Investigation, Southern California

Directed investigation of groundwater and soil containing VOCs and petroleum hydrocarbons at a Superfund site. Project work included conducting research of site within a one-mile radius of the property to assess drilling, well installation, sampling, and laboratory methods. Responsible for interfacing and negotiating with the California RWQCB - Los Angeles Region and preparing work plan. Provided oversight of field activities including: 1) installing five 250-foot wells using an air percussion drilling rig; 2) designing and implementing dedicated packer and pump system for well purging and sampling; and, 3) negotiating QA/QC guidelines for laboratory analyses with the RWQCB. Analyzed field data and prepared site characterization and groundwater monitoring reports. Implemented quarterly monitoring program.

### Soil Investigation and Remediation, Southern California

Directed investigation and remediation of soil containing volatile organic compounds in the vicinity of underground storage tanks at a Superfund site. Responsible for researching RWQCB files and assisting engineer in developing and implementing soil remediation program. Prepared work plan for soil vapor extraction.

### Subsurface Investigation, Long Beach, CA

Directed a subsurface investigation and remediation of a site. Work consisted of characterizing petroleum hydrocarbons in soil, volatile organic compounds in groundwater, and jet fuel migrating onto the site from an adjacent property. Responsible for overseeing field activities including completion of soil borings, installation of vapor extraction and groundwater monitoring wells, conducting a vapor extraction pilot test, and collecting soil, vapor, and groundwater samples. Reviewed and analyzed data and prepared report. Managed installation of vapor extraction system used to remove VOCs as well as enhance the bioremediation of diesel in soil. Responsible for managing operation and maintenance of vapor extraction system.

### Soil and Groundwater Contamination, Long Beach, CA

Conducted investigation of pesticides in soil and groundwater. Responsible for supervising groundwater well installation, soil and groundwater sample collection, and data interpretation. Conducted soil gas survey to assess the presence of VOCs in soil resulting from an off-site source. Contributed information to regional groundwater study involving the presence of VOCs in groundwater in the site vicinity.

### Phase I and II Site Assessment, Henderson, NV

Supervised large excavation of soil containing diesel fuel at a manufacturing site. Collected soil samples, interpreted data, interfaced with agencies, and prepared work plan and report.

### Subsurface Fracture Evaluation, Casmalia, CA

Evaluated the orientation of fractures of underlying formations at the Casmalia Class I landfill. Cores were scribed during the drilling process and then placed in a goniometer to determine the fracture orientations. Stereographic nets were used to plot the orientations.

### Well Installation, Temecula, CA

Installed 250-foot groundwater well using mud rotary drilling method, and assessed the groundwater recharge potential for a site. Conducted water sampling, aquifer testing, and data interpretation.

#### Underground Storage Tank Removal Projects, CA and AZ

Directed underground storage tank (UST) removals, excavations, and site characterizations as a result of leaking USTs. Project work included preparation of site characterization reports, development of remedial action plans and interaction with regulatory agencies, installation of vapor treatment systems, and interfacing with clients.

#### Contaminated Soil Excavation, Van Nuys, CA

Managed a large excavation project involving approximately 20,000 cubic yards of soil containing stoddard solvent. Project work included overseeing shoring and soil excavation activities, and installation of 250-foot well using dual and triple wall air percussion drilling methods. Conducted a risk assessment of the contaminants left in place, and developed and implemented a groundwater monitoring program. Project management involved negotiating with regulatory agencies and presenting technical arguments to the California RWQCB - Los Angeles Region.

#### Operation and Maintenance, Riverside, CA

Provided oversight of the maintenance and operation of a bioremediation project involving the treatment of PCE and TCE in groundwater and soil. The remediation system consisted of an infiltration gallery, groundwater extraction, above-ground treatment, and re-injection of nutrient and oxygen laden water.

#### Publications and presentations

Results of a Site Characterization at Prudential Overall Supply Company Located at 1844 Haskell Avenue in Van Nuys, California. Ellen Smith. Underground Storage Tank Manual, Hunter Publications (1989).



amec  
foster  
wheeler

## Joseph M. Bahde, PG

### Senior Associate Geologist

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#### Core skills

- ▶ Remedial Investigation
  - ▶ Brownfield and Property Assessments
  - ▶ Hydrogeologic Studies
- 

#### Professional summary

Mr. Bahde has 20 years of environmental site investigation and remediation experience. He has overseen and implemented most aspects of hazardous waste site investigations and remediation, including preparation of sampling and analysis plans (SAPs) /remedial action plans (RAPs), Phase I environmental site assessments (ESAs), hydrogeologic evaluations, health and safety oversight, data evaluation, risk assessment, agency negotiations, soil and groundwater cleanup, public participation, and preparation of closure documents. Mr. Bahde has conducted and managed numerous soil, soil gas, and groundwater remedial investigation (RI)/feasibility study (FS) projects at facilities throughout California ranging from simple grab sample investigations for private companies to RCRA/CERCLA RIs and cleanup with budgets in excess of \$15 million.

Mr. Bahde's expertise includes the design and implementation of RIs and corrective measures for both private sector and government clients. His industry experience includes manufacturing, petro- and agricultural-chemical, financial, municipalities, Brownfield developments, military sites, and aerospace facilities. In addition to managing numerous investigations involving petroleum hydrocarbons and/or solvents, Mr. Bahde designed and implemented RI/FS projects characterizing chemicals such as pesticides, metals, depleted uranium (DU), explosives, chemical warfare agents, and emerging compounds. His experience with treatment technologies includes soil vapor extraction (SVE) using cryogenic-cooling and compression technology and activated carbon adsorption, in situ treatment, excavation and removal, and screening/segregation of explosive/hazardous substances. These investigations and remedial activities were overseen by local, state, and federal regulatory agencies.

#### Professional qualifications/registration(s)

Professional Geologist, CA No. 7058, 2000

#### Education

B.S., Geology, California State University, Fullerton, 1993

#### Memberships/affiliations

National Ground Water Association  
Groundwater Resources Association of California

#### Employment history

Amec Foster Wheeler Environment & Infrastructure, Inc., Senior Associate Geologist, Irvine, CA, 2015 to present  
AMEC Environment & Infrastructure, Inc., Senior Associate Geologist, Irvine, CA, 2008 to 2015  
Geomatrix Consultants, Inc., Senior Hydrogeologist, Newport Beach, CA, 2002 to 2008  
ENSR International, Senior Project Manager, Santa Ana, CA, 2001 to 2002  
McLaren-Hart/Jones, Inc., Supervising Geoscientist, Irvine, CA, 1999 to 2001  
McLaren/Hart, Inc., Geoscientist, Irvine, CA, 1994 to 1999  
Leighton and Associates, Geotechnician, Irvine, CA, 1993  
California State University, Research Assistant, Fullerton, CA, 1992 to 1993

#### Representative Projects

##### Remedial Investigation and Pilot Studies, former Chicago Musical Instruments, Fullerton, CA

NB1016075B,L /IR1316460E, \$3.8 million, 2010 to present. Project Manager. Responsible for performing RIs and implementing an SVE pilot study at a former musical instruments manufacturing facility. Based on the high concentrations of VOCs in soil, determined that traditional SVE using granular activated carbon (GAC) was not economical. Thus, the client agreed to use a cryogenic-cooling and compression technology to recover VOCs from extracted vapors (GEO unit) based on our recommendations. Between 2011 and 2013, the GEO unit removed more than 10,000 gallons of product/water. Although the GEO unit consumed more electricity than GAC, demonstrated that use of the GEO unit saved approximately 195 tons of CO<sub>2</sub>-equivalent greenhouse gas emissions from releasing to the environment. Recent sampling of the SVE

monitoring network demonstrated a 2 to 4 order-of-magnitude decrease in VOC concentrations. In 2013, changed the system to more energy-efficient GAC to recover extracted vapors.

Prepared a work plan for bench-scale treatability studies to evaluate in situ chemical oxidation (ISCO) and in situ bioremediation (ISB) to remediate VOC-impacted groundwater. Using results of bench-scale treatability studies, demonstrated that ISB was more applicable for longer-term treatment of "area wide" VOC groundwater concentrations. In 2013, implemented a groundwater remedial pilot study to evaluate ISB treatment using a slow release substrate in conjunction with a bioaugmentation culture. Currently preparing an FS/RAP using results of the RI and pilot studies to design and support long-term soil and groundwater remedial efforts.

#### [Area-Wide Remedial Investigation, Costa Mesa Site Discovery, Costa Mesa, CA](#)

0130240010, \$250,000, 2008 to 2011. Project Manager. Responsible for performing an RI on behalf of DTSC to identify possible sources of VOCs in groundwater within a 75-acre study area. The purpose of the site discovery was to determine the origin and approximate extent of VOCs in groundwater. Conducted Phase I ESAs to identify area properties with documented releases and/or use of chlorinated solvents. Collected soil, soil gas, and grab groundwater samples in transects along city roadways to provide information on overall groundwater conditions in the study area. Based on the results of the transect investigations, implemented a focused study to evaluate specific sources of VOCs. Used results to demonstrate that two co-mingled groundwater plumes were present in the study area. Subsequently, DTSC identified several potential responsible parties (PRPs) in the study area and is negotiating cleanup agreements.

#### [Targeted Site Investigation, North Santa Fe/Orange Project Site, Vista, CA](#)

0130240040, \$75,000, 2009. Project Manager. Conducted a targeted site investigation (TSI) at a State of California Brownfield's-grant site that was used by various defunct auto repair shops/businesses. Previous studies had indicated that approximately 1,800 cubic yards of petroleum hydrocarbon/VOC-impacted soil would need to be removed from the site. Implemented soil and soil gas sampling following the U.S. EPA/DTSC-approved SAP and Quality Assurance Project Plan (QAPP). Prepared a TSI Report to assess human health risks. The results demonstrated that that chemicals of potential concern (COPCs) detected at the site did not pose a risk to human health under current conditions. Furthermore, no additional measures were needed to address potential human health risks from indoor air inhalation exposures under the city's redevelopment scenario. DTSC concurred with recommendations to assign a "no further action" status to the site.

#### [Groundwater Pump Test, Honeywell Site A, Torrance, CA](#)

0013800000, \$160,000, 2012 to 2013. Task Manager. Responsible for designing/coordinating and implementing a groundwater pump test at an operating aerospace facility. Prepared work plan describing the background, methods, and approach for conducting aquifer testing to estimate aquifer parameters to support the development of a RAP for VOC-impacted groundwater. Upon RWQCB approval of the work plan, assisted with installation and development of a new 5-inch, stainless steel groundwater extraction well. Used results of step-rate drawdown testing to select an optimal pump rate that would reduce the duration of the constant rate pump test saving time and waste disposal costs. Assisted with management and disposal of over 50,000 gallons of hazardous waste purge water removed during the 21 hour constant rate pump test. Used aquifer test results to estimate and document specific capacity, transmissivity, storativity, and well efficiency.

#### [Basewide Groundwater Monitoring Program \(BGMP\), US. Department of the Navy, Former Naval Air Station, Alameda Point, CA](#)

0013800000, \$1.1 million, 2008 to 2011. Deputy Project Manager. Responsible for overseeing the implementation of the BGMP to document groundwater conditions at the site and support ongoing remedial actions. The BGMP included sampling of more than 200 groundwater monitoring wells and 23 soil gas probes. Prepared the SAP and QAPP following the Uniform Federal Policy for QAPPs. Revised and finalized the SAP/QAPP pursuant to comments from the Navy, U.S. EPA, RWQCB, and DTSC. Prepared BGMP Optimization Memorandum to streamline sampling activities and focus efforts towards successful implementation of final remedies at the site. The Optimization Memorandum recommendations were subsequently implemented by the Navy reducing BGMP and O&M annual costs. The project earned a "very good rating" from the Navy.

#### [Hydrogeologic Study of Surface and Subsurface Water, Aerojet, Chino Hills, CA](#)

0078970000, \$5 million, 2002 to present. Project Manager. Responsible for evaluating soil impacted by perchlorate, uranium, and explosive compounds and assessing the movement of these chemicals to underlying subsurface water and a nearby stream. Conducted hydrogeologic studies through the collection of multi-depth subsurface water grab samples and the siting and installation of groundwater monitoring wells using a percussion hammer drill rig because the site resides within sandstone and siltstone bedrock.

Used results from these studies, as well as water chemistry evaluation and bedrock fracture mapping, to demonstrate that subsurface water moving vertically through loose alluvium/weather bedrock began moving laterally as interflow water upon contact with less-porous, consolidated bedrock. The interflow water followed the topography and daylighted into the nearby stream. Eliminated need for long term monitoring by demonstrating that the concentrations of chemicals entering the surface water were not at levels that posed a risk to human health or the environment. In another instance, eliminated need for long

term monitoring by demonstrating that impacted subsurface water was confined to the limits of the source area, and not moving away from the site.

[RI/FS and RAP for Hexavalent Chromium and VOCs in Groundwater, Former Chrome Crankshaft Facility, Bell Gardens, CA](#)  
0098760020, \$430,000, 2006 to 2008. Project Manager. Completed an RI/FS at a former metals plating facility to characterize soil, soil gas, and groundwater conditions at and around the site. Used Cone Penetration Testing (CPT) to expedite RI activities and evaluate the off-site extent of a hexavalent chromium groundwater plume originating from the site. The results also demonstrated that VOC concentrations in groundwater were influenced by off-site sources. Oversaw installation of groundwater monitoring wells in shallow and deeper depth aquifers beneath the site (installed groundwater monitoring wells in the deeper aquifer using conductor casing method to seal off the upper water-bearing zone). Used the results in a human health risk assessment to determine site cleanup levels and prepare an RI/FS Report, which was approved by DTSC.

#### [Hydrogeologic Investigation, Former Rho-Chem Facility, Inglewood, CA](#)

0037040030, \$2.4 million, 2007 to present. Task Manager. Responsible for conducting hydrogeologic studies to evaluate the vertical and lateral extent of VOC impacts to groundwater at a solvent recycling facility. Installed additional water table and deeper depth monitoring wells to improve conceptual site model of groundwater flow conditions at and near the site. The deeper wells were installed in the Gage aquifer using sonic drilling methods. Used groundwater grab sample results and lithologies encountered in the boreholes to define the vertical profile of contaminants and evaluate optimal screening levels of the monitoring wells. Oversaw the sealing of shallow water-bearing zones with DNAPL concentrations of VOCs to prevent cross-contamination. Subsequently, used smaller diameter casing to telescope into underlying zones. Perform tracer dilution testing to assess groundwater flow velocities in the shallow and deeper water-bearing zones. Prepared a hydrogeologic investigation report, which was used for designing on- and off-site remedial actions.

#### [School Site Preliminary Endangerment Assessment, Earthlab Outdoor Learning Laboratory, San Diego, CA](#)

NB1016075.002, \$40,000, 2011. Project Manager. Completed a Preliminary Endangerment Assessment (PEA) at the Earthlab site on behalf of Groundwork, a citizen-based non-profit organization in partnership with the San Diego Unified School District. The PEA was funded through a TSI grant that DTSC received from the U.S. EPA. The site was proposed as an outdoor science, farm, and play area for nearby schools and neighborhoods. However, the development efforts were stalled because of concerns about potential environmental impacts from previous land use and freeway pollution.

Performed the PEA following a U.S. EPA/DTSC-approved SAP/QAPP to evaluate whether hazardous materials were present at the site at concentrations that may pose unacceptable risk to human health and environment in context of future site reuse plans. The PEA included soil sampling for COPCs (pesticides, petroleum hydrocarbon, and metals), ecological assessment of an urban runoff/stream corridor area bisecting the site, statistical evaluation of metal results, and development of RBSLs to evaluate potential human health/environmental risks. Demonstrated through a human health risk evaluation that concentrations of COPCs detected at the site did not pose a risk to human health under current site conditions or future occupants (including school children). Recommended NFA for the site, which was approved by DTSC. In 2012, Groundwork issued a letter to DTSC commending theirs and AMEC's outstanding contribution allowing for significant improvements to the site that will serve thousands of students in the future as an outdoor learning laboratory. The Earthlab Hands-on Learning Center opened at the site in 2013.

#### [Preliminary Endangerment Assessment, Brawley Radiator Shop, Brawley, CA](#)

0098760020, \$87,000, 2006 to 2008. Project Manager. Performed a PEA for a radiator repair facility. Prepared a PEA work plan to evaluate 12 SWMUs identified at the site. The work scope approved by DTSC included evaluation of soil, soil gas, and groundwater conditions at the site. Prepared the PEA Report that identified metals impact in soil at one SWMU. DTSC approved the PEA Report and requested a work scope for additional studies at the site. Implemented a second phase of work to define the extent of metals-impacted soil for excavation and offsite disposal. DTSC completed the work in 2010.

#### [U.S. EPA Brownfield Pilot Program Grant, U.S. Army Corps of Engineers \(USACE\), Los Angeles District, CA](#)

0066380030, \$110,000, 2005. Project Manager. Oversaw a U.S. EPA-granted project that covered numerous underutilized or abandoned properties identified by the City of Colton Redevelopment Agency as part of their Brownfield Redevelopment Program. Prepared a comprehensive quality assurance project plan (QAPP) to characterize soil, soil gas, and groundwater conditions at multiple properties under varying conditions and mixtures of COPCs. Upon approval of the QAPP by U.S. EPA and USACE, conducted relevant Phase I ESAs.

Two of the properties were subject to Phase II sampling where the Phase I ESA showed favorable results for the City's anticipated construction of a retirement community. Designed and implemented Phase II assessment activities that relied on combinations of geophysics, soil gas sampling, and soil sampling and analysis to provide data regarding the existing environmental conditions at the properties. Prepared reports using Phase I and II results and recommended a "no future action" status for one property suitable for the proposed redevelopment. U.S. EPA and USACE concurred with the recommendations.



#### Phase I ESA and PEA, Somis Union School, Somis, CA

IR1316460C, \$50,000, 2014. Project Manager. Responsible for completing a Phase I ESA and PEA at the proposed location of the Somis Union School replacement school site. The Somis Union School District is relocating the Somis Union School because of environmental concerns associated with the current school location. The PEA was funded through a TSI grant that DTSC received from the U.S. EPA.

Completed the Phase I ESA and PEA following the new (2013) ASTM International and DTSC PEA Guidance Manual. Performed the PEA following a U.S. EPA/DTSC-approved SAP/QAPP and HSP to evaluate whether hazardous materials were present at the site at concentrations that may pose unacceptable risk to human health and environment in context of future site reuse plans. The PEA included soil sampling for COPCs (pesticides, petroleum hydrocarbon, PCBs, and metals), soil gas survey, and development of RBSLs to evaluate potential human health/environmental risks. Prepared the PEA Report demonstrating through a human health risk evaluation that concentrations of COPCs detected at the site did not pose a risk to human health under current site conditions or future occupants (including school children). Recommended “no further action” status for the site, which was approved by DTSC.

#### Phase I ESA and PEA, Oak Street School, Inglewood, CA

NB1016075.003, \$75,000, 2011. Project Manager. Responsible for completing a Phase I ESA and PEA at the proposed location of the Oak Street replacement school site. The Inglewood Unified School District was considering relocation of the Oak Street Elementary School because of environmental concerns associated with the current school location. The PEA was funded through a TSI grant that DTSC received from the U.S. EPA.

Performed the PEA following a U.S. EPA/DTSC-approved SAP/QAPP and HSP to evaluate whether hazardous materials were present at the site at concentrations that may pose unacceptable risk to human health and environment in context of future site reuse plans. The PEA included soil sampling for COPCs (pesticides, petroleum hydrocarbon, PCBs, and metals), soil gas survey, statistical evaluation of metal results, and development of RBSLs to evaluate potential human health/environmental risks. Prepared the PEA Report demonstrating through a human health risk evaluation that concentrations of COPCs detected at the site did not pose a risk to human health under current site conditions or future occupants (including school children). Recommended “no further action” status for the site, which was approved by DTSC. Completed the PEA on an expedited schedule to accommodate the U.S. EPA grant funding time constraints.

#### Phase I ESA, Confidential Client, Southern CA

0100960030, \$260,000, 2008. Conducted Phase I site reconnaissance at several cement batch plants located throughout southern California. Interviewed site representatives and reviewed historical documents and agency records. Subsequently, prepared Phase I summaries for each site to identify recognized and historical environmental conditions.

#### Phase I ESA, PEA Project, Bridge Housing, San Diego, CA

0098760010, \$28,000, 2005. Project Manager. Responsible for conducting a PEA for a property being considered for commercial and residential redevelopment. The PEA was funded under a U.S. EPA Brownfield grant issued to the State of California. Prepared a Phase I ESA on behalf of DTSC that identified recognized and historical environmental conditions at the site. Oversaw lead-based paint and asbestos-containing materials inspections of historical buildings located at the site.

#### Phase I ESA, Brownfield Project, City of Colton, Colton, CA. CA

0066380030, \$110,000, 2005. Assisted with multiple Phase I ESAs for the City of Colton Redevelopment Agency as part of their Brownfield Redevelopment Program. During the initial stage, 11 Phase I ESAs were conducted on properties identified for potential redevelopment. Based on the Phase I ESA results, recommended Phase II investigation at several of the target properties where potential environmental conditions could be readily managed. Designed and implemented Phase II assessment activities that used combinations of geophysics, soil gas sampling, and soil sampling and analysis to provide data regarding the existing environmental conditions at these properties. After evaluating data gathered during the Phase I and II ESAs, recommended a “no further action” status for one property that best met the City’s redevelopment goals.

#### Honors and awards

Martin Van Courvering Award, for Excellence in Research, American Association of Petroleum Geologists, 1993.

#### Publications and presentations

“Treatment of High Levels of Chlorinated Solvents in Soil Vapor Using C3 Technology”, Z. Xiong, J. Bahde, H. Amini, E. Mananian, E. Yemut, NW. Chang, G. Geckeler. The 8th International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 2012.

“Managing the Risk of UXO.” H. Amini, J. Bahde, and L. Clarke. Pollution Engineering. p. 8–11. March 2000.



## APPENDIX B

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### Health and Safety Plan



## **HEALTH AND SAFETY PLAN**

Carson City Hall Renovation Project

Carson, California

*Prepared for:*

**Department of Toxic Substances Control**

5796 Corporate Avenue  
Cypress, California 90630

*Prepared by:*

**Amec Foster Wheeler Environment & Infrastructure, Inc.**

121 Innovation Drive, Suite 200  
Irvine, California 92617-3094  
(949) 642-0245

March 2015

Project No. IR1316460K

## EMERGENCY SUMMARY SHEET

The Site Health and Safety Coordinator (SHSC), the Project Manager, and Corporate Health and Safety Director shall be notified immediately if worker exposure, accidents, or site conditions not anticipated in this document are encountered. The SHSC or designated Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), employee must contact WorkCare 24/7 Hotline at 888-449-7787 in the event of accidents with injuries (emergency or non-emergency incidents).

The SHSC, the Project Manager, the Irvine Office Manager, and Corporate Health and Safety Director will be notified immediately if worker exposure, accidents, or site conditions not anticipated in this document are encountered.

### RESPONDING EMERGENCY AGENCIES

Service	Telephone Number
Ambulance	911
Fire Department	911
Police Department	911

### PROJECT EMERGENCY CALL LIST

Title	Name	Telephone Number
Project Manager	Joseph Bahde	(949) 574-7500 (office) (949) 466-0047 (cell)
Field Manager	Jorge Perez	(949) 241-7658 (cell)
Site Health and Safety Coordinator	Thet Naing	(949) 279-5847 (cell)
Corporate Health and Safety Officer	Bruce Voss	(760) 202 3737 (office) (951) 897 6381 (cell)
DTSC TSI Coordinator	Maryam Tasnif-Abbasi	(714) 484-5489
DTSC Project Manager	Aslam Shareef	(714) 484-5308
District Representative	Colleen Robertson	(805) 386-8258
Work Care		(800) 455-6155

**Note:**

In the event of an occupational accident or incident, please indicate to the medical facility that this is a Workers' Compensation case; that your employer is Amec Foster Wheeler; and that the insurance administrator is Zurich American Insurance. Subcontractors will provide internal Workers' Comp. policy information; this should be provided to the SHSC at the pre-work meeting.

### EMERGENCY TELEPHONE NUMBER LIST

Organization	Telephone Number
State Occupational Safety and Health Administration	(866) 924-9757 (California)
Poison Control Center	(800) 222-1222
National Response Center	(800) 424-8802

### EMERGENCY SUBCONTRACTOR'S TELEPHONE NUMBER LIST

Organization	Onsite HASP Representative/ Competent Person	Telephone Number
To Be Determined	Not Applicable	Not Applicable

Nearest Phone: Carry cellular phone.

Nearest Water: Carry water.

**POTENTIAL PHYSICAL HAZARDS, including but not limited to:** Lifting hazards, musculoskeletal and back injuries, discharge of static electricity, drill rigs and heavy equipment operation, buried utilities, electrocution, entanglement, ergonomic stress, fire and explosion, excavation hazards, heavy equipment and vehicle hazards, traffic, inclement weather and shut-down conditions, noise, slips, trips, and falls.

#### **POTENTIAL CHEMICAL HAZARDS:**

1. Volatile organic compounds (VOCs)
2. Semi-volatile organic compounds (SVOCs)
3. Polychlorinated biphenyls (PCBs)
4. Metals
5. Total petroleum hydrocarbons (TPH)

**CHEMICAL MATERIALS HANDLED AT THE SITES:** mixed oil/waste oil, diesel fuel.

**RECOMMENDED AIR MONITORING EQUIPMENT:** Photoionization detector (PID)

**REQUIRED PERSONAL PROTECTIVE EQUIPMENT (PPE) AND AIR MONITORING EQUIPMENT:** Level D (see Attachment D).

### ACTION LEVELS AND ACTION

Equipment	Action Level	Action To Be Taken
PID	Less than (<) 11.8 parts per million (ppm)-equivalent above background in the breathing zone (BZ).	Maintain Level D or Modified Level D (Mod D).
	Greater than (>) 11.8 ppm-equivalent above background in the BZ.	Upgrade to Level C PPE.
	>50 ppm-equivalent above background onto the project area perimeter.	Cease operations until levels fall to within background readings, and/or investigation area is ruled out as source of elevated reading.
None	Visible airborne dust in the BZ	Institute wet methods, move away from the airborne dust or upgrade to Level C PPE with high efficiency particulate air (HEPA) filters.
	Visible airborne dust at the project area perimeter	Institute wet methods or cease operations

**SITE CONTROL** for this project will consist of:

- Exclusion Zone in the immediate hazard area identified by cones, hazard tape, or other means to notify unauthorized individuals of the presence of potential hazards.
- Decontamination Area (equipment & personnel).
- Support Zone.

**IN CASE OF LIFE THREATENING INJURIES, CALL 911  
USE AMBULANCE TO CLOSEST TRAUMA CENTER**

**NOTE: In case of any hazard exposure during and/or prior to medical attention, the hospital and any emergency response personnel shall be notified that the patient and/or the patient's clothing may be contaminated.**

<b>Hospital</b>	<b>Address</b>	<b>Tel:</b>	<b>Emergency:</b>
Harbor-UCLA Medical Center	1000 West Carson Street, Torrance, California	(310) 222-2345	911

Note: Driving directions to Harbor-UCLA Medical Center are included on the Hospital Map (Figure 1)

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**SITE-SPECIFIC HEALTH AND SAFETY PLAN**  
**Preliminary Endangerment Assessment**  
**Soil and Soil Gas Sampling**  
Carson City Hall Renovation Project Site  
Carson, California

**1.0 INTRODUCTION**

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared this Site-Specific Health and Safety Plan (HASP) for the California Department of Toxic Substances Control (DTSC) to outline procedures to be followed while conducting soil and soil gas sampling activities at the Carson City Hall Renovation site located at 701 and 801 East Carson Street, Carson, California (Figure 2). The format and scope of this HASP may be modified as needed as the field implementation progresses.

**1.1 PROJECT AREA AND SITE DESCRIPTION AND FEATURES**

Proposed boring and sampling locations are within an approximate 19.82-acre site, comprising of five land parcels, which is located in a mixed commercial and residential area of the City of Carson, California (Figure 2). The site is bounded to the south by East Carson Street, to the west by Avalon Boulevard, to the north by Desford Street, and to the east by Civic Plaza Drive.

**1.2 BACKGROUND/SITE HISTORY**

The City Hall and Carson Community Center currently occupy the site. The City Hall has two stories of administrative floors and a basement which includes a chiller, boiler, electrical, HVAC, and generator. The generator is fueled by a 4,000 gallon diesel UST in the driveway/loading dock area just east of the generator. Chemicals associated with the chiller room are stored on secondary containment pallets. The Community Center is occupied by equipment rooms similar to those observed in the City Hall building. A loading dock is located in the maintenance yard on the north side of the building. The maintenance yard located on the north side of the building is only used to load/unload primarily general office supplies. A 1,250 gallon clarifier is located in the maintenance yard and reportedly used for cleaning lawn moving/landscaping machines. No vehicles are maintained on the site.

The site was purchased by the City of Carson in 1970/1971. Prior to acquiring the site, auto dismantling and salvage operations occurred throughout the site area. By 1952, the northwest and very southeast/southwest portions of the site were used as auto dismantling and salvage yards. By 1963, the entire site appears to be occupied by an auto dismantling and salvage yard. The previous auto dismantling and salvage yard reportedly included collection of old military tanks, heaters, army surplus, etc., and the dismantling yard was

reportedly filled with old cars stacked 8 to 10 high. The site was undeveloped in 1928 and agricultural land in 1947.

Previous operation of the auto dismantling and salvage yard and current use of the 4,000 gallon diesel UST and 1,250 gallon clarifier are considered recognized environmental conditions (RECs) for the site.

**1.3 SCOPE OF WORK/PLANNED SITE ACTIVITIES**

The scope of work for site assessments includes conducting a utility clearance and drilling and the collection and analysis of soil and soil gas samples.

<b>Work Tasks</b>	<b>Amec Foster Wheeler/Subcontractor Task Responsibilities</b>
Utility Clearance	<u>Subsurface Surveys</u> – geophysical survey <u>Amec Foster Wheeler</u> – field oversight
Soil Sampling, soil gas probe installation, and Laboratory Analysis	<u>American Analytics</u> – direct push drilling, soil sampling, soil gas probe installation, soil sample analysis at fixed base laboratory soil gas sampling and analysis using a mobile laboratory <u>Moore Twining Associates</u> – soil sample analysis at fixed laboratory. <u>Amec Foster Wheeler</u> – drilling and soil/soil gas sampling oversight

**1.4 SCHEDULED PROJECT AREA PERSONNEL AND CONTRACTORS**

Substitutions will be made with similarly qualified personnel; the Record of Change must reflect all personnel changes.

**SCHEDULED PROJECT SITE PERSONNEL**

<b>Name</b>	<b>Company</b>	<b>Project Title</b>
Hassan Amini	Amec Foster Wheeler	Principal-in-charge
Joseph Bahde	Amec Foster Wheeler	Project Manager
Jorge Perez	Amec Foster Wheeler	Field Manager
Thet Naing	Amec Foster Wheeler	Site Health and Safety Coordinator

Note:

All personnel requiring access to controlled work areas must have completed the training and medical administrative control requirements.

## SCHEDULED PROJECT SUBCONTRACTORS

Company	Contact Information	Project Contracting Task
Subsurface Surveys	(760) 476-0492	Subsurface Geophysics
American Analytics	(818) 998-5547	Direct push drilling, soil sampling, soil gas probe installation, soil sample analysis at fixed base laboratory, soil gas sampling and mobile laboratory analysis.
Moore Twining Associates	(559) 268-7021	Soil sample analysis at fixed base laboratory

**Note:**

All personnel requiring access to controlled work areas must have completed the training and medical administrative control requirements. Project managers or appropriate task managers should review and approve their special training programs (confined-space entry, lockout/tagout, excavation, trenching, and shoring, and fall protection).

### 1.5 PERSONNEL RESPONSIBILITIES

#### Site Health and Safety Coordinator

The Site Health and Safety Coordinator (SHSC) reports jointly to the Corporate Health and Safety Director (CHSD) and the Field Manager (FM) for all aspects of the project and is the primary contact for health and safety during all field activities. The SHSC has the authority to stop all work if conditions are judged to be hazardous to personnel or the public within the Project Area, and reports and investigates accidents and near misses. The SHSC or designee must carefully document the implementation of this HASP by maintaining the project health and safety files. The SHSC is responsible for the following activities.

- Establishes work zones, evacuation routes, and assembly areas.
- Makes the day-to-day decision to modify levels of protection provided in the HASP based on Project Area conditions or monitoring data.
- Provides necessary support to the Emergency Coordinator (EC; see Project Manager [PM] or FM below).

#### Corporate Health and Safety Director

The CHSD is responsible for coordinating the implementation of health and safety procedures through supervision/direction of the SHSC, and is responsible for approval of all changes made to this HASP. Alternatively, a local Amec Foster Wheeler Certified Industrial Hygienist may review and approve the HASP.

### **Project Manager or Field Manager**

The PM or FM is responsible for all field activities for enforcing safe work practices and ensuring safety and health communication conducted for each visit to the site (either by the PM, FM, SHSC, or a rotation of field team members and subcontractor team members). If available, he/she serves as the EC in emergency situations. The PM or FM assumes (or assigns to a qualified person) the SHSC and EC duties and responsibilities when the SHSC is not at the site.

The PM or FM is responsible for conducting accident and near-miss investigations and completing the *First Aid Incident* and/or *Near Miss* forms. The supervisor of the person injured is responsible for completing the *Supervisor's Report of Injury or Illness*. Completed forms must be submitted to the CHSD within 24 hours of a significant incident.

### **Field Staff**

All Amec Foster Wheeler personnel are responsible for compliance with all Safety and Health Regulations of the Occupational Safety and Health Act of 1970 (29 Code of Federal Regulations [CFR] 1926 and 1910), including all amendments and modifications thereto (hereinafter OSHA). In the event there is a conflict between the safety and health provisions of federal, state/provincial, or local regulations and Amec Foster Wheeler HASP or subcontractor HASP, the more stringent applicable provision shall prevail.

All Amec Foster Wheeler personnel are responsible for taking all reasonable precautions to prevent injury to themselves and to their fellow employees and for being alert to potentially harmful situations. Technical staff members are expected to perform only those tasks that they believe can be done safely and to immediately report any accidents, near misses, and/or unsafe conditions to the SHSC or the FM.

### **Subcontractors**

Amec Foster Wheeler subcontractors are responsible for participating in and enforcing the safety and loss prevention programs established for the project that will cover all work performed by it and its sub-subcontractors. Each subcontractor shall designate a responsible member of its organization whose duties shall include loss and accident prevention and who shall have the responsibility and full authority to enforce the program. This person shall ensure that all subcontractor and sub-subcontractor employees understand and comply with the health and safety programs. Subcontractors shall cooperate fully with Amec Foster Wheeler, the Amec Foster Wheeler Client, and all insurance carriers and loss prevention engineers on loss and accident prevention. Subcontractors shall perform all parts of its contract while assuming total responsibility for complying with all applicable federal, state, and local health, safety, and environmental standards, regulations, rules and/or guidelines. With respect to the work described in the

subcontract, subcontractors shall comply with all obligations and assume all responsibilities imposed upon the “controlling contractor” as such term is defined and construed under all OSHA rules and regulations.

## **1.6 REQUIRED ON-SITE SIGNAGE AND POSTINGS**

The hospital route map, emergency call list, and Material Safety Data Sheets (MSDSs) are kept with the SHSC and are kept at the site.

## **2.0 HAZARD EVALUATION**

Chemical, physical, and operational safety hazards anticipated during this project will be evaluated in the following tables and in the sections that follow Section 3.1. The tables provide details that support the task-specific hazard analyses. Attachment A provides a Project Area characterization overview of the chemicals of potential concern (COPCs); Attachment B provides chemical properties and exposure assessment data; and Attachment C summarizes the physical and operational safety hazards and control measures identified for this project. Attachment D presents a complete hazard analysis of each project work task and the list of protective measures completes this section of hazard evaluation. Further details of specific control measures for these hazards are presented in Section 3.0.

### **2.1 CHEMICAL EXPOSURE**

The primary routes of entry for COPCs and hazardous materials at the project site include inhalation of vapors and dusts, skin contact with contaminated materials, and ingestion of airborne dusts or materials from hand-to-mouth contact due to inadequate personal hygiene. To minimize these exposure pathways, dust suppression techniques will be employed by the on-site subcontractor, and the SHSC will periodically monitor for airborne chemicals in the work and perimeter areas. In addition, all required personal protective equipment (PPE) as specified in Attachment D will be worn, and personal hygiene will be carefully monitored.

The following COPCs under investigation may be present at the project site:

- VOCs
- SVOCs
- PCBs
- Metals
- TPH

See Attachment B for more detailed chemical information.

## **2.2 HAZARD COMMUNICATION**

In addition to the COPCs, the following hazardous substances are anticipated to be brought onto the site to supplement investigation activities:

- alconox detergent,
- diesel,
- calibration gases (e.g., isobutylene or hexane), and
- soil gas sampling leak check compound (isobutane or isopropanol).

These hazardous materials are subject to the Hazard Communication Standard (29 CFR 1910.1200); required MSDSs are presented in Attachment F. The hazardous materials container must also be properly labeled with the identity of the hazardous chemical(s) and the appropriate hazardous warning information. The above list must be updated by the SHSC, and MSDSs must be obtained and filed for any additional hazardous substances brought onto the project site. For more information, see the Health, Safety, and Environment (SHE) Hazard Communication Written Program, in the Integrated Health, Safety, and Environment Programs Manual. The Corporate Health and Safety Manual (CHSM) is available in the Amec Foster Wheeler SHE website (<http://ee.amecnet.com/intranet/SHE/us/index.asp>) or through the Integrated Health, Safety, and Environment Programs Manual on the SHE website.

The SHSC must give all project employees a hazard communication orientation about hazardous chemicals brought onto the project site. This briefing will include health and physical hazards, precautionary measures to be taken during normal operations and foreseeable emergencies, labeling practices, and location of MSDSs.

The FM shall ask the Client for copies of MSDSs for any hazardous materials in use at the project site. The SHSC shall orient Amec Foster Wheeler employees/subcontractors as described previously.

## **2.3 PHYSICAL OR OPERATING HAZARDS AND CONTROL MEASURES**

Physical or operating hazards identified or reasonably anticipated to be associated with project work tasks are provided in Attachment C, along with a summary of specific control measures. More detailed discussions are provided in the Health, Safety, and Emergency Response Standard Operating Procedures (SOPs) in Volume VI of the CHSM. The following physical or operational hazards potentially exist for this project:

- heavy lifting: musculoskeletal/back injuries,

- drill rigs and heavy equipment operation,
- electrocution/discharge of static electricity,
- buried utilities,
- entanglement,
- ergonomic stress,
- fire and explosion,
- excavation,
- vehicle hazards,
- inclement weather and shut-down condition,
- heat stress,
- noise, and
- slips, trips, and falls.

## **2.4 HAZARD ANALYSIS OF EACH SITE WORK TASK**

Safety analyses for each site work tasks are provided in Attachment D. The work tasks are listed in Section 1.2.

## **3.0 PERSONNEL PROTECTION**

The prescribed methods and procedures used to protect personnel (project workers and adjacent community) from overexposure to hazardous materials and hazardous conditions posed by project site operations are grouped into three primary categories: Administrative Controls, Engineering Controls, and PPE.

### **3.1 ADMINISTRATIVE CONTROLS**

#### **3.1.1 Medical Surveillance**

##### **Periodic Comprehensive Exam**

All personnel requiring access to controlled work areas will have completed a pre-assignment medical examination and a periodic (usually annual) update examination prior to assignment, in accordance with the OSHA 29 CFR 1910.120(f). The exam must be performed by an Occupational Health Physician, who will provide written clearance for hazardous waste project site work and for respirator usage. Protocols for the baseline, periodic, and exit exams must be at least as stringent as those defined in the Amec Foster Wheeler Medical Surveillance Program, Volume III of the CHSM.



## **Emergency Medical Treatment**

Personnel who exhibit signs and symptoms of chemical or heat overexposure, or who have been injured on the job, also might seek medical services. See the Medical Emergency Response (Section 9.3) for specific information regarding emergency services and logs, reports, record keeping, and Section 3.1.5 (Logs, Reports, and Record-Keeping) for required report submittals.

## **Medical Clearance Record Keeping**

Medical clearance documents are on file at the Amec Foster Wheeler office located in Irvine, California. To ensure confidentiality, results of the medical exams or treatment records are maintained at the Medical Care Provider's clinical offices.

### **3.1.2 Training**

#### **Comprehensive**

All routine on-site general project site workers performing intrusive activity or having the potential to receive exposures exceeding permissible limits will have completed the OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training. Three days of supervised on-site training must be completed upon initial assignment. Appropriate annual (within 12 months) refresher updates must be completed by all HAZWOPER personnel. Supervisors will have completed the above and an additional 8 hours of OSHA Management and Supervisory Training.

Occasional project site workers who are not expected to receive exposures exceeding permissible exposure limits (e.g., geophysical and land surveyors) require only 24 hours of OSHA HAZWOPER Training and 1 day of on-site training and supervision.

#### **First Aid/CPR Instruction**

Completed training in first aid/cardiopulmonary resuscitation (CPR) is required for Amec Foster Wheeler field staff working at the Project Area.

#### **Specialized**

Prior to initiation of Project Area activities, the SHSC and PM/FM will conduct a health and safety "kickoff" meeting. Subcontractor representatives including the Subcontractor's Safety Coordinator/Competent person are required to participate. At this meeting, pertinent Amec Foster Wheeler SOPs of the CHSM and the site-specific HASP will be discussed, with special attention given to project site chemical and physical hazards, PPE, and emergency procedures. Upon completion of this briefing, all routine Amec Foster Wheeler field personnel will be required to read and sign the acceptance sheet of this HASP (Section 10.0).

Project site visitors who do not attend this meeting will be required to undergo a specialized health and safety orientation, as documented in the field notebook.

## **Daily**

### **Tailgate Safety Meetings**

Tailgate safety meetings will be conducted each day or for all major changes of work tasks or conditions by the PM/FM, SHSC, or a rotation of Amec Foster Wheeler and subcontractor team members. Topics of discussion will include work tasks and designated PPE, emergency procedures, evacuation routes, instruction in use of safety equipment (as required), prior safety problems, recognition of signs and symptoms of overexposure, importance of proper decontamination, and personal hygiene. These meetings must be documented in the field notebook or Tailgate Safety Meeting Checklist (Attachment G).

### **Safety Inspections**

All work areas and equipment including but not limited by any type of field and construction work will be inspected DAILY by the responsible subcontractor. All deficiencies discovered will be reported to Amec Foster Wheeler immediately.

### **Fire Extinguisher Usage:**

In accordance with 29 CFR 1910.157, all field personnel who are provided portable fire extinguishers for use should be familiar with general principles of use and the hazards of incipient (early stage) firefighting. Amec Foster Wheeler personnel who have completed fire extinguisher training are permitted to use fire extinguishers at the Site.

### **Department of Transportation Hazardous Materials Shipment/Receipt (HM 126F):**

In accordance with 49 CFR 172, Department of Transportation (DOT) HM126F training is required for all employees who handle, transport, or prepare to transport hazardous materials.

### **Equipment Operators:**

In accordance with state and federal OSHA regulations, operators of all heavy equipment (e.g., forklifts, backhoes, excavators) must be trained for safe equipment operation. Proof of documentation will be requested by Amec Foster Wheeler.

### **Training for Subcontractors**

All personnel including subcontractors requiring access to controlled work areas must have completed the training and medical administrative control requirements. PMs or appropriate task managers should review and approve their special training programs (confined-space entry, lockout/tagout, excavation, trenching and shoring, and fall protection).

### **3.1.3 Accident Prevention**

The SHSC as well as all site employees will inspect the work site and/or project site daily to identify and correct any unsafe conditions. Amec Foster Wheeler field personnel and subcontractors should inspect work areas thoroughly before leaving the site. Adherence to the Safe Work Practices (Section 3.1.4) and procedures outlined in this HASP will assist with accident prevention.

### **3.1.4 Safe Work Practices**

#### ***Personal Conduct***

- Unauthorized personnel are not allowed in the project site; particularly in the Exclusion Zone (EZ).
- A high standard of personal hygiene will be observed. Smoking, eating, drinking, chewing gum or tobacco, taking medication, and applying cosmetics will not be permitted within any restricted area or EZ.
- Personnel under the obvious influence of alcohol or controlled substances are not allowed in the project site; those taking medications must notify the SHSC.
- All project site personnel will familiarize themselves with these practices and the emergency procedures during daily tailgate and pre-work safety meetings.
- Workers who are passengers or drivers of vehicles (both in and out of the project site) will wear their seat belts any time the vehicle is in motion.
- No cellular phone use is permitted while driving.

#### ***Personal Protection***

- Personnel will avoid skin contact with contaminated or potentially contaminated media. If such contact occurs, the affected areas should be washed thoroughly with soap and water.
- Personnel will discard and replace any damaged or heavily-soiled protective clothing.
- Personnel should notify the SHSC of any defective monitoring, emergency, or other protective/safety equipment.
- A supply of potable water, electrolyte replacement solutions, a shaded break area, and sufficient lighting are recommended to be maintained on site; sanitary facilities will be accessible to personnel.

### ***Equipment and Activities***

- Open flames are not allowed anywhere on the project site without a hot-work permit. A hot-work permit should be issued prior to the initial fieldwork by a responsible subcontractor and approved by the SHSC.
- Owners/operators of heavy equipment will ensure that the equipment is in good working order by performing daily inspections and routine maintenance. Deficiencies affecting health and safety shall be corrected prior to equipment use.
- All unsafe conditions shall be corrected immediately. All unsafe conditions not in the scope of the project shall be reported to the PM/FM and the condition corrected.
- Loose-fitting clothing and loose long hair are prohibited near moving machinery.
- All internal combustion engines must have spark arrestors that meet the requirements for hazardous atmospheres if they are to be used in such areas.
- Do not fuel engines while vehicle is running.
- Install adequate project site roads, signs, lights, and devices.
- Where portable electric tools and appliances can be used (where there is no potential for flammable or explosive conditions), they will be equipped only with 3-wire grounded power and extension cords to prevent electrical shock. Use a ground fault circuit interrupter to prevent electrical shock.
- Store tools in clean, secure areas so they will not be damaged, lost, or stolen.
- When exiting a vehicle, shift into park, set the parking brake, and shut off the engine. Never leave a running vehicle unattended.

### **3.1.5 Logs, Reports, and Record Keeping**

#### ***Submittal of Certifications***

All Amec Foster Wheeler employees' certificates are on file with the local SHSC in the Amec Foster Wheeler Irvine, California office. Field projects will not be allowed to take place in the absence of adequate documentation.

#### ***Site Monitoring, Reports, and Records***

The health and safety field files maintained by the SHSC, or his/her designee, will be the primary form of record keeping and documentation of site health and safety activities. These documents will be completed in sufficient detail to document the work performed; any

unusual or significant circumstances under which the work was performed; any unanticipated/unplanned action taken to mitigate or to otherwise cope with unexpected field conditions; and pertinent comments about site-specific conditions that could have a bearing on the work performed. Documentation is required for all phases of work. See also the SHSC duties listed under Section 1.6, Personnel Responsibilities. Record keeping practices will follow 29 CFR 1910.20.

The health and safety records will contain the following documents:

- signed acceptance sheet of this HASP (signed by all routine on-site personnel) (Section 10.0),
- Supervisor's Report of Injury or Illness (Attachment G),
- First Aid Incident Report (Attachment G),
- Near Miss Report (Attachment G), and
- Tailgate Safety Meeting Checklist (Attachment G).

Blank forms are provided in Section 10.0 and Attachment G of this HASP. Daily tailgate meetings and additional health and safety meetings conducted at the site for this project should be recorded in your field notebook or Tailgate Safety Meeting Checklist (Attachment G).

## **3.2 ENGINEERING CONTROLS**

### **3.2.1 Barriers and Signs**

Barricades, traffic cones, and/or marking or caution tape will be erected at a safe distance from excavations, pits, hazardous areas, and moving equipment to prevent unauthorized access to work areas from vehicular and pedestrian traffic. Barriers will be appropriate for the level of work activities and anticipated traffic. Signs will be conspicuously posted as the following:

CONSTRUCTION AREA - Authorized Personnel Only

or equivalent.

### **3.2.2 Rinsate Collection/Containment**

A system for collection of rinsate from decontamination operations (heavy equipment, sampling equipment, and personnel decontamination) may be necessary for the project site. The system will be as complex or as simple as necessary to collect and contain spent

decontamination fluids, including overspray from steam-cleaning operations. Construction of the “permanent” heavy equipment decontamination area and all areas where steam cleaning of sampling equipment (e.g., augers, spoons, etc.) occurs will be the responsibility of the equipment contractor. Construction of temporary stations for personnel and other sampling equipment will be the responsibility of the SHSC and FM.

### **3.2.3 Noise Reduction**

Site activities in proximity to welding, construction, and heavy equipment often expose workers to excessive noise. It is anticipated that situations may arise when noise levels may exceed the OSHA Action Level of 85 decibels (A-weighted scale) in an 8-hour time-weighted average. An example of this possibility is working in close proximity to the subcontractor during drilling or trenching activities at the project site. If excessive noise levels occur, ear plugs with appropriate the Noise Reduction Ratings will be issued to all personnel and a system of hand signals understood by all will be implemented (see Section 4.4).

## **3.3 PERSONAL PROTECTIVE EQUIPMENT**

### **3.3.1 Levels of Protection**

Initial levels of protection for the project site may vary depending upon the task. All personnel entering controlled work zones will initially be required to wear the Environmental Protection Agency/OSHA Level of Protection as specified in the task specific Job Safety Analysis (Attachment D).

Protection may be upgraded or downgraded depending upon monitoring data (compared with action levels) and project site conditions, as determined by the SHSC. The following descriptions outline the **minimum** guidelines for each level of protection that is assigned or potentially assigned.

#### ***Level D PPE***

- Work shirt and full-length pants or coveralls
- American National Standards Institute (ANSI) standard safety-toe work boots
- ANSI standard hard hat (when working around heavy equipment or overhead “bump” hazards)
- ANSI standard safety glasses
- ANSI standard hearing protectors (when working in high noise areas, e.g., steam cleaners and heavy equipment)

### ***Modified Level D PPE***

- Level D equipment
- Tyvek coverall or equivalent (upgrade to polyethylene [PE] or Saranex-coated Tyvek as needed)
- Outer chemical-resistant gloves and inner nitrile gloves
- Boot covers or chemical-resistant boots

### ***Level C PPE***

- Modified Level D equipment, with taping of coverall to boots and gloves, as necessary
- National Institute for Occupational Safety and Health (NIOSH)-approved, half-face or full-face air-purifying respirator with organic vapor/acid gas cartridges and particulate prefilters (respirator usage clearance is defined in SOP H-13, Respiratory Protection, Volume VI of the CHSM)

### ***Level B PPE***

- Modified Level D equipment, use of chemical-resistant coverall, taped to boots and gloves
- NIOSH-approved, pressure-demand, full-face piece, self-contained breathing apparatus (SCBA) or pressure-demand supplied-air respirator with escape-SCBA (additional employee training is required for Level B operations)

### ***Level A PPE***

- Level B equipment, use of fully-encapsulating suit

#### **3.3.2 Chemical Cartridge Replacement Schedule**

Based upon OSHA requirements and manufacturer recommendations, organic vapor cartridges used with the air purifying respirator will be changed out daily whenever the level of PPE is increased to Level C or when Level C is initially required. The used cartridges will be disposed of as part of the project investigation-derived waste (IDW).

#### **3.3.3 PPE Donning/Doffing Procedure**

The following procedures are given as a guide. Failure to adhere to these procedures may result in the PPE being ineffective against COPCs. These procedures may be altered by the SHSC if improvements can be made and these changes are warranted in the field. Also, some articles of PPE may not be necessary for all project site tasks.

### ***PPE Donning Procedure (for Mod. Level D and greater)***

- Inspect all protective gear before donning.
- Don Tyvek coverall or equivalent, inner gloves and outer gloves, secure with tape, as required, leave pull tab. If coverall is loose, secure with tape to avoid capture in moving or rotating equipment.
- Don respirator. If not in Level C, maintain respirator in a sealed plastic bag at the project site in case of an upgrade.

### ***PPE Doffing Procedure (see also SOP H-6, Personnel Decontamination, Volume VI, CHSM)***

- Wash/rinse (if necessary) excess mud or other debris from outer boots, gloves, and clothing.
- Remove tape using pull tab and remove outer clothing in the order of boots, outer gloves, and coverall suits. Place disposable and reusable PPE in designated (separate) containers.
- Remove respirator (if applicable). Decontaminate and fit-check prior to reuse.
- Remove inner gloves.
- Wash face, neck, and hands.
- Enter the Support Zone (SZ).

#### **3.3.4 PPE Failure/Chemical Exposure**

In the event of PPE failure, worker and/or buddy will cease work, perform personal decontamination procedures, and exit to the SZ/Clean Zone. Refer to the MSDS and Section 9.0 (Emergency Actions) if emergency medical response is needed. If chemicals contact the eyes, irrigate for 15 minutes and consult a physician.

#### **3.3.5 PPE Inspection, Storage, and Maintenance**

Reusable PPE will be decontaminated, inspected, and maintained, as necessary, after each use. Personal equipment (e.g. respirators, leather safety-toe boots) shall be properly stored by the employee/subcontractor.

The SHSC will periodically inventory the disposable and reusable PPE at the project site and will replenish stocks in a timely manner.



## **4.0 PROJECT AREA CONTROL**

### **4.1 PROJECT AREA SECURITY**

Access will be limited to all controlled areas via the prescribed administrative (certifications) and engineering (barricades) controls. All project site staff and visitors will note arrival and departure times on a field log by SHSC. All equipment, tools, and property shall be secured at the end of each day.

### **4.2 VISITOR ACCESS**

All project site visitors (except OSHA inspectors) must receive prior approval from the FM, PM, and Client, and may do so only for the purposes of **observing** project site conditions or operations. All visitors, regardless of their rank or professional level, will not be allowed into controlled work areas unless training and medical requirements have been met and documented.

### **4.3 WORK ZONES**

Work zones typically are categorized into the following three zones. These zones may be overlapped or combined as appropriate.

#### **Support Zone**

The SZ will be upwind or crosswind and away from the contaminated area. Vehicles, emergency equipment, the telephone and break area, and any nonessential personnel will be maintained in this area.

#### **Contamination Reduction Zone**

Decontamination lines shall be established for personnel and sampling equipment in the Contamination Reduction Zone (CRZ). The CRZ should be marked through which personnel and equipment pass from the EZ to the SZ. An additional buffer, or transition zone (TZ), will be established upwind or crosswind of the contaminated zones and will serve as support for sample quality assurance/quality control and packing. Coolers in this zone will be protected from contamination and be decontaminated prior to leaving the project site.

#### **Exclusion Zone**

The EZ is defined around intrusive activities or located in the immediate hazard area. The EZ is often identified by cones, hazard tape, or other means to notify unauthorized individuals of the presence of potential hazards. Access should be restricted to field sampling crews and necessary equipment operators.

#### 4.4 COMMUNICATIONS

The “buddy system” will be used during field activities involving potential exposure to hazardous or toxic materials and during any work within the EZ. Each person will observe his/her buddy for symptoms of chemical or heat overexposure and will provide first aid or emergency assistance when warranted. A mobile phone will be maintained at the Project Area for emergency use.

The following emergency hand and horn signals will be used as necessary where verbal communication is limited:

Thumbs up	=	OK; understand
Thumbs down	=	No; negative
Grasping buddy's wrist	=	Leave project site now
Hands on top of head	=	Need assistance
Horn - one long blast	=	Evacuate project site
Horn - two short blasts	=	All clear, return to project site

## 5.0 AIR SURVEILLANCE

### 5.1 TYPE AND FREQUENCY OF MONITORING

The following table outlines the recommended frequency of air surveillance monitoring for all other work activities in an EZ:

Type	Minimum Recommended Monitoring Frequency
Background:	Once per day in the work area and perimeter using direct-reading instruments, prior to any intrusive activities or equipment startup.
Perimeter:	At least twice per day using direct-reading instruments during intrusive activities.
Personnel:	At least twice per day in the breathing zone of those with the highest anticipated exposure during intrusive activities.
Area:	At least twice per day in each work zone and at the onset of any new intrusive activities, or at new locations.
Environmental:	Periodic field-screening of selected samples per the Field Sampling Plan.

### 5.2 MONITORING INSTRUMENTS

The SHSC will maintain instrument manuals that specify calibration, general use, and troubleshooting procedures. All monitoring equipment will be field calibrated on a daily basis according to the manufacturer's instructions and will be recorded on the field notebook.

Equipment	COPC	Work Activity
Photoionization Detector (PID)	VOCs and halogenated VOCs	Drilling, collection of soil samples, opening an extraction well or a vapor monitoring cluster.

### 5.3 ACTION LEVELS

Action levels should be established for upgrading/downgrading PPE, work stoppages, and evacuation (see Attachment H for Justification of Action Levels calculations). The decision to upgrade/downgrade the level of PPE must be based upon instrument readings measured in the breathing zone (BZ) of project site personnel and comparison of the results to the information contained in Attachment E. Readings should be recorded in the field notebook.

## 6.0 DECONTAMINATION PROCEDURES

Procedures for the decontamination of sampling tools and other related equipment are specified in the sampling plan. Note that separate areas should be established for personnel, sampling, and heavy equipment decontamination; see also Section 3.2 (Engineering Controls) of this HASP; SOP H-5, Sampling Equipment, Heavy Equipment, and Vehicle Decontamination; and SOP H-6, Personnel Decontamination, in the CHSM.

## 6.1 PERSONNEL DECONTAMINATION

Equipment	Decontamination Solution	Procedures	
		Intermediate	Final
Long-handled, soft-bristled brushes Galvanized wash tubs or equivalent Pump-activated sprayer Garbage cans with plastic liners and drums with liners Plastic Sheeting Paper towels Duct tape	Alconox Tap water and DI for rinsing	Dispose of or wash outer boot and glove with Alconox solution. Rinse outer boot and glove. Remove outer glove and store for later use. Enter TZ for sample management. Return to EZ wearing new or cleaned outer gloves.	Segregate equipment drop (for instruments and equipment requiring special decontamination; see the Field Sampling Plan). Dispose of or wash outer boot and glove with Alconox solution. Rinse outer boot and glove. Remove and dispose of outer boots. Remove and dispose of outer gloves (if not cleaned to "like new" condition). Remove and dispose of coverall. Remove and dispose of inner gloves in designated receptacle. Field wash for personal hygiene. Exit to SZ.

Note:

Intermediate decontamination is for periodic exits from the EZ during sample transport and management, or for short breaks. Final decontamination is performed before lunch, when taking cool down breaks, and when exiting the project site.

## 6.2 EQUIPMENT DECONTAMINATION

All equipment that will potentially contact samples will be decontaminated prior to, and following, sampling events according to procedures specified in the Field Sampling Plan (FSP). Heavy equipment in direct contact with soil and/or groundwater, such as the drill rig augers and backhoe buckets, shall be steam cleaned at the CRZ and inspected by the PM or FM prior to leaving the site. Temporary decontamination stations (bucket wash) will be located near work areas and will be positioned upwind or crosswind of operations.

### **6.3 EMERGENCY DECONTAMINATION**

In the event of an accident or incident where work must cease and staff must exit the EZ, emergency decontamination should be performed to the greatest extent feasible. In an emergency, the primary concern is to prevent the loss of life or severe injury. If immediate medical attention is required to save a life, decontamination should be delayed until the victim is stabilized. If the decontamination can be performed without interfering with essential life-saving techniques or first aid, or if a worker has been contaminated with an extremely toxic or corrosive material that could cause severe illness or loss of life, decontamination must be performed immediately. If an emergency due to a heat-related illness develops, protective equipment should be removed carefully from the victim as soon as possible.

Any time emergency decontamination methods must be used, an Incident Report or Supervisor's Report of Injury or Illness (see Attachment G) must be completed by the SHSC and submitted to the CHSD.

### **6.4 DISPOSAL PROCEDURES**

Investigation derived waste (IDW) materials consisting of decontamination wash water, soil cuttings, and groundwater will be segregated by matrix and by source location and placed in labeled, DOT-approved, 55-gallon drums, and stored in a secure, designated location of the Project Area. Analytical results will be evaluated prior to disposal. All IDW will be handled, labeled, stored, inventoried, and disposed of in accordance with the procedures outlined in the appropriate work plan or FSP.

## **7.0 SANITATION AND ILLUMINATION**

### **7.1 SANITATION**

Potable drinking water shall be supplied in tightly-closed containers and shall be clearly marked for its intended use. If vehicles are available for use by field crews, restrooms and a field washing area with potable water will be available within a reasonable distance from the Project Area. If such facilities are not located within a reasonable distance, portable facilities will be installed for use by field employees.

### **7.2 ILLUMINATION**

It is anticipated that all project site work will be conducted during daylight hours. If circumstances arise in which fieldwork is to be conducted before or after daylight, or sunlight is obstructed, illumination within all general project site locations will be maintained at or above 5 foot-candles for general project site locations.

## **8.0 SPILL PREVENTION**

Fuels and other hazardous liquids brought onto the project site will be limited in quantity. Stored flammable liquids will be confined to flammable storage cans. If larger quantities of fuel are required, a proper storage area with appropriate containment must be instituted. Drip pans and absorbent socks will be used to ensure that no fuels are spilled.

## **9.0 EMERGENCY ACTIONS**

### **9.1 PREPLANNING AND GENERAL PROCEDURES**

#### **General Emergency Information**

Project site personnel should be constantly alert to recognize potentially unsafe work practices, hazardous work environments, and conditions that are immediately dangerous to life or health, and they should be routinely reminded of signs and symptoms of chemical and heat overexposure. Emergency response procedures (this section) should be reviewed daily and updated, as necessary, following incidents. Prearrange access for emergency crews when necessary.

In the event of a large-scale spill, fire/explosion, or major emergency, the FM is expected to notify the PM; the PM notifies the Client, evacuates the area, and lets appropriately-trained emergency staff respond to the situation. The safety and well-being of project site personnel, visitors, and the adjacent community will be of utmost importance in determining the appropriate response to a given emergency.

#### **Emergency Coordinator**

The PM or FM will serve as the EC during an actual emergency response situation. The PM or FM will serve as the primary EC at all times; first aid and rescue duties are shared between the first aid/CPR trained team members. A first aid kit should be stored at the project site in an accessible area. The EC will contact off-site emergency response agencies and will serve as the main spokesperson when the responders arrive at the project site.

#### **Project Site Maps**

An updated project site map (Figure 2) that is used during daily tailgate meetings will be used to inform the staff of hazardous areas, zone boundaries, Project site terrain, evacuation routes, work crew locations, and any project site changes. In the unlikely event that an emergency occurs, the problem areas will be pinpointed on the project site map, and pertinent information, such as weather and wind direction, temperature, and forecast, will be added as obtained. This map will be provided to the responding agencies.

### Emergency Decontamination

For first aid of non-life-threatening injuries, evacuate to decontamination line and decontaminate as much as possible or practical; contaminated clothing should be removed. For life-threatening injuries/exposures, field decontaminate as much as possible for the person's own safety, wrap in a blanket or polyethylene sheeting, and immediately transport to the designated medical facility. Also, phone ahead and bring this HASP for informational purposes and MSDS access by medical staff.

### Safe Refuge Area

The safe refuge area is a site-specific area determined by the EC and discussed in the tail-gate meeting at the beginning of the project and periodically once on-site. It will be set up in the SZ or at an off-site location in the event of a project site-wide evacuation. This area will be upwind, and the location and escape routes will be designated on project site control maps. It will contain emergency equipment, escape route maps, communications, and the Emergency Reference (call) List. This is required for **all** phases of work. In an emergency, the EC (PM or FM) will take a "head count" against the field notebook, initiate search/account for missing persons, notify the emergency crews (as applicable), and limit access into the hazardous emergency area to necessary rescue and response personnel in order to prevent additional injuries and possible exposures.

### Emergency Equipment

Emergency equipment will be maintained in a field vehicle (V), in the SZ, with the exception of items marked by an asterisk that will be kept in the EZ. All items must be checked and maintained by the SHSC at least weekly and after each use.

<input checked="" type="checkbox"/> First Aid Kit, V/FS	<input checked="" type="checkbox"/> Fire Extinguisher, V/EZ	<input type="checkbox"/> Field Showers, FS or V
<input type="checkbox"/> SCBA, V/FS	<input type="checkbox"/> Escape Packs	<input type="checkbox"/> Alarms*, V/EZ
<input type="checkbox"/> Spill Equipment, V	<input checked="" type="checkbox"/> Mobile or Cellular Phone, V/FS	<input type="checkbox"/> Fire Blanket*, V/EZ
<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Hospital Route Map, V/FS	<input type="checkbox"/> Eyewash station*, FS

### Evacuation Procedures

Expeditious evacuation routes to the Safe Refuge Area(s) will be established daily for all work area locations, with respect to the wind direction. Evacuation notification will be a **continuous** blast on a canned siren, vehicle horn, or direct verbal communication. Emergency drills should be performed periodically. Any additions to evacuation procedures require an update to this HASP.

In the unlikely event that an evacuation is necessary, all personnel will immediately proceed to the predetermined Safe Refuge Area, decontaminating to the extent possible for personal

safety, based on the emergency. The EC should then begin the project site security and control measures.

## **9.2 SITE-SPECIFIC RESPONSE SCENARIOS**

In the event that an electrical, water, or other utility line is encountered and impacted during drilling, all work at the site will cease and equipment will be shut off. The FM will first call 811 to report an emergency to the public utilities, and then he will call the PM to report the incident. An incident form will be filled out.

### **9.2.1 Natural Disasters**

#### **Earthquake**

Alarm: Car Horn

Action: Cease operations and turn off equipment. Seek protection under a table or stay in the open. Inspect area and equipment prior to starting work again.

### **9.2.2 Weather-Related Emergencies**

All work will cease should any of the following weather conditions arise:

- poor visibility,
- precipitation severe enough to impair safe movement/travel,
- lightning in the immediate area,
- excessive winds,
- flooding, and
- other conditions as determined by the SHSC, PM, or FM.

### **9.2.3 Spill and/or Discharge of Hazardous Materials**

#### **Training**

Responses to incidental releases or spills of hazardous substances that can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area are not considered to be emergency responses under 29 CFR 1910.120(l) and do not require additional specialized training.

#### **Spill Control and Response**

There is a potential for incidental spillage/leakage of hazardous materials. Some hazardous materials handled at the site include diesel oil for drill rig(s). Store these materials properly



and maintain the appropriate spill response equipment in the area where the materials are used and/or stored. In case of incidental spills or leaks, follow these steps:

1. Notify the SHSC and/or FM as soon as possible.
2. Select appropriate PPE and response equipment.
3. Contain the spill to the extent possible.
4. Neutralize or solidify the liquid per the MSDS.
5. Transfer the material to an appropriate compatible container.
6. Document with an Incident Report (see Attachment G).
7. PM or FM will notify the Client.

### **Discharge Control and Response**

In the event of an uncontrollable discharge of hazardous material from an existing Client structure (e.g., impoundment, tank, etc.), the EC will immediately contact the Client to coordinate implementation of the Client's Emergency Response Plan. If safe to do so, shut off affected lines and activate the alarm system at locations predetermined by the Client. Other than to take diligent measures to prevent further discharge, Amec Foster Wheeler personnel shall not assist in emergency response activities but will evacuate to the prearranged Safe Refuge Area(s) and implement the project site security and control measures.

#### **9.2.4 Fire or Explosion**

Sound the emergency alarm (continuous blast on a canned siren, vehicle horn, or direct oral communication) to summon the SHSC or EC, who then will decide whether to call the Fire Department for outside assistance (see Section 9.1, Preplanning and General Procedures). Small-scale fires (less than one-half of the responder's height) should be extinguished with an accessible ABC fire extinguisher by any team member who has received training. Fires in boreholes may be smothered with a fire blanket. Trained emergency crews will be summoned to control any large-scale or potentially unmanageable incident. Any off-site responding agencies will be given the project site map (Figure 2) and briefed about site-specific hazards so they can be optimally helpful in an emergency situation. The SHSC or EC will evacuate all non-response personnel and visitors to the Safe Refuge Area; will notify the PM, as applicable, the Client, and the Amec Foster Wheeler CHSD (see call list); and will complete the appropriate reports.

See also Attachment C of this HASP and SOP ER-2 (Emergency Action Plan for Field Operations) in the CHSM.

### 9.3 MEDICAL EMERGENCY RESPONSE

#### 9.3.1 Hospital

In the event of a serious injury or an accident that occurs after-hours, transport the victim to the hospital emergency room listed below.

Site Hospital	Address	Tel:	Emergency:
Harbor-UCLA Medical Center	1000 West Carson Street, Carson, California	(310) 222-2345	911

Note: Driving directions to Harbor-UCLA Medical Center are included on the Hospital Map (Figure 1).

#### Site Personnel Response Actions

Sound the emergency alarm (continuous blast on vehicle horn, or direct verbal communication) to summon the ECs who will assess the situation, first taking necessary precautions for personal safety. The ECs will determine whether to transport the injured party to the above respective Hospital/Medical Center, or summon an ambulance by calling 911 (see Section 9.1, Preplanning and General Procedures). Project site control measures will be implemented. Any off-site responding agencies will be informed about the site-specific hazards so they can be optimally helpful in an emergency situation.

The EC will direct the responding employees to follow the Emergency Decontamination procedures described in Section 6.3 and to provide first aid to the extent possible while awaiting medical attention. In emergencies, the injuries and illnesses that may arise will vary from incident to incident; check the MSDSs (Attachment F) or contact the Poison Control Center for emergency first aid procedures. Medical treatment may range from bandaging of minor cuts and abrasions to lifesaving techniques; therefore, first aid/CPR training is required for all Amec Foster Wheeler field staff. The SHSC will serve as the primary caregiver and bloodborne pathogen officer (see also Bloodborne Pathogen Exposure Control Plan below), but these duties are shared between qualified team members. It is essential that all Project Area personnel in need of emergency care receive treatment. Appropriate documentation and notification will be discussed later in this section.

#### 9.3.2 Bloodborne Pathogen Exposure Control Plan

The Bloodborne Pathogen Exposure Control Plan for Field Operations, located in the Health, Safety, and Emergency Response SOPs, Volume VI of the CHSM, provides detailed procedures for controlling exposure to bloodborne pathogens. Procedures are summarized herein.

### **Exposure Determination**

First aid responders have the potential to be exposed to bloodborne pathogens. The potential for exposure to bloodborne pathogens outside of emergency response is not anticipated.

### **Exposure Control: Universal Precautions**

Use the Center for Disease Control “Universal Precautions” as an approach to infection control, which assumes that all human blood and certain human body fluids are treated as if known to be infectious for Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and other bloodborne pathogens.

### **Exposure Control: Personal Protection Equipment**

While rendering first aid where exposure to blood may occur, Amec Foster Wheeler employees will don, at a minimum, latex or blue nitrile gloves. Gloves will be available in the field first aid kit in a packet or are usually a part of the field sampling materials. Other suggested PPE in the event of a serious blood-producing injury includes safety glasses, Tyvek coveralls, and nitrile outer gloves - all of which should be available in a field sampling kit. In addition, a disposable, one-way CPR mask to prevent direct contact between the rescuer and recipient also will be available in the first aid kit should the need arise.

### **Exposure Control: Personal Hygiene**

A hand-washing facility must be present in the event of bloodborne pathogen exposure. Basins or buckets, water, soap (alconox), and paper towels are usually available in a field sampling kit.

### **Exposure Control: Hepatitis B Vaccination**

First aid providers to job site injuries do not need to receive a pre-exposure Hepatitis B vaccine but are encouraged to do so. All first aid providers assisting in any exposure incident must be offered the full Hepatitis B immunization series no later than 24 hours after an incident. Contact the local public health department regarding information about obtaining this immunization.

### **Exposure Control: Exposure Incident Evaluation**

All first aid incidents involving exposures must be reported to the CHSD before the end of the work shift in which the incident occurs. A First Aid Incident Report (see Attachment G) must be completed describing the circumstances of the accident and response in addition to the Supervisor’s Report of Injury or Illness (see Attachment G). Following a report of an exposure incident, Amec Foster Wheeler shall provide to the exposed employee monitoring for HIV or HBV antibodies and medical counseling in cases of positive tests for HIV or HBV.

**Exposure Control: Waste Disposal**

Should biohazard waste be generated as a result of a field-related injury, the biohazard waste and affected area will be cleaned to the extent possible with items provided in the packet, and arrangements for the pickup and final disposal of the waste will be made.

**Exposure Control: HBV Vaccination Declination**

For whatever reason (religious, personal, or otherwise), employees may decline or refuse the HBV vaccination by contacting the CHSD. In instances where the vaccination is required, the employee will be required to sign a Hepatitis B (HBV) Vaccination Declination waiver (contact Amec Foster Wheeler Human Resources [HR] personnel for details) indicating that the employee has chosen at that time to refuse the vaccination, but may elect to receive it in the future at no expense to him/her.

**9.4 ACCIDENT REPORTING AND RECORD KEEPING**

At the onset of an employee work-related injury or illness, the Amec Foster Wheeler employee should notify the supervisor on duty. The employee is required to report all work-related injuries, plus all non-work related injuries that may affect his/her ability to safely perform his/her job. The injured/ill employee, along with the supervisor on duty, should then contact WorkCare’s Care Management team to report the incident (Attachment G).

After the initial accident report to the supervisor and WorkCare Care Management Team, the SHSC or other designated Amec Foster Wheeler employee will immediately contact the Project Manager, Supervisor, Unit Manager or CHSD and conduct an investigation jointly with the PM or FM. The FM or PM will complete the Supervisor’s Report of Injury or Illness and the First Aid Incident Report (Attachment F). These completed reports must be transmitted to the CHSD within 24 hours of an occurrence; a fax is acceptable. The CHSD will submit the appropriate reports to the Amec Foster Wheeler HR Department in Kirkland, Washington (for Workers’ Compensation), and OSHA (as applicable). The supervisor or unit manager will verbally inform (directly contact, not voice mail, is required) one of the following Amec Foster Wheeler individuals:

Contact Name	Telephone (Office)	Telephone (Cell)	Telephone (Home)
Vlad Ivensky	(610) 877-6144	(267) 736-0631	(215) 947-0393
Bruce Voss	(760) 202-3737	(951) 897 6381	Call cell

All near miss incidents will be reported on the Near Miss Report Form. Corporate HR will complete Worker's Compensation Insurance notifications, and the Corporate SHE Director will conduct further incident investigation and develop internal communications.

The foreman or field supervisor of subcontracting crews will investigate and complete an injury/illness report (similar in content to the Amec Foster Wheeler report) in accordance with their internal company policy. This report must be transmitted to the Amec Foster Wheeler CHSD within 24 hours.

In case of environmental incidents, property damage, power disruption, or mandated work "shutdowns," an Incident Report (Attachment F) will be prepared by the FM or PM. Any damage, loss, or theft of Amec Foster Wheeler property (items/tools/equipment) will be reported to the PM or FM.

Any release of information in these reports to unauthorized persons or agencies is prohibited unless it is first approved by the Client. Certain agencies or persons, such as OSHA or OSHA inspectors, can request this information and its release will be permitted. Review the Emergency Call List for additional contact names and phone numbers.

## **10.0 AMEC FOSTER WHEELER EMPLOYEE HEALTH AND SAFETY PLAN ACCEPTANCE**

I have had access to the HASP and opportunity to ask questions about this HASP. I have received site-specific information and orientation regarding hazard communication (HazCom) and the identified hazards anticipated at the project site. My signature certifies that I understand the procedures, equipment, and restrictions of this plan and agree to abide by them.

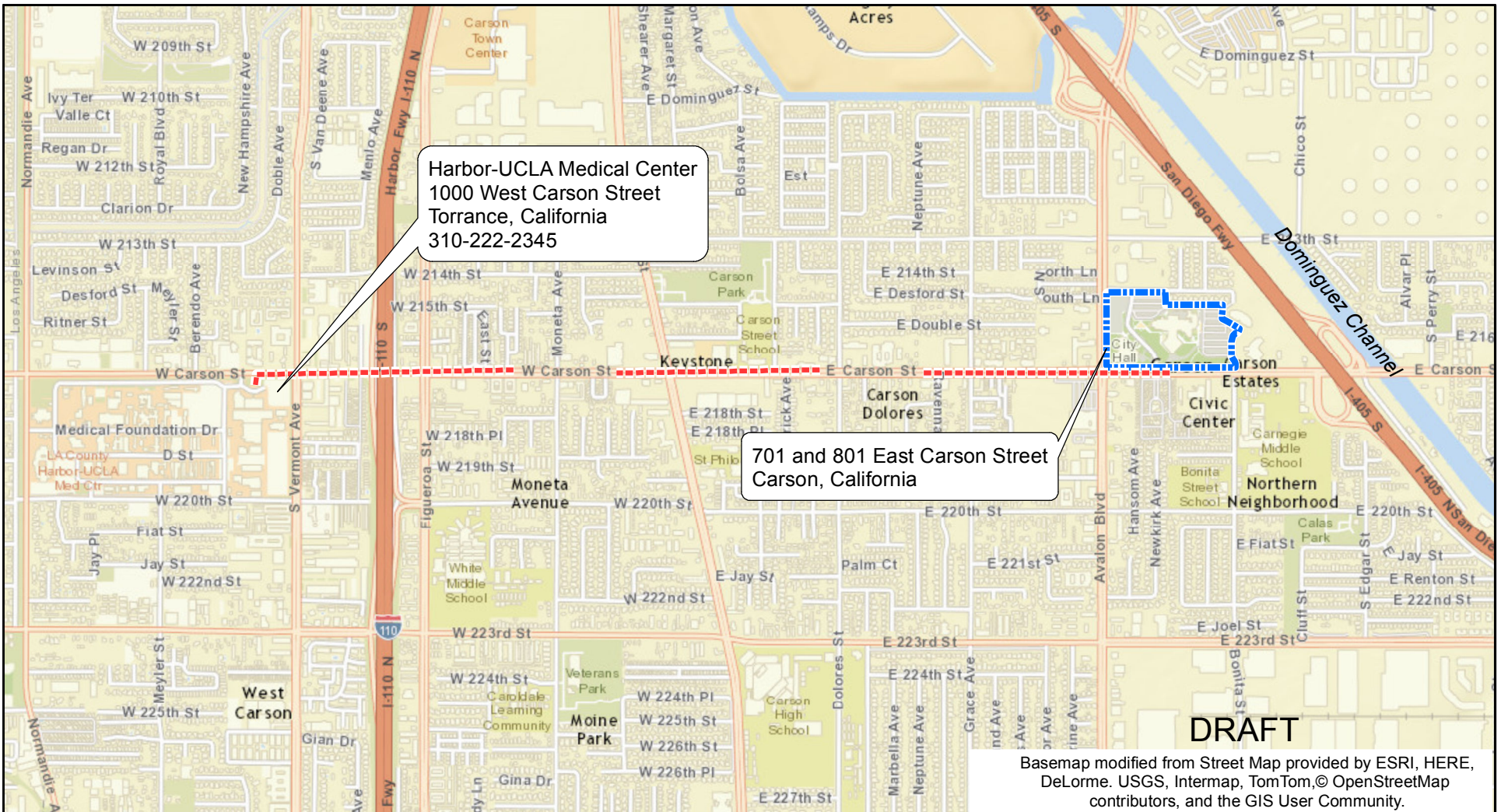




## FIGURES

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Harbor-UCLA Medical Center  
 1000 West Carson Street  
 Torrance, California  
 310-222-2345

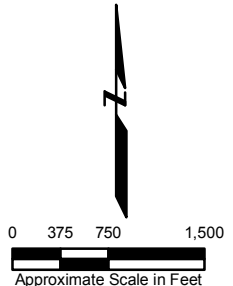
701 and 801 East Carson Street  
 Carson, California

DRAFT

Basemap modified from Street Map provided by ESRI, HERE, DeLorme, USGS, Intermap, TomTom, © OpenStreetMap contributors, and the GIS User Community.

**Directions**

1. Head **west** on **East Carson Street** on **Avalon Boulevard**.
- 2 Destination will be on the left.



HOSPITAL MAP  
 Carson City Hall Renovation Project  
 701 and 801 East Carson Street  
 Carson, California




Date: 03/02/2015  
 Submitted By: tp

Project No.: IR1316460K  
 Drawn By: pah

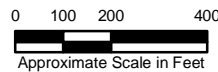
Figure  
**1**



**Explanation**

-  Approximate site boundary
- UST Underground storage tank
- AST Aboveground storage tank

**DRAFT**



Basemap modified from aerial photo from Eagle Aerial Imaging, Inc. dated 2011



**SITE MAP**  
 Carson City Hall Renovation Project  
 701 and 801 East Carson Street  
 Carson, California



Date: 03/12/2015

Project No.: IR1316460K

Submitted By: es

Drawn By: pah

Figure

**2**



# ATTACHMENT A

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Site Characterization

**ATTACHMENT A**  
**SITE CHARACTERIZATION**

Carson City Hall Renovation Project  
 Carson, California

ANTICIPATED PHYSICAL STATE OF CONTAMINANTS		
<input type="checkbox"/> Liquid	<input type="checkbox"/> Sludge	<input type="checkbox"/> Unknown
<input checked="" type="checkbox"/> Solid	<input type="checkbox"/> Gas/Vapors	<input type="checkbox"/> Other
<u>Note:</u>		

MATRIX		
<input checked="" type="checkbox"/> Surface soils	<input type="checkbox"/> Surface water	<input type="checkbox"/> Free product
<input checked="" type="checkbox"/> Soils at depth	<input type="checkbox"/> Groundwater	<input type="checkbox"/> Other
<u>Note:</u>		

POTENTIAL HAZARDOUS PROPERTIES		
<input type="checkbox"/> Corrosive	<input checked="" type="checkbox"/> Flammable/Combust	<input type="checkbox"/> Radioactive
<input checked="" type="checkbox"/> Toxic	<input checked="" type="checkbox"/> Volatile	<input type="checkbox"/> Reactive
<input type="checkbox"/> Inert	<input checked="" type="checkbox"/> Carcinogenic	<input type="checkbox"/> Unknown
<input type="checkbox"/> Asphyxiant	<input type="checkbox"/> Compressed gas	<input type="checkbox"/> Other
<u>Note:</u>		

CONTAINER/STORAGE SYSTEM INFORMATION		
<input checked="" type="checkbox"/> Tanks	<input type="checkbox"/> Landfills/Drums	<input checked="" type="checkbox"/> Subsurface
<input checked="" type="checkbox"/> Drums	<input type="checkbox"/> Impoundments	<input checked="" type="checkbox"/> Uncontainerized
<input type="checkbox"/> Pipes	<input type="checkbox"/> Size/Capacity	<input type="checkbox"/> In-service
<input type="checkbox"/> Quantity	<input type="checkbox"/> Surface	<input type="checkbox"/> Other
<u>Note:</u>		

CONDITION OF CONTAINER/STORAGE SYSTEM (S)		
<input type="checkbox"/> Sound/Undamaged	<input type="checkbox"/> Confirmed leaks	<input checked="" type="checkbox"/> Other
<input type="checkbox"/> Deteriorated/Unsound	<input type="checkbox"/> Suspected leak	<input type="checkbox"/> Unknown
<u>Note:</u> no containers/storage system known to be located at the site.		

**ATTACHMENT A**  
**SITE CHARACTERIZATION**

<b>ORIGIN OR INDUSTRIAL APPLICATION OF CHEMICALS OF CONCERN</b>		
Industrial Process		
<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Previously in use	<input type="checkbox"/> Painting/Coating
<input checked="" type="checkbox"/> Power Generation	<input type="checkbox"/> Maintenance/Repair	<input type="checkbox"/> Storage
<input type="checkbox"/> Quantity	<input checked="" type="checkbox"/> Surface	<input checked="" type="checkbox"/> Other
<u>Note</u> : : farming activities, runoff, transformers		

<b>Chemicals Used or Identified</b>		
<input type="checkbox"/> Acids	<input checked="" type="checkbox"/> Metals	<input type="checkbox"/> Phenols
<input type="checkbox"/> Caustics	<input type="checkbox"/> Pesticides	<input type="checkbox"/> Paints
<input type="checkbox"/> Halogen	<input checked="" type="checkbox"/> PCBs	<input type="checkbox"/> Solvents
<input checked="" type="checkbox"/> Other		
<u>Note</u> : : farming activities (pesticides/fertilizers)		

<b>Oils/Fuels</b>		
<input type="checkbox"/> Fuel oil	<input type="checkbox"/> AVGAS	<input checked="" type="checkbox"/> Gasoline
<input type="checkbox"/> Waste oil	<input checked="" type="checkbox"/> Diesel	<input type="checkbox"/> Leaded
<input type="checkbox"/> Hydraulic oil	<input type="checkbox"/> MOGAS	<input type="checkbox"/> Jet fuel
<input type="checkbox"/> Other (Kerosene)		
<u>Note</u> : Diesel and/or for fueling equipment.		

<b>Sludge</b>		
<input type="checkbox"/> Metal sludge	<input checked="" type="checkbox"/> Oil sludge	<input type="checkbox"/> Septic sludge
<input type="checkbox"/> Other		
<u>Note</u> :		

<b>Solids</b>		
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Sandblast grit	<input type="checkbox"/> Landfill refuse
<input type="checkbox"/> Other		
<u>Note</u> :		



## ATTACHMENT B

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Chemical Hazard Properties and Exposure Information

## ATTACHMENT B CHEMICAL HAZARD PROPERTIES AND EXPOSURE INFORMATION

Carson City Hall Renovation Project  
 Carson, California

CAS	CHEMICAL	EXPOSURE LIMITS		LEL %	IP eV	KNOWN or EXPECTED CONCENTRATIONS	HEALTH HAZARDS
		OSHA	ACGIH				
<a href="#">108-88-3</a>	Toluene (ppm)	50/S150/ C500/ I500	50 ppm	1.1	8.82	Below PEL	RISE; Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage
<a href="#">79-01-6</a>	TCE (Trichloroethene) (ppm)	25/S100/ C300/I1,000	50/S100	8	9.45	Below PEL	RISE; Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]
<a href="#">127-18-4</a>	PCE (Perchloroethylene, Tetrachloroethene) (ppm)	25/S100/ C300/I150	25/S100		9.32	Below PEL	RISE; Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]
<a href="#">7440-38-2</a>	Arsenic -- inorganic (mg/m3)	0.01/I5	0.01			Below PEL	RISE; Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, [potential occupational carcinogen]
<a href="#">7439-92-1</a>	Lead (inorganic) (mg/m3)	0.05/I100	0.05			Below PEL	RISE; Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypotension
<a href="#">8006-61-9</a>	Gasoline (ppm)	300/S500	300/S500	1.4		Below PEL	RISE; Irritation eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential occupational carcinogen]

**ATTACHMENT B**  
**CHEMICAL HAZARD PROPERTIES AND EXPOSURE INFORMATION**

Carson City Hall Renovation Project  
 Carson, California

CAS	CHEMICAL	EXPOSURE LIMITS		LEL %	IP eV	KNOWN or EXPECTED CONCENTRATIONS	HEALTH HAZARDS
		OSHA	ACGIH				
<a href="#">68476-34-6</a>	Diesel Fuel No. 2 (mg/m3)	none	100	~0.9		Below PEL	RISE; SKIN; Irritation

Exposure Limits –If not specified, exposure limit is the PEL or the TLV-TWA, Exposure limit preceded by a “S” is a Short Term Exposure Limit, by a “C” is the Ceiling Limit, and by an I is the NIOSH IDLH.

CAS – Chemical Abstracts Number

LEL – Lower Explosive Limit in percent

IP – Ionization Potential in eV

Health Hazards: Letters in italics represent exposure routes:

R – Respiratory; I- Ingestion; S-Skin Absorption; & E – Eye Absorption

SKIN – Chemical represents a significant skin absorption hazard.





## ATTACHMENT C

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### Physical and Operating Hazards

## **Back Injuries Due to Improper Lifting**

### **Preventive Measures**

- ◆ Use proper lifting techniques.
- ◆ Lift with the legs, not the back.
- ◆ Keep loads close to the body and avoid twisting.
- ◆ Loads heavier than 50 pounds (lbs) require a second person or mechanical device for lifting.
- ◆ Use mechanical devices such as drum dollies, hand trucks, and tool hoists (for lifting augers) to lift or move heavy loads whenever possible.

## Biological Agents

### Preventive Measures

- ◆ Project work will not expose workers to infectious agents or wastes; however, responders to first aid incidents could contact bloodborne pathogens. Follow the Bloodborne Pathogen Control Plan in this Health and Safety Plan (HSP).”
- ◆ Identify personnel who are highly sensitive or allergic to insect bites or stings during the “kickoff” meeting so that the appropriate emergency treatment can be made available on-site.
- ◆ Never try to capture wild or semi-wild animals—they may bite you or infect you with parasites.

### Poison Ivy, Oak, and Sumac

- ◆ Review the Poison Ivy, Oak, and Sumac Field Guide during daily tailgate safety meetings. Worker must be familiar with the appearance of these poisonous plants.
- ◆ If there is accidental contact, carefully remove affected clothing and wash skin with soap and warm water as soon as possible.

### Ticks

- ◆ Tick parasites are commonly encountered in thick vegetation.
  - Check yourself and coworkers regularly for feeding ticks.
  - If a tick is located, remove it with tweezers and place in a vial.
  - If irritation is felt or observed at the bite site, seek medical attention. Bring in removed tick, if possible.

### Hanta Virus

- ◆ In areas with rodent infestation, the existence of Hanta virus must be discussed during the tailgate safety meetings.
- ◆ Hanta virus is carried by rodents, particularly deer mice. Exposure to the virus through contact with the rodents and their droppings can lead to a severe, often deadly illness in humans.
- ◆ Do not sweep up or disturb rodent droppings without an appropriate respirator.
- ◆ Do not eat food or drink beverages that have been exposed to rodents and/or their droppings.

## Biological Agents (Continued)

### Preventive Measures

#### Valley Fever

- ◆ In parts of the California Central Valley and in other regions of the southwestern United States, there are fungal spores in the soil, which, if inhaled, can cause an illness known as Valley Fever (Coccidioidomycosis).
- ◆ During projects in areas of the country where Valley Fever fungal spores are known or suspected to be in the soil, the hazards and symptoms must be discussed during the tailgate safety meetings.
- ◆ Inhalation of dust containing the spores can cause the Valley Fever illness, which has a wide range of symptoms. Symptoms can be mild, similar to the flu lasting a few days, to more serious involving damage to the lungs, heart, and central nervous system.
- ◆ In areas where the Valley Fever spores are known, dust suppression techniques are critical to minimize exposure. Tarping and wetting down disturbed areas of soil will help to control exposure. In the event these techniques are not feasible or effective, air purifying respirators with P-100 filters shall be worn.

## Cold Stress

### Preventive Measures

During tailgate safety meetings, train workers to recognize the signs and symptoms of cold stress illnesses:

- ◆ Frostbite - Skin color changes to white to reddish, pain followed by cold and numbness in the affected area(s); blisters may appear later.
- ◆ Hypothermia - Uncontrollable shivering, a sensation of feeling cold, a slowed and sometimes irregular heartbeat, a weakened pulse, and changes in blood pressure. More severe cases can result in slurred speech, memory lapses, incoherence, and drowsiness.

### First Aid

- ◆ Frostbite - Cover the frozen body part, provide extra clothing and blankets, bring the victim indoors as soon as possible, and place the frozen body part in warm water (~100°F) or re-warm with warm packs. Seek medical assistance as soon as possible.
- ◆ Hypothermia - Get victim out of wind, snow, and rain. Keep person awake. Remove any wet clothing and replace with dry, warm clothing. Wrap blanket around victim. If conscious, give victim sweet warm beverages. Seek medical attention as soon as possible.

### Prevention

- ◆ Provide shelter away from rain, snow, or wind for breaks.
- ◆ Institute a work-rest schedule in accordance with the standard operating procedure (SOP).
- ◆ Increase fluid intake to prevent dehydration. Drink warm, sweet, caffeine-free, nonalcoholic drinks or soup periodically.

## **Drill Rigs and Heavy Equipment Operation**

### **Preventive Measures**

- ◆ Owner/operator shall inspect equipment daily.
- ◆ Correct all discrepancies before placing equipment in service.
- ◆ Keep blades, buckets, and other heavy equipment fully lowered when not in use.
- ◆ Parking brakes must be engaged.
- ◆ After working hours, bucket may be elevated if the locking pin is in place.
- ◆ Never leave drill rods or core barrels balancing, leaning, or otherwise unsecured on the rig.
- ◆ Chock or block the wheels of equipment parked on inclines. Set the parking brake.
- ◆ Never use equipment on unstable or unsafe inclines.
- ◆ Use hand signals, radios (as appropriate), and line-of-sight confirmation to communicate effectively with operators.

## **Electrocution**

### **Preventive Measures**

- ◆ Locate all underground power lines by geophysical methods.
- ◆ Review engineering drawings with appropriate client contact and/or site personnel.
- ◆ Confirm exact location of lines with hand tools, not heavy equipment.
- ◆ Wear rubber, insulated protective gloves when hand digging or work on a rubber insulating mat.
- ◆ Do not work within 10 feet (ft) of high voltage electrical equipment having live exposed parts unless qualified, trained, and following safe work practices per 29 CFR 1910.331-335.
- ◆ Leave at least 20 ft between drilling masts and overhead power lines under 50 kilovolts, unless the lines have been de-energized and visibly grounded at the point of work, or are equipped with insulated barriers to prevent physical contact.
- ◆ Lower the drilling mast before moving the rig any distance.
- ◆ Lock-out and tag controls that will be deactivated for maintenance or work on energized or de-energized equipment or circuits.
- ◆ Extension cords, power/electric tools, pumps, floodlights, and generators that lack double insulation must have grounding conductors that work.
- ◆ Use ground fault circuit interrupters (GFCIs) on all 120-volt, 120-amp circuits.
- ◆ Never work on-site when there is a threat of lightning storms.

## **Entanglement in Rotating or Moving Equipment**

### **Preventive Measures**

- ◆ Never operate equipment without safety guards.
- ◆ Loose-fitting or dangling clothes, hair, and jewelry are prohibited.
- ◆ Stay clear of rotating augers and pinch points, such as cables and pulleys.
- ◆ Passage under, or stopping over, a moving stem or auger is prohibited.
- ◆ Drill crews are not allowed on the mast while the drill bit/auger is in operation or during transport.
- ◆ Use long-handled shovels only to remove cuttings from the auger.
- ◆ The drill crew and the Field Manager (FM)/Site Health and Safety Coordinator (SHSC) will know the location and proper operation of the rig's emergency shut-down equipment (kill-switches, etc.), and procedures.



## **Ergonomic Stress**

### **Preventive Measures**

- ◆ Lift carefully with load close to body with the legs taking most of the weight.
- ◆ Get help with lifts greater than 40 lbs.
- ◆ When working with a heavy tool or object, keep legs under the load and do not overreach or twist to the side.
- ◆ Reposition body to be more square to the load and work.
- ◆ Push loads, rather than pull, whenever feasible.
- ◆ Do not persist with lifting when the load is too heavy.
- ◆ Use a mechanical lifting aid or have a coworker assist with the lift.
- ◆ Rotate repetitive tasks to avoid soft-tissue fatigue.

## **Fire and Explosion**

### **Preventive Measures**

- ◆ Make ABC fire extinguishers accessible in the work area.
- ◆ Store flammables in Underwriter's Laboratory and Occupational Safety and Health Administration (OSHA) approved metal safety cans equipped with spark arrestors.
- ◆ Store flammable containers more than 50 ft from the rig. Store portable (flammable) tanks more than 100 ft from the rig.
- ◆ Keep exhaust equipment powered by internal combustion engines well away from flammables and combustibles.
- ◆ Secure hot work permits/approvals (Appendix B) before welding or cutting.
- ◆ Store and use compressed gases in a safe manner.
- ◆ Never refuel equipment (e.g., generators) while it is in operation or hot enough to ignite fuel vapors.
- ◆ Conspicuously mark operations that pose fire hazards "No Smoking" or "Open Flames."
- ◆ Remove trash, weeds, and unnecessary combustibles from the Exclusion Zone (EZ).

## Heat Stress

### Preventive Measures

Heat stress is a major hazard, especially for workers wearing protective clothing. To avoid heat stress, drink plenty of fluids and take periodic work breaks.

The signs, symptoms, and treatment of heat stress include:

- Heat rash, which may result from exposure to heat or humid air.
- Heat cramps, which are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms and pain in the hands, feet, and abdomen. Persons experiencing these symptoms should rest in a cooler area, drink cool (not cold) liquids and gently massage cramped muscles.
- Heat exhaustion, which occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; and fainting. Persons experiencing these symptoms should lie down in a cooler area, drink cool liquids with electrolytes (Gatorade, etc.), remove any protective clothing, and cool body with wet compresses at forehead, back and neck, and/or armpits.
- Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; and coma.

Ambient temperatures at the work site are expected to range from 70 to greater than 85°F. When temperature exceeds 70°F, frequent breaks will be taken in shaded areas. Cool water or electrolyte replenishment solution will be available on site. Sufficient amounts of drink should be taken frequently to replace fluid loss. Coveralls will be unzipped or removed during breaks. If protective clothing must be worn, the suggested guidelines for ambient temperature and maximum work periods from the *NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities* are:

<b>Suggested Frequency of Physiological Monitoring for Fit and Acclimatized Workers<sup>a</sup></b>		
Adjusted Temperature <sup>b</sup>	Normal work Ensemble <sup>c</sup>	Impermeable Ensemble <sup>d</sup>
90 °F (32.2 °C) or above	After each 45 minutes of work	After each 15 minutes of work
87.5 - 90.0 °F(30.8 - 32.2 C)	After each 60 minutes of work	After each 30 minutes of work
82.5 - 87.5 °F(28.1 - 30.8 °C)	After each 90 minutes of work	After each 60 minutes of work
77.5 - 82.5 °F(25.3 - 28.1 °C)	After each 120 minutes of work	After each 90 minutes of work
72.5 - 77.5 °F(22.5 - 25.3 °C)	After each 150 minutes of work	After each 120 minutes of work

Note:

<sup>a</sup> For work levels of 250 kilocalories/hour.

<sup>b</sup> Calculate the adjusted air temperature ( $t_{a \text{ adj}}$ ) from the measured air temperature ( $t_a$ ) by using this Equation:  $t_{a \text{ adj}} = t_a \text{ °F} + (13 \times \% \text{ sunshine})$ . Measure air temperature ( $t_a$ ) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to produce a shadow (100 % sunshine = no cloud cover and a sharp distinct shadow; 0 percent sunshine = no shadows).

<sup>c</sup> A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.

<sup>d</sup> Impermeable Ensemble includes Tyvek and Saranex coveralls and rubber boots.

Pulse rates and oral temperatures may be monitored as early as possible in the rest period. If the pulse rate exceeds 100 beats per minute or temperature exceeds 99°F at the beginning of the rest period, the work cycle will shorten by one-third. Employee exposure to heat stress will comply with 8 CCR, Article 3395

#### First Aid

- ◆ Perform emergency decontamination.
- ◆ Remove victim to cool area.
- ◆ Give cool fluids (only if conscious).
- ◆ Immediately reduce body temperature.
- ◆ Seek medical attention.

#### Prevention

- ◆ Provide shelter or shaded area for work tasks (as feasible) and break areas.
- ◆ Adjust work schedules by rotation of personnel or alternate job functions to minimize heat stress or overexertion at one task.
- ◆ Work during cooler hours of the day (or night), as feasible.
- ◆ To maintain normal body fluid levels, drink 16 ounces (oz) (2 cups) of water before each shift and about 8 oz (1 cup) every 15 to 20 minutes. Drink 2 gallons of water during an 8-hour period.
- ◆ Wear nonbinding cotton clothing (e.g., medical scrubs and cotton undergarments) under personal protective equipment (PPE) to absorb moisture and to help prevent heat rash.
- ◆ Where feasible, set up field “showers” or hose-down areas to cool down body.

## Heavy Equipment and Vehicles

### Preventive Measures

- ◆ Heavy equipment operators are to be continuously aware of workers on foot. Workers on foot must wear hard hats and safety vests.
- ◆ Always lower the bucket/blade to the ground when the operator leaves the equipment.
- ◆ Backup lights and alarms must be functional.
- ◆ Obey all site traffic signs and speed limits.
- ◆ Seat belts must be functional and in use during operation of the equipment and any site vehicles (including rentals).
- ◆ Operator shall regularly inspect the equipment for defective parts, such as brakes, controls, motor, chassis, drives, and hydraulic mechanisms. If stopped on an incline (>50%) with the engine running, the parking brake must be set.

## **Inclement Weather, Shut-down Conditions**

### **Preventive Measures**

- ◆ Poor visibility.
- ◆ Precipitation severe enough to impair safe movement or travel.
- ◆ Lightning in the immediate area.™ Steady winds in excess of 40 mph.
- ◆ Other conditions as determined by the SHSC, FM, or Corporate Health and Safety Director (CHSD).
- ◆ Imminent threat of severe tropical storm or hurricane.
- ◆ Work will resume when the conditions are deemed safe by the SHSC.
- ◆ Complete an Incident Report within 24 hrs for all work shutdowns.

## Noise

### Preventive Measures

- ◆ Wear hearing protection when speech becomes difficult to understand at a distance of 10 ft and while standing within 20 to 25 ft from heavy equipment, pneumatic power tools, steam cleaners, and other equipment in operation that can generate more than 85 decibels (A-weighted scale) (dBA).
- ◆ Label equipment as a noise hazard if it generates, or is capable of generating, more than 85 dBA.

## **Slips, Trips, and Falls**

### **Preventive Measures**

- ◆ Clear work area of obstructions and debris before setting up. Alter work areas as necessary to provide a safe, reasonably level area.
- ◆ All walking and working surfaces shall continually be inspected and maintained to be free of slip, trip, and fall hazards.
- ◆ Keep drill platforms, stairs, and immediate work areas clear. Do not allow oil, grease, or excessive mud to accumulate in these areas.
- ◆ Channel the discharge of drilling fluids and foam away from the work area to prevent ponding or slippery conditions.
- ◆ Backfill open boreholes immediately, or cap and flag them. Barricade open excavations or cover them with steel traffic plates.
- ◆ Eliminate slip, trip, and fall hazards or identify them clearly with caution tape, barricades, or equivalent means.
- ◆ Store loose or light material and debris in designated areas or containers.
- ◆ Secure tools, materials, and equipment subject to displacement or falling.



## Ultraviolet Exposure

### Preventive Measures

- ◆ Wear appropriate clothing (long pants, shirt or tee shirt) and a hat to protect skin from prolonged sun exposure.
- ◆ Apply sunscreen (Sun Protection Factor [SPF]>15) prior to working outdoors in the sun and periodically thereafter.
- ◆ Wear polycarbonate safety glasses to protect eyes from ultraviolet exposure. Use lip balm with SPF 15 or greater.
- ◆ Reduce sun exposure from 10 AM to 4 PM. Utilize shade protection especially during these hours.



## ATTACHMENT D

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Job Safety Analysis

ATTACHMENT D-1



JOB SAFETY ANALYSIS FOR  
DRILLING and SOIL SAMPLING

Job Name: Carson City Hall Renovation Project

Completed by: Thet Naing Date: 03/02/2015

Reviewed by: Joe Bahde Date: 03/02/2015

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Task	Equipment / Material Used	Potential for Accidents or Hazards	Prevention Measures
Utility locate oversight	Spray paint	onsite traffic and noise	Wear an orange safety vest Watch out for traffic
		Trips, slips, and falls	Be cautious of tripping hazards Practice good housekeeping
Drilling, soil sampling	Drilling rig SPTs PID	Noise	Wear ear plugs
			Wear an orange safety vest Be aware of and avoid blind spots; do not enter a blind spot without first establishing visual communication with the driver/operator Be observant of co-workers and equipment Maintain safe distance from Set up exclusion/work zone
		Working near the drilling rig Entanglement in rotating or moving equipment Potential of overhead hazard associated with the drill rig	Wear hart hat and steel toe boots Make yourself visible to the heavy equipment operator Minimize wearing of loose-fitting clothing Be aware of the kill-switch location on the drill rig <b>Do not assist driller with rig operation, boring, or well installation activities!!!!</b>
		Potential chemical exposures Underground utility	Monitor chemical exposure using PID (follow action levels set for the Site)
Soil logging	PID Spatula Knife	Trips, slips, and falls	Be cautious and watch your step Practice good housekeeping
		Back injuries by transferring soil cores	Proper lifting posture
		Potential chemical exposure	Monitor chemical exposure using PID (follow action levels set for the Site) Wear Nitrile gloves when touching soils

ATTACHMENT D-1



**JOB SAFETY ANALYSIS FOR  
DRILLING and SOIL SAMPLING**

Task	Equipment / Material Used	Potential for Accidents or Hazards	Prevention Measures
		Pinching hands/fingers	Wear work gloves when handling a core if necessary. Watch out for pinch points when handling SPTs and hand tools.
IDW transport	Shovel Drum dolly	Traffic	Wear an orange safety vest Make yourself visible to the heavy equipment operator. Do not stay in the blind spot.
		Shoveling soil and moving drums	<b>Do not assist with subcontractor's tasks!!!</b>
Notes or Comments:	Conduct daily tailgate meeting. Do not assist subcontractor's tasks. Inspect all work and drilling locations at the end of each day to make sure no potential hazards exist. Do not leave any equipment over night at the Site. Follow all off-site H&S orientation or rules.		
<b>Required PPE: Level D</b>	<b>Required Training:</b>		
Nitrile and leather gloves	HAZWOPER 40-hour-		
Steel Toe Boots	HAZWOPER Supervisor		
Orange safety vest or orange t-shirt	Training-		
Hard hat	Current HAZWOPER 8-hour update		
Ear plugs	Current First Aid-		
Safety glasses	Current CPR		
	Medical Surveillance		



## ATTACHMENT E

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Action Levels and Action

## ATTACHMENT E

### ACTION LEVELS AND ACTION

Carson City Hall Renovation Project  
 Carson, California

Equipment	Action Level	Action To Be Taken
PID	<11.8 ppm-equivalent above background in the BZ.	Maintain Level D or Modified Level D (Mod D).
	>11.8 ppm-equivalent above background in the BZ	Upgrade to Level C PPE.
	>50 ppm-equivalent above background on the site perimeter	Cease operations until levels fall to within background readings, and/or investigation area is ruled out as source of elevated reading.
None	Visible airborne dust in the BZ	Institute wet methods, move away from the airborne dust or upgrade to Level C PPE with HEPA filters.
	Visible airborne dust on the site perimeter	Institute wet method to reduce visible emissions or cease operations.

**Notes:**

PID = photoionization detector.

Ppm = parts per million.

BZ = breathing zone.

PPE = personal protective equipment

HEPA = high efficiency particulate air.



## ATTACHMENT F

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Selected Material Safety Data Sheets and Chemical Data  
Sheets

**MSDS**Definition  
of terms**Material Safety Data Sheet for #2 Diesel****1. Chemical Product****MSDS Number:** U7770**MSDS Date:** 01-31-99**Product Name:** #2 Diesel Fuel

**24 Hour Emergency Phone: (210) 979-8346**  
**Transportation Emergencies: Call Chemtrec at 1-800-424-9300**  
**MSDS Assistance: (210) 592-4593**

**Distributors Name and Address:**

T.W. Brown Oil Co., Inc.  
 1857 Knoll Drive  
 Ventura, California 93003

**Chemical Name:** #2 Diesel Fuel**Cas Number:** 68476-34-6

**Synonyms/Common Names:** This Material Safety Data Sheet applies to the following product descriptions for Hazard Communication purposes only. Technical specifications vary greatly depending on the product, and are not reflected in this document. Consult specification sheets for technical information.

**California Air Resources Board (Carb) Diesel Fuel-** On-road, Off-Road, Tax Exempt blends

**Premium Diesel Fuel-** Low-Sulfur, High-sulfur, On-Road, Off-Road, Tax Exempt blends

**#2 Distillate-** Low-Sulfur, High-sulfur, On-Road, Off-Road, Tax Exempt blends

**#2 Diesel Fuel-** Low-Sulfur, High-sulfur, On-Road, Off-Road, Tax Exempt blends

**#2 Fuel Oil-** Low-Sulfur, High-sulfur, On-Road, Off-Road, Tax Exempt blends

**2. Composition, Information On Ingredients**

**Product Use:** This product is intended for use as a fuel in engines and heaters designed for diesel fuels, and for use in engineered processes. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.

**Description:** #2 Diesel is a complex mixture of hydrocarbons from a variety of chemical processes blended to meet standardized product specifications. Composition varies greatly and includes C9 to C20 hydrocarbons with a boiling range of about 325-675 degrees F. The following is a non-exhaustive list of common components, typical percentage ranges in product, and occupational exposure limits for each.

Component or Material Name	%	CAS Number	ACGIH Limits TLV – STEL – Units	OSHA Exposure Limits PEL – STEL – C/P – Units
Cat cracked distillate, light	0-100	64741-59-9	100 – NA – mg/m3	N/A – N/A – N/A – N/A
Hydrotreated distillate, middle	0-100	64742-46-7	100 – NA – mg/m3	N/A – N/A – N/A – N/A



Hydrotreated distillate, light	0-100	64742-47-8	100 – NA – mg/m3	N/A – N/A – N/A – N/A
Gas oil, light	0-100	64741-44-2	100 – NA – mg/m3	N/A – N/A – N/A – N/A

### 3. Hazards Identification

#### Health Hazard Data:

1. The major effect of exposure to this product is giddiness, headache, central nervous system depression; possible irritation of eyes, nose, and lungs; and dermal irritation. Signs of kidney and liver damage may be delayed. Pulmonary irritation secondary to exhalation of solvent.
2. NIOSH recommends that whole diesel engine exhaust be regarded as a potential occupational carcinogen. Follow OSHA and NSHA rules where diesel engine exhaust fumes may be generated.
3. A life time skin painting study by the American Petroleum Institute has shown that similar naphtha products with a boiling range of 350-700 degrees F usually produce skin tumors and/ or skin cancers in laboratory mice. Only a weak to moderate response occurred. The effect to humans has not been determined.
4. Positive results at 2.0 ml/kg and 6.0 ml/kg noted in mutagenesis studies via in-vivo bone marrow cytogenetics assay in rats.
5. Kerosene is classified as a severe skin irritant. Mutation data has been reported for kerosene products. Hydrotreated kerosene is listed as being probably carcinogenic to humans with limited evidence in humans and sufficient evidence in experimental animals.

**Hazards of Combustion Products:** Carbon monoxide and carbon dioxide can be found in the combustion products of this product and other forms of hydrocarbon combustion. Carbon monoxide in moderate concentrations can cause symptoms of headache, nausea, vomiting, increased cardiac output, and confusion. Exposure to higher concentrations of carbon monoxide can cause loss of consciousness, heart damage, brain damage, and/or death. Exposure to high concentrations of carbon dioxide can cause simple asphyxiation by displacing available oxygen. Combustion of this and other similar materials should only be carried out in well ventilated areas.

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**MSDS**Definition  
of terms**Material Safety Data Sheet #2 Diesel**

**Medical Condition Generally Aggravated By Exposure:** Medical conditions which have the same symptoms and effects as those outlined under the health hazard information section can be aggravated by exposure to this product.

**Medical Limitation:** N/A

**Routes Of Exposure**

**Inhalation:** Irritation of the upper respiratory tract and eyes, with possible euphoria, dizziness, headache, discoordination, ringing in the ears, convulsions, coma, and respiratory arrest.

**Skin Contact:** Defatting of the skin may occur with continued and prolonged contact. Irritation and burning sensation may occur on exposure to the liquid or mists.

**Skin Absorption:** Not significant.

**Eye Contact:** Severe burning sensation with temporary irritation and swelling of lids.

**Ingestion:** Irritation of the mucous membranes of throat, esophagus and stomach which may result in nausea and vomiting; central nervous system depression may occur, if absorbed (see inhalation symptoms above). If aspirated, chemical pneumonitis may occur with potentially fatal results. Possible kidney and liver damage may be delayed. (See Notes to Physician in Section 5)

**Carcinogenicity Statement:** #2 Diesel is not listed as carcinogenic by NTP, OSHA, and ACGIH. IARC has listed kerosene and light catalytic cracked distillates as a probable human carcinogen. Light paraffinic hydrotreated petroleum distillates are listed as confirmed human carcinogens by IARC.

**4. First Aid Measures**

**Eyes:** Immediately flush eyes with large amount of water for at least 15 minutes holding lids apart to ensure flushing of the entire eye surface. **SEEK IMMEDIATE MEDICAL ATTENTION.**

**Skin:** Wash contaminated areas with plenty of soap and water. A soothing ointment may be applied to irritated skin after thoroughly cleansing. Remove contaminated clothing and footwear. **SEEK IMMEDIATE MEDICAL ATTENTION.**

**Inhalation:** Get person out of contaminated area to fresh air. If breathing has stopped resuscitate and administer oxygen if readily available. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

**INGESTION:** Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep airway clear. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

**Note to Physician:** Do not induce vomiting, use gastric lavage only. Aspiration of liquid into the lungs could result in Chemical pneumonitis. Use of adrenaline is not advised. Treat symptomatically.

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**MSDS**Definition  
of terms**Material Safety Data Sheet for #2 Diesel****5. Fire and Explosion Data****Flash Point:** 100 degrees F PM (minimum)**Autoignition Temperature:** 494 degrees F**Flammable Limits In Air:** UEL: 5% - LEL: 0.7%

**Extinguishing Media:** Use dry chemical, carbon dioxide, foam or water spray. Water may be ineffective in fighting fires of liquids with low flash points, but water should be used to keep fire exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect persons attempting to stop a leak.

**Special Fire Fighting Procedures:** Pressure-demand, self contained, breathing apparatus should be provided for fire fighters in buildings or confined areas where product is stored.

**Unusual Fire And Explosion Hazard:** Vapor accumulation is possible, and flashback can occur with explosive force if vapors are ignited.

**6. Accidental Release Measures**

If material is spilled, steps should be taken to contain liquid and prevent discharges to streams or sewer systems and control or stop the loss of volatile materials to the atmosphere. Spills or releases should be reported, if required to the appropriate local, state and federal regulatory agencies.

**Small Spills:** Remove ignition sources. Absorb spilled material with non-combustible materials such as cat litter, dirt, sand, or petroleum sorbent pads/pillows. Do not use combustible materials like rags, wood chips, or saw dust. Remove contaminated materials to an appropriate disposal container.

**Large Spills:** Remove ignition sources. Dike spill area with sand or dirt to contain material and cover sewers/drains. Remain upwind and keep unnecessary people away. Contact trained emergency response team for cleanup. Remove liquid using grounded suction pumps, isolate hazard area and deny entry.

**7. Handling and Storage Information**

Store only in approved containers. Protect containers against physical damage. Outside or detached storage is preferred. Separate from oxidizing materials. Store in cool, well ventilated area of non-combustible construction away from possible sources of ignition. Keep away from incompatible materials and follow OSHA 29 CFR 1910.106 and NFPA 30 for storage requirements.

**Product Use:** This product is intended for use as a fuel in engines and heaters designed for kerosene or diesel fuels, and for use in engineered processes. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.

**8. Exposure Controls/Personal Protection**

**Ventilation Requirements:** Work in well ventilated areas using good engineering practices to process, transfer and store. Special ventilation is not required unless

product is sprayed or heated. High volume use may require engineering controls.

### Specific Personal Protective Equipment

**Respiratory:** Respiratory protection is not required unless product is sprayed or heated. Use NIOSH approved respiratory protection following manufacture's recommendations where spray, mists, or vapors may be generated. Supplied air respiratory protection is required for IDLH areas. See 29 CFR 1910.134 for OSHA Respirator Protection regulations.

**Eye:** Face shield and goggles or chemical goggles should be worn where mist or spray may be generated, and where splashing occurs. Shower and eyewash facilities should be accessible.

**Gloves:** Impermeable protective gloves such as nitrile gloves should be worn during routine handling of this product. Barrier creams may also be appropriate where tactile sensitivity is required.

**Other Clothing and Equipment:** Clothing contaminated with this product should be removed and laundered before reuse. Items which can not be laundered should be discarded. Allow contaminated items to air dry or hang in a well ventilated area. Spontaneous combustion or fire may result from contaminated materials being placed together before drying.

### Exposure Monitoring

**Biological:** No applicable procedure, breath analysis for hydrocarbons has been suggested.

**Personal/Area:** Based on similarity to kerosene, both active and passive monitors employing charcoal adsorption follow by gas chromatography. An average molecular weight of 170 has been suggested as the average value to convert the determined weight of hydrocarbons to ppm. Direct reading colorimetric tubes are available to evaluate short term exposure.

## 9. Physical and Chemical Properties

**Appearance and Odor:** Colorless to straw, or red oily liquid with characteristic kerosene-like odor.

**Viscosity:** Specification dependent, 1.7 - 3.4 cSt @ 140 degrees F

**Boiling Range @ 760 mm Hg:** 302-644 degrees F

**Vapor Density (Air=1):** 4.5 (kerosene)

**Evaporation Rate (BuAc=1):** N/A

**Specific Gravity (H2O=1):** 0.865

**Bulk Density At 60 degrees F:** 6.8-7.2 lbs./gal.

**Solubility in H2O % by WT.:** Insoluble

**Freezing Point:** -51 degrees F

**Vapor Pressure:** 0.5 mmHg @ 20 degrees C

**% Volatiles By Vol.:** N/A

**API Gravity:** Specification dependent

**pH:** NA

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**MSDS**Definition  
of terms**Material Safety Data Sheet for #2 Diesel****10. Stability and Reactivity Information**

**Conditions Contributing to Instability:** Under normal conditions, the material is stable. Avoid sources of ignition such as flames, hot surfaces, sparks, and electrical equipment.

**Incompatibility:** Avoid contact with strong oxidizers such as chlorine, concentrated oxygen, and sodium hypochlorite or other hypochlorites.

**Hazardous Decomposition Products:** Thermal decomposition products may include carbon monoxide, carbon dioxide, oxides of sulfur and nitrogen, and other toxic gases

**Hazardous Polymerization:** Material is not known to polymerize.

**11. Toxicological Information**

For detailed information, contact MSDS Assistance at (210) 592-4593

**12. Ecological Information**

For detailed information, contact MSDS Assistance at (210) 592-4593

**13. Disposal Considerations**

Shipment, storage, disposal, and cleanup actions of waste materials are regulated under local, state and federal rules. Contact the appropriate agencies if uncertain of applicability. Waste product and contaminated material having a flash point below 140 degrees F is considered a hazardous waste. DOT Hazardous Waste Number D001 applies. Consult 40 CFR 262 for EPA disposal requirements.

**14. Transport Information**

<b>DOT Proper Shipping Name</b>	Combustible Liquid, n.o.s	Diesel Fuel
<b>DOT Hazard Class*</b>	Combustible Liquid	3*
<b>DOT Packing Group (PG)</b>	III	III
<b>I.D. Number</b>	UN 1993	NA 1993
<b>Required Labeling</b>	None	Flammable Liquid

\* Since this product has a flash point >100 degrees F and no other hazard class applies, it may be reclassified as Combustible Liquid and NA 1993 substituted for the product specific I.D.

Number above. Consult 49 CFR 173.120 for specific details.

**15. Regulatory Information**

**TSCA (Toxic Substance Control Act) Inventory**

Gasoline is listed in the TSCA inventory.

**SARA (Superfund Amendments and Reauthorization Act) TITLE III**

This product is reportable under SARA Title III, Sections 311 & 312 as a hazardous substance.

**Hazard Categories Applicable under 40 DFR 370.2 (SARA Section 311):**

Acute Health	Chronic Health	Pressure	Fire	Reactive
Yes	Yes	No	Yes	No

**Components Listed under 40 CFR 372.65 (SARA Section 313):**

This product does not contain chemicals identified as toxic by EPA under CFR part 372 and is not subject to the reporting requirements of this section.

**State Regulations:**

**California Proposition 65:** This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

**16. Other Information****NFPA (National Fire Protection Association) Hazard Ratings Codes\***

Fire	Health	Reactivity	Other
2	1	0	Blank

\*Based on Standard System for the Identification of the Fire Hazards of Materials, NFPA No. 704 M

This material safety data sheet was prepared by T. W. Brown Oil Co., Inc. in accordance with 29 CFR 1910.1200. All information, recommendations and suggestions appearing herein concerning this product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee expressed or implied is made by T. W. Brown Oil Co., Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does T. W. Brown Oil Co., Inc. assume any liability arising out of use by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable

# MSDS **Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. and Canada  
Chemtrec: 703-527-3887

**NOTE:** CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

## TRICHLOROETHYLENE

MSDS Number: T4940 --- *Effective Date: 09/14/00*

### 1. Product Identification

**Synonyms:** Trichloroethene; TCE; acetylene trichloride; Ethinyl trichloride

**CAS No.:** 79-01-6

**Molecular Weight:** 131.39

**Chemical Formula:** C<sub>2</sub>HCl<sub>3</sub>

**Product Codes:**

J.T. Baker: 5376, 9454, 9458, 9464, 9473, 9474

Mallinckrodt: 8598, 8600, 8633

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Trichloroethylene	79-01-6	100%	Yes

### 3. Hazards Identification

#### Emergency Overview

**WARNING! HARMFUL IF SWALLOWED OR INHALED. AFFECTS HEART, CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. CAUSES SEVERE SKIN**



**IRRITATION. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. SUSPECT CANCER HAZARD. MAY CAUSE CANCER. Risk of cancer depends on level and duration of exposure.**

**J.T. Baker SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

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Health Rating: 3 - Severe (Cancer Causing)

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD;  
PROPER GLOVES

Storage Color Code: Blue (Health)

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### Potential Health Effects

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#### **Inhalation:**

Vapors can irritate the respiratory tract. Causes depression of the central nervous system with symptoms of visual disturbances and mental confusion, incoordination, headache, nausea, euphoria, and dizziness. Inhalation of high concentrations could cause unconsciousness, heart effects, liver effects, kidney effects, and death.

#### **Ingestion:**

Cases irritation to gastrointestinal tract. May also cause effects similar to inhalation. May cause coughing, abdominal pain, diarrhea, dizziness, pulmonary edema, unconsciousness. Kidney failure can result in severe cases. Estimated fatal dose is 3-5 ml/kg.

#### **Skin Contact:**

Cause irritation, redness and pain. Can cause blistering. Continued skin contact has a defatting action and can produce rough, dry, red skin resulting in secondary infection.

#### **Eye Contact:**

Vapors may cause severe irritation with redness and pain. Splashes may cause eye damage.

#### **Chronic Exposure:**

Chronic exposures may cause liver, kidney, central nervous system, and peripheral nervous system effects. Workers chronically exposed may exhibit central nervous system depression, intolerance to alcohol, and increased cardiac output. This material is linked to mutagenic effects in humans. This material is also a suspect carcinogen.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders, cardiovascular disorders, impaired liver or kidney or respiratory function, or central or peripheral nervous system disorders may be more susceptible to the effects of the substance.

---

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

**Skin Contact:**

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Note to Physician:**

Do not administer adrenaline or epinephrine to a victim of chlorinated solvent poisoning.

---

## 5. Fire Fighting Measures

**Fire:**

Autoignition temperature: 420C (788F)

Flammable limits in air % by volume:

lel: 8; uel: 12.5

**Explosion:**

A strong ignition source, e. g., a welding torch, can produce ignition. Sealed containers may rupture when heated.

**Fire Extinguishing Media:**

Use water spray to keep fire exposed containers cool. If substance does ignite, use CO<sub>2</sub>, dry chemical or foam.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Combustion by-products include phosgene and hydrogen chloride gases. Structural firefighters' clothing provides only limited protection to the combustion products of this material.

---

## 6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting

spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

---

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

---

## 8. Exposure Controls/Personal Protection

### **Airborne Exposure Limits:**

Trichloroethylene:

-OSHA Permissible Exposure Limit (PEL):

100 ppm (TWA), 200 ppm (Ceiling),

300 ppm/5min/2hr (Max)

-ACGIH Threshold Limit Value (TLV):

50 ppm (TWA) 100 ppm (STEL);

listed as A5, not suspected as a human carcinogen.

### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). This substance has poor warning properties. Where respirators are required, you must have a written program covering the basic requirements in the OSHA respirator standard. These include training, fit testing, medical approval, cleaning, maintenance, cartridge change schedules, etc. See 29CFR1910.134 for details.

### **Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Neoprene is a recommended material for personal protective equipment.

### **Eye Protection:**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

---

## 9. Physical and Chemical Properties

**Appearance:**

Clear, colorless liquid.

**Odor:**

Chloroform-like odor.

**Solubility:**

Practically insoluble in water. Readily miscible in organic solvents.

**Specific Gravity:**

1.47 @ 20C/4C

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

100

**Boiling Point:**

87C (189F)

**Melting Point:**

-73C (-99F)

**Vapor Density (Air=1):**

4.5

**Vapor Pressure (mm Hg):**

57.8 @ 20C (68F)

**Evaporation Rate (BuAc=1):**

No information found.

---

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage. Will slowly decompose to hydrochloric acid when exposed to light and moisture.

**Hazardous Decomposition Products:**

May produce carbon monoxide, carbon dioxide, hydrogen chloride and phosgene when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong caustics and alkalis, strong oxidizers, chemically active metals, such as barium, lithium, sodium, magnesium, titanium and beryllium, liquid oxygen.

**Conditions to Avoid:**

Heat, flame, ignition sources, light, moisture, incompatibles

---

## 11. Toxicological Information

**Toxicological Data:**

Trichloroethylene: Oral rat LD50: 5650 mg/kg; investigated as a tumorigen, mutagen, reproductive effector.

**Reproductive Toxicity:**

This material has been linked to mutagenic effects in humans.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Trichloroethylene (79-01-6)	No	Yes	2A

## 12. Ecological Information

**Environmental Fate:**

When released into the soil, this material may leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released to water, this material is expected to quickly evaporate. This material has an experimentally-determined bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

**Environmental Toxicity:**

The LC50/96-hour values for fish are between 10 and 100 mg/l. This material is expected to be slightly toxic to aquatic life.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

**Domestic (Land, D.O.T.)**

**Proper Shipping Name:** TRICHLOROETHYLENE

**Hazard Class:** 6.1

**UN/NA:** UN1710

Packing Group: III  
**Information reported for product/size: 5GL**

**International (Water, I.M.O.)**

-----  
**Proper Shipping Name:** TRICHLOROETHYLENE  
**Hazard Class:** 6.1  
**UN/NA:** UN1710  
 Packing Group: III  
**Information reported for product/size: 5GL**

**International (Air, I.C.A.O.)**

-----  
**Proper Shipping Name:** TRICHLOROETHYLENE  
**Hazard Class:** 6.1  
**UN/NA:** UN1710  
 Packing Group: III  
**Information reported for product/size: 5GL**

## 15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Trichloroethylene (79-01-6)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	DSL	NDSL	Phil.	Canada
Trichloroethylene (79-01-6)	Yes	Yes	No	Yes	

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302- RQ	TPQ	-SARA 313- List	Chemical Catg.
Trichloroethylene (79-01-6)	No	No	Yes	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Trichloroethylene (79-01-6)	100	U228	No

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: Yes      Fire: No      Pressure: No  
 Reactivity: No      (Pure / Liquid)

**WARNING:**

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

**Australian Hazchem Code:** No information found.

**Poison Schedule:** S6

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

---

## 16. Other Information

**NFPA Ratings:** Health: **2** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. AFFECTS HEART, CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. CAUSES SEVERE SKIN IRRITATION. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. SUSPECT CANCER HAZARD. MAY CAUSE CANCER. Risk of cancer depends on level and duration of exposure.

**Label Precautions:**

Do not get in eyes, on skin, or on clothing.

Do not breathe vapor.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Keep away from heat and flame.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases call a physician. Note to physician: Do not administer adrenaline or epinephrine to a victim of chlorinated solvent poisoning.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

MSDS Section(s) changed since last revision of document include: 8, 11.

**Disclaimer:**

\*\*\*\*\*

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September 2005

NIOSH Publication Number 2005-149

## Search the Pocket Guide

Enter search terms separated by spaces.

Toluene 					
<b>Synonyms &amp; Trade Names</b> Methyl benzene, Methyl benzol, Phenyl methane, Toluol					
<b>CAS No.</b> 108-88-3	<b>RTECS No.</b> <u>XS5250000</u>		<b>DOT ID &amp; Guide</b> 1294 130		
<b>Formula</b> C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	<b>Conversion</b> 1 ppm = 3.77 mg/m		<b>IDLH</b> 500 ppm See: <u>108883</u>		
<b>Exposure Limits</b> <b>NIOSH REL</b> : TWA 100 ppm (375 mg/m ) ST 150 ppm (560 mg/m ) <b>OSHA PEL</b> †: TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak)			<b>Measurement Methods</b> <b>NIOSH</b> <u>1500</u> , <u>1501</u> , <u>3800</u> , <u>4000</u> ; <b>OSHA</b> <u>111</u> See: <u>NMAM</u> or <u>OSHA Methods</u>		
<b>Physical Description</b> Colorless liquid with a sweet, pungent, benzene-like odor.					
<b>MW:</b> 92.1	<b>BP:</b> 232°F	<b>FRZ:</b> -139°F	<b>Sol(74°F):</b> 0.07%	<b>VP:</b> 21 mmHg	<b>IP:</b> 8.82 eV
<b>Sp.Gr:</b> 0.87	<b>FLP:</b> 40°F	<b>UEL:</b> 7.1%	<b>LEL:</b> 1.1%		
Class IB Flammable Liquid: Fl.P. below 73°F and BP at or above 100°F.					
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers					
<b>Exposure Routes</b> inhalation, skin absorption, ingestion, skin and/or eye contact					
<b>Symptoms</b> irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage					
<b>Target Organs</b> Eyes, skin, respiratory system, central nervous system, liver, kidneys					

**Personal Protection/Sanitation** (See protection codes)**Skin:** Prevent skin contact**Eyes:** Prevent eye contact**Wash skin:** When contaminated**Remove:** When wet (flammable)**Change:** No recommendation**First Aid** (See procedures)**Eye:** Irrigate immediately**Skin:** Soap wash promptly**Breathing:** Respiratory support**Swallow:** Medical attention immediately**Respirator Recommendations****NIOSH****Up to 500 ppm:**

(APF = 10) Any chemical cartridge respirator with organic vapor cartridge(s)\*

(APF = 25) Any powered, air-purifying respirator with organic vapor cartridge(s)\*

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

(APF = 10) Any supplied-air respirator\*

(APF = 50) Any self-contained breathing apparatus with a full facepiece

**Emergency or planned entry into unknown concentrations or IDLH conditions:**

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

**Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

Any appropriate escape-type, self-contained breathing apparatus

Important additional information about respirator selectionSee also: INTRODUCTION See ICSC CARD: 0078 See MEDICAL TESTS: 0232

Page last reviewed: February 3, 2009

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Content source: National Institute for Occupational Safety and Health (NIOSH) Education and Information Division

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# NIOSH Pocket Guide to Chemical Hazards

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<b>Arsenic (inorganic compounds, as As)</b>		<b>CAS</b> 7440-38-2 (metal)	
<b>As (metal)</b>		<b>RTECS</b> <a href="#">CG0525000</a> (metal)	
<b>Synonyms &amp; Trade Names</b> Arsenic metal: Arsenia Other synonyms vary depending upon the specific As compound. [Note: OSHA considers "Inorganic Arsenic" to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.]		<b>DOT ID &amp; Guide</b> 1558 <a href="#">152</a> (metal) 1562 <a href="#">152</a> (dust)	
<b>Exposure Limits</b>	<b>NIOSH REL:</b> Ca C 0.002 mg/m <sup>3</sup> [15-minute] <a href="#">See Appendix A</a> <b>OSHA PEL:</b> [1910.1018] TWA 0.010 mg/m <sup>3</sup>		
<b>IDLH</b> Ca [5 mg/m <sup>3</sup> (as As)] See: <a href="#">7440382</a>	<b>Conversion</b>		
<b>Physical Description</b> Metal: Silver-gray or tin-white, brittle, odorless solid.			
MW: 74.9	BP: Sublimes	MLT: 1135 °F (Sublimes)	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 5.73 (metal)
Fl.P: NA	UEL: NA	LEL: NA	
Metal: Noncombustible Solid in bulk form, but a slight explosion hazard in the form of dust when exposed to flame.			
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers, bromine azide [Note: Hydrogen gas can react with inorganic arsenic to form the highly toxic gas arsine.]			
<b>Measurement Methods</b> NIOSH <a href="#">7300</a> , <a href="#">7301</a> , <a href="#">7303</a> , <a href="#">7900</a> , <a href="#">9102</a> ; OSHA <a href="#">ID105</a> See: <a href="#">NMAM</a> or <a href="#">OSHA Methods</a>			
<b>Personal Protection &amp; Sanitation</b> ( <a href="#">See protection</a> ) Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated/Daily Remove: When wet or contaminated Change: Daily Provide: Eyewash, Quick drench		<b>First Aid</b> ( <a href="#">See procedures</a> ) Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately	
<b>Respirator Recommendations</b> ( <a href="#">See Appendix E</a> ) NIOSH <b>At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:</b> (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode (APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus <b>Escape:</b> (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted acid gas canister having an N100, R100, or P100 filter. <a href="#">Click here</a> for information on selection of N, R, or P filters./Any appropriate escape-type, self-contained breathing apparatus <a href="#">Important additional information about respirator selection</a>			
<b>Exposure Routes</b> inhalation, skin absorption, skin and/or eye contact ingestion			
<b>Symptoms</b> Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, [potential occupational carcinogen]			
<b>Target Organs</b> Liver, kidneys, skin, lungs, lymphatic system			
<b>Cancer Site</b> [lung & lymphatic cancer]			
See also: <a href="#">INTRODUCTION</a> See ICSC CARD: <a href="#">0013</a> See MEDICAL TESTS: <a href="#">0017</a>			


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# NIOSH Pocket Guide to Chemical Hazards

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<b>Cadmium dust (as Cd)</b>		<b>CAS</b> 7440-43-9 (metal)	
<b>Cd (metal)</b>		<b>RTECS</b> <a href="#">EU9800000</a> (metal)	
<b>Synonyms &amp; Trade Names</b> Cadmium metal: Cadmium Other synonyms vary depending upon the specific cadmium compound.		<b>DOT ID &amp; Guide</b> 2570 <a href="#">154</a> (cadmium compound)	
<b>Exposure Limits</b>	NIOSH REL*: Ca <a href="#">See Appendix A</a> [*Note: The REL applies to all Cadmium compounds (as Cd).]		
	OSHA PEL*: [1910.1027] TWA 0.005 mg/m <sup>3</sup> [*Note: The PEL applies to all Cadmium compounds (as Cd).]		
<b>IDLH</b> Ca [9 mg/m <sup>3</sup> (as Cd)] See: <a href="#">IDLH INDEX</a>	<b>Conversion</b>		
<b>Physical Description</b> Metal: Silver-white, blue-tinged lustrous, odorless solid.			
MW: 112.4	BP: 1409°F	MLT: 610°F	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 8.65 (metal)
Fl.P: NA	UEL: NA	LEL: NA	
Metal: Noncombustible Solid in bulk form, but will burn in powder form.			
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers; elemental sulfur, selenium & tellurium			
<b>Measurement Methods</b> NIOSH <a href="#">7048</a> , <a href="#">7300</a> , <a href="#">7301</a> , <a href="#">7303</a> , <a href="#">9102</a> ; OSHA <a href="#">ID121</a> , <a href="#">ID125G</a> , <a href="#">ID189</a> , <a href="#">ID206</a> See: <a href="#">NMAM</a> or <a href="#">OSHA Methods</a>			
<b>Personal Protection &amp; Sanitation</b> ( <a href="#">See protection</a> ) Skin: No recommendation Eyes: No recommendation Wash skin: Daily Remove: No recommendation Change: Daily		<b>First Aid</b> ( <a href="#">See procedures</a> ) Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately	
<b>Respirator Recommendations</b> ( <a href="#">See Appendix E</a> ) NIOSH <b>At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:</b> (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode (APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus <b>Escape:</b> (APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. <a href="#">Click here</a> for information on selection of N, R, or P filters./Any appropriate escape-type, self-contained breathing apparatus <a href="#">Important additional information about respirator selection</a>			
<b>Exposure Routes</b> inhalation, ingestion			
<b>Symptoms</b> Pulmonary edema, dyspnea (breathing difficulty), cough, chest tightness, substernal (occurring beneath the sternum) pain; headache; chills, muscle aches; nausea, vomiting, diarrhea; anosmia (loss of the sense of smell), emphysema, proteinuria, mild anemia; [potential occupational carcinogen]			
<b>Target Organs</b> respiratory system, kidneys, prostate, blood			
<b>Cancer Site</b> [prostatic & lung cancer]			
See also: <a href="#">INTRODUCTION</a> See ICSC CARD: <a href="#">0020</a> See MEDICAL TESTS: <a href="#">0035</a>			

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## CHROMIUM, ELEMENTAL

CASRN: 7440-47-3

This record contains information specific to the title compound. Users with an interest in this substance are strongly encouraged to retrieve the Chromium Compounds record, which has additional information on toxicity and environmental fate of chromium ions and compounds.

*For other data, click on the Table of Contents*

### Human Health Effects:

#### Evidence for Carcinogenicity:

A4: Not classifiable as a human carcinogen. /Metal and Cr(III) compounds, as Cr/  
[ American Conference of Governmental Industrial Hygienists TLVs and BEIs. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH, 2005, p. 20]\*\*QC REVIEWED\*\*

#### Human Toxicity Excerpts:

**CHROMIUM** METAL ... APPEARS TO BE INNOCUOUS. ... NO VISUAL DISTURBANCES IN PATIENTS PURPORTEDLY POISONED BY **CHROMIUM** (CR) BUT ... NARROWING OF RETINAL ARTERIES & PALLOR & INDISTINCTNESS OF PAPILLA IN THREE CASES, & RETINAL HEMORRHAGE IN A FOURTH CASE ... /REPORTED/.

[Grant, W. M. Toxicology of the Eye. 2nd ed. Springfield, Illinois: Charles C. Thomas, 1974., p. 290]\*\*PEER REVIEWED\*\*

Liver tissue was contaminated with 0.02 and 11 ppm **chromium** (Cr) from stainless steel scalpels and needles, while a blood sample drawn with a stainless steel needle was contaminated with 85 ppb **chromium** (Cr).

[Versieck JMJ, Speeche ABH; In Nuclear Activation Techniques in the Life Sciences by Int'l Atomic Energy Agency p.39-49 (1972) as cited in Nat'l Research Council Canada; Effects of Chromium in the Canadian Envir p.118 (1976) NRCC No.15017]\*\*PEER REVIEWED\*\*

A total of 39 electric welders exposed to **chromium** ... were compared with 18 controls standardized for age, sex, and smoking habits with respect to the frequency of sister chromatid exchanges and DNA strand breakage and cross-linking (measured by the method of alkaline filter elution) in their blood lymphocytes. A significant correlation was found between the frequency of SCEs and of individual DNA strand breakage versus the concentration of **chromium** in the urine.

[Clayton, G.D., F.E. Clayton (eds.) Patty's Industrial Hygiene and Toxicology. Volumes 2A, 2B, 2C, 2D, 2E, 2F: Toxicology. 4th ed. New York, NY: John Wiley & Sons Inc., 1993-1994., p. 1981]\*\*PEER REVIEWED\*\*

... 1879 male workers employed in a New Jersey **chromium** pigment factory was conducted, with follow up from 1940 to 1982. For all malignant neoplasms, 101 deaths were observed, and 108.8 were expected. For the entire study group, no significant excess was observed for respiratory cancer or cancer at other sites.

[Clayton, G.D., F.E. Clayton (eds.) Patty's Industrial Hygiene and Toxicology. Volumes 2A, 2B, 2C, 2D, 2E, 2F: Toxicology. 4th ed. New York, NY: John Wiley & Sons Inc., 1993-1994., p. 1980]\*\*PEER REVIEWED\*\*

EXPOSURE TO **CHROMIUM** METAL DOES NOT GIVE RISE TO PULMONARY FIBROSIS OR PNEUMOCONIOSIS.

[American Conference of Governmental Industrial Hygienists, Inc. Documentation of the Threshold Limit Values and Biological Exposure Indices. 6th ed. Volumes I, II, III. Cincinnati, OH: ACGIH, 1991., p. 313]\*\*PEER REVIEWED\*\*

Symptoms /of exposure/: histologic fibrosis of lung /**Chromium** metal and insoluble salts (as Cr)/  
[NIOSH. Pocket Guide to Chemical Hazards. 5th Printing/Revision. DHHS (NIOSH) Publ. No. 85-114. Washington, D.C.: U.S. Dept. of Health and Human Services, NIOSH/Supt. of Documents, GPO, Sept. 1985., p. 83]\*\*PEER REVIEWED\*\*

### **Skin, Eye and Respiratory Irritations:**

**Chromium** aerosols ... caused ... irritation to the upper respiratory tract. /SRP: dusts or particulates/  
[Waldbott GL; Health Effects of Envir Poll p.201 (1973)]\*\*PEER REVIEWED\*\*

**Chromium** causes severe nasal irritation ... .

[Arena, J.M. and Drew, R.H. (eds.) Poisoning-Toxicology, Symptoms, Treatments. 5th ed. Springfield, IL: Charles C. Thomas Publisher, 1986., p. 873]\*\*PEER REVIEWED\*\*

### **Probable Routes of Human Exposure:**

Stainless steel use in mixing containers in the baking industries may be the source of extraneous **chromium** in food.

[Nat'l Research Council Canada; Effects of Chromium in the Canadian Envir p.43 (976) NRCC No.15017]\*\*PEER REVIEWED\*\*


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NIOSH Publication No. 2005-149:

September 2005

# NIOSH Pocket Guide to Chemical Hazards

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<b>Copper fume (as Cu)</b>		<b>CAS</b> 1317-38-0 (CuO)	
<b>CuO/Cu</b>		<b>RTECS</b> <a href="#">GL7900000</a> (CuO)	
<b>Synonyms &amp; Trade Names</b> CuO: Black copper oxide fume, Copper monoxide fume, Copper(II) oxide fume, Cupric oxide fume Cu: Copper fume [Note: Also see specific listing for Copper (dusts and mists).]		<b>DOT ID &amp; Guide</b>	
<b>Exposure Limits</b>	<b>NIOSH REL:</b> TWA 0.1 mg/m <sup>3</sup>		
	<b>OSHA PEL:</b> TWA 0.1 mg/m <sup>3</sup>		
<b>IDLH</b> 100 mg/m <sup>3</sup> (as Cu) See: <a href="#">IDLH INDEX</a>		<b>Conversion</b>	
<b>Physical Description</b> Finely divided black particulate dispersed in air. [Note: Exposure may occur in copper & brass plants and during the welding of copper alloys.]			
MW: 79.5	BP: Decomposes	MLT: 1879°F (Decomposes)	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 6.4 (CuO)
Fl.P: NA	UEL: NA	LEL: NA	
CuO: Noncombustible Solid			
<b>Incompatibilities &amp; Reactivities</b> CuO: Acetylene, zirconium [Note: See Copper (dusts and mists) for properties of Copper metal.]			
<b>Measurement Methods</b> NIOSH <a href="#">7029</a> , <a href="#">7300</a> , <a href="#">7301</a> , <a href="#">7303</a> ; OSHA <a href="#">ID121</a> , <a href="#">ID125G</a> , <a href="#">ID206</a> See: <a href="#">NMAM</a> or <a href="#">OSHA Methods</a>			
<b>Personal Protection &amp; Sanitation</b> ( <a href="#">See protection</a> ) Skin: No recommendation Eyes: No recommendation Wash skin: No recommendation Remove: No recommendation Change: No recommendation		<b>First Aid</b> ( <a href="#">See procedures</a> )  Breathing: Respiratory support	
<b>Respirator Recommendations</b> NIOSH/OSHA			
<b>Up to 1 mg/m<sup>3</sup>:</b> (APF = 10) Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators. The following filters may also be used: N99, R99, P99, N100, R100, P100. <a href="#">Click here</a> for information on selection of N, R, or P filters. (APF = 10) Any supplied-air respirator			
<b>Up to 2.5 mg/m<sup>3</sup>:</b> (APF = 25) Any supplied-air respirator operated in a continuous-flow mode (APF = 25) Any powered air-purifying respirator with a high-efficiency particulate filter.			
<b>Up to 5 mg/m<sup>3</sup>:</b> (APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. <a href="#">Click here</a> for information on selection of N, R, or P filters. (APF = 50) Any supplied-air respirator that has a tight-fitting facepiece and is operated in a continuous-flow mode (APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter (APF = 50) Any self-contained breathing apparatus with a full facepiece (APF = 50) Any supplied-air respirator with a full facepiece			
<b>Up to 100 mg/m<sup>3</sup>:</b> (APF = 2000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode			
<b>Emergency or planned entry into unknown concentrations or IDLH conditions:</b> (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode (APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode			

mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

**Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. [Click here](#) for information on selection of N, R, or P filters./Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection](#)

**Exposure Routes** inhalation, skin and/or eye contact

**Symptoms** Irritation eyes, upper respiratory system; metal fume fever: chills, muscle ache, nausea, fever, dry throat, cough, lassitude (weakness, exhaustion); metallic or sweet taste; discoloration skin, hair

**Target Organs** Eyes, skin, respiratory system (increase(d) risk with Wilson's disease)

See also: [INTRODUCTION](#)

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# DDT

**Synonyms & Trade Names** p,p'-DDT; Dichlorodiphenyltrichloroethane; 1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane

<b>CAS No.</b> 50-29-3	<b>RTECS No.</b> <a href="http://www.niosh-rtecs.com/KJ32BC48.html">KJ3325000</a> ( <a href="http://www.niosh-rtecs.com/KJ32BC48.html">/niosh-rtecs/KJ32BC48.html</a> )	<b>DOT ID &amp; Guide</b> 2761 151 ( <a href="http://www.wapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=151">http://www.wapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=151</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )
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<b>Formula</b> (C <sub>6</sub> H <sub>4</sub> Cl) <sub>2</sub> CHCCl <sub>3</sub>	<b>Conversion</b>	<b>IDLH</b> Ca [500 mg/m <sup>3</sup> ] See: <a href="http://www.niosh.gov/IDLH/50293.html">50293</a> ( <a href="http://www.niosh.gov/IDLH/50293.html">/niosh/idlh/50293.html</a> )
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<b>Exposure Limits</b> <b>NIOSH REL</b> : Ca TWA 0.5 mg/m <sup>3</sup> <a href="#">See Appendix A</a> ( <a href="http://www.niosh.gov/nengapdx.html">nengapdx.html</a> ) <b>OSHA PEL</b> : TWA 1 mg/m <sup>3</sup> [skin]	<b>Measurement Methods</b> <b>NIOSH S274</b> (II-3) See: <a href="http://www.niosh.gov/docs/2003-154/">NMAM</a> ( <a href="http://www.niosh.gov/docs/2003-154/">/niosh/docs/2003-154/</a> ) or <a href="#">O&amp;A Methods</a> ( <a href="http://www.osha-slc.com/dts/sltc/methods/index.html">http://www.osha.gov/dts/sltc/methods/index.html</a> )  ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )
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**Physical Description** Colorless crystals or off-white powder with a slight, aromatic odor. [pesticide]

<b>MW:</b> 354.5	<b>BP:</b> 230°F (Decomposes)	<b>MLT:</b> 227°F	<b>Sol:</b> Insoluble	<b>VP:</b> 0.0000002 mmHg	<b>IP:</b>
<b>Sp.Gr:</b> 0.99	<b>FLP:</b> 162-171°F	<b>UEL:</b> ?	<b>LEL:</b> ?		

Combustible Solid

**Incompatibilities & Reactivities** Strong oxidizers, alkalis

**Exposure Routes** inhalation, skin absorption, ingestion, skin and/or eye contact

**Symptoms** irritation eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion; malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsion; paresis hands; vomiting; [potential occupational carcinogen]

**Target Organs** Eyes, skin, central nervous system, kidneys, liver, peripheral nervous system

**Cancer Site** [in animals: liver, lung & lymphatic tumors]

**Personal Protection/Sanitation** (See [protection codes \(protect.html\)](#))

**Skin:** Prevent skin contact

**Eyes:** Prevent eye contact

**Wash skin:** When contaminated/Daily

**Remove:** When wet or contaminated

**Change:** Daily

**Provide:** Eyewash, Quick drench

**First Aid** (See [procedures \(firstaid.html\)](#))

**Eye:** Irrigate immediately

**Skin:** Soap wash promptly

**Breathing:** Respiratory support

**Swallow:** Medical attention immediately

#### Respirator Recommendations

#### NIOSH

**At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:**

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive pressure breathing apparatus

#### Escape:

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister having an N100, R100, or P100 filter.

[Click here \(pgintrod.html#nrp\)](#) for information on selection of N, R, or P filters.

Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection \(pgintrod.html#mustread\)](#)

See also: [INTRODUCTION \(/niosh/npg/pgintrod.html\)](#) See ICSC CARD: [0034 \(/niosh/ipcsneng/neng0034.html\)](#) See MEDICAL TESTS: [0065 \(/niosh/docs/2005-110/nmed0065\)](#)

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# NIOSH Pocket Guide to Chemical Hazards

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<b>Lead</b>		<b>CAS</b> 7439-92-1	
<b>Pb</b>		<b>RTECS</b> <a href="#">OF7525000</a>	
<b>Synonyms &amp; Trade Names</b> Lead metal, Plumbum		<b>DOT ID &amp; Guide</b>	
<b>Exposure Limits</b>	NIOSH REL*: TWA 0.050 mg/m <sup>3</sup> <a href="#">See Appendix C</a> [*Note: The REL also applies to other lead compounds (as Pb) -- <a href="#">see Appendix C.</a> ]		
	OSHA PEL*: [1910.1025] TWA 0.050 mg/m <sup>3</sup> <a href="#">See Appendix C</a> [*Note: The PEL also applies to other lead compounds (as Pb) -- <a href="#">see Appendix C.</a> ]		
<b>IDLH</b> 100 mg/m <sup>3</sup> (as Pb) See: <a href="#">7439921</a>	<b>Conversion</b>		
<b>Physical Description</b> A heavy, ductile, soft, gray solid.			
MW: 207.2	BP: 3164 °F	MLT: 621 °F	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 11.34
Fl.P: NA	UEL: NA	LEL: NA	
Noncombustible Solid in bulk form.			
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers, hydrogen peroxide, acids			
<b>Measurement Methods</b> NIOSH <a href="#">7082</a> , <a href="#">7105</a> , <a href="#">7300</a> , <a href="#">7301</a> , <a href="#">7303</a> , <a href="#">7700</a> , <a href="#">7701</a> , <a href="#">7702</a> , <a href="#">9100</a> , <a href="#">9102</a> , <a href="#">9105</a> ; OSHA <a href="#">ID121</a> , <a href="#">ID125G</a> , <a href="#">ID206</a> See: <a href="#">NMAM</a> or <a href="#">OSHA Methods</a>			
<b>Personal Protection &amp; Sanitation</b> ( <a href="#">See protection</a> ) Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: When wet or contaminated Change: Daily		<b>First Aid</b> ( <a href="#">See procedures</a> ) Eye: Irrigate immediately Skin: Soap flush promptly Breathing: Respiratory support Swallow: Medical attention immediately	
<b>Respirator Recommendations</b> ( <a href="#">See Appendix E</a> ) NIOSH/OSHA			
<b>Up to 0.5 mg/m<sup>3</sup>:</b> (APF = 10) Any air-purifying respirator with an N100, R100, or P100 filter (including N100, R100, and P100 filtering facepieces) except quarter-mask respirators. <a href="#">Click here</a> for information on selection of N, R, or P filters. (APF = 10) Any supplied-air respirator			
<b>Up to 1.25 mg/m<sup>3</sup>:</b> (APF = 25) Any supplied-air respirator operated in a continuous-flow mode (APF = 25) Any powered, air-purifying respirator with a high-efficiency particulate filter			
<b>Up to 2.5 mg/m<sup>3</sup>:</b> (APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. <a href="#">Click here</a> for information on selection of N, R, or P filters. (APF = 50) Any supplied-air respirator that has a tight-fitting facepiece and is operated in a continuous-flow mode (APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter (APF = 50) Any self-contained breathing apparatus with a full facepiece (APF = 50) Any supplied-air respirator with a full facepiece			
<b>Up to 50 mg/m<sup>3</sup>:</b> (APF = 1000) Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode			
<b>Up to 100 mg/m<sup>3</sup>:</b> (APF = 2000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode			
<b>Emergency or planned entry into unknown concentrations or IDLH conditions:</b> (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode			

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

**Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator with an N100, R100, or P100 filter. [Click here](#) for information on selection of N, R, or P filters./Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection](#)

**Exposure Routes** inhalation, ingestion, skin and/or eye contact

**Symptoms** Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypotension

**Target Organs** Eyes, gastrointestinal tract, central nervous system, kidneys, blood, gingival tissue

See also: [INTRODUCTION](#) See ICSC CARD: [0052](#) See MEDICAL TESTS: [0127](#)

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## METHYL T-BUTYL ETHER

CASRN: 1634-04-4

*For other data, click on the Table of Contents*

### Human Health Effects:

#### Toxicity Summary:

Toxicokinetic data on **MTBE** /Methyl tertiary-Butyl Ether/ in humans are mainly derived from controlled studies in healthy adult populations and in a population exposed to oxygenated gasoline. **MTBE** is rapidly absorbed into the circulation following inhalation exposure ... Tertiary-butyl alcohol, a metabolite of **MTBE**, was measured in blood and urine of exposed humans. ... In rodents, **MTBE** is well absorbed and distributed following oral administration and inhalation exposure, with lower dermal absorption. ... Tertiary-butyl alcohol was not identified in the urine of exposed rats. There is evidence of further metabolism of tertiary-butyl alcohol, based on the identification of 2-methyl-1,2-propanediol and alpha-hydroxyisobutyric acid excreted in the urine. In vitro studies provide evidence that **MTBE** is metabolized to tertiary-butyl alcohol, formaldehyde, and acetone. ... Exposure to **MTBE** also results in reversible central nervous system (CNS) effects including sedation, hypoactivity, ataxia and anesthesia at higher concentrations and biphasic effects on motor activity at lower concentrations. ... Carcinogenicity studies have been conducted involving inhalation exposure ... There were significant increases in tumor incidence ... namely, renal tubular cell tumors and Leydig cell tumors ... leukemias/lymphomas ... and liver cell tumors. ... The renal tubular cell tumors and the leukemia/lymphomas were not observed consistently ... Interpretation of the increases ... was complicated by the very high concurrent and historical control incidences. ... The increases were modest and were accompanied by hepatocellular hypertrophy. ... Epidemiological studies of human populations exposed under occupational as well as non-occupational conditions and experimental studies of human volunteers exposed under controlled conditions, have not been able to identify a basis for /health/ complaints. ... Community studies have provided limited or no evidence of an association between **MTBE** exposure and the prevalence of health complaints. ... Based on collective evidence, it appears unlikely that **MTBE** alone induces adverse acute health effects in the general /human/ population under common exposure conditions. In studies on animals, **MTBE** is "moderately" acutely toxic and induces mild skin and eye irritation but not sensitization. Repeated exposure /in rodents/ affects primarily the kidney ... and the liver ... **MTBE** has not induced adverse reproductive or developmental effects /in rodents/ at concentrations less than those that were toxic to the parent. **MTBE** is not genotoxic but has induced tumors in rodents primarily at high concentrations that also induce other adverse effects. ... It does not appear that the concentrations of **MTBE** in ambient water are toxic to aquatic organisms except during spills.

[Environmental Health Criteria 206: Methyl tertiary-Butyl Ether pp. 1-9 (1998) by the International Programme on Chemical Safety (IPCS) under the joint sponsorship of the United Nations Environment Programme, the International Labour Organisation and the World Health Organization.]\*\*PEER REVIEWED\*\*

#### Evidence for Carcinogenicity:

A3; Confirmed animal carcinogen with unknown relevance to humans.

[ American Conference of Governmental Industrial Hygienists TLVs and BEIs. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati, OH, 2005, p. 38]\*\*QC REVIEWED\*\*

Evaluation: There is limited evidence in humans for the carcinogenicity of methyl tert-butyl ether. There is limited evidence in experimental animals for the carcinogenicity of methyl tert-butyl ether. Overall

evaluation: Methyl tert-butyl ether is not classifiable as to its carcinogenicity to humans (Group 3).

[IARC. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. Geneva: World Health Organization, International Agency for Research on Cancer, 1972-PRESENT. (Multivolume work)., p. 73 375 (1999)]\*\*PEER REVIEWED\*\*

### Human Toxicity Excerpts:

A case of acute renal failure is reported in one of 8 patients (aged 37-75 yr) with a history of biliary colic and radiolucent gallstones who were given continuous methyl tert-butyl ether (MTBE I) infusion through a catheter, 5-10 ml for 7 hr. Hemolysis due to extravasation of MTBE after leakage alongside the catheter was suspected as the cause of the renal failure. Dialysis over 18 days was required before renal function recovered completely.

[Ponchon T et al; Lancet 2 (July 30): 276-277 (1988)]\*\*PEER REVIEWED\*\*

### Probable Routes of Human Exposure:

NIOSH (NOES Survey 1981-1983) has statistically estimated that 3,522 workers (971 of these are female) are potentially exposed to methyl t-butyl ether in the US(1). Occupational exposure to methyl t-butyl ether may occur during its production or subsequent use, particularly in gasoline, via inhalation or dermal contact. The general population may be exposed to methyl t-butyl ether via inhalation of ambient air especially during refueling operations and from ingestion of ambient and drinking water(SRC).

[(1) NIOSH; National Occupational Exposure Survey (NOES) (1983)]\*\*PEER REVIEWED\*\*

Methyl t-butyl ether arithmetic mean concentrations (ug/cu m) in air were 1,500 for manufacturing workers, 5,000 for blending workers, 14,000 transportation workers, 2,600 for distribution workers, 5,200 for gasoline station workers, 660 for mechanics, 61 for professional drivers, 61 for commuters, 30 for other drivers, 390 for gasoline station customers, 4 for manufacturing and blending neighbors, 66 for gasoline station neighbors, and 2.6 for the general public(1). Time-weighted personal-breathing-zone samples among mechanics who repaired motor vehicles ranged from less than 108 ug/cu m to 43,464 ug/cu m(2). A methyl t-butyl ether concentration of 412 ug/cu m was detected in a breathing zone grab sample collected during refueling; ambient air grab samples collected at 2 and 16 minutes post refueling contained methyl t-butyl ether at concentrations of 16.8 and 23.4 ug/cu m, respectively(3). Exposure of Finnish tanker drivers to methyl t-butyl ether during loading and delivery was between 13 and 91 mg/cu m(4). Mean exposure of service station attendants to methyl t-butyl ether was 0.3 ppm (range 0.04 to 3.88 ppm) in 41 personal breathing zone air samples collected in the Phoenix, AZ area and 0.14 ppm (range 0.02 to 0.73 ppm) in 48 personal breathing zone air samples collected in the Los Angeles, CA area(5).

[(1) Brown SL; Regul Toxicol Pharmacol. 25: 256-76 (1997) (2) White MC et al; An Investigation of Exposure to Methyl Tertiary Butyl Ether Among Motorists and Exposed Workers in Stamford, Connecticut. USEPA-600-R95-134. Proc Conf MTBE and Other Oxygenates, 1993 D42-D64 (1995) (3) Lindstrom AB, Pleil JD; J Air Waste Manage Assoc 46: 676-82 (1996) (4) Hakola M, Saarinen L; Ann Occup Hyg 40: 1-10 (1996) (5) Hartle R; Environ Health Perspect 101 (Supp 6): 23-6 (1994)]\*\*PEER REVIEWED\*\*

Occupational exposure to methyl t-butyl ether via short-term exposure, less than 30 minutes (TWA, between 6 and 9 hours) was 11.0 (0.24) ppm for transporting neat methyl t-butyl ether, 5.1 (0.58) ppm for blending neat methyl t-butyl ether, 4.7 (0.77) ppm for service station attendants, 3.3 (0.13) ppm for transporting a methyl t-butyl ether/fuel mix, 1.0 (0.14) ppm for manufacturing-maintenance, 0.85 (0.13) ppm for distributing methyl t-butyl ether, 0.84 (0.06) ppm for manufacturing-routine, and 0.58 (0.10) ppm for blending a methyl t-butyl ether/fuel mix(1). Long-term (93 to 570 minutes) methyl t-butyl ether exposure concentrations for refueling attendants were 0.5 ppm or less; winter and summer geometric

mean exposures were 0.2 ppm and 0.08 ppm, respectively(2). Winter and summer mechanic geometric mean exposures to methyl t-butyl ether were 0.12 ppm and 0.03 ppm, respectively; only four individual methyl t-butyl ether samples exceeded 0.5 ppm, these four samples (0.63, 0.86, 1.3, and 2.6 ppm) were taken during shift where mechanics duties included fuel line servicing(2). Short-term (8 to 35 minutes) methyl t-butyl ether exposure for refueling attendants was less than 0.21 ppm, with winter and summer geometric mean exposures of 0.6 and 0.31 ppm, respectively(2). Individual mechanic short-term methyl t-butyl ether exposures were less than 0.91 ppm, with winter and summer geometric mean exposures of 1.04 and 0.42 ppm, respectively(2).

[(1) American Petroleum Institute; Petroleum Industry Data Characterizing Occupational Exposures to Methyl Tertiary Butyl Ether (MTBE) 1983-1993. Washington,DC: Amer Petrol Instit, API Publ Noo 4622. Order No. I46220 (1995) (2) American Petroleum Institute; Service Station Personnel Exposures to Oxygenated Fuel Components - 1994. Washington,DC: Amer Petrol Instit, API Publ No 4625 . Oder No I46250 (1995)]\*\*PEER REVIEWED\*\*

### **Body Burden:**

In Stamford, CT in 1993, venous blood samples were collected from 14 commuters and from 30 other persons who worked in the vicinity of traffic or automobiles(1). The highest levels of methyl t-butyl ether were measured among gasoline service station attendants, range 7.6 to 28.9 ug/l, median 15 ug/l; blood levels of methyl t-butyl ether among persons who worked in car repair shops ranged from 0.17 to 36.7 ug/l, median 1.73 ug/l(1). Concns of methyl t-butyl ether in the blood of commuters were generally the lowest, range <0.05 to 2.60 ug/l, median 0.11 ug/l(1). Blood levels of methyl t-butyl ether correlated strongly with personal-breathing-zone samples(1). In Fairbanks, AK, during an oxygenated fuel program in Dec 1992, 18 workers exposed to motor vehicle exhaust or gasoline fumes had a median post-shift methyl t-butyl ether blood concn of 1.8 ug/l, range 0.2 to 37.0 ug/l; in Feb 1993 after the oxygenated fuel program had been suspended, the median post-shift methyl t-butyl ether blood concn in 28 workers exposed to motor vehicle exhaust or gasoline fumes was 0.24 ug/l, range 0.05 to 1.44 ug/l(2). Alveolar breath samples contained methyl t-butyl ether at concns ranging from 7.76 to 9.58 ug/cu m(3).

[(1) White MC et al; An Investigation of Exposure to Methyl Tertiary Butyl Ether Among Motorists and Exposed Workers in Stamford, Connecticut. USEPA-600-R95-134. Proc Conf MTBE and Other Oxygenates, 1993 D42-D64 (1995) (2) Moolenaar RL et al; Arch Environ Health 49: 402-9 (1994) (3) Lindstrom AB, Pleil JD; J Air Waste Manage Assoc 46: 676-82 (1996)]\*\*PEER REVIEWED\*\*

### **Average Daily Intake:**

**AIR INTAKE:** Arithmetic mean occupational doses via air were in the range of 0.1 to 1.0 mg/kg-day, while doses from residential exposures, commuting, and refueling were in the range of 0.0004 to 0.006 mg/kg-day(1). **WATER INTAKE:** The estimated arithmetic mean dose for the population exposed via water was  $1.4 \times 10^{-3}$  mg/kg-day(1).

[(1) Brown SL; Regul Toxicol Pharmacol 25: 256-76 (1997)]\*\*PEER REVIEWED\*\*



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Enter search terms separated by spaces.

Tetrachloroethylene					
<b>Synonyms &amp; Trade Names</b> Perchloroethylene, Perchloroethylene, Perk, Tetrachloroethylene					
<b>CAS No.</b> 127-18-4	<b>RTECS No.</b> <b>KX3850000</b> (/niosh-rtecs/KX3ABF10.html)		<b>DOT ID &amp; Guide</b> 1897 160 ( <a href="http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=160">http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=160</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Formula</b> Cl <sub>2</sub> C=CCL <sub>2</sub>	<b>Conversion</b> 1 ppm = 6.78 mg/m <sup>3</sup>		<b>IDLH</b> Ca [150 ppm] See: <a href="/niosh/idlh/127184.html">127184</a> (/niosh/idlh/127184.html)		
<b>Exposure Limits</b> <b>NIOSH REL</b> : Ca Minimize workplace exposure concentrations. See <a href="#">Appendix A (nengapdx.html)</a> <b>OSHA PEL</b> † ( <a href="#">nengapdxg.html</a> ) : TWA 100 ppm C 200 ppm (for 5 minutes in any 3-hour period), with a maximum peak of 300 ppm			<b>Measurement Methods</b> <b>NIOSH 1003</b> (/niosh/docs/2003-154/pdfs/1003.pdf); <b>OSHA 1001</b> ( <a href="http://www.osha.gov/dts/sltc/methods/mdt/mdt1001/1001.html">http://www.osha.gov/dts/sltc/methods/mdt/mdt1001/1001.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> ) See: <b>NMAM</b> (/niosh/docs/2003-154/) or <b>OSHA Methods</b> ( <a href="http://www.osha.gov/dts/sltc/methods/index.html">http://www.osha.gov/dts/sltc/methods/index.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Physical Description</b> Colorless liquid with a mild, chloroform-like odor.					
<b>MW:</b> 165.8	<b>BP:</b> 250° F	<b>FRZ:</b> -2° F	<b>Sol:</b> 0.02%	<b>VP:</b> 14 mmHg	<b>IP:</b> 9.32 eV
<b>Sp.Gr:</b> 1.62	<b>Fl.P:</b> NA	<b>UEL:</b> NA	<b>LEL:</b> NA		
Noncombustible Liquid, but decomposes in a fire to hydrogen chloride and phosgene.					
<b>Incompatibilities &amp; Reactivities</b> Strong oxidizers; chemically-active metals such as lithium, beryllium & barium; caustic soda; sodium hydroxide; potash					
<b>Exposure Routes</b> inhalation, skin absorption, ingestion, skin and/or eye contact					
<b>Symptoms</b> irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]					
<b>Target Organs</b> Eyes, skin, respiratory system, liver, kidneys, central nervous system					
<b>Cancer Site</b> [in animals: liver tumors]					
<b>Personal Protection/Sanitation</b> (See <a href="#">protection codes (protect.html)</a> ) <b>Skin:</b> Prevent skin contact <b>Eyes:</b> Prevent eye contact <b>Wash skin:</b> When contaminated <b>Remove:</b> When wet or contaminated			<b>First Aid</b> (See <a href="#">procedures (firstaid.html)</a> ) <b>Eye:</b> Irrigate immediately <b>Skin:</b> Soap wash promptly <b>Breathing:</b> Respiratory support <b>Swallow:</b> Medical attention immediately		



**Change:** No recommendation  
**Provide:** Eyewash, Quick drench

#### Respirator Recommendations

### NIOSH

**At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:**

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

**Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection \(pgintrod.html#mustread\)](#)

See also: [INTRODUCTION \(/niosh/npg/pgintrod.html\)](#) See ICSC CARD: [0076 \(/niosh/ipcsneng/neng0076.html\)](#) See MEDICAL TESTS: [0179 \(/niosh/docs/2005-110/nmed0179.html\)](#)

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Content source: [National Institute for Occupational Safety and Health \(NIOSH\)](#) Education and Information Division

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## Search the Pocket Guide

Enter search terms separated by spaces.

<h1>Trichloroethylene</h1>					
<b>Synonyms &amp; Trade Names</b> Ethylene trichloride, TCE, Trichloroethene, Trilene					
<b>CAS No.</b> 79-01-6	<b>RTECS No.</b> <u>KX4550000</u> ( <a href="http://niosh-rtecs/KX456D70.html">/niosh-rtecs/KX456D70.html</a> )		<b>DOT ID &amp; Guide</b> 1710 160 ( <a href="http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=160">http://wwwapps.tc.gc.ca/saf-sec-sur/3/erg-gmu/erg/guidepage.aspx?guide=160</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Formula</b> ClCH=CCl <sub>2</sub>	<b>Conversion</b> 1 ppm = 5.37 mg/m <sup>3</sup>		<b>IDLH Ca</b> [1000 ppm] See: <a href="http://niosh/idlh/79016.html">79016</a> ( <a href="http://niosh/idlh/79016.html">/niosh/idlh/79016.html</a> )		
<b>Exposure Limits</b> <b>NIOSH REL</b> : Ca See <a href="http://niosh/nengapdx.html">Appendix A (nengapdx.html)</a> See <a href="http://niosh/nengapdx.html">Appendix C (nengapdx.html)</a> <b>OSHA PEL</b> † ( <a href="http://niosh/nengapdx.html">nengapdx.html</a> ): TWA 100 ppm C 200 ppm 300 ppm (5-minute maximum peak in any 2 hours)			<b>Measurement Methods</b> <b>NIOSH 1022</b> ( <a href="http://niosh/docs/2003-154/pdfs/1022.pdf">/niosh/docs/2003-154/pdfs/1022.pdf</a> ), <b>3800</b> ( <a href="http://niosh/docs/2003-154/pdfs/3800.pdf">/niosh/docs/2003-154/pdfs/3800.pdf</a> ); <b>OSHA 1001</b> ( <a href="http://www.osha.gov/dts/sltc/methods/mdt/mdt1001/1001.html">http://www.osha.gov/dts/sltc/methods/mdt/mdt1001/1001.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> ) See: <b>NMAM</b> ( <a href="http://niosh/docs/2003-154/">/niosh/docs/2003-154/</a> ) or <b>OSHA Methods</b> ( <a href="http://www.osha.gov/dts/sltc/methods/index.html">http://www.osha.gov/dts/sltc/methods/index.html</a> ) ( <a href="http://www.cdc.gov/Other/disclaimer.html">http://www.cdc.gov/Other/disclaimer.html</a> )		
<b>Physical Description</b> Colorless liquid (unless dyed blue) with a chloroform-like odor.					
<b>MW:</b> 131.4	<b>BP:</b> 189° F	<b>FRZ:</b> - 99°F	<b>Sol:</b> 0.1%	<b>VP:</b> 58 mmHg	<b>IP:</b> 9.45 eV
<b>Sp.Gr:</b> 1.46	<b>Fl.P.:</b> ?	<b>UEL</b> (77°F): 10.5%	<b>LEL</b> (77° F): 8%		
Combustible Liquid, but burns with difficulty.					
<b>Incompatibilities &amp; Reactivities</b> Strong caustics & alkalis; chemically-active metals (such as barium, lithium, sodium, magnesium, titanium & beryllium)					
<b>Exposure Routes</b> inhalation, skin absorption, ingestion, skin and/or eye contact					
<b>Symptoms</b> irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]					
<b>Target Organs</b> Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system					
<b>Cancer Site</b> [in animals: liver & kidney cancer]					
<b>Personal Protection/Sanitation</b> (See <a href="http://niosh/protect.html">protection codes (protect.html)</a> )			<b>First Aid</b> (See <a href="http://niosh/firstaid.html">procedures (firstaid.html)</a> ) <b>Eye:</b> Irrigate immediately		

**Skin:** Prevent skin contact  
**Eyes:** Prevent eye contact  
**Wash skin:** When contaminated  
**Remove:** When wet or contaminated  
**Change:** No recommendation  
**Provide:** Eyewash, Quick drench

**Skin:** Soap wash promptly  
**Breathing:** Respiratory support  
**Swallow:** Medical attention immediately

#### Respirator Recommendations

#### NIOSH

**At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration:**

(APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode

(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

**Escape:**

(APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister

Any appropriate escape-type, self-contained breathing apparatus

[Important additional information about respirator selection \(pgintrod.html#mustread\)](#)

See also: [INTRODUCTION \(/niosh/npg/pgintrod.html\)](#) See ICSC CARD: [0081 \(/niosh/ipcsneng/neng0081.html\)](#) See MEDICAL TESTS: [0236 \(/niosh/docs/2005-110/nmedo236.html\)](#)

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## ATTACHMENT G

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Forms



**ESE PROJECT HEALTH AND SAFETY FIELD MEETING FORM**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Project No.: \_\_\_\_\_

Project Name: \_\_\_\_\_

Location: \_\_\_\_\_

Meeting Conducted by: \_\_\_\_\_

Topics Discussed:

Physical Hazards: \_\_\_\_\_

Chemical Hazards: \_\_\_\_\_

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) information for the site: (Applicable warning is checked)

- WARNING: This area contains a chemical known to the State of California to cause cancer.
- WARNING: This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Personal Protection: \_\_\_\_\_

Decontamination: \_\_\_\_\_

Special Site Considerations: \_\_\_\_\_

\_\_\_\_\_

Emergency Information: \_\_\_\_\_

Hospital Location: \_\_\_\_\_

Attendees

Name/Company (printed)

Signature

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Meeting Conducted by: \_\_\_\_\_

Signature





## Supervisor's Report of Injury or Illness

**Note:** To prevent accidents, it is necessary to know how and why they occur. Please complete both sides of this report. State facts as accurately as possible. Accurate reporting of all facts will help in the preparation of the "Employer's Report."  
Submit your complete report within 24 hours to Human Resources, your SHE Coordinator, and the Corporate SHE Director.

Name of injured employee		Department in which regularly employed	
Injury date	Time of injury <input type="checkbox"/> AM <input type="checkbox"/> PM	Date and time employer was notified of injury	
Did accident occur on employer's premises? <input type="checkbox"/> YES <input type="checkbox"/> NO	Where? (specify dept., job site, etc.)	Name of witness	
What was employee doing when injured? (walking, lifting, operating machines, etc.) Be specific.			
Please describe fully the events that resulted in injury or occupational disease. Tell what happened and how it happened. (Do not describe nature of injury)			
What machine, tool, substance, or object was most closely connected with the injury? (e.g., machine the employee struck against or was struck by; the chemical in use; the object the employee was lifting, pulling, etc.)			
Nature of injury and part of body affected.			
<b>Causes of Accident: Check All That Apply</b>			
<p><b>Unsafe Building or Working Conditions</b></p> <input type="checkbox"/> Layout of Operations <input type="checkbox"/> Layout of Machinery <input type="checkbox"/> Unsafe Processes <input type="checkbox"/> Improper Ventilation <input type="checkbox"/> Improper Sanitation/Hygiene <input type="checkbox"/> Improper Light <input type="checkbox"/> Excessive Noise <input type="checkbox"/> Floors or Platforms <input type="checkbox"/> Miscellaneous <p><b>Housekeeping</b></p> <input type="checkbox"/> Improperly Piled or Stored Material <input type="checkbox"/> Congestion	<p><b>Physical Hazards or Equipment</b></p> <input type="checkbox"/> Ineffectively Guarded <input type="checkbox"/> Unguarded <input type="checkbox"/> Guard Removed <input type="checkbox"/> Defective Tools <input type="checkbox"/> Defective Machines <input type="checkbox"/> Defective Materials <p><b>Discipline</b></p> <input type="checkbox"/> Not Following Safety Rules <input type="checkbox"/> Horseplay <p><b>Apparel or Personal Protective Equipment</b></p> <input type="checkbox"/> Protective Equipment Not Used <input type="checkbox"/> Unsuitable Protective Equipment <input type="checkbox"/> Unsuitable Clothing or Footwear	<p><b>Instructions and Training</b></p> <input type="checkbox"/> None <input type="checkbox"/> Incomplete <input type="checkbox"/> Erroneous <input type="checkbox"/> Not Following Instructions <input type="checkbox"/> Operating Without Authority <input type="checkbox"/> Working at Unsafe Speed <input type="checkbox"/> Inexperience <input type="checkbox"/> Untrained in Procedure <input type="checkbox"/> Incorrect Use of Tool or Equipment <input type="checkbox"/> Improper Judgement <input type="checkbox"/> Improper Lifting <input type="checkbox"/> Lifting Excessive Weight	
What can be done to prevent such an accident from happening again?			
Approximate date condition will be corrected?			







## First Aid Incident Report

Date of Report: \_\_\_\_\_ Report Completed by: \_\_\_\_\_

Date of Injury/Incident: \_\_\_\_\_

Description of the Injury/Incident: (time, location, event, description of injuries) \_\_\_\_\_

Name of Injured Person: \_\_\_\_\_ Employer: \_\_\_\_\_

Name of First Aid Provider(s): \_\_\_\_\_

Social Security Number: \_\_\_\_\_

Bloodborne Pathogen Exposure Incident Evaluation: \_\_\_\_\_

1. Was the First Aid Responder exposed to blood or other potentially infectious materials? \_\_\_\_\_

Exposure Occurred (see question 2)

No Exposure

2. Exposure occurred by contact with the following (check all that apply):

Eye

Broken Skin (cuts, abrasions)

Mouth

Needlestick

Other Mucous Membrane

Human Bite

Exposure Control Precautions Taken (check all that apply):

None (contact SHE Coordinator or Corporate SHE Director)

Immediate Personal Hygiene

Glove

Previous HBV Immunization

Face Mask

Recommended for HBV Immunization

One-way CPR Valve

Other \_\_\_\_\_

Eye Protection

*Please attach this completed form with the Supervisor's Report of Injury or Illness, and the Accident/First Aid Incident Summary Log, and forward to Human Resources, your SHE Coordinator, and the Corporate SHE Director.*



## Near Miss Report

**Note:** The office supervisor or field supervisor will complete this form when an event occurs that could have resulted in a serious injury, but did not. The goal of Near Miss Reports is to inform coworkers and management of potentially dangerous conditions or behavior to prevent future injuries or illnesses. The completed form must be submitted to the Unit Manager, Project Manager (as applicable), the SHE Coordinator, and the Corporate SHE Director within 1 day of the occurrence.

Date of Occurrence:	Time of injury: <input type="checkbox"/> AM <input type="checkbox"/> PM
Location:	
Employee's brief description of occurrence: _____ _____ _____	
Employee's recommendation to prevent further occurrence: _____ _____ _____	
Signed:	Date:
Supervisor recommendations: _____ _____ _____	
Management recommendations: _____ _____ _____	
Signed:	Date:



# Incident Report

*(Please Print Clearly)*

Report Number: \_\_\_\_\_ Report Date: \_\_\_\_\_ Incident Date: \_\_\_\_\_

Project Title and Location: \_\_\_\_\_

Project Number: \_\_\_\_\_

Location of Incident: \_\_\_\_\_

Names of All Personnel Involved: \_\_\_\_\_

\_\_\_\_\_

Describe the incident as it occurred (use additional sheets, if necessary).

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## Project Implications

What is the cost impact to the project (e.g., lost days, man-hours, equipment)?

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## ATTACHMENT H

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### Justification of Action Levels



## ATTACHMENT H

### JUSTIFICATION OF ACTION LEVELS

Carson City Hall Renovation Project  
Carson, California

Establishment of volatile hydrocarbons monitoring action level for level C upgrade.

#### Instrument Data

Type	Model	Lamp (eV) PID only	Calibration Gas	Concentration (ppmv)
PID	RAE	10.6	Isobutylene	100

Notes:

An Action Level of 10.0 ppm will be utilized for this project.

See information below, which are based on correction factors from RAE Systems Technical Note TN-106.

Contaminant	Estimated Fraction (EF)	TLV (ppm)	Correction Factor (CF) for 10.6 eV Lamp
Chloroform	0.0023	10	NR (3.5)*
1,1-Dichloroethene	0.0272	5	0.82
Freon 113	0.0011	1000	NR
Tetrachloroethene (PCE)	0.3758	25	0.57
1,1,1-Trichloroethane	0.0600	350	NR (1)*
Trichloroethene (TCE)	0.5334	10	0.54
Vinyl chloride	0.0014	5	2.0

Note:

\*NR = no response; correction factor for 11.7 eV Lamp in the parentheses.

Contaminants	Correction Factor Constituent (%EF/CF)	TLV Constituent (%EF/TLV)
Chloroform	0.000657	0.00023
1,1-Dichloroethene	0.033171	0.00544
Freon 113	Not calculated	Not calculated
Tetrachloroethene (PCE)	0.659298	0.015032
1,1,1-Trichloroethane	0.06	0.000171
Trichloroethene (TCE)	0.987778	0.05334
Vinyl chloride	0.0007	0.00028



JUSTIFICATION OF ACTION LEVELS

	CF Mix	TLV Mix
	0.57	13.4

Notes:

\* Correction factor for 11.7 eV is used in calculations for this compound.

\*\*TLV not established for this compound and thus it was not included in calculations.

$$CF\ Mix = 1 / (X1/CF1 + X2/CF2 + X3/CF3 + \dots + Xn/CFn)$$

$$TLV\ Mix = 1 / (X1/TLV1 + X2/ TLV2 + X3/ TLV3 + \dots + Xn/TLVn)$$

$$\begin{aligned} \text{Action Level} &= TLV_{mix}/CF_{mix} \\ &= 23.5\ ppmv \end{aligned}$$

50% protection factor:  $23.5\ ppmv / 2 = 11.8\ ppm$

CF- Correction Factor

eV = electron volts

PID = photoionization detector

ppmv = parts per million by volume

TLV = American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Value (TLV), 2006

NR = no response



## APPENDIX C

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### American Analytics Soil Gas Survey Standard Operating Procedures and Method Reporting Limits



# **STANDARD OPERATING PROCEDURE**

## **SOIL GAS SAMPLING PROTOCOL**

**SOPMB01**

**Revision 5, March 07, 2013**



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## AMERICAN ANALYTICS SOIL GAS SAMPLING PROTOCOL

### 1.0 PROJECT SCOPE

#### 1.1 Introduction, Study Purpose, and Data Quality Objectives

Active soil gas sampling and analysis refers to the methods utilized to collect vapor phase data at sites potentially affected by volatile organic compounds (VOCs), including chlorinated solvents, petroleum hydrocarbons, methane, hydrogen sulfide, and semi volatile organic compounds (SVOCs). The data obtained from a soil gas investigation can be used to identify the source and spatial distribution of contamination at a site or to estimate indoor air concentrations for risk assessment purposes.

Collecting and analyzing soil gas samples allows the practitioner to:

- (1) Determine if discharges of contaminants have occurred which may impact indoor-air, outdoor-air and groundwater;
- (2) Determine the spatial patterns and extent of vapor phase soil contamination;
- (3) Establish the distribution of contaminated vapor for effective design of soil vapor extraction (SVE) systems; and
- (4) Determine the effectiveness of remedial action to reduce the threat of contaminated vapors to receptors, including groundwater.

Within the unsaturated vadose zone, contaminants may partition into the following phases:

- (1) Solid phase by adsorbing onto the organic fraction of soil;
- (2) Aqueous phase by dissolving in groundwater;
- (3) Free liquid phase; and/or
- (4) Gaseous phase, by accumulating in the interstitial space of soil particulates as soil gas.

Thus, soil matrix, groundwater, and soil gas sampling and analysis should be performed for site characterization in order to ensure that all potential phases of VOCs are evaluated. Using appropriate methodology, soil gas sampling is practicable and preferred for many geologic materials including fine-grained soil formations.

A single soil gas investigation is often undertaken for multiple purposes. Subsequently, each purpose will have significantly different data quality objectives (DQOs), particularly the target contaminant concentrations. Examples of different purposes for performing a soil gas investigation are provided below:

- Transaction audit screening for potential leaks at aboveground storage tanks (AST), underground storage tanks (USTs) or other underground pollution sources

- Monitoring the performance of a SVE system
- Mapping soil vapor plumes to select houses for indoor-air monitoring
- Stand-alone data set for performing a vapor intrusion risk assessment using generic attenuation factors or a mathematical model to estimate indoor-air concentrations from soil gas data
- Designing mitigation measures and performance monitoring

The DQO process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection designs. By using the DQO process to plan environmental data collection efforts, the effectiveness, efficiency, and defensibility of decisions can be improved in a resource-effective manner. DQOs should be established before the study is conducted. Example input parameters to the DQOs include the site scenario (such as residential use versus commercial use), action levels for the site, method reporting limits that need to be met, and the appropriate measurement method to be used. The expected output is the most resource-effective design for the study.

## **1.2 Technical Documents**

The following reports are provided by the entities that contract American Analytics (AA) to perform the soil gas sampling probe installation, soil gas sampling, and chemical analysis, and are required by the overseeing regulatory agency.

- Workplan, which includes the project Data Quality Objectives (DQOs), a detailed Conceptual Site Model (CSM), and the Sampling and Analysis Plan (SAP)
- A Soil Gas Investigation Report

The contents of these reports and submittal deadlines to the regulatory agency are described in detail in the Advisory Active Soil Gas Investigations dated April 2012 and jointly prepared by the California Environmental Protection Agency (CAL EPA), Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board (LARWQCB), and the San Francisco Regional Water Quality Control Board (SFRWQCB).

## 2.0 METHODS AND PROCEDURES

### 2.1 Lithology

Use site soil or lithologic information to select appropriate locations and depths for soil vapor monitoring wells. If on-site lithologic information is not available prior to conducting the soil gas investigation, at least one (1) continuously cored boring to the proposed greatest depth of the soil gas investigation should be installed at the first sampling location, unless specifically waived or deferred by the regulating agency. Depending on site conditions, additional continuously cored borings may be necessary. If the soil gas data are to be used for human health risk assessment or vapor intrusion assessment, the lithology/geology should be understood and documented in an appropriate level of detail. The documentation of the lithology information is not performed by AA and is typically performed by a qualified professional on site such as a geologist.

- If low flow or no flow conditions (vacuum readings exceeding approximately 7.4 inches of mercury or 100 inches of water) are encountered, soil matrix sampling using EPA method 5035A should be conducted in these specific areas.

### 2.2 Sample Depth

Soil gas sample depths should be chosen to minimize the effects of changes in barometric pressure, temperature, or breakthrough of ambient air from the surface and to ensure that representative samples are collected. Consideration should be given to source location, types of chemicals of concern, and the lithology encountered.

Vapor monitoring wells should be installed at a minimum of two sample depths, at approximately five (5) feet below ground surface (bgs) and 10 to 15 ft bgs. Variation of sample depths and the need for deeper sample locations will be evaluated based on site specific characteristics.

For shallow contaminant sources of less than 10 feet bgs, collect soil gas samples immediately above the source. Samples collected at less than 5 feet bgs may be subject to barometric pressure effects and are more prone to ambient air breakthrough. For deep contaminant sources, collect soil gas samples starting at 10-15 feet bgs.

When evaluating vapor intrusion, obtain soil gas samples at appropriate depths so that risk to human exposure can be adequately quantified.

For vapor intrusion evaluations, soil gas sample depth is dependent on the depth of the contaminants. Deeper sampling would be needed when evaluating buildings with basements.

### 2.3 Sample Spacing

Sample spacing should be in accordance with the study design rationale provided in the workplan, and may be modified based on site-specific conditions with regulatory agency approval. The sampling locations should include biased sampling locations to optimize detecting and delineating VOCs. Selection of appropriate number, locations and sampling depths are site-specific, and should be based on the CSM and the project DQOs.

### 2.4 Vertical Profiling

Vertical profiling is achieved by collecting soil gas samples at varying depths in a single location, or by using closely spaced vapor monitoring wells installed at varying depths. Use vertical profiling in areas where significant contaminant concentrations are identified. The objectives of vertical profiling are to:

- (1) Assess the vertical distribution of contaminants in the vapor phase within the unsaturated zone;
- (2) Identify migration pathways at depth along which contaminants may have migrated from sources; and
- (3) Serve as discrete monitoring points to evaluate the efficiency of a cleanup action.

Vertical profiling depends on DQOs and the CSM. Vertical profiling may or may not be appropriate at any given site. Describe the rationale for vertical profiling in the workplan for regulatory review prior to commencement of field work. Vertical profiling is appropriate for any of the following locations:

- Sites identified with subsurface structures such as USTs, sumps, clarifiers, waste or chemical management units
- Sites with subsurface sources such as oil fields, artificial fill, or buried animal waste
- Sites with heterogeneous lithology
- Sites with contaminated groundwater
- Areas with significantly elevated VOC concentrations detected during previous sampling
- Areas where elevated field instrument readings are encountered from soil matrix cuttings, cores or samples
- In the annular space of groundwater monitoring wells during construction where and assessment of the vertical extent of soil gas contamination is necessary.

All available information such as geologic logs and field instrument readings from soil cuttings or cores should be used to select appropriate depths to collect soil gas samples. Probes should be installed at depths with elevated vapor readings and/or slightly above fine-grained soils. If vertical characterization to groundwater is required, the deepest soil gas sample should be collected near the top of the capillary fringe. Soil gas probes should not be installed within or below the capillary fringe. Where deeper soil gas sampling is necessary and no lithologic change or technical basis is observed, then default sampling depths of 10 to 15 foot intervals may be selected for multi-depth sampling, until either groundwater is encountered or VOCs are not detected. Nested vapor wells may be installed in the annular space of groundwater monitoring wells to serve as a dual-purpose well if both vapor and groundwater monitoring are required.

The sample spacing, sample locations, sample depth, the need for vertical profiling and the installation of nested probe sets is determined by others and this information is provided to AA prior to commencement of the work.

## **2.5 Sampling Tubes**

The sampling tubes used for soil gas sampling probe construction are typically 0.25" OD Nylaflo or Teflon tubing. The use of polyethylene tubing is not recommended due to irreversible adsorption of target compounds on the inner walls of the tubing. Polyethylene tubing has also been known to contribute to background levels of target VOCs, petroleum hydrocarbons and other interferences. Smaller diameter tubing can be also be used such as 1/8" OD.

The tubing must be clean and dry. If moisture, water or an unknown material is present in the tubing prior to use the tubing must be replaced. Prior to use, each batch of tubing when received is tested for the presence of contamination. This is accomplished by purging the tubing with ultra high purity nitrogen and analyzing an aliquot of the purge gas for the presence of contamination. If the tubing exhibits the presence of contaminants it is not used.

## 2.6 Soil Gas Probe Installation Methods

### 2.6.1 Semi-Permanent Soil Gas Probe Installation

With the Geoprobe Hydraulic push technology rig create a borehole by advancing a 1.5" OD drive head attached to 1.25" OD drive rods just beyond the desired sampling depth.

When the desired depth is reached, carefully withdraw the drive head and drive rods to prevent collapsing of soil into the open borehole.

Place the 0.25" OD Nylaflow tubing into a 0.5" OD PVC pipe and lower the PVC pipe and tubing into the borehole until the end of the PVC reaches the bottom of the borehole.

Pour sand in the annular space between the PVC pipe and the borehole wall while slowly lifting the PVC pipe as the sand height increases in the borehole. The PVC pipe is also used as a "trimmie" pipe to ensure that the sand is uniformly packed in the borehole. During this operation the position of the Nylaflow tubing is maintained fixed at the bottom of the borehole. The height of the sand in the borehole is determined by the extent the PVC pipe is extracted from the borehole as the sand is added to the borehole.

When the height of the sand reaches a minimum of one (1') foot in the borehole, the Nylaflow tubing is lifted and positioned midway within the sand pack. The sand pack should be appropriately sized (no smaller than the soil granules comprising the adjacent formation) and installed to minimize disruption of flow to the implant.

Add at least one (1') foot of dry granular bentonite on top of the sand pack to preclude the infiltration of hydrated bentonite grout. As with the addition of the sand, use the PVC pipe to uniformly distribute the bentonite in the borehole and to determine the height of the bentonite in the borehole.

Grout the borehole to the ground surface with hydrated bentonite. Refer to Figure 1 in Appendix B for an illustration of the permanent soil gas probe.

### 2.6.2 Nested Soil Gas Probes

Nested soil gas probes are used for long term monitoring of VOC soil gas concentrations at multiple depths (refer to Figures 2 and 6 in Appendix B for a representation of a nested soil gas probe).

The nested soil gas probes are installed as described in the previous section and each sampling point at a given depth is isolated from the other by a hydrated bentonite grout plug. One (1') foot of dry granular bentonite is placed between the sand filter pack and the grout at each probe location.

Tubing must be appropriately marked at the surface to identify the probe location and depth.

For deep nested probe installations the use of a downhole probe support may be required. Such support may be constructed from a one (1) inch diameter bentonite/cement grouted PVC pipe or other solid rod.

### **2.6.3 Post Run Tubing Soil Gas Probe Method (PRT)**

This method utilizes a drive rod assembly equipped with a tip holder and drive tip. The drive rod assembly is driven to the desired sampling depth and then pulled back to separate the drive tip from the tip holder thus creating an opening through which the soil gas can flow. Nylaflow tubing attached to an adaptor is lowered down the rod assembly opening and the adaptor is threaded onto the tip holder forming a leak free pathway for the soil gas from the sample point to the surface. The sampling system is as shown in Figure 3 in Appendix B. For detailed specifications on the soil gas sampling equipment refer to Table 1 in Appendix A.

The installation procedure is as follows:

- Thread the point holder onto the probe rod and insert the drive tip into the point holder.
- Place the drive cap on the probe rod to protect the threads and drive the rod into the ground using a hydraulic impact direct push technology rig. In areas with limited access use the Concord limited access hydraulic impact push technology rig, an electric impact hammer or slide hammer to drive the rods to depth. Remove the drive cap from the probe rod, thread another segment of probe rod onto the portion of the rod protruding from the ground and drive once again into the ground with the impact hammer. Repeat the same process until the desired depth is reached. Keep track of the probe rod depth by counting the number of three foot segments used during the probing procedure.
- Retract the probe rod by approximately 1" to separate the drive tip from the point holder. This will allow for the soil gas to be drawn through the inner tubing system when a sample is taken.
- Use hydrated bentonite to seal around the drive rod at ground surface to prevent ambient air intrusion from occurring along the point of contact of the rod outer surface with the soil during sampling.
- Attach the 0.25" O.D. Nylaflow tubing securely to the threaded adaptor and feed the tubing down the inside of the probe rod. When the adaptor hits the point holder, begin



to rotate the tubing in a counter clockwise direction in order to thread the adaptor into the point holder. Pull up lightly on the Nylaflo tubing to ensure that the threads are engaged and the O-ring forms an airtight seal against the surface of the point holder. Allow 2 feet of tubing to extend past the probe end before cutting. You now have a leak free pathway for the soil gas to travel from the sample point location at depth to the surface.

- After collecting the sample, disconnect the line from the pump train and pull up firmly on the line until it releases from the adaptor at the bottom of the hole.
- Remove the line from the probe rod and discard. Decontamination of the nylaflo line is not practical due to the low cost of replacement tubing and the increased risk of cross contamination if the same line is used over again at another sampling point.
- Extract the rods segment by segment from the ground with the direct push technology rig or a probe jack in areas where access is limited. When the final rod equipped with the tip holder is extracted, inspect the O-ring on the line adaptor to ensure that a leak free seal was formed. If the seal is suspect, another sample must be taken. Refer to Figures 1 and 3 for an illustration of a semi-permanent soil gas probe.

## 2.7 Decommissioning

When sample collection ceases at a soil gas sampling probe, properly remove or decommission the probes with concurrence from the regulatory agency. The decommissioning process is performed in a manner that prevents the probe and associated borehole from becoming a conduit for the preferential migration of contamination.

When decommissioning soil gas sampling probes constructed with tubing, the following decommissioning steps must be followed:

1. Squeeze sealant, such as grout, cement or silicone caulk, into the exposed tubing until the entire tubing is filled with the sealant material;
2. Cut the well tubing as far below grade as possible;
3. Fill the open hole with hydrated bentonite to within one foot of the surface grade;
4. Restore pavement and vegetation to original conditions, if needed.

When over-drilling soil gas sampling probes with ridged casing, a casing guide should be used to prevent the bit from drifting during the decommissioning procedure. A casing guide will allow the drill bit to remain aligned on the top of the probe casing, allowing for effective removal of the probe material. Once the material is removed, the borehole is filled with bentonite grout. If

soil gas sampling probes penetrate clay units, consideration should be given to over-drilling rather than abandonment in place in order to prevent preferential contaminant migration.

## **2.8 Equilibration Time**

Subsurface conditions are disturbed during probe placement. To allow for subsurface conditions to equilibrate and vapor concentrations to stabilize, the following procedures are recommended:

1. For soil vapor wells installed with the direct push method, do not conduct the purge volume test, leak test, and soil gas sampling for at least two (2) hours following vapor probe installation.
2. For soil vapor wells installed with hollow stem or hand auger drilling methods, do not conduct the purge volume test, leak test, and soil gas sampling for at least 48 hours after vapor probe installation.
3. For soil vapor wells installed with the roto sonic or air rotary method, do not conduct the purge volume test, leak test, and soil gas sampling until it can be empirically demonstrated that the subsurface equilibrium time is sufficient for representative sample collection.

Record the vapor well installation method and equilibration time in the field log book.

## **2.9 Sampling**

### **2.9.1 Leak Test**

A leak test is used to evaluate whether a good seal was established in the sampling train, ground surface, and soil gas sampling probe interface. A leak test should be conducted at every vapor monitoring well each time a soil gas sample is collected because a poor seal may result in soil gas samples that are diluted by ambient air. This may result in an underestimation of actual site contaminant concentrations or, alternatively, introduce external contaminants into samples from ambient air.

### **2.9.2 Shut-In Test**

Prior to purging or sampling soil gas, a shut-in test must be conducted to check for leaks in the above ground fittings. The shut-in test consists of assembling the above-ground apparatus (e.g., valves, lines, fittings, vacuum manifold and pump downstream from the top of the probe), and evacuating the lines to a measured vacuum of about 100 inches of water column (in-H<sub>2</sub>O), then shutting the vacuum in with closed valves on opposite ends of the sampling train. The vacuum gauge installed on the vacuum manifold is observed for at least one minute, and if

there is any observable loss of vacuum, the fittings are adjusted as needed until the vacuum in the above-ground portion of the sample train does not noticeably dissipate.

### 2.9.3 Leak Check Compounds

Liquid tracer compounds, such as hexane, pentane, and iso-propanol (IPA) are used to evaluate the sample integrity. The liquid tracer compound is applied to a towel or a clean rag and is placed at the point of contact of the soil gas sampling probe tubing and the ground surface. The integrity of the above ground connections is checked using the shut in test described in section 2.9.2. However, if the above ground fittings must be checked using a liquid tracer as required by the regulatory agency or the client, the liquid tracer is applied to a gauze, which is placed in a zip-lock bag which is then wrapped around the fitting. This exposes the fitting to the liquid tracer vapors without allowing direct contact of the liquid tracer with the fitting thus preventing cross contamination problems when the fittings are subsequently handled by the sampler. When handling liquid tracers the sampler must wear gloves and the gloves must be disposed of immediately after application of the tracer at appropriate locations on the sampling train to avoid cross contamination problems. The leak check compound selected should not be a suspected site-specific contaminant.

Seal integrity is confirmed by analyzing subsequent soil gas samples for the tracer compound. Alternatively, gaseous tracer compounds, such as helium, isobutene, propane, and butane, can be used along with a shroud or tent over the sampling equipment.

Leak check compounds (i.e., liquid tracer compounds) are included in the method analyte list. The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes. If the concentration of the leak check compound is greater than or equal to ten times the reporting limit for the target analyte(s), then corrective action is necessary as discussed below.

If a leak check compound (i.e., liquid tracer compounds) is detected in the sample, the cause of the leak must be determined, evaluated, and corrected through retesting. If a leak is confirmed and the problem cannot be corrected, the ambient air leak may be quantified using a gaseous tracer with a shroud. An ambient air leak up to five (5) percent is acceptable if quantitative tracer testing is performed by shrouding. Otherwise, the soil gas vapor well must be decommissioned if the leak cannot be corrected. Replacement vapor wells should be installed at least five (5) feet from location where the original vapor well was decommissioned due to a confirmed leak. Include the leak check compound concentrations detected in the soil gas samples in the laboratory report and discuss it in the site characterization report.

Note that if sampling is done exclusively from a SUMMA® canister at a stationary laboratory and there is a significant leak, it will not be identified until after the sample has been collected and analyzed. Therefore, field screening prior to laboratory confirmation is recommended.

## 2.9.4 Optimum Purge Volume Determination

The purpose of a purge volume test is to ensure stagnant or ambient air is removed from the sampling system, to ensure samples collected are representative of subsurface conditions and to obtain samples that are representative of the volatile organic contaminant levels in the formation around the probe tip. The purge volume test must be the first soil gas sampling activity at the selected purge volume test point, and should be located as near as possible to the anticipated or confirmed contaminant source, and in an area where soil gas concentrations are expected to be elevated, based on lithology. The purge volume test is conducted by collecting and analyzing a sample for target compounds after removing one, three, and ten purge volumes.

The purge volume (also referred to as the “dead space volume”) can be estimated by summation of the following components: (a) the internal volume of tubing used; (b) the void space of the sand pack around the probe tip; and (c) the dry bentonite in the annular space. Sample containers are not included in the purge volume calculation, except when non-evacuated glass bulbs are used. In those instances, the volume occupied by the non-evacuated glass bulbs should be added to the purge volume to account for mixing and dilution of gasses inside the glass bulb. The step purge tests of one (1), three (3), and ten (10) purge volumes must be conducted to determine the purge volume to be applied at all sampling locations. Select the appropriate purge volume based on the highest concentration of the compound(s) of concern detected during the step purge volume test. Optimize the purge volume for the compound(s) of greatest concern. This is accomplished by plotting the contaminant concentration vs. purge volume is made (see Figure 4 in Appendix B) with the optimal purge volume being the point at which the contaminant concentration maximizes. The purge time is then set at the value which will generate the optimal purge volume at the specified purge rate.

Avoid extensive purging for soil gas samples collected at less than five (5) feet bgs. Conduct the step purge test and purging at the same flow rate and applied vacuum as soil gas samples.

If the pump is battery operated, check the batteries before and during operation to insure a proper charge is maintained.

A default of three (3) purge volumes should be extracted prior to sampling in the following cases:

- If VOCs are not detected in any of the step purge tests
- For shallow soil gas samples (collected at less than five feet bgs)

Include the purge test data in the report to support the purge volume selection. The data set should include the purge volume test as well as the flow rate, vacuum exerted on the formation, and duration of each purge step.

### 2.9.5 Additional Purge Volume Tests

Additional purge volume tests should be performed to ensure appropriate purge volumes are extracted if:

- § Widely variable or different site soils are encountered
- § The default purge volume is used and a VOC is newly detected.
- § Variable flow conditions are unexpectedly encountered

If a new purge volume is selected after additional step purge tests are conducted, the soil gas investigation should be continued as follows:

1. Re-sample ten (10) percent of the previously completed probes using the new purge volume.
2. Re-sampling may be necessary for all previously samples soil gas probes depending on the results of the re-sample.
3. Continue the soil gas investigation with the newly selected purge volume in the remaining areas.

### 2.9.6 Sampling Procedure

The sampling procedures described below apply to both the permanent and semi-permanent soil gas probe methods.

Sampling and purging flow rates should not enhance compound partitioning during soil gas sampling. Samples should not be collected if field conditions are as specified in section (Field Conditions/Soil Permeability). Obtain the soil gas sample at a volumetric flow between 100 and 200 ml/min and a vacuum less than 100 inches of water column to limit stripping, prevent ambient air from diluting the samples, and to reduce the variability of purging rates.

Samples may be collected at flow rates greater than 200 ml/min when purging times are excessive, such as for deep wells with larger diameter tubing. However, a vacuum of 100 inches of water column or less must be maintained during sampling whenever a higher

sampling flow rate is used. These modified rates, if used, must be documented in the soil gas report.

- Attach the vacuum pump circuit to the line and start the pump with the flow valve initially closed and the isolation valve in the fully open position (refer to Figure 3 in Appendix B). Slowly open the flow valve and allow the soil gas to flow through the system for a time period such that the total volume of soil gas pumped approximates the optimum calculated purge volume (refer to Section 2.9.4 for optimum purge volume determination). Immediately close the isolation valve and allow time for the sample line pressure to return to zero as indicated on the vacuum gauge.
- Record the purge volume, and the evacuation pressure at which the sample is collected in the log book. These numbers will also appear on the final analytical report submitted to the client.
- Proceed to take a sample by attaching to the luer lock connector of the three-way valve to a 100 ml gas tight glass syringe equipped with a luer lock fitting. Slowly retract the plunger until a one hundred (100) ml sample aliquot has been collected, close the luer lock fitting and proceed as quickly as possible to the gas chromatograph for analysis. The actual sample volume injected onto the analytical instrument is ten (10) ml leaving ninety (90) ml of the sample in the syringe for re-analysis or other testing as deemed necessary. The extra volume also permits for a larger aliquot of the sample if necessary to be injected into the system in order to improve sensitivity and achieve lower method reporting limits. The sample must be analyzed within thirty (30) minutes from the time of collection. In the event the sample is to be stored prior to injection for a time period greater than five (5) minutes, the syringe must be covered with aluminum foil to prevent degradation of light sensitive compounds.

### **2.9.7 Alternative Sampling techniques**

Samples may also be collected in internally passivated canisters and transported to the fixed laboratory for analysis by EPA methods TO-14 or TO-15. If a canister is used for sample collection, a flow regulator must be placed between the probe and the Summa canister to ensure the Summa canister is filled at the flow rate as specified in section 2.9.6.

### **2.10 Sample Containers**

Collect samples in gas-tight containers and handle in a manner that will prevent photo degradation of the target analytes. Sample containers should not compromise the integrity of the samples.

1. If a syringe is used, it must be leak-checked before each use by closing the exit valve and attempting to force ambient air through the intake nozzle. The use of gas-tight all glass syringes is preferred. Syringes with Teflon components when exposed to high concentrations of VOCs exhibit memory effects due to absorption of the VOCs in the Teflon. The VOCs persist and exhibit carryover effects even when the syringes are baked for extended periods of time. The use of plastic syringes is discouraged because of the interaction between the plastic (or rubber) of syringes and some target analytes.
2. If an internally passivated canisters is used, place a flow regulator and vacuum gauge between the vapor well and the canister. Perform near surface (e.g., less than five (5) feet bgs) sampling using 1L-SUMMA® or smaller containers.
3. If the Tedlar® bags or glass bulbs are used, add surrogates within 15 minutes of collection and analyze the samples as soon as possible after collection and within 6 hours after collection.
4. Sorbent Tube sampling procedures: Details concerning selection of tube and sorbent, conditioning of tube, sampling apparatus, sampling rates, preparation of sample collection, set flow rates, and other sampling procedures are provided in the Compendium Method TO-17 (USEPA, 1999).
6. The use of Alternate Sample Containers such as bottle VACs require prior approval by the regulatory agency or the client. When using these containers surrogates must be added within 15 minutes from sample collection and the samples must be analyzed within 6 hours of collection.

### **2.11 Sample Handling for All Sample Containers and Sorbent Tubes**

Soil gas samples must be analyzed as soon as possible after sampling. Ideally, samples are collected and analyzed immediately by a mobile laboratory; however, if samples need to be shipped to a fixed laboratory, then special handling procedures must be followed.

Samples collected in syringes must never be transported; however, samples collected in sorbent tubes and SUMMA® canisters may be shipped for analysis at a fixed laboratory. The precautions noted below must be followed.

Sample handling procedures cited in the analytical methods being used must be followed; however, since those methods are not designed for soil gas, additional safeguards should be implemented to maintain the integrity of the soil gas samples.

**Syringes and Glass Bulbs:**

1. Do not expose samples to light. Keep syringes and glass bulbs in a cool dark location at all times. Cover or wrap samples with foil and place into an insulated container (cooler but without ice) until the samples are analyzed. Samples collected in syringes and glass bulbs must be analyzed as soon as possible after collection.
2. Do not subject samples to extreme temperatures. Heat can cause compound degradation and leakage from the syringe or glass bulb. Cold can cause moisture condensation which can affect the recovery of target analytes. If condensation is observed, the sample should be discarded and a new sample should be collected.

**Sorbent tubes:**

1. Sample tubes must be recapped with metal, Swagelok®-type caps and combined PTFE ferrules, rewrapped in aluminum foil (if appropriate) and placed in the storage container immediately after sampling.
2. Samples collected on tubes must be stored at less than or equal to 4°C and analyzed as soon as possible within 30 days after collection. For certain labile compounds, analysis should be done within one week (USEPA, 1999; Compendium Method TO-17, Section 10.10).
3. Samples collected on tubes containing multiple sorbent beds should be analyzed as soon as possible after collection unless it can be verified that storage will not affect the recovery of analytes (USEPA, 1999; Compendium Method TO-17, Section 10.10).

**Tedlar® Bags:**

If samples are collected and transported in Tedlar® bags, the following procedures must be followed:

1. Do not expose soil gas samples in Tedlar® bags to light and extreme temperatures. Photodegradation of target analytes is possible with light exposure. Heat can cause expansion of the bag and possibly result in leakage. Cold can cause condensation of the sample.
2. Do not subject soil gas samples in Tedlar® bags to changes in ambient pressure. Changes in ambient pressure can adversely affect the integrity of the bags. Increases in pressure may collapse the bag and decreases in pressure may expand the bag.



These changes in pressures coupled with possible flaws in the bag may cause sample loss due to leakage. Ambient pressure can change during the transport of samples. Samples traveling from the mountain area (lower pressure) to the lower desert area (such as Death Valley with higher pressure) can be subjected to significant pressure changes that may affect sample integrity. Alternate sample containers should be selected when pressure changes are anticipated.

## 2.12 Sample Container Cleanliness and Decontamination

1. New containers should be shown to be free of contaminants by providing data from either the supplier or the analytical laboratory.
2. After each use, reusable sample containers must be decontaminated as follows:
  - A. Glass syringes or bulbs must be disassembled and baked at 240° C for a minimum of 15 minutes or at 120° C for a minimum of 30 minutes, or be decontaminated by an equivalent method. If a syringe is re-used, it must be blank tested, and tested for adsorptive losses via spike testing. Blank testing frequency (or certification frequency) of syringes must also be included in the workplan prepared by the client.
  - B. Internally passivated canisters must be properly decontaminated as specified in US EPA Method TO-15, and/or should be certified according to project DQOs, either by batch or individual canister certification.
  - C. Tedlar® bags may be reused if data are provided to show the bags are free of contaminants.
  - D. Equipment blanks must be analyzed to verify and evaluate the effectiveness of decontamination procedures for recycled or reused containers. At a minimum, one equipment blank should be run per 20 sample containers cleaned, or at least one per day.

## 2.13 Field Conditions

Field conditions, such as rainfall, irrigation, fine-grained sediments, or drilling conditions may affect the ability to collect soil gas samples.

1. **Rainfall and Barometric Pressure:** Rainfall decreases the air-filled porosity of the shallow soil, thereby limiting diffusion transport of volatile contaminants and potentially biasing soil gas sampling results. Hence, soil gas sampling must not be conducted

during or within five (5) days of a significant rain event (1/2 inch or greater). Stop irrigation or watering of soil at least five days prior to the soil gas sampling event. Likewise, areas subject to soil gas sampling should be free of standing or ponded water for at least five days prior to sampling. Do not perform soil gas sampling in swales or depressions where large volumes of water can potentially accumulate.

Barometric pressure fluctuations associated with the passage of frontal systems can introduce atmospheric air into the shallow vadose zone. Therefore, soil gas sampling must be delayed until frontal systems have passed the area. Alternatively, soil gas sampling times and depths may be chosen to minimize the effects of changes in barometric pressure.

2. **Wet Conditions:** If no-flow or low-flow conditions are caused by wet soils due to a rain event or irrigation or water is drawn into a probe, cease the soil gas sampling. Low or no-flow condition corresponds to cases where the minimum flow rate of 100 mL/min cannot be sustained at the maximum applied vacuum of 100 inches of water. If the low-flow condition is due to wet conditions or shallow groundwater, then passive samplers may be deployed to detect VOCs.
3. **Fine Grained Soil:** If low-flow or no-flow conditions are caused by fine-grained soil, clay, soil with vacuum readings that exceed approximately 100 inches of water or 7.4 inches of mercury are encountered at a sampling point, a new vapor well should be installed in a coarser lithology at a different depth or lateral location. The following should be considered if low flow conditions persist:
  - evaluate site lithologic logs
  - collect new continuous soil core samples
  - use alternate low flow sampling methods described in Appendix D of the DTSC Advisory for Active Soil Gas Investigation dated April 2012
  - re-evaluate the need for the sampling location
  - use passive soil gas methods
  - collect and evaluate soil matrix VOCs sample using 5035/8260 (Cal/EPA, 2004)
4. If moisture or unknown material is observed in the glass bulb or syringe, cease soil gas sampling until the cause of the problem is determined and corrected.
5. If refusal occurs during drilling, soil gas samples should be collected as follows:
  - A. For sample depths less than five feet, collect a soil gas sample following the precautions for shallow soil gas sampling.

- B. For sample depths greater than five feet, collect a soil gas sample at the depth of refusal.
- C. Install a replacement vapor well at least five (5) feet laterally from the original vapor well decommissioned due to refusal. If refusal still occurs after three tries, use alternate vapor well installation methods.

## 2.14 Quantitative Leak Testing Using a Shroud and Helium

By the following procedure helium is used to assess the potential for leaks in the sample train and probe annulus by positioning an enclosure or “shroud” over the probe and sampling train, filling it with a measured amount of helium, and measuring the concentration of helium in samples subsequently drawn from the probe.

The concentration of helium in the sample divided by the concentration of helium in the shroud provides a measure of the proportion of the sample attributable to leakage. Small leaks may be acceptable, as long as the magnitude of the leak is small compared to other unavoidable sources of bias and variability in sampling and analytical data.

Helium is released into the shroud and a hand-held helium detector (MGD-2002 or equivalent) is used to monitor and maintain a reasonably steady concentration of helium within the shroud. The helium concentration in the shroud must be at least 10 % or two orders of magnitude higher than the reporting limit of the laboratory helium analysis or field meter used to analyze the sample, which will provide sufficient resolution against reporting limits. The concentration in the shroud will decay over time after the initial helium dose, depending on the irregularity of the ground surface, wind speed, etc., so the concentration in the shroud must be monitored and adjusted as needed to maintain a reasonable steady state. The monitored helium concentrations in the shroud are periodically recorded in a form specifically prepared for this procedure.

The soil gas sampling probe and sampling train assembly are field screened for leaks by drawing purge gas through the well and then through the tracer compound detector while the shroud is in position and filled with the initial tracer concentration. Detecting a significant leak in the probe or sampling train at the time of sampling provides the opportunity for the sampler to correct the leak early in the sampling process, thereby ensuring the samples analyzed by the laboratory meet the project specific DQOs.

If the concentration of the helium in the purge sample is greater than or equal to five (5) percent of the helium concentration in the shroud, corrective action is necessary to either remedy the leak or relocate the probe prior to collecting a soil gas sample

## 2.15 Sample Analysis

For a detailed description of the analytical procedures used for soil gas analysis refer to the American Analytics Standard Operating Procedure (SOP) SOPMB02.

## **Appendix A**

### **Soil Gas Sampling Equipment**

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## APPENDIX A

**Table 1  
Soil Gas Sampling Equipment List**

Item #	Item Description	Usage	Manufacturer
<b>Sampling Equipment</b>			
1	Geoprobe model 5400 Truck Mounted Direct Push Technology Sampling Rig	Drive probe rods into the subsurface.	Geoprobe
2	Concord Limited Access Direct Push Technology Sampling Rig	Drive probe rods into the subsurface in areas where access is limited.	Concord
3	1.5" OD Drive Head	Create borehole opening for soil vapor probe installation by driving to target depth using the Geoprobe	ESP
4	Machined steel expendable drive point.	Soil penetration.	Geoprobe
5	Expendable point holder.	Holds drive point, threaded to accept sample line with adaptor.	Geoprobe
6	Sample line adaptor.	Connects sample line to point holder.	Geoprobe
7	Probe rods (carbon steel, 36" length, 1.25" O.D. x 0.5" I.D.)	Probe to desired sample depth by mechanical impact.	Geoprobe
8	Sample line (Nylaflo, 0.25" O.D., 0.190" I.D., 5.57 ml/ft Internal Vol.)	Provides soil gas path from sample point at desired depth to surface.	Various
9	Sample line (Teflon, 0.25" O.D., 0.1875" I.D., 5.43 ml/ft Internal Vol.)	Provides soil gas path from sample point at desired depth to surface.	Various
10	Sample line (Polyethylene, 0.25" O.D., 0.17" I.D., 4.46 ml/ft Internal Vol.)	Provides soil gas path from sample point at desired depth to surface.	Geoprobe
11	Manual probe rod drivers. (Electric Hydraulic Hammer or Manual Impacter).	Drive probe rods into the ground to desired sampling depth.	Geoprobe
12	Probe rod jack.	Removes probe rods when there is limited access for the push technology hydraulic hammer rig.	Geoprobe
13	Sampling tee (1/4" Stainless Steel).	Take soil gas sample with gas tight syringe.	Swagelok
14	Isolation Valve.(2-way ball valve)	Isolate sampling train prior to sampling.	Swagelok
15	3-way Valve. (Ball)	Purge system with inert gas after sampling.	Swagelok

16	Metering valve. (Union Bonnet)	Meter flow of soil gas through the sampling train.	Swagelok
17	Vacuum gauge.(30 to 0"Hg)	Take sampling train vacuum readings.	Weksler Instruments
18	Flow meter (40-200 ml/min flow range) with bar graph display.	Take soil gas flow readings through the sampling train.	
19	Vacuum Pump (0.5 cfm @ 18" Hg diff. press.)	Apply vacuum to sampling train to extract soil gas from the ground.	Cole Parmer
20	Glass Gas Tight Syringe with Teflon Plunger Components	Take soil gas sample for injection into the gas chromatograph.	Various
<b>Sample Analysis</b>			
1	Gas Chromatograph (HP model 5890 series II equipped with 60 m, J&W DB-VRX volatiles column).	Compound separation	Hewlett-Packard
2	Mass Spectrometer (HP model 5971)	VOCs Detection	Hewlett-Packard
3	FID Detector (OI model 4430)	Methane Detection	OI Corp.
5	Purge and Trap (Tekmar LSC 200)	Sample concentration and introduction into the gas chromatograph	Tekmar
6	Purge and Trap (OI model 4560)	Sample concentration and introduction into the gas chromatograph.	OI Corp.
7	MGD-2002 Helium handheld meter	Helium Detection	Dielectric Technologies

**Appendix B**  
**Figures and Plots**

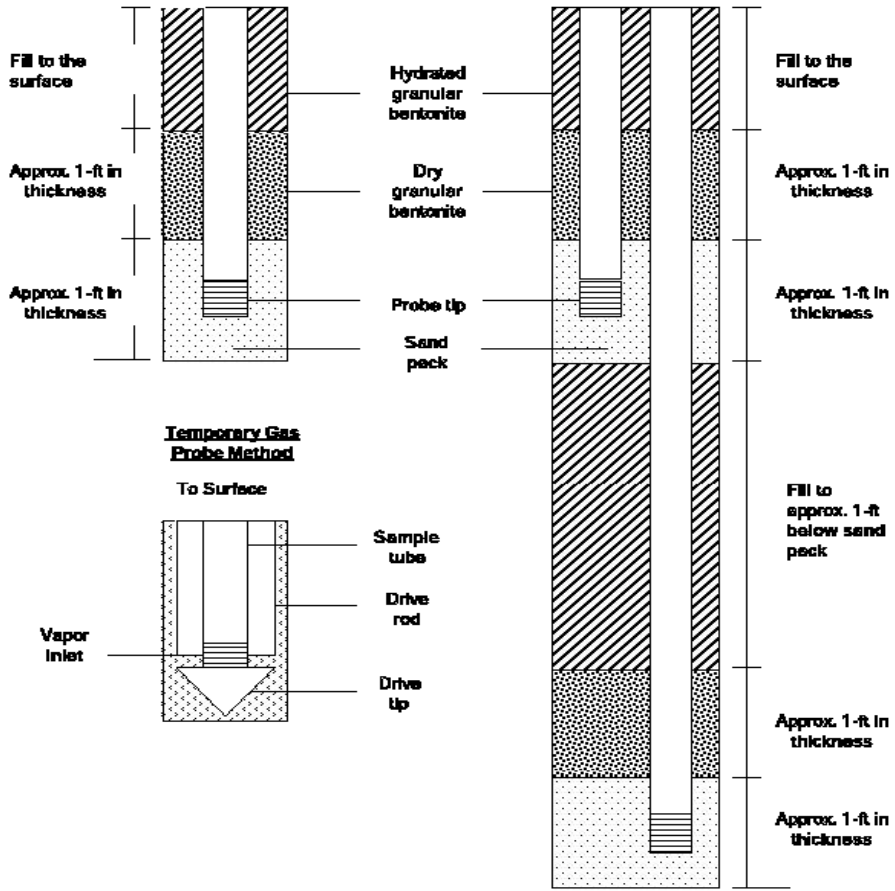
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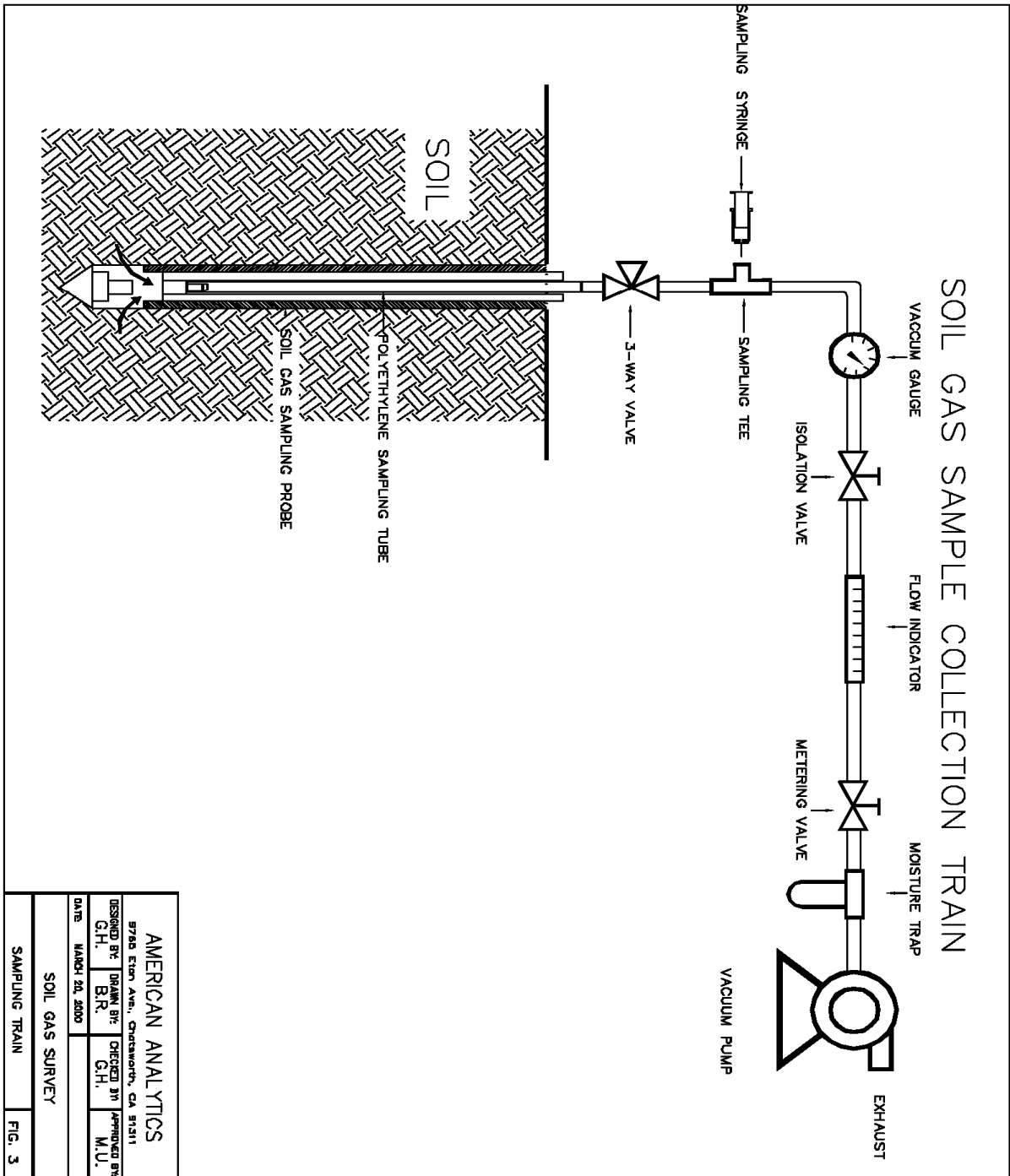


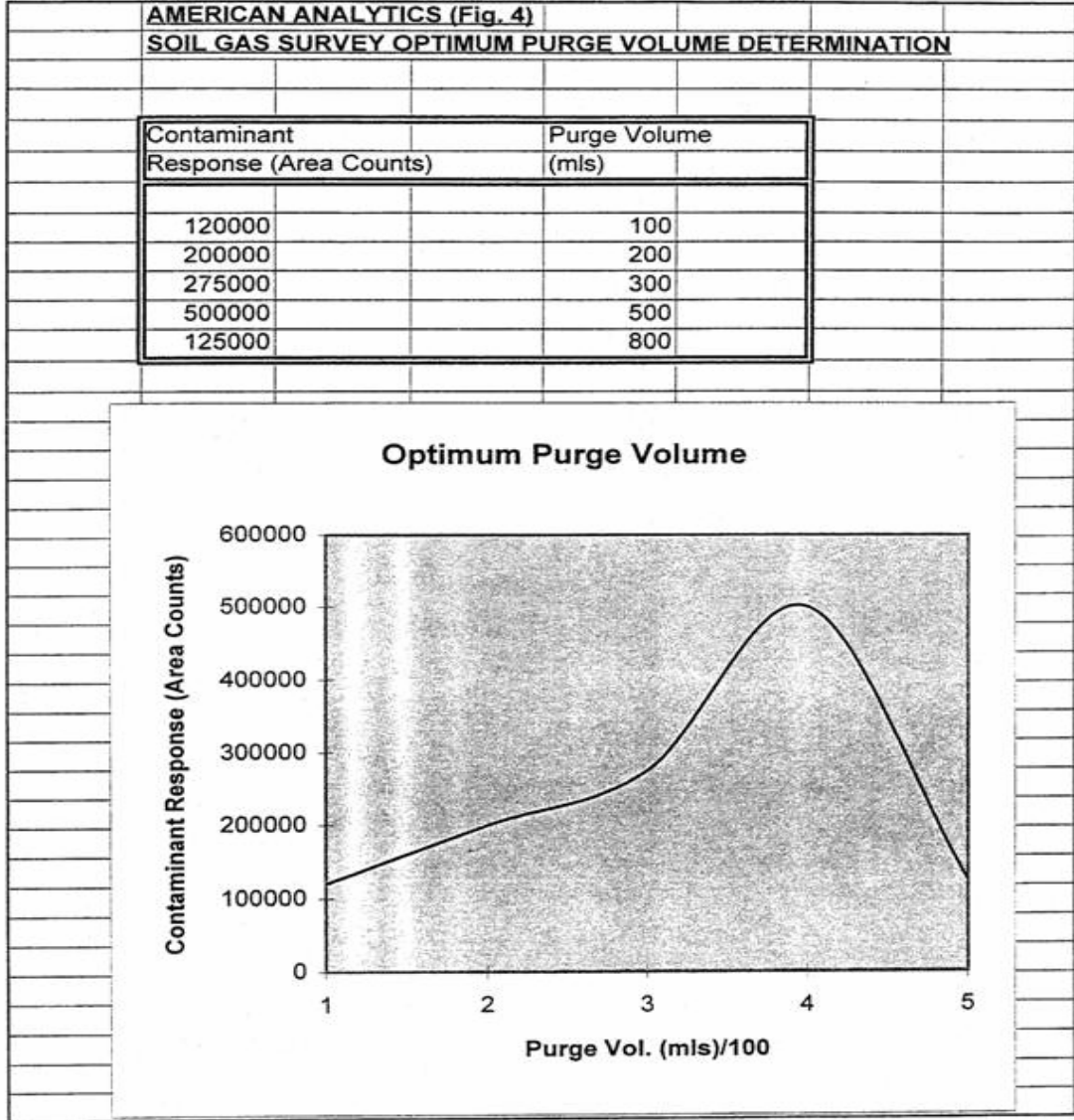
**Figures – Soil Gas Probe Emplacement Methods**

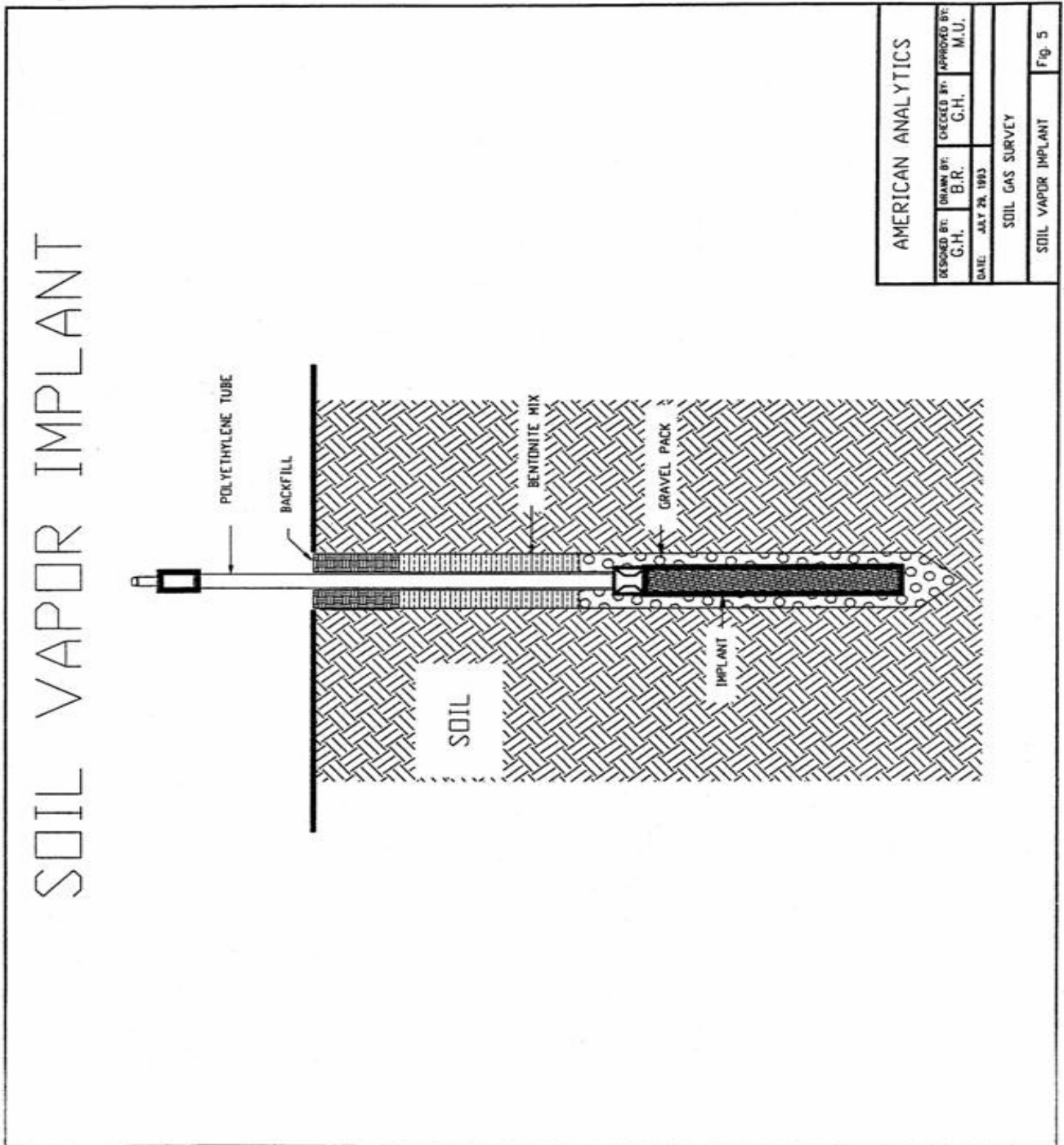
**Figure 1 – Permanent/Semi-permanent Gas Probe Construction Diagram**

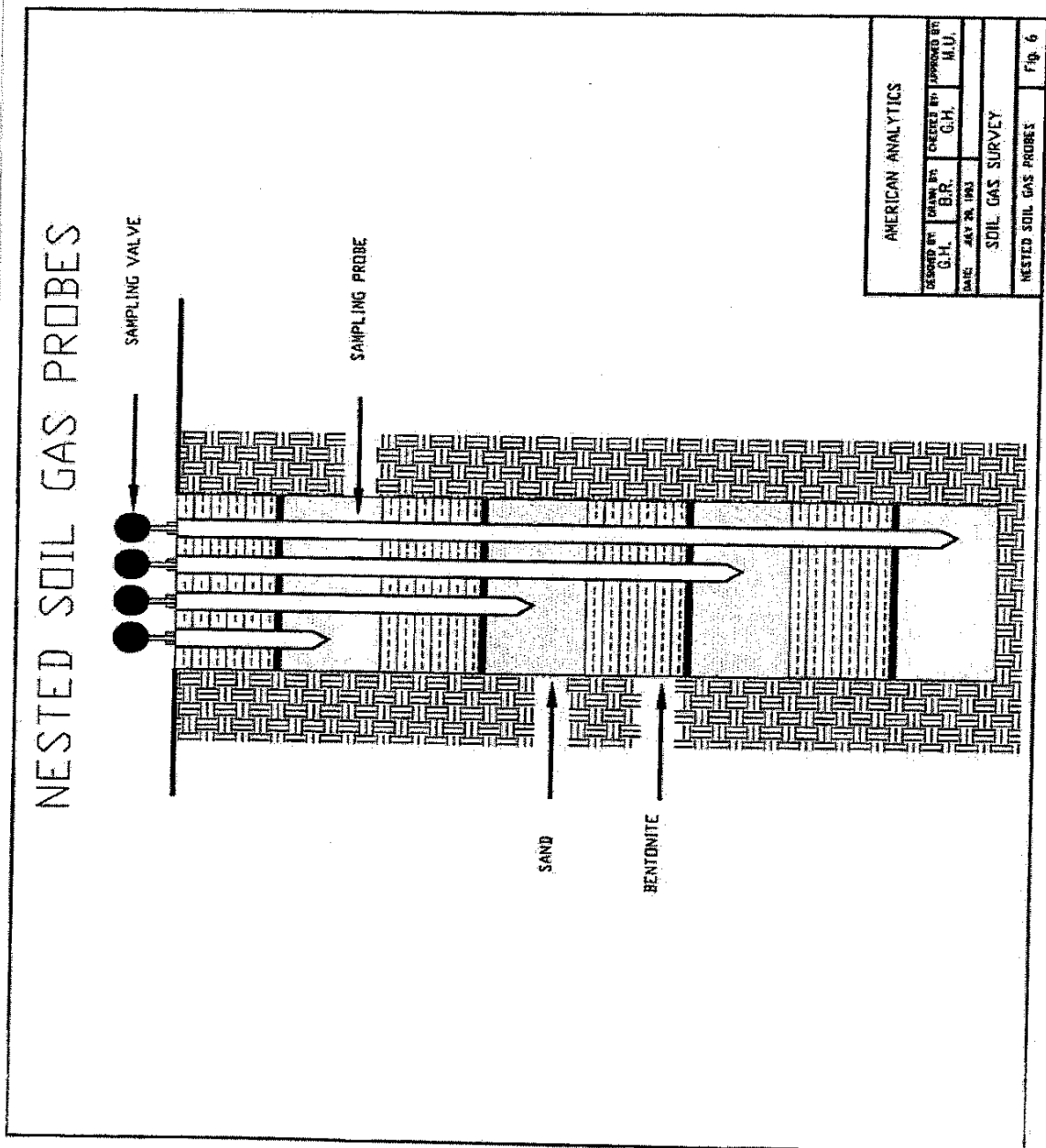
**Figure 2 – Multi-depth Gas Probe Construction Diagram**













## APPENDIX D

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Moore Twining Associates Quality Assurance Manual,  
Accreditation, and Method Reporting Limits



## ANALYTICAL CHEMISTRY

# 2015 QUALITY ASSURANCE MANUAL QM-QA-0001-03



California ELAP Certificate #1371

# QUALITY ASSURANCE MANUAL

**Document # QM-QA-0001-03**  
**Effective Date: January 1, 2015**  
**Supersedes: QM-QA-0001-02**



Moore Twining Associates, Inc. first opened its doors in 1898 as The Twining Laboratories, Inc. Founded in Fresno, California we have faithfully provided our professional services over the years. Our reputation of providing quality services for over a century testifies to our ability to provide reliable services to our clients. Our corporate headquarters is located in a 22,000 sq. ft., two-story structure listed in the National Register of Historic Places since 1991. The company is registered as a Disabled Veterans Business Enterprise (DVBE), with satellite offices located in Monterey, Corona and Sacramento, California.

Our analytical chemistry laboratory has gained a wide reputation for reliable service by providing data that are analytically correct and complies with professional standards, project goals and government regulations. This Quality Assurance Manual has been developed to define stringent quality assurance (QA) guidelines for our laboratory, which includes measurable quality controls (QCs).

It is our intent with the guidelines established in this manual to conform to the industrial standards set by our accrediting agencies. Periodic reviews as well as attention to changing regulations and requirements will enhance compliance and achieve the goals of our clients and community. As regulations and requirements are subject to change at any time, this manual remains a living document. This document is reviewed and, if necessary, revised annually. The review and revision process may occur more frequently upon managerial discretion.

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## 1. QUALITY ASSURANCE OBJECTIVES

Laboratory policy dictates that the Quality Assurance Program (QAP) is followed to ensure that quality control (QC) practices are adequate to meet the needs of the project or analysis. Adherence to the QAP ensures that all data generated are analytically and legally defensible.

Specific QA objectives set by Moore Twining Associates, Inc., are to produce data with acceptable levels of precision, accuracy, completeness, representativeness and comparability. A definition of these terms and a brief description of their implementation are presented below.

Precision- Defined as the degree of agreement among replicate measurements of the same analyte in a sample. Laboratory precision will be expressed as the relative percent difference (RPD) between duplicates. Several types of duplicates may be evaluated which include, but are not limited to, Blank Spike samples and duplicates (BS/BSD), Matrix Spike samples and duplicates (MS/MSD), and unknown sample duplicates (DUP). Moore Twining Associates, Inc. establishes an in-house acceptance limit for non-method specific analyses as  $RPD \leq 20\%$ .

Accuracy- Defined as the degree to which the analytical measurement reflects the true value present. Accuracy data is generated by determining the percent recovery (%REC) for the analyte(s) of interest in BS/BSD, MS/MSD, surrogates, and reference check samples. Moore Twining Associates, Inc. establishes in-house acceptance limits for accuracy for non-method specific analyses as follows:

Quality Control Sample: (QCS)	±20%
Continuing Calibration Verification: (CCV)	±20%
Lab Control Spikes (BS):	±20%
Matrix Spikes (MS):	±25%

Completeness- Defined as the amount of valid data obtained within established data quality objectives, compared to the amount that is expected to be obtained. For example, if ten samples are submitted for analysis and valid data is obtained for nine samples, completeness is 90%.

Representativeness- Defined as the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. It is highly dependent upon the sampling plan.

Comparability- Defined as the extent to which one set of data can be compared to another. Comparability is ensured by using U.S. Environmental Protection Agency (USEPA), Standard Methods for the Examination of Water and Wastewater and other agency-approved methodologies, and consistent, unambiguous units of measurement for each chemical parameter.

## 2. ORGANIZATION AND RESPONSIBILITY

In the implementation of this QAP, every department of the Chemistry Division shares responsibility to manage quality, involving all levels of management and staff. To ensure success, it requires that all personnel recognize their responsibility to conduct their work in accordance with the documented Quality Assurance practices in this manual, which is based upon guidelines set in various sources concerned with quality from the Environmental Protection Agency, Environmental Laboratory Accreditation Program (ELAP), the American Society for Testing & Materials, the American Water Works Association, the American Chemical Society, the Association of Official Analytical Chemists, and others.

Management of the QAP requires an interaction of project supervisors, laboratory management and laboratory staff. The following is an overview of responsibilities and personnel qualifications for key positions to ensure enforcement in the QAP. Appendix A contains an organizational chart for the Chemistry Division of Moore Twining Associates, Inc.

### 2.1. Responsibilities

Laboratory Director- The Laboratory Director is responsible for all analytical and operational laboratory activities; supervises all personnel, including those designated for performing analyses. The Director may review data after ensuring appropriate objectives have been met.

Quality Assurance Manager- The QA Manager establishes procedures for achieving and maintaining high standards of quality. The QA manager focuses on enforcement of current regulations and policies; organizes and promotes quality improvement efforts; develops and implements corrective action plans; and may review data after ensuring appropriate objectives have been met. He/she also actively participates in staff training and development, instructs personnel in theory, standards, regulations as well as instrumental and analytical techniques. He/she ensures that all data have been properly reviewed before and after submission for report generation, and oversees reporting of electronic data deliverables (EDDs).

Laboratory Supervisor- The Laboratory Supervisor(s) are responsible for supervising the activities the analytical and technical staff and ensuring that all data are generated in a manner consistent with the QAP objectives. He/she maintains the facilities and equipment within the departments and trains personnel in instrumental and analytical techniques.

Client Services Supervisor- The Client Services Supervisor is responsible for overseeing all of the activities associated with the Sample Control and Client Services Departments such as sample receipt and log-in, bottle orders, preparation, sample

subcontracting, sample return and sample disposal. Also, he/she helps ensure the timeliness of reports, and facilitates report production.

## 2.2 Personnel Qualifications

Laboratory Director- The Laboratory Director shall possess a baccalaureate or higher degree in chemistry or a related physical science. He/she must have a minimum of three (3) years experience using USEPA methods in the analysis of water, wastewater, solid waste, hazardous waste or other environmental samples. He/she must also have at least one (1) year of supervisory experience and one (1) year of experience as a Laboratory Supervisor or principal analyst.

Quality Assurance Manager- The QA Manager shall possess a baccalaureate or higher degree in chemistry or a related field. He/she must have a minimum of three (3) years experience using USEPA approved methods for the analysis of water, wastewater, solid waste, hazardous waste or other environmental samples. He/she must also have at least one year of experience as a Laboratory Supervisor or a principal analyst.

Client Services Supervisor- The Client Services Supervisor shall possess some educational training in chemistry or a related science. He/she shall have at least three (3) years experience in an environmental laboratory.

Laboratory Supervisor- The Laboratory Supervisor(s) shall possess a baccalaureate or higher degree in chemistry or a closely related science. He/she must have a minimum of one (1) year experience using USEPA methods in the analysis of water, wastewater, solid waste, hazardous waste or other environmental samples.

Analyst- All analysts shall possess a baccalaureate or higher degree in chemistry or a closely related science. A minimum of three (3) years of substantiated analytical experience may be substituted for the educational requirements.

Technicians- All technicians shall possess an associate science degree or have taken at least four science courses at the college level (with at least one of the courses being in chemistry). One year of laboratory experience may be substituted for the educational requirements.

## 2.3 Training Files

Each employee has an individual training file located in the Quality Assurance office which contains documentation of training activities and analytical method evaluation files. Training file documentation will include, but is not limited to: Ethics Statement, Training Documentation Forms, Safety Meeting Attendance Sheets, Initial Demonstration of Capability (IDC) results, Performance Evaluation (PE) Study results, blind Performance Testing (PT) results, Method Detection Limit (MDL) studies, Standard Operating Procedure (SOP) signature page, and any other training documentation/information related to employment or specific job duties.

### **3. SAMPLING PROCEDURES AND REQUIREMENTS**

A well-designed sampling plan is requisite for meaningful analytical results that are representative of the site. The Client is responsible for determining the sampling protocols required for their specific analytical needs. In planning the sampling event for a project, all the necessary parameters should be considered to ensure a representative sample is taken. This may be accomplished by following accepted principals such as constructing quadrant or triangle grid sections. If it is a liquid sample, then composite, grab, or time/flow sampling may be performed. Specific containers and preservatives are used to ensure the integrity of analytes (Refer to Appendix B.) Following is a description of specific sample handling practices employed by Moore Twining Associates, Inc.

#### **3.1 Sample Container Preparation**

The first step in assuring an uncontaminated, representative sample is through the use of properly cleaned and preserved sample containers. Pre-cleaned and, for certain parameters, pre-preserved sample containers are obtained for all analyses. These containers have been either cleaned by the vendor according to USEPA or other approved protocols, or are cleaned and preserved in the laboratory according to the appropriate protocol.

#### **3.2 Containers, Preservatives and Bottle Orders**

Upon receipt of a bottle order, Moore Twining Associates, Inc. provides appropriate sample containers, preservatives, chain-of-custody (COC) forms, coolers and blue ice to clients. The specifications for container type, size, preservatives, and holding times are provided in Appendix B. These specifications adhere to the guidelines provided in the regulatory and method requirements.

#### **3.3 Sample Storage**

Samples requiring refrigeration are held in designated refrigerators or freezers while in the laboratory. The laboratory has refrigerators to house samples needing preservation at four degrees Celsius (4°C). Separate holding areas are maintained for samples designated for volatiles and microbial analysis to minimize contamination.

Refrigerator and freezer temperatures are monitored each working day and the temperatures recorded in a logbook. Refrigerators are maintained at two to six degrees Celsius (2-6°C) and freezers at less than minus ten degrees Celsius (<-10°C). Standards and other possible sources of contamination are stored in separate refrigerators and freezers.

Samples are maintained under appropriate storage conditions until the report generation date, except for microbiological samples (only held for two days). Certain samples have contractual requirements for longer storage.

### **3.4 Sample Disposal**

Following appropriate storage, samples are disposed in accordance with all federal and state regulations. Samples which are hazardous may be either returned to the client or included in our hazardous waste stream, which is disposed of through a certified hazardous commercial waste disposal company. Records are maintained for hazardous waste disposal as required by law.

## **4. SAMPLE CUSTODY**

Maintaining sample integrity from sample collection to data reporting is essential to any QA program. An important element in this process is the ability to trace possession and handling of the sample from the time of collection through analysis and eventual disposal. Successful achievement of this involves both field and laboratory personnel. Described in this section of the QAP are procedures used by Moore Twining Associates, Inc. to maintain sample custody.

### **4.1 Sample Labels**

When preparing bottle orders, sufficient gummed sample labels are provided to label each bottle in the sample set. These pre-printed labels provide spaces for the following information: client name; name of sampler; sample point identification (ID); date and time of collection; sample type; analyses required; laboratory ID; and preservation.

### **4.2 Sample Seals**

Sample seals are used to detect tampering with the sample up to the time of sample analysis. They are provided upon client request.

### **4.3 Field Log Book**

The field log book, if required by Client protocols, is a record of all information pertinent to a sampling event. The field log should include as a minimum: name of the sampler; project name; purpose of the sampling; location of the sampling site(s); sampling method; date and time of collection; name of the project contact; and type of sample. Additional information should be recorded as required by the project.

Field personnel are responsible for the proper care and custody of samples until they are received in the laboratory by the Sample Control technician. If field personnel relinquish a sample to a delivery person, this should be noted as part of the chain of possession on the Chain of Custody (COC) record.

#### 4.4 Chain-of-Custody Record

A sample is in someone's custody if:

1. It is in one's actual physical possession;
2. It is in one's view, after being in one's physical possession;
3. It is in one's physical possession and locked up so that no one can tamper with it;
4. It is kept in a secured area, restricted to authorized personnel only.

When a bottle order is sent to a client, it is accompanied by a COC form. This form is also taken into the field whenever Moore Twining Associates, Inc. personnel go on a sampling event. A COC form must be completed for each sample or sample group. The information on this form includes: client's name and address; contact name; project name; sample point IDs; date and time of sampling; sample type; name of sampler; signatures of the persons involved in the COC, dates and times of possession; and the analyses requested. Our COC form is shown in Appendix C, and meets the guidelines established by ELAP.

#### 4.5 Sample Receipt and Log-In

At the laboratory, samples are received by the Sample Control technicians. The Sample Control technician reviews the COC record and the sample labels for accuracy and completeness. The sample seals, if used, are inspected and their condition is noted on the COC record. The physical condition of the samples is noted upon arrival and the following information recorded: sample temperature; appropriateness of container types and number of containers received; amount of sample received for analysis (if minimal volumes are suspected); preservation type; presence of leaks or cracks in the containers; and presence of headspace in sample containers for volatile organic analyses. After the physical condition of the samples is documented, the samples are transferred to the appropriate holding areas and these locations are noted on the COC record. The Sample Control personnel check the sampling time to ensure that the sample has not exceeded the holding time for any of the analyses requested.

Using a laboratory information management system (LIMS) customized for Moore Twining Associates, Inc. the Sample Control personnel assigns each sample container a unique identification number and logs the samples into the LIMS and a sample receipt logbook.

Note that replicate samples may be preserved differently, yet represent the same sample.

The numbers are assigned in numerical order by the LIMS and the sample and paperwork are labeled with this number. All sample and COC record information are entered into the LIMS by Sample Control personnel. LIMS entries are reviewed for accuracy and completeness by the Client Services Supervisor, or other designated individual, prior to release of the project information to the laboratory staff.



The COC form consists of a duplicate document. One of the COC copies is given to the client at the time the samples are relinquished to the laboratory. Another copy is retained at the Sample Control Station and scanned into the LIM system for a permanent digital record. Each order is checked for accuracy by the Client Services Supervisor (or designee), and is then made available for analysis. Upon querying for available analyses, analysts examine the work orders to determine whether any clarification is needed. The Laboratory Supervisor facilitates the assignment and review of all analytical activities within the departments, including proper documentation.

## **5. CALIBRATION PROCEDURES**

In order to generate valid quantitative analytical results using instrumental methods, the instrumentation required to perform the analysis must be calibrated. Generalized calibration procedures are presented in this section. Specific methods of calibration are detailed in laboratory standard operating procedures (SOPs) and references along with the manufacturer's recommendations. The following steps are taken to calibrate the referenced instrumentation:

### **5.1 Balances**

Calibration of analytical balances is checked across the full intended mass range prior to measurement on any day the balance is used with certified ASTM Class 1 weights. The results are recorded in a logbook. The balances are professionally serviced and certified to meet NIST standards annually, or when a Class 1 weight reads outside a tolerance of 0.1% relative error from the true value after laboratory recalibration efforts.

### **5.2 Thermometers**

Thermometers used in the generation of analytical data are compared against a NIST traceable thermometer over the range the analytical device is used. Calibration is done every year or whenever an irregularity is noted.

### **5.3 pH Meters**

pH Meters are calibrated using three buffer solutions each analytical day. A three-point procedure is used and a check of the slope of the pH probe is made. The slope is documented. If the slope is not within the prescribed range, the cause is determined and corrective action taken.

### **5.4 Wet Chemistry Analyses**

Titrimetric: All titrants are currently purchased as certified standards from reputable vendors.

Gravimetric: Balances used in gravimetric analyses are checked as per Section 5.1, and professionally serviced yearly.

### **5.5 Ultraviolet-Visible (UV-VIS) and Infrared (IR) Spectrophotometers**

Initial calibration will consist of establishing a three to five-point curve (as specified by the method). Most analyses require a new calibration curve to be generated with each batch, but continuing calibration procedures may be used if permitted by the method. In accordance with the method requirements, the curve is either statistically evaluated for linearity or the curve is graphed. All sample quantitation must be performed within the range of the calibration curve. Continuing calibration using an intermediate standard (update) must be analyzed every ten samples. The update's response must fall within the method-specified acceptance range of its value found in the calibration curve or the standard curve will be re-run. The calibration curve will be verified with an independent check standard.

### **5.6 Atomic Absorption (AA) Spectrophotometers**

The instrument will be calibrated at the beginning of each analytical run. Calibration will consist of a blank and three or more standards. An intermediate standard will be analyzed after every ten samples. The response must fall within 10 % of its expected value. The calibration curve will be verified with an independent check standard.

### **5.7 Inductively Coupled Plasma (ICP) Spectrophotometers**

The instrument will be calibrated at the beginning of each analytical run. Calibration will consist of a blank and one or more standards in accordance with the method used. A linear fit calibration curve is selected after each of the standards and the blank are analyzed. The on board computer will generate a linear curve that best fits the points. For the curve to be acceptable, the calculated value for the blank must be less than the method detection limit. For each of the standards, the calculated value must be within 10% of its expected value.

Before analyzing samples, the blank and the mid-level calibration standard are analyzed. The blank values must be below the detection limits for each analyte. The mid-level calibration standard must be within 10% of its expected value for EPA 6010B analyses and within 5% of its expected value for 200.7 analyses. The blank and mid-level calibration standard will be analyzed after every ten samples. The accuracy of the calibration curve will be verified with an independent QC check standard.

An interference check solution is analyzed with each sample run to determine if any spectral interferences associated with calcium, magnesium, iron or aluminum are present. The results must be within  $\pm 20\%$  of the true value.

## 5.8 Gas Chromatographs (GC)

Initial calibration will consist of a standard curve as specified by the method. The Percent Relative Standard Deviation (%RSD) will be determined, and if the linearity is within method-specified requirements, the average response factor (RF) or calibration factor (CF) can be used to calculate sample concentrations. Alternatively, the data software can be used to generate a linear or quadratic regression. Most analyses require a new calibration curve with each batch, but the initial calibration/continuing calibration may be used if it is permitted by the method. If the concentration of the continuing calibration standard is not within control limits of the predicted response (method-dependent), corrective action may need to be taken, as specified by individual methods or SOPs. All samples must be within the range of the calibration curve; if not they must be diluted. Calibration check standards (updates) will be analyzed periodically. The update's response is expected to fall within the guidelines established by the method.

## 5.9 Gas Chromatographs/Mass Spectrometers (GC/MS)

The mass spectrometer (MS) detector will be tuned at the beginning of each analysis day to meet mass requirements for tuning compounds, such as BFB and DFTPP, as specified by the appropriate USEPA methodologies.

Following tuning, the spectrometer will be calibrated using a set of standards (depending upon the method). Linearity will be determined by calculating the %RSD. If the %RSD is within method-specified requirements, linearity may be assumed and the average RF may be used. Alternatively, the data software can be used to generate a linear or quadratic regression. The initial calibration/continuing calibration may be used if it is permitted by the method.

Some methods require the analysis of system performance calibration compounds (SPCCs) to ensure that minimum average RFs are met before the calibration curve is used. The SPCC must be analyzed at the beginning of the run and once during every twelve hour shift, or as required by the method.

## 6. ANALYTICAL PROCEDURES

Achievement of QA objectives during analysis is accomplished through the use of commonly accepted principles and methods. The principles include the use of good laboratory practices, an active and complete QA program, and continuous monitoring of QC results. Recognized, published methods are used as available. Current method references used by Moore Twining Associates, Inc. may include the following:

### 6.1 Organic, Inorganic and Microbiological Analytical Method Sources

Annual Book of ASTM Standards, American Society for Testing and Materials, 1982-2003.

Department of Transportation, California Test Methods, Office of Transportation Laboratory.

Methods and Guidance for the Analysis of Water, USEPA Office of Water, & 40 CFR 136.

Methods for Chemical Analysis of Water and Wastewater, EPA-600/4-79-020

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111

Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-600/4-82-057

Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> Edition

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846

Any deviations from these methods are investigated for suitability and reported as a modification, if necessary.

**6.2 Standard Operating Procedures (SOPs)** Standard Operating Procedures (SOPs) are written for all major analytical methods and procedures used in our laboratory and are reviewed annually to ensure accuracy and analytical relevancies are maintained. All original SOPs are reviewed and signed by both the QA Manager and Laboratory Director and are kept on file in the QA Managers office. Controlled copies are placed in a binder accessible to the analyst who is responsible for the method/procedure and pdf copies are posted on the network server. Document Training Signature Sheet is signed by the analyst and kept in their training file.

The purpose of the SOP is to specify the analytical method or procedure as it is used in our laboratory. This may include specific equipment, processes/procedures, as well as any other information deemed appropriate to insure complete understanding of the method and that quality results are being produced. A typical SOP generally consists of the following sections: Introduction and Theory, Scope and Application, Interferences and Matrix Effects, Apparatus, Reagent List and Standard Preparation, Sample Preservation and Hold Time, Analyst Responsibilities, Definitions, Procedure, Calculations, Quality Control, Safety, Waste Disposal, References, and Forms.

## **7. DATA REDUCTION, VALIDATION AND REPORTING**

The conversion of raw analytical data into a finished report involves many steps which can generally be categorized as either data reduction, validation or reporting.

## 7.1 Data Reduction

The process of data reduction consists of those steps necessary to convert results into final reportable values. For many analyses, it consists of comparing sample responses to calibration standard responses and using mathematical equations to calculate sample concentrations. Data reduction also involves accounting for all dilution factors used in the analysis. The analyst who generates the analytical data has the responsibility for reducing the raw data. All data are generated and reduced using method specific protocols that are specified in laboratory SOPs.

For most wet chemistry methods, raw data results are recorded on method-specific forms, which include calculations to be used for data reduction. For the other chemistry methods, spreadsheets are used for data reduction or directly input to the LIMS for simple computations.

## 7.2 Data Validation

After the data are generated and reduced, the analyst reviews the data to ensure that they meet the method-specific QC requirements and records QC data in the LIMS, where control charts are generated. The data are then reviewed by appropriately trained staff using data review checklists. If the data are approved, the LIMS processes the final report for delivery to the client. After report processing is complete, the report is reviewed by the QA Manager, or by the Laboratory Director, or other designated person(s).

## 7.3 Data Reporting

Reports generated by Moore Twining Associates, Inc., include the following report deliverables, which meets and exceeds ELAP guidelines to clarify reporting requirements from ELAP. Additional data deliverables (such as QC summaries and raw data) can be provided to meet the specific project requirements.

<b>Client Information</b>	<b>Sample Information</b>	<b>Method Information</b>	<b>Analysis Information</b>
Name	Sample ID	Method reference	Date prepared/analyzed
Address	Date and time sampled	Method reporting limit	Analysts
Project name	Sampler's name	Analyte(s)	Results/Dilution/Batch
	Date and time received	Units of measurement	Reviewer's name
	Sample type		

Reports are electronically signed and delivered. Detections of target parameters are typically noted in boldface print. Notes apply as they appear on the same line as an

affected target parameter, with an explanation that appears at the end of the client sample data. Additionally, a case narrative may be added at the beginning of the report explaining any irregularities or other pertinent information. Quality control data are always available upon request. An example of select portions of a typical final report with quality control data is found in Appendix F.

#### 7.4 Data Storage

Report files and the supporting raw data are retained for a minimum of five (5) years. Recent data may be stored on site, space permitting. Otherwise, the data will be stored in a secured storage facility, which can be accessed by laboratory staff as needed.

### 8. INTERNAL QUALITY CONTROL SAMPLES

In order to ensure the production of valid analytical data, the QA program must provide for specific measurable quality controls to support the data produced. Called analytical validation, internal QC checks are the basis of routine internal procedures which assure that the data generated have acceptable levels of precision, accuracy and completeness relative to regulatory and client data quality objectives.

Of particular note, the Laboratory Control Spike (BS) samples described in section 8.3 are the basis for establishing relative criteria for our lab with the use of control charts. Control charts can be generated on demand for all methods. Because BS samples have a neutral matrix, they form a stable basis for expected recovery that is practically devoid of matrix effects. However, control charts can also be generated on demand for the blank spikes, matrix spikes, duplicates, and other quality controls recorded in the LIM system. The control limits generated internally must be equal to or less than the control limits established by the method of interest. Examples of control charts for precision and accuracy using BS data are found in Appendix G. Further description of the process is found in section 10.

#### 8.1 Blanks

Blanks are analyzed to assess possible contamination. Types of blanks analyzed can include:

Calibration Blanks- A calibration blank is used to give a baseline reading of the instrument response. It contains the same reagents as the standard, but has not been processed through any preparation steps (e.g. digestion, extraction etc.).

Method Blanks- A method blank is a solution which contains the all the reagents in the same volume as used in processing the samples. It is carried through the complete sample preparation process. Its purpose is to determine if any contamination has been introduced during sample preparation. Method blanks are analyzed at a frequency of 10% or as specified by the method.

Trip Blanks- A trip blank is a solution that is as free of analyte as possible and is transported to the sample site and returned to the laboratory without being opened. Its purpose is to assess if contamination was introduced during sample transport or from site conditions. Laboratory policy is to analyze trip blanks as provided and required by a client per their data quality objectives (DQO's).

Field Blanks- A field blank is a solution that is as free of analyte as possible and is transported to the sample site and exposed to the same conditions as the sample. For example, if the samples are to be obtained with a bailer, the field blank is poured into the bailer and then back into its container. Its purpose is to determine if any contamination is introduced during sample acquisition in the field. Laboratory policy is to analyze field blanks as provided and required by a client per their data quality objectives (DQO's).

## **8.2 Quality Control Check Standards**

QC check standards are standards that are obtained from a different source than the calibration standards. They are analyzed to determine if the calibration standard source and preparation is accurate. Generally, QC check standards are analyzed with every calibration curve. Ideally, the QC standard will be obtained from a different vendor than the calibration standard. If obtaining the standard from a different vendor is not possible, or is impractical, a separate lot number obtained from the same supplier is acceptable. If this is not possible, a second standard preparation, using independent preparation calculations and staff, can be prepared from the same lot.

## **8.3 Laboratory Control Samples (Blank Spikes)**

Blank Spike (BS) and Blank Spike Duplicate (BSD) (also known as Laboratory Fortified Blank or LFB) samples are generated by spiking the analyte into a relatively inert matrix (such as clean sand or reagent water). Spiking standards and mixes are purchased through commercial vendors or prepared in the laboratory. These spiked samples are prepared (e.g. digested or extracted) and analyzed exactly like any laboratory sample. The results of this quality control sample are used to determine whether the methodology has been performed to meet criteria established by regulation, method or laboratory control chart data. If either of the BS or BSD fails, the data can be reported with a qualifier, depending on method requirements. Where practical, the standard used for spiking should come from a different source than the calibration standard.

## **8.4 Matrix Spike Samples**

Matrix spikes are client samples to which a known amount of analyte has been added prior to sample extraction/digestion and instrumental analysis. The purpose is to determine if the methodology is in control for the particular matrix being analyzed. Poor matrix spike recovery accompanied by acceptable LCS recovery generally indicates a

"matrix effect". Matrix spikes are analyzed at method-specified frequencies, usually 10%.

## 8.5 Duplicate Analyses

Duplicate analyses are performed to determine the precision of the method. Types include:

Matrix spike duplicates- The sample is split into three aliquots with two of the aliquots being spiked with the analytes of interest prior to processing.

Blank spike duplicates- Two aliquots of a BS containing the analytes of interest are processed and analyzed. The RPD for the duplicates is determined and plotted on control charts.

Sample duplicates- Samples are split and analyzed in duplicate. Sample duplicates are utilized most frequently in certain wet chemistry analyses where matrix spike duplicate are not practical or possible. Sample duplicates are analyzed at method-specified frequencies. The RPD is determined for each duplicate set.

## 8.6 Surrogates

Surrogates are organic compounds which behave similarly to the analytes of interest, but are not normally found in environmental samples. Surrogates are added to blanks, calibration and check standards, samples and spiked samples prior to analysis. The percent recovery calculated for each surrogate must fall within control limits described in the method. Surrogates are utilized primarily in organic analytical methods.

## 8.7 Retention Time Windows

Retention time limits for specific compounds are established for qualitative identification of analytes during chromatographic analyses, per method requirements.

## 8.8 Method Detection Limit (MDL) Studies

MDL studies are conducted when there are major modifications on the instrument and methodology, unless more frequency is required by regulatory or method-specific guidelines. A minimum of seven aliquots, as practical, of a low-level standard or sample containing two to five times the expected reporting limit concentration are processed per method and analyzed. The MDL is calculated by multiplying the standard deviation of the replicate readings by the one-tailed t-statistic value appropriate to a 99 percent confidence level. For seven replicates, the t-value is 3.143. The aforementioned procedure is explained in detail in 40 CFR Part 136, Appendix B. An example of an MDL calculation sheet is shown in Appendix H.



## 8.9 Confirmation Analyses

For GC analyses, some positive results are tentative and must be confirmed either by a second column, GC/MS analysis, or other recognized confirmation technique unless exempted in the following situations:

- (a) The analytes of interest produce multipeak chromatographic patterns that match the appropriate standards, e.g. polychlorinated biphenyls (PCBs) or toxaphene.
- (b) The sample is analyzed for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) and the same sample is found to contain gasoline by a separate analysis.
- (c) All samples come from the same source or project site and have previously been analyzed and confirmed.

## 8.10 Forms and Logbooks

A variety of forms and logbooks are maintained in the laboratory as appropriate for each method:

Standard Preparation Log - Analytical standards are logged into the LIMs, which tracks each preparation with a unique number. The LIM system checks calculations and tracks expiration dates. It also contains information about the standard vendor, lot number, and preparation. The standard ID is used by LIMs to calculate CCV recovery, if applicable.

Sample Preparation Forms- For some analyses, a sample preparation form is needed which include the following information: sample ID number, date, sample preparer, matrix type, initial weight or volume of sample, type of preparation, clean-up procedures used and final volume. For most analyses, sample preparation is documented within the LIM system. An example of a Sample Preparation Form is shown in Appendix I.

Maintenance Logbooks- Each analytical instrument must have its own maintenance logbook. All repairs and routine maintenance procedures must be documented in this logbook.

Monitoring Forms and Logbooks- Logbooks which monitor calibration and performance of lab equipment are maintained, such as calibration checks of analytical and top-loading balances; temperature logs for refrigerators and freezers, drying ovens, incubators, and water baths; and checks of deionized-water systems. Entries include the analyst's initials, date and the measurement value.

## 9. PERFORMANCE AND SYSTEM AUDITS

Performance audits are conducted through the analysis of both internal and external performance evaluation (PE) samples. This section describes the implementation of both of these auditing programs.

### 9.1 Performance Audits

Internal PE Samples: The QA Manager submits blind check samples to the laboratory in a single-blind study for External PE Samples that have failures in the previous study either prior to or in conjunction with a double-blind study. The check samples are obtained from reputable vendors and come with certificates of analysis and acceptance ranges. The results are processed and reviewed by the QA Manager and then reported to the Laboratory Supervisor and the Laboratory Director. If unacceptable results are obtained, corrective action is taken.

External PT Samples: Moore Twining Associates, Inc. participates in a double-blind study as required by the USEPA, at least annually, for various matrices, such as drinking water, wastewater, oil, soil, and client studies. These results are submitted to our accrediting agencies and are always available to clients upon request.

### 9.2 System Audits

System audits are conducted by the QA Manager on an annual basis in response to audits conducted by our clients and accrediting agencies to ensure we have addressed any and all requirements established in any report of findings. The purpose of the audit is to ensure that previous findings have been addressed and the laboratory is maintaining at least the same level of performance and compliance as when corrective actions were last taken. Procedures, facilities, equipment and records are examined using an inspection checklist. The checklist used is modeled after the Environmental Laboratory Accreditation Program (ELAP) for on-site inspections. Any deficiencies noted during the audit are investigated and corrective action taken.

## 10. PRECISION AND ACCURACY PROCEDURES

This section outlines mathematical and statistical procedures used by the Chemistry Division of Moore Twining Associates, Inc. to assess analytical precision and accuracy.

## 10.1 Accuracy

Accuracy is defined as the degree to which the analytical measurement reflects the true value present. Accuracy data are generated by calculation of the percent recovery (%R) for the analyte(s) of interest and are measured as follows:

For matrix spike samples:

$$\%R = \frac{[\text{Spiked Sample Conc.}] - [\text{Sample Conc.}]}{\text{Spike Amount Added}} \times 100$$

For QC reference samples, BS, surrogate and internal standards, the following formula is used:

$$\%R = \frac{\text{Found Concentration}}{\text{Expected Concentration}} \times 100$$

Accuracy is monitored for all methods by charting the %R data on control charts. Acceptance limits are established according to method guidelines. Generally, any limits must be equal to or more stringent than those specified in the method in order to be valid. Method-specific limits are stated in the applicable SOP.

## 10.2 Precision

Precision is assessed through the analysis of duplicates. It is defined as the degree of agreement among replicate measurements of the same analyte in a sample. Precision may be evaluated by determining either the standard deviation of multiple analyses or the relative percent difference (RPD) between duplicates.

Standard Deviation: Evaluation of the standard deviation(s) is used for the assessment of precision during method development, for MDL studies, control charts, and other areas where multiple measurements are made.

Relative Percent Difference: Laboratory precision is evaluated by calculating the RPD

between duplicates. RPD of sample duplicates and/or of MS/MSD samples is calculated

using the following formula:

$$RPD = \frac{|\text{Conc}_1 - \text{Conc}_2|}{(\text{Conc}_1 + \text{Conc}_2)/2} \times 100$$

### 10.3 Demonstration of Capability (DC) Studies

Each analyst must perform an Initial Demonstration of Capability (IDC) study to demonstrate their ability to generate acceptable precision and accuracy. The study is performed by analyzing four spiked aliquots and determining the standard deviation of analyte recoveries. The standard deviation is then compared with the precision and accuracy standards stated in the method. If the standard deviation meets the method acceptance criteria, the system performance is acceptable. This procedure is repeated annually for each analyst as a continuing demonstration of capability (CDC).

### 10.4 Completeness

Completeness is defined as a comparison of the amount of valid data obtained with the amount that was expected to be obtained under normal conditions. It is calculated as follows:

$$\% \text{ Completeness} = \frac{\text{analyses successfully completed}}{\text{analyses scheduled}} \times 100$$

A laboratory strives for 100 percent (100%) completeness for each sample set or analytical batch. If this objective is not met, the reason(s) for the incomplete analyses are investigated and corrective action(s) implemented as necessary. All incomplete analyses are described in narratives or cover letter comments that accompany the analytical results in the final report.

## 11. PREVENTATIVE MAINTENANCE

Preventative maintenance applies to both instrument and laboratory facilities. As applied in the QA program, it is a system of routine maintenance procedures performed on laboratory instruments to enable them to meet method guidelines and on laboratory facilities to maintain an operational and safe environment. Described in this section are some of the preventative maintenance procedures used by Moore Twining Associates, Inc.

### 11.1 Facilities and Equipment Maintenance

Each hood is monitored at least annually for the average linear velocity at the hood face. This and the general hood condition (e.g. cleanliness) is recorded in Form (FL-QA-0015). If any anomalies are noted, corrective action is taken.

The refrigerators, freezers, incubators, water baths, ovens, and block digesters are monitored and the results are recorded in a logbook. If any anomalies are noted, corrective action is taken.

Analytical balances are checked and maintained as per section 5.1. The deionized water is monitored each working day for pH and conductivity. The conductivity must be less than 2  $\mu$ mhos and the pH between 5.5 and 7.5 or corrective action is taken. The water is checked on an on-going basis, through the use of analytical method blanks, for the presence of target analytes or interfering species.

The laboratory is maintained so that contamination is precluded. Work areas are kept clean and orderly. All reagent and sample containers are properly labeled. Samples are not to be left open, misplaced or generally left out overnight.

Pipettors are checked at least once a month utilizing DI water and an analytical balance. If the error in the volume dispensed is greater than 5%, maintenance and/or adjustment is performed on the pipette.

Appropriate method reference manuals and instrument manuals are kept either in a centralized area in each department or on the laboratory network drive to ensure availability to analysts.

## 11.2 Instrument Maintenance

Specific instrument maintenance items are too lengthy to discuss in this document, however, the general requirements under the QAP may be listed. Analysts will have knowledge of the application, theory and action of the instruments they operate. This is obtained by reading the manufacturer's instruction manual, by attending manufacturer's training classes and through training by experienced operators. The operational manual for the instrument will be in a readily available location for use by the operator. An instrument log is maintained for each instrument. This logbook is used to document all routine maintenance and any repairs performed on the instrument. Many logbooks contain a maintenance schedule with suggestions as to when certain components should be cleaned or replaced.

## 12. CORRECTIVE ACTION

Corrective action is initiated whenever any of the guidelines established by the QAP have not been met. Examples of situations that would require the initiation of corrective action include:

1. Any method requirement not followed.
2. A performance testing sample (PT) failed to meet acceptance limits.
3. A deficiency noted in an audit was not corrected.
4. An expired standard/reagent was inadvertently used.

A complete description of the process for addressing corrective action is found in the Corrective Action SOP (SP-QA-0003). In brief, when a situation requiring corrective action is identified, the following procedure should be followed:

1. Complete a Corrective Action Report (FL-QA-0008) and describe the incident. Indicate the cause of the problem and the action that will be taken. Sign and date the CAR.
2. Take the CAR to the Laboratory Supervisor. The Laboratory Supervisor should investigate and help solve the problem with them. Items requiring corrective action include:
  - Calculation errors
  - Dilution errors
  - Contamination
  - Instrument malfunctions
  - Improper procedure
3. Take the necessary corrective action to resolve the problem. Possible actions may include:
  - Recalculation
  - Dilution
  - Redigestion/Re-extraction/Re-analysis
  - Instrument repair or adjustment
  - Decontamination of equipment or instruments
  - Preparation of new standards/spikes
  - Additional training
4. After the supervisor's signature, the form is returned to the QA Manager, who will determine if additional investigation or action is necessary and sign the form. It will be filed with the final report to form a basis for a case narrative and to serve as a clear record of problem resolution for the affected sample(s). An example of a CAR is seen in Appendix K.

### **13. QUALITY ASSURANCE REPORTS TO MANAGEMENT**

Quality assurance information is conveyed to laboratory management via several data based mechanisms, including quality control data, control charts, MDL studies, training documents, CARs and audit results.

#### **13.1 Analyst Reports to the QA Office**

Control Charts and Reports for establishing Control Limits (CL Reports) - Control charts are continuously updated in the LIMS, if necessary. This review occurs annually in conjunction with MDL studies and SOP review. In the event that there are insufficient

laboratory data points to establish Control Limits, default limits put forth in the published analytical methods will be used.

MDL Studies - MDL studies are conducted when there are major modifications on the instrument and methodology, unless more frequency is required by regulatory or method-specific, or as specified in the methods or regulations. The MDL reports are turned in to laboratory management for review and approval, and records are maintained digitally and in the LIM system.

Corrective Action Reports (CAR) – Whenever an incident occurs that requires corrective action, a CAR is filed. After being reviewed by the Laboratory Supervisor, the CAR is turned in to the QA office for review and determination of corrective action and signature. CARs are stored with each affected work order.

### **13.2 Ongoing Quality Assurance Reports**

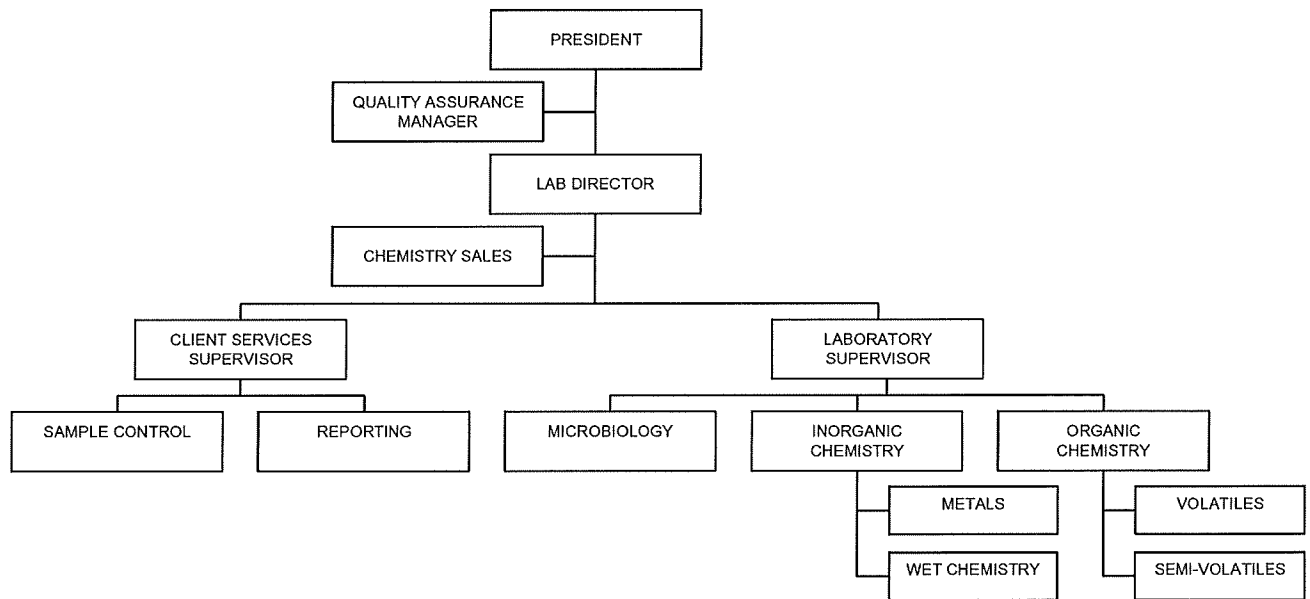
The QA Manager delivers verbal and/or written reports on QA issues as they arise. Items in this report may include: description of corrective action taken during the course of issue resolution; regulatory information that pertains to analyses; results from audits; samples exceeding holding times; and any other issues that require the attention of supervisors and staff.

### **13.3 Audit Reports**

Performance Audits: The QA Manager prepares written reports summarizing the results of performance evaluation sample studies. These reports are submitted to the Laboratory Director and the Laboratory Supervisor. All failures on either internal or external performance evaluation samples are investigated. The investigation team includes the QA Manager, Laboratory Supervisor and the analyst who performed the analysis.

System Audits: The QA Manager submits copies of the System Audit Inspection Checklist to the Laboratory Director and the Laboratory Supervisor.

**APPENDIX A: ORGANIZATIONAL CHART**





**APPENDIX B: HOLDING TIMES, PRESERVATIVES AND CONTAINERS**

**PRESERVATION AND STORAGE GUIDELINES**

ELAP Analyses Approved for the Department of Microbiology				
Coliform, E. coli - Drinking Waters	30 hours	120 mL P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <10°C	100 mL
Coliform, E. coli - Wastewaters, Sludge	8 hours	120 mL P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <10°C	60 mL
Coliform, E. coli - Soil	N/A	250 mL Glass Jar	none, <10°C	50 g
Heterotrophic Plate Count (HPC)	24 hours	120 mL P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <10°C	20 mL
Fecal Streptococcus	8 hours	120 mL P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <10°C	60 mL (sub
Yeast & Mold	24 hours	120 mL P	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <10°C	80 mL (sub
ELAP Analyses Approved for the Department of Organic Chemistry				
Analysis	Hold Time (Liquid/Solid/Extract)	Capacity/Container	Preservative	Minimum Amc
Chlorine, Residual (Cl <sub>2</sub> )-SM 4500-Cl G or F	Immediate	1 L P	none, <6°C	1 L P
418.1, - TRPH, IR DetectorP	28 days	1 L AG, 250 mL G	5 ml 1:1 HCL, pH<2, <6°C	1 L, 25 g
Total Oil & Grease(O&G)- 1664	28 days	1 L AG, 250 mL G	5 ml 1:1 HCL, pH<2, <6°C	1 L, 25 g
504.1 - DBCP,EDB by GC/ECD	28 Days	3 x 40 mL VOA	0.5 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	2 x 40 mL VO/
505 – Organohalide Pesticides & PCB Screen	7 /NA /14 days	3 x 40 mL VOA	0.5 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	2 x 40 mL VO/
515.3 - Herbicides by GC/ECD	14 /NA /28 days	1 L AG	2.0 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L
524.2 - VOCs by GC/MS	14 days/NA/NA	3 x 40 mL VOA	2 drops 1:1 HCL, pH<2, <6°C	3 x 40 mL VO/
525.2 - Semivolatile Organics by GC/MS	7 /NA /30 days	1 L AG	2.0 ml 4% NaSO <sub>3</sub> ,HCL, <6°C	1 L
531.2 - Carbamates by HPLC	28 days/14 days	40 mL AG VOA	3.6 ml K Citrate / 5 drops 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	40 mL/50g
547 - Glyphosate by HPLC	14 days/18 mon. @ 0°C	250 mL AG	0.5 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	120 mL
548.1 - Endothall by GC/FID	7 /NA /14 days	250 mL AG	0.5 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	120 mL
549.2 - Diquat and Paraquat by HPLC	7 /NA /21 days	500 mL AP	1 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	250 mL
624 - Volatile Organics by GC/MS	14 /14 days/ NA	3 x 40 mL VOA	2 drops 1:1 HCL, pH<2, <6°C	40 mL,10 g
625 – Base, Neutral and Acidic Organics	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g
632 - Diuron by HPLC	7 /NA /40 days	1 L AG	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L
608-Organochlorines Pesticides & PCBs	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g
600/4-81-045 - PCBs/Aroclors in Oil	28 days/NA/40 Days	20 mL G	none, <6°C	1 mL
8011 - DBCP & EDB by GC/ECD	28 Days/14/40 Days	3x40mL VOA,250 mL G	0.5 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> or none, <6°C	3-40mL VOA, 100g
8021B/8015B - BTEX, MTBE & Gas	14 days/NA/NA	3x40 mL VOA	2 drops 1:1 HCL, pH<2, <6°C	3-40 mL,10 g
8015B(M):Total Petroleum Hydrocarbons by FID -Diesel, Motor Oil, Kerosene, Jet Fuel	14/14/40 days	1 L AG, 250 mL G	none, <6°C	1 L, 100 g
8081A - Organochlorine Pesticides	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g
8082 - PCBs/Aroclors by GC/ECD	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g
8141A - Organophosphates by GC/NPD	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g (sub
8151A - Chlorinated Herbicides by GC/ECD	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 10 g
8260B - Volatile Organics by GC/MS	14 /14 days/ NA	2-40 mL VOA	2 drops 1:1 HCL, pH<2, <6°C	40 mL,10 g
8270C - Semivolatile Organics by GC/MS	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g
Total Organic Lead	14 days	500 mL AG/250 mL G	None, <6°C	500 mL, 50g (r air space)
524.2 – Trihalomethanes (THM) by GC/MS	14 days	3x40 mL amber VOA	2 drops 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	3 x 40 mL VO/
524.2 - Total THM Potential	7 days	3x40 mL amber VOA	none, <6°C	3 x 40 mL VO/
552.2- HAAs / Haloacetic Acids	14 days	3x60 mL VOA	5 mg NH <sub>4</sub> Cl, <6°C	3-60 mL VOA
Phenols by 420.1	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , <6°C	1 L, 50 g (sub

8310 – PAHs by HPLC	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C	1 L, 50 g
8021B - Chlorinated Hydrocarbons	7 /14 /40 days	*1 L AG, 250 mL G	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C	1 L, 10 g

\* Requires additional 2 L per 10 samples for QC (matrix spike) samples.

**Preservative formulations:**

**1:1 HCL Hydrochloric Acid:** Measure a volume of Organic Free DI water into a beaker or dispenser. Add an equal volume of concentrated Hydrochloric acid slowly, while stirring.

**4% (w/v) Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Sodium Thiosulfate:** Dissolve 62.8 g Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>.5 H<sub>2</sub>O (or 40 g anhydrous Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) in one liter of Organic Free DI water.

**ZnAc - Zinc Acetate:** Dissolve 220 g Zn(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> .2 H<sub>2</sub>O in 870 ml DI water. Mix to make 1 L of solution.

Sources: Title 40, Code of Federal Regulations, Parts 136, 141 and 143 (Oct. 2002); RCRA EPA Manual SW-846, Update III (1996) and Update IV (2001); AWWA Standard Method for the Analysis of Wastewater and Drinking Water (18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> Editions); EPA Analysis Handbook for Drinking Water and Wastewater Treatment, EPA Office of Water (1 California Code of Regulations, Titles 17 and 22; *Handbook of Environmental Analysis* (4<sup>th</sup> and 5<sup>th</sup> Editions), Roy-Keith Smith, Ph.D.

**ELAP Analyses Approved for the Department of Inorganic Chemistry**

Analyses	Hold Time	Capacity / Container	Preservation	Minimum Amount
Alkalinity(HCO <sub>3</sub> ,CO <sub>3</sub> ,OH)- 2320B, 310.1	14 days	250 mL, P	none, ≤6°C	100 mL
Ammonia (NH <sub>3</sub> )-SM4500-NH <sub>3</sub> -D,350.2	28 days	250 mL, P	1 ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C	100 mL
Bicarbonate(HCO <sub>3</sub> )/Carbonate(CO <sub>3</sub> )	14 days	250 mL, P	none, ≤6°C	100 mL, 50 g
Biochemical Oxygen Demand (BOD) - 5210B/SM405.1	48 hours	1 L, P	none, ≤6°C	500 mL
Carbon, Total Organic (TOC) - 415.1/5310B	28 days	3 x 40 mL AG (VOA)	2 drops 1:1 H <sub>3</sub> PO <sub>4</sub> , pH<2, ≤6°C	40 mL VOA
Carbon, Dissolved Organic (DOC) – 415.1/5310B	28 days	3 x 40 mL AG (VOA)	none, ≤6°C	40 mL VOA
Chemical Oxygen Demand (COD) - HACH8000, 5520D, 410.1	28 days	250 mL, P	0.2 ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C	50 mL, 50 g
Chromium VI by 7196A	24 hours/25 days	125 mL, P	none, ≤6°C/Borate Carbonate Buffer	125 mL, P
Color-110.2, SM2120B	24 hours	250 mL, P	none, ≤6°C	100 mL
Conductivity (EC), Specific Conductance & Resistivity (Drinking Water)-SM 2510B	28 days	125 mL, P	none, ≤6°C	50 mL, 50 g
Cyanide, Amenable (CN) - SM4500-CN G	14 days	250 mL, P	0.5 mL 10N NaOH, pH>12, ≤6°C, 0.6g Ascorbic Acid	50 mL
Cyanide, Total (CN)-, SM4500-CN C, E, SM 9014	14 days	250 mL, P	0.5 mL 10N NaOH, pH>12, ≤6°C	50 mL, 50 g
Dissolved Metal 200.8/200.7	6 months	125 mL, P	none, ≤6°C	500 mL, 50 g
DOC SM5310B	28 days	3x40 mL VOA	2 drops H <sub>3</sub> PO <sub>4</sub>	
Fluoride (F)-300.0	28 days	125 mL, P	None	100 mL, 50 g
Hardness (Ca,Mg)-200.7, SM2340B	6 months	125 mL, P	1 ml HNO <sub>3</sub> , pH<2	125 mL, 50 g
Chromium VI by 7196A	24 hours / 28 Days	125 mL, P	none / Borate Carbonate Buffer, ≤6°C	125 mL
Hexavalent Chromium-Cr <sup>6+</sup> - Low Level – EPA 218.6	24 hours / 28 Days	125 mL, P	none / Borate Carbonate Buffer, ≤6°C	125 mL (sub)
Hydroxide (OH)-2320B	14 days	250 mL, G	none, ≤6°C	100 mL, 50 g
Ignitability-1010	14 days	250 mL, G	none, ≤6°C	100 mL, 50 g
Langlier	7 days	1 L P or 125 mL P	None or HNO <sub>3</sub>	
Loss on Ignition/Ash-ASTM-D2974-87	NA	250 mL, G	none, ≤6°C	50 g
MBAS (Surfactants)-425.1, SM5540C	48 hours	1 L, P	none, ≤6°C	300 mL
Multiple Total Metals or Hardness	6 months	125 mL, P	2 ml HNO <sub>3</sub> , pH<2	125 mL, 50 g

Multiple Dissolved Metals	6 months	125 mL, P	none, ≤6°C (Filtered and Preserved in lab with HNO <sub>3</sub> )	125 mL, 50 g
Mercury (Hg)-7470A, 7471A, 245.1	28 days	125 mL, AG	1 ml HNO <sub>3</sub> , pH<2	125 mL, 50 g
% Moisture / Solids – ASTM-D2974-87	28 days	250 mL, G	none, ≤6°C	50 g
Nitrate (NO <sub>3</sub> ) + Nitrite (NO <sub>2</sub> ) as N-300.0	48 hours	125 mL, P	none, ≤6°C	50 mL, 50 g
Nitrate (NO <sub>3</sub> ) 300.0	48 Hours	125 mL, P	None, ≤6°C	50 mL, 50 g
Nitrite (NO <sub>2</sub> as N) 300.0	48 hours	125 mL, P	none, ≤6°C	50 mL, 50 g
Nitrogen, Total Kjeldahl (TKN)-351.2	28 days	250 mL, P	1 ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C	250 mL, 50 g
Nitrogen, Total and/or Organic (TON): EPA 353.2 Nitrate(NO <sub>3</sub> ) + Nitrite(NO <sub>2</sub> ) as Nitrogen(N)	48 hours	250 mL, P 125 mL, p	1 ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C none	250 mL, 50 g 40 mL
Total Metal 200.8/200.7	6 months	125 mL, P	1 ml HNO <sub>3</sub> , pH<2	125 mL, 50 g
<b>Analyses</b>	<b>Hold Time</b>	<b>Capacity/Container</b>	<b>Preservation</b>	<b>Minimum Amo</b>
Odor-140.1	24 hours	500 mL, G	none, ≤6°C	300 mL
Oxygen, Dissolved (DO)- SM4500-O	8 hours	300 mL BOD Bottle	Fix on site, store dark	300 mL
Perchlorate	28 days	250 mL, P	None	125 mL
pH-150.1, SM 4500-H+-B, 9040, 9045	ASAP (<24 hours)	125 mL, P	none, ≤6°C	50 mL, 10 g
Phosphate, Ortho-300.0, SM4500- P-C	48 hours	125 mL, P	none, ≤6°C, FILTER IMMEDIATELY	50 mL, 50 g
Phosphate-Phosphorus/Total P- 365.2, SM4500-P	28 days	250 mL P	½ ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C	150 mL, 50 g
Solids: Settable-SS/SM- 2540F, 160.1-5	48 hours	1 L, P	none, ≤6°C	1 L, 50 g
Solids: Filterable/TDS-2540C/160.1	7 days	1 L, P	none, ≤6°C	300 mL, 50 g
Solids: Non-Filter TSS, VSS-2540D/160.2	7 days	1 L, P	none, ≤6°C	1 L, 50 g
Solids: Total, TS-2540B-G/160.3	7 days	1 L, P	none, ≤6°C	500 mL, 50 g
Solids: Volatile, TVS/TVDS-2540E/160.4	7 days	1 L, P	none, ≤6°C	500 mL, 50 g
Silica (SiO <sub>2</sub> ) SM4500- SiO <sub>2</sub> -C, 200.7	180 days	250 mL, P	none, ≤6°C	100 mL, 50 g
Specific Conductance (EC)-SM 2510B	28 days	125 mL, P	none, ≤6°C	50 mL, 50 g
Sulfite (SO <sub>3</sub> )-SM4500- SO <sub>3</sub> <sup>2-</sup> -B,377.1	24 Hours	125 mL, P	none, ≤6°C	50 mL, 50 g (st
Sulfate (SO <sub>4</sub> )-,EPA300.0	28 days	125 mL, P	none, ≤6°C	50 mL, 50 g
Sulfide (S=) SM4500- S <sup>2-</sup> -F	7 days	1 L P	2 ml ZnAc <sub>2</sub> , 2 mL NaOH,pH>9, ≤6°C	1 L, 50 g
Turbidity(Nephelometric)-SM2130B,180.1	48 hours	125 mL, P	none, ≤6°C	50 mL
<b>GROUPS</b>	<b>Capacity/PLASTIC</b>	<b>Preservative</b>	<b># / Capacity / GLASS type</b>	<b>Preservative</b>
<b>Full Title 22 + ClO<sub>4</sub></b>	3 x 1L, P 2 x 1L, P 1 x 125 mL, P 1 x 250 mL, P 1 x 250 mL, AP 1 x 250 mL, P	none, ≤6°C 2 ml HNO <sub>3</sub> 1 ml HNO <sub>3</sub> NaOH 1 ml Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C none, ≤6°C	6 x 1 L AG 1 X 500 mL G 3 x 250 mL AG 6 x 40 mL VOA (no septa) 3 x 40 mL VOA 1 x 40 mL VOA	none, ≤6°C none, ≤6°C 0.5 ml Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 2 drops HCl, ≤6°C K-Citrate Mono. + Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
<b>General Mineral: pH, Alkalinity, Hardness, Specific Conductance (EC), TDS, Surfactants (MBAS), CO<sub>3</sub>, HCO<sub>3</sub>, OH, Cl, SO<sub>4</sub>, Ca, Mg, Na, K, Fe, Cu, Mn, Zn</b>	1 L, P 125 mL, P	none, ≤6°C 1 ml HNO <sub>3</sub>	<b>General Physical - Color, Odor, Turbidity</b> 500 mL Clear Glass none, ≤6°C	
<b>Inorganic Chemical: Ag, Al, As, Ba, Be, CN, Cd, Cr, F, Hg, Pb, Sb, Ni, NO<sub>2</sub> -N, NO<sub>3</sub>-N, Se, Ti, ClO<sub>4</sub></b>	1 L, P 125 L, P 250 mL, P 250 mL, P	none, ≤6°C 1 ml HNO <sub>3</sub> NaOH, ≤6°C none, ≤6°C	<b>Storm Water - pH, TSS, EC, TOC, 1664 Oil &amp; Grease</b> 1 L, P (none) & 40 mL G (2 drops HCl) (TOC -OR- 1 L AG (5 ml HCl) (O&G 413.	
<b>CAM Metals: (6010/7470) for Ag, As, Ba, Be, Cd, Cr, Co, Cu, Hg, Pb, Sb, Mo, Ni,</b>	125 mL, P 125 mL, P	none, ≤6°C 2 ml HNO <sub>3</sub>	<b>KEY to Container Abbreviations</b> P - Plastic, High Density Polyethylene (HDPE)	

Se, Ti, V, Zn			AP - Amber Plastic, HDPE
<b>Federal Toxicity Metals: (6010/7470) for Ag, As, Ba, Cd, Cr, Hg, Pb, Se, RCRA</b>	125 mL, P 125 mL, P	none, ≤6°C, RCRA Metals 2 ml HNO <sub>3</sub>	G - Glass, Clear AG - Amber Glass VOA - Volatile Organic Analysis Vial (no air space)
<b>ICAP Metals: (6010/200.7): Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, SiO<sub>2</sub>, Se, Si, Sn, Ti, V, Zn, Hardness</b>	125 mL, P 125 mL, P	none, ≤6°C 2 ml HNO <sub>3</sub>	<b>KEY to Preservative Abbreviations</b> HCl - 1:1 Hydrochloric Acid HNO <sub>3</sub> - Nitric Acid, concentrated MCA - Monochloroacetic Acid Buffer (pH 3) NaOH - 10N Sodium Hydroxide Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> - 4% Sodium Thiosulfate H <sub>2</sub> SO <sub>4</sub> - Sulfuric Acid, concentrated
<b>ISWP or Priority Pollutant Metals</b>	125 mL, P 125 mL, P	none, ≤6°C 2 ml HNO <sub>3</sub>	
<b>Irrigation or Mineral Analyses</b>	1 L, P 1 L, P	none, ≤6°C 2 ml HNO <sub>3</sub>	
<b>Standard Mineral: pH, Alkalinity, Hardness, Specific Conductance (EC), TDS, Surfactants (MBAS), CO<sub>3</sub>, HCO<sub>3</sub>, OH, Cl, NO<sub>3</sub>, SO<sub>4</sub>, P, NH<sub>3</sub>-N, Ca, Mg, Na, K, Fe, B, K, SiO<sub>2</sub></b>	1 L, P 125 L, P 250 mL, P	none, ≤6°C 2 ml HNO <sub>3</sub> 1 ml H <sub>2</sub> SO <sub>4</sub> , ≤6°C	
<b>Lead Copper Rule - Must use first draw sample after water has been undisturbed in pipes for 6 hours.</b>	1 L, P	2 ml HNO <sub>3</sub> <i>Added in Lab</i>	

Miscellaneous Subcontracted Analyses

Asbestos (water/solid)	None	1 L /Sealed bag	≤6°C/none	500 mL, 1g
Chromium VI by 218.6	24 hours/28 days	125 mL, P	≤6°C none/ Borate Carb. Buffer	100 mL
Dioxin (1613, 8280, 8290)	365/30/30 days	2 x 1 L AG	2 ml 4% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C	2 L
Gross Alpha, Radium, Uranium	6 months	1 L P (each)	2 ml HNO <sub>3</sub> , ≤6°C	1 L
Phenolics, Total-9065/420	28 days	1 L AG	2 ml H <sub>2</sub> SO <sub>4</sub> , pH<2, ≤6°C	1 L, 50 g
Radon-913.0	4 days	8 Oz French Square Glass	None, ≤6°C	8 Oz



**APPENDIX D: SAMPLE INTEGRITY SHEET**

Moore Twining Associates

Sample Integrity

Page \_\_\_ of \_\_\_

WO# \_\_\_\_\_

MTA Bottles: Yes or No

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$ Temp _____ $^{\circ}\text{C}$	Yes No N/A	Did all bottle labels agree with COC?	Yes No N/A	Were there bubbles in VOA vials? (Volatiles Only)	Yes No N/A	
	If samples were taken today, is there evidence that chilling has begun? Recvd _____ $^{\circ}\text{C}$	Yes No N/A	Was a sufficient amount of sample received?	Yes No N/A	Was PM notified of discrepancies?	Yes No N/A	
	Did all bottles arrive unbroken and intact?	Yes No N/A	Were correct containers and preservatives received for the tests requested?	Yes No N/A	PM: By/Time:		
	Do samples have a hold time $< 72$ hours?	Yes No N/A					
	125ml (A); 250ml (B); 1 liter (C); 40ml VOA (V)						
Bottles Received	Bacti $\text{Na}_2\text{S}_2\text{O}_3$						
	None (P)						
	Cr6 Buffer (P) Borate Carbonate Buffer						
	$\text{HNO}_3$ (P)						
	$\text{H}_2\text{SO}_4$ (P)						
	$\text{NaOH}$ (P)						
	$\text{NaOH}+\text{ZnAc}$ (P)						
	Dissolved Oxygen 300ml (P)						
	None (AG)						
	$\text{HCl}$ (AG) O&G						
	$\text{Na}_2\text{S}_2\text{O}_3$ 250ml (Brown P) 549						
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) 547, 545, 525, 548						
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) THMs 524.2 or 524.3						
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) 504, 505						
	$\text{NH}_4\text{Cl}$ (AG) 552						
	$\text{HCl}$ (AG)						
	None (CG) 500ml						
	$\text{H}_3\text{PO}_4$ (AG)						
	Other:						
	Plastic Bag						
Low Level Hg/Metals Double Bag							
Client Own							
Glass Jar: 125/ 250/ 500							
Soil Tube: Brass/Steel/ Plastic							
Comments					Container	Preservative	Date/Time/Initials
					S P F		
					S P F		
					Container	Preservative	Date/Time/Initials
					S P F		
				S P F			

Labeled by: \_\_\_\_\_@\_\_\_\_\_

Labels checked by: \_\_\_\_\_@\_\_\_\_\_

FL-SC-0003-04

**APPENDIX E: RAW DATA REVIEW CHECKLIST**

**RAW DATA REVIEW CHECKLIST METHOD 531.2**

Batch No.	Analyst	Reviewer	Comments
	√	√	
Raw Data Cover Page Present and Correct			
Out of Control Log Signed/Dated			
OOC Log Contains discussion of any method criteria not met			
Sequence page contains work order numbers/dilution factors			
Instrument Parameters Present			
Standard Information Present - traces to source			
Calibration Curve Lowest Point $\leq$ MRL			
Calibration Curves Acceptable: ARF = $\pm$ 30%; Regression Coefficient $\geq$ 0.99			
Run Begins with MRL level CCC @ $\pm$ 50%, if cal continuing			
Mid and High level CCC alternate, @ $\pm$ 30%			
BS/BSD and MS recoveries acceptable at $\pm$ 30% (Element)			
Dilution Documentation Present			
Chromatography Method Present			
Header on Data Contains: analyst ID, Data File Designation matching sequence			
Manual Integration is Footnoted, clear diagram of integration is included			
Unused Data Footnoted; Data Trail Evident			
Bench Sheet Included with Initials of Analyst			

**APPENDIX F: EXAMPLE ANALYTICAL REPORT (SELECT PORTIONS)**



California ELAP Certificate #1371

2527 Fresno Street  
Fresno, CA 93721  
(559) 268-7021 Phone  
(559) 268-0740 Fax

February 17, 2011

Work Order #: 1A12008

Maria Manuel  
MTA Chemistry Division  
2527 Fresno Street  
Fresno, CA 93721

RE: WS PT 1

Enclosed are the analytical results for samples received by our laboratory on 01/12/11 . For your reference, these analyses have been assigned laboratory work order number 1A12008.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

Juliane Adams  
Director of Analytical Chemistry





2527 Fresno Street  
 Fresno, CA 93721  
 (559) 268-7021 Phone  
 (559) 268-0740 Fax

California ELAP Certificate #1371

MTA Chemistry Division	Project: WS PT I	
2527 Fresno Street	Project Number: MTA WS1	Reported:
Fresno CA, 93721	Project Manager: Maria Manuel	02/17/2011

**Analytical Report for the Following Samples**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DRAFT: S174-983/Cyanide	1A12008-01	Water	01/12/11 12:50	01/12/11 13:00
DRAFT: S174-696/Residual Chlorine	1A12008-02	Water	01/12/11 12:50	01/12/11 13:00
DRAFT: S174-666/Mercury	1A12008-03	Water	01/12/11 12:50	01/12/11 13:00

**RAFT REPORT**

Juliane Adams, Director of Analytical Chemistry

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



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Fresno, CA 93721  
(559) 268-7021 Phone  
(559) 268-0740 Fax

California ELAP Certificate #1371

MTA Chemistry Division 2527 Fresno Street Fresno CA, 93721	Project: WS PT 1 Project Number: MTA WS1 Project Manager: Maria Manuel	Reported: 02/17/2011
--	--	-------------------------

**Analytical Report for Work Order 1A12008**

Analyte	Qual.	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
<b>S174-983/Cyanide</b>							<b>1A12008-01 (Water)</b>		
Cyanide (total)		469	25.0	µg/L	1	T1B0402	02/07/11	02/08/11	SM4500CN-E
<b>S174-696/Residual Chlorine</b>							<b>1A12008-02 (Water)</b>		
Chlorine Residual (In Lab Analysis)		2.50	0.100	mg/L	1	T1A2004	01/20/11	01/20/11	SM4500-Cl-G
<b>S174-666/Mercury</b>							<b>1A12008-03 (Water)</b>		
Mercury		5.58	0.200	µg/L	2	T1A2606	01/26/11	01/27/11	EPA 200.8
Mercury		5.96	0.200	µg/L	1	T1A2605	01/27/11	01/27/11	EPA 245.1

**Notes and Definitions**

- µg/L micrograms per liter (parts per billion concentration units)
- mg/L milligrams per liter (parts per million concentration units)
- mg/kg milligrams per kilogram (parts per million concentration units)
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

**RAFT REPORT**

Juliane Adams, Director of Analytical Chemistry

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California ELAP Certificate #1371

MTA Chemistry Division 2527 Fresno Street Fresno CA, 93721	Project: WS PT 1 Project Number: MTA WS1 Project Manager: Maria Manuel	Reported: 02/17/2011
--	--	-------------------------

**DRAFT: Inorganics - Quality Control**

Analyte	Notes	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit
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**Batch T1A2004**

<b>Duplicate (T1A2004-DUP1)</b>	Source: 1A12008-02	Prepared & Analyzed: 01/20/11
Chlorine Residual (In Lab Analysis)	2.50 0.100 mg/L	2.50 0.00 20

**Batch T1B0402**

<b>Blank (T1B0402-BLK1)</b>	Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	ND 5.00 µg/L

<b>LCS (T1B0402-BS1)</b>	Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	50.4 5.00 µg/L 50.0 101 80-120 20

<b>LCS Dup (T1B0402-BSD1)</b>	Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	53.2 5.00 µg/L 50.0 106 80-120 5.41 20

<b>Duplicate (T1B0402-DUP1)</b>	Source: 1A12008-01 Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	474 25.0 µg/L 469 1.06 20

<b>Matrix Spike (T1B0402-MS1)</b>	Source: 1B02015-01 Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	53.5 5.00 µg/L 50.0 ND 107 80-120 20

<b>Matrix Spike Dup (T1B0402-MSD1)</b>	Source: 1B02015-01 Prepared: 02/03/11 Analyzed: 02/08/11
Cyanide (total)	51.4 5.00 µg/L 50.0 ND 103 80-120 4.00 20

**RAFT REPORT**

Juliane Adams, Director of Analytical Chemistry

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California ELAP Certificate #1371

MTA Chemistry Division 2527 Fresno Street Fresno CA, 93721	Project: WS PT 1 Project Number: MTA WS1 Project Manager: Maria Manuel	Reported: 02/17/2011
--	--	-------------------------

**DRAFT: Metals - Totals - Quality Control**

Analyte	Notes	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
---------	-------	--------	-----------------	-------	-------------	---------------	-------------	-----	-----------

**Batch T1A2605**

<b>Blank (T1A2605-BLK1)</b>		Prepared & Analyzed: 01/27/11							
Mercury		ND	0.200	µg/L					
<b>LCS (T1A2605-BS1)</b>		Prepared & Analyzed: 01/27/11							
Mercury		4.27	0.200	µg/L	5.00		85.3	80-120	20
<b>LCS Dup (T1A2605-BSD1)</b>		Prepared & Analyzed: 01/27/11							
Mercury		4.03	0.200	µg/L	5.00		80.6	80-120	5.66 20
<b>Duplicate (T1A2605-DUP1)</b>		Source: 1A12008-03 Prepared & Analyzed: 01/27/11							
Mercury		5.78	0.200	µg/L		5.96			3.07 20
<b>Matrix Spike (T1A2605-MS1)</b>		Source: 1A26027-01 Prepared & Analyzed: 01/27/11							
Mercury		4.15	0.200	µg/L	5.00	ND	82.9	70-130	20
<b>Matrix Spike Dup (T1A2605-MSD1)</b>		Source: 1A26027-01 Prepared & Analyzed: 01/27/11							
Mercury		4.02	0.200	µg/L	5.00	ND	80.4	70-130	3.06 20

**Batch T1A2606**

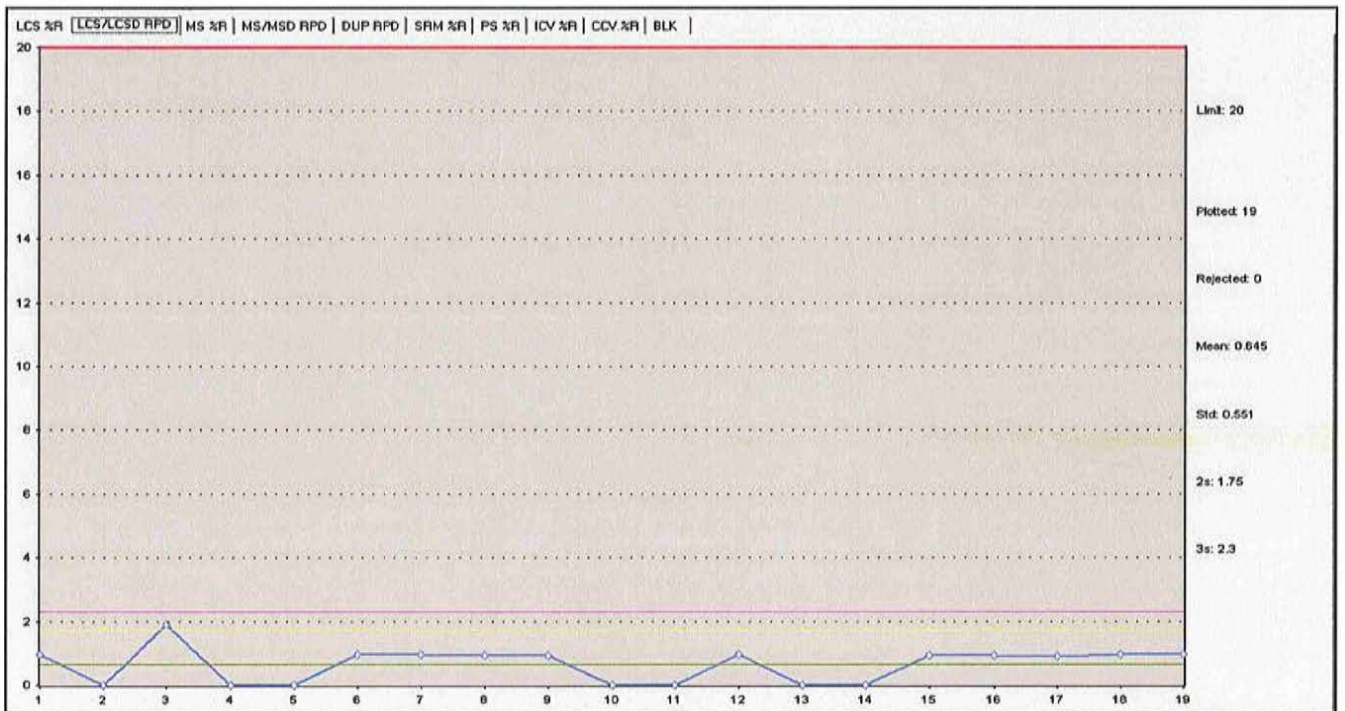
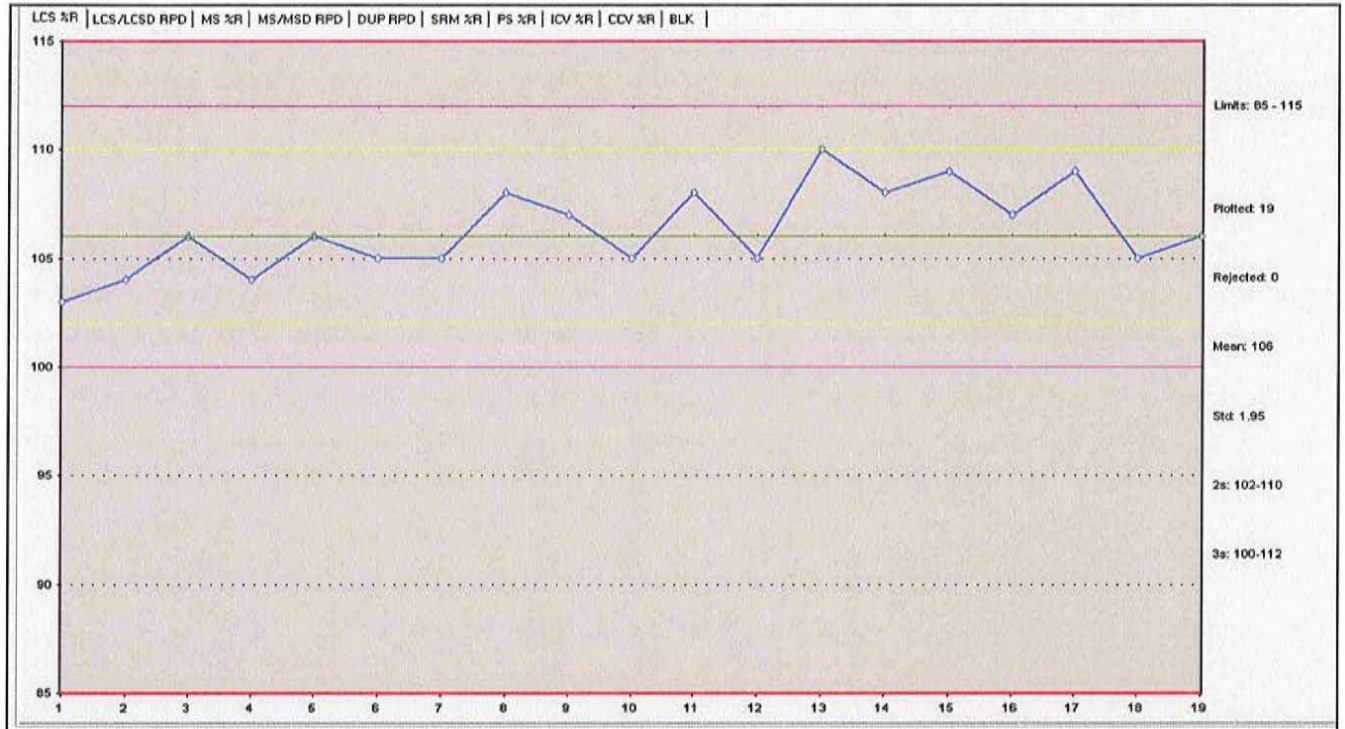
<b>Blank (T1A2606-BLK1)</b>		Prepared: 01/26/11 Analyzed: 01/27/11							
Mercury		ND	0.100	µg/L					
<b>LCS (T1A2606-BS1)</b>		Prepared: 01/26/11 Analyzed: 01/27/11							
Mercury		2.49	0.100	µg/L	2.50		99.7	85-115	20
<b>LCS Dup (T1A2606-BSD1)</b>		Prepared: 01/26/11 Analyzed: 01/27/11							
Mercury		2.45	0.100	µg/L	2.50		97.9	85-115	1.85 20

**RAFT REPORT**

Juliane Adams, Director of Analytical Chemistry

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**APPENDIX G: CONTROL CHART EXAMPLES FOR IRON BY EPA 200.7:**



**APPENDIX H: MDL CALCULATION**

Method Detection Limit Study  
METHOD 504

Analyst: FFP/JPS  
Date: 03/07/2014  
RE-RUN

MRL1	MRL2	MRL3	MRL4	MRL5	MRL6	MRL7	Mean	Sdev	MDL	DLR	Actual	Mean	Compound
Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	% Recovery	
(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
0.022	0.016	0.018	0.017	0.020	0.025	0.020	0.020	0.0029	0.0091		0.025	79%	edb - ECD1

MRL1	MRL2	MRL3	MRL4	MRL5	MRL6	MRL7	Mean	Sdev	MDL	DLR	Actual	Mean	Compound
Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	% Recovery	
(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
0.023	0.014	0.015	0.016	0.019	0.022	0.018	0.018	0.0035	0.0110		0.025	73%	edb - ECD2

The New Method Detection Limit is calculated as follows;

$$Sx * t(99\%) = MDL$$

Where t(99%) = 3.143 for 7 samples.

MRL1	MRL2	MRL3	MRL4	MRL5	MRL6	MRL7	Mean	Sdev	MDL	DLR	Actual	Mean	Compound
Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	% Recovery	
(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
0.026	0.024	0.024	0.025	0.027	0.027	0.027	0.026	0.0015	0.0048		0.025	103%	dbcp - ECD1

MRL1	MRL2	MRL3	MRL4	MRL5	MRL6	MRL7	Mean	Sdev	MDL	DLR	Actual	Mean	Compound
Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	Conc.	% Recovery	
(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
0.026	0.024	0.022	0.025	0.026	0.027	0.027	0.025	0.0018	0.0057		0.025	101%	dbcp - ECD2

**APPENDIX I: BENCH SHEET**

PREPARATION BENCH SHEET

U5A3101

Moore Twining Associates, Inc

Printed: 2/3/2015 9:22:28AM

Matrix: Soil

Prepared using: Volatile MS - EPA 5035\_MS

Surrogate used: 4102901

Lab Number	Analysis	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Client	Extraction Comments
BB02009-01	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
BB02009-02	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
BB02009-03	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
BB02009-04	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
BB02009-05	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
BB02010-01	8260B DTSC	01/31/15 08:00	5	5				5	MTA Environmental Di	
U5A3101-BLK1	QC	01/31/15 08:00	5	5				5		
U5A3101-BS1	QC	01/31/15 08:00	5	5	4120903		1	5		
U5A3101-BSID1	QC	01/31/15 08:00	5	5	4120903		1	5		

Spliking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_

Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_

**APPENDIX J: SAMPLE PREPARATION  
 FORM**

**Moore Twining Associates, Inc  
 oPO4-P Analysis Data Sheet  
 EPA 365.3/SM 4500-P E**

Analyst: \_\_\_\_\_ LCS Source: \_\_\_\_\_  
 Batch: \_\_\_\_\_ Spike Source: \_\_\_\_\_  
 Date: \_\_\_\_\_ Program #: 490

Sample ID	Dilution Factor	o-PO4 In sample (ug/mL)	o-PO4-P In sample (ug/mL)	Spike Conc. (ug/mL)	%Recovery	Time
CCV (± 20%)	1			0.065		
LLC	1			0.01		
BLK	1					
BS (± 20%)	1			0.065		
BSD (± 20%)	1			0.065		
CCV (± 20%)	1			0.065		
CCB	1					
CCV (± 20%)	1			0.065		
CCB	1					

Comments:



**APPENDIX K: CORRECTIVE ACTION REPORT**

**Systems Corrective Action Report**

Date \_\_\_\_\_

Originator \_\_\_\_\_

Samples Affected \_\_\_\_\_

Problem Description

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action Taken

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

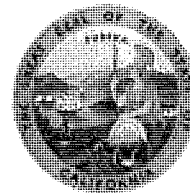
Laboratory Manager \_\_\_\_\_

Date \_\_\_\_\_

QA Manager \_\_\_\_\_

Date \_\_\_\_\_

SCAR ID \_\_\_\_\_



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

**CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**Moore Twining Associates, Inc.**

**Chemistry**

2527 Fresno Street

Fresno, CA 93721

Scope of the certificate is limited to the  
"Fields of Testing"  
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1371**

Expiration Date: **09/30/2016**

Effective Date: **10/01/2014**

Richmond, California  
subject to forfeiture or revocation

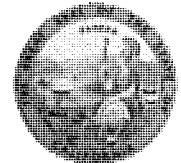
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Christine Sotelo, Chief  
California State Environmental Laboratory Accreditation Program



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

March 14, 2013

Juliane Adams  
Moore Twining Associates, Inc.  
2527 Fresno Street  
Fresno, CA 93721

Dear Juliane Adams:

Certificate No. 1371

This is to advise you that the laboratory named above has been certified as an environmental testing laboratory pursuant to the provisions of the Health and Safety Code (HSC), Division 101, Part 1, Chapter 4, Section 100825, *et seq.*

The Fields of Testing for which this laboratory has been certified are indicated on the enclosed "Fields of Testing." The certificate shall remain in effect until **September 30, 2014** unless it is revoked. This certificate is subject to an annual fee as prescribed by HSC 100860.1(a).

The application for renewal of this certificate must be received before the expiration date of this certificate to remain in force according to the HSC 100845(a).

Any changes in laboratory location or structural alterations, which may affect adversely the quality of analysis in the Fields of Testing for which this laboratory has been granted a certificate, require prior notification. Notification is also required for changes in ownership or laboratory director within 30 days after the change (HSC, Section 100845(b) and (d)).

Your continued cooperation with the above requirements is essential for maintaining the high quality of the data produced by environmental laboratories certified by the State of California.

If you have any questions, please contact Nelia Beaman at (510) 620-3155.

Sincerely,

David Mazzer, Ph.D., Assistant Division Chief  
Division of Drinking Water and Environmental Management

Enclosure



**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**



**Moore Twining Associates, Inc.**

Analytical Chemistry  
2527 Fresno Street  
Fresno, CA 93721  
Phone: (559) 268-7021

**Certificate No.: 1371  
Renew Date: 9/30/2014**

**Field of Testing: 101 - Microbiology of Drinking Water**

101.010	001	Heterotrophic Bacteria	SM9215B
101.011	001	Heterotrophic Bacteria	SimPlate
101.020	001	Total Coliform	SM9221A,B
101.021	001	Fecal Coliform	SM9221E (MTF/EC)
101.022	001	E. coli	CFR 141.21(f)(6)(i) (MTF/EC+MUG)
101.060	002	Total Coliform	SM9223
101.060	003	E. coli	SM9223
101.070	002	Total Coliform	Colisure
101.070	003	E. coli	Colisure
101.115	001	Total Coliform	Colitag
101.115	002	E. coli	Colitag
101.120	001	Total Coliform (Enumeration)	SM9221A,B,C
101.130	001	Fecal Coliform (Enumeration)	SM9221E (MTF/EC)
101.160	001	Total Coliform (Enumeration)	SM9223
101.200	001	E. coli (Enumeration)	SM9223B
101.210	001	E. coli (Enumeration)	SM9221B.1/SM9221F

**Field of Testing: 102 - Inorganic Chemistry of Drinking Water**

102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate	EPA 300.0
102.030	007	Nitrite	EPA 300.0
102.030	008	Phosphate, Ortho	EPA 300.0
102.030	010	Sulfate	EPA 300.0
102.100	001	Alkalinity	SM2320B
102.120	001	Hardness	SM2340B
102.130	001	Conductivity	SM2510B
102.140	001	Total Dissolved Solids	SM2540C
102.145	001	Total Dissolved Solids	EPA 160.1
102.190	001	Cyanide, Total	SM4500-CN E
102.192	001	Cyanide, amenable	SM4500-CN G
102.220	001	Nitrite	SM4500-NO2 B
102.240	001	Phosphate, Ortho	SM4500-P E
102.260	001	Total Organic Carbon	SM5310B

102.261	001	DOC	SM5310B
102.261	002	TOC/DOC	SM5310B
102.270	001	Surfactants	SM5540C
102.520	001	Calcium	EPA 200.7
102.520	002	Magnesium	EPA 200.7
102.520	003	Potassium	EPA 200.7
102.520	004	Silica	EPA 200.7
102.520	005	Sodium	EPA 200.7
102.520	006	Hardness (calc.)	EPA 200.7
102.550	002	Chlorine, Free, Combined, Total	SM4500-CI F

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**Field of Testing: 103 - Toxic Chemical Elements of Drinking Water**


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103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	011	Mercury	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1

**Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water**

104.030	001	1,2-Dibromoethane	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane	EPA 504.1
104.030	003	1,2,3-Trichloropropane	EPA 504.1
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethene	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2

104.040	057	Xylenes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.045	005	Trihalomethanes	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	004	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	005	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	006	Trichlorotrifluoroethane	EPA 524.2
104.050	007	tert-Butyl Alcohol (TBA)	EPA 524.2
104.050	008	Carbon Disulfide	EPA 524.2
104.050	009	Methyl Isobutyl Ketone	EPA 524.2

**Field of Testing: 105 - Semi-volatile Organic Chemistry of Drinking Water**

105.010	000	Pesticides	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	009	Hexachlorobenzene	EPA 505
105.010	010	Hexachlorocyclopentadiene	EPA 505
105.010	011	Lindane	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.070	001	Bentazon	EPA 515.1
105.070	002	2,4-D	EPA 515.1
105.070	003	Dalapon	EPA 515.1
105.070	005	Dinoseb	EPA 515.1
105.070	006	Pentachlorophenol	EPA 515.1
105.070	007	Picloram	EPA 515.1
105.070	008	2,4,5-TP	EPA 515.1
105.070	009	Chlorinated Acids	EPA 515.1
105.082	001	2,4-D	EPA 515.3
105.082	002	Dinoseb	EPA 515.3
105.082	003	Pentachlorophenol	EPA 515.3
105.082	004	Picloram	EPA 515.3
105.082	005	2,4,5-TP	EPA 515.3
105.082	006	Bentazon	EPA 515.3
105.082	007	Dalapon	EPA 515.3
105.082	009	Chlorinated Acids	EPA 515.3
105.090	001	Alachlor	EPA 525.2

105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	008	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.090	028	Thiobencarb	EPA 525.2
105.090	029	Polynuclear Aromatic Hydrocarbons	EPA 525.2
105.090	030	Adipates	EPA 525.2
105.090	031	Phthalates	EPA 525.2
105.090	032	Other Extractables	EPA 525.2
105.100	000	Carbamates	EPA 531.1
105.100	005	Carbofuran	EPA 531.1
105.100	008	Oxamyl	EPA 531.1
105.101	001	Carbofuran	EPA 531.2
105.101	002	Oxamyl	EPA 531.2
105.101	003	Aldicarb	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	008	Methomyl	EPA 531.2
105.120	001	Glyphosate	EPA 547
105.150	001	Diquat	EPA 549.2
105.200	001	Bromoacetic Acid	EPA 552.2
105.200	003	Chloroacetic Acid	EPA 552.2
105.200	005	Dibromoacetic Acid	EPA 552.2
105.200	006	Dichloroacetic Acid	EPA 552.2
105.200	007	Trichloroacetic Acid	EPA 552.2
105.200	008	Haloacetic Acids (HAA5)	EPA 552.2

**Field of Testing: 106 - Radiochemistry of Drinking Water**

106.092	001	Uranium	EPA 200.8
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**Field of Testing: 107 - Microbiology of Wastewater**

107.020	001	Total Coliform	SM9221B
107.040	001	Fecal Coliform	SM9221C,E (MTF/EC)

**Field of Testing: 108 - Inorganic Chemistry of Wastewater**

108.020	001	Conductivity	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calc.)	EPA 200.7



108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.113	001	Boron	EPA 200.8
108.113	002	Calcium	EPA 200.8
108.113	003	Magnesium	EPA 200.8
108.113	004	Potassium	EPA 200.8
108.113	005	Silica	EPA 200.8
108.113	006	Sodium	EPA 200.8
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	004	Nitrate	EPA 300.0
108.120	005	Nitrite	EPA 300.0
108.120	006	Nitrate-nitrite	EPA 300.0
108.120	007	Phosphate, Ortho	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.200	001	Ammonia	EPA 350.1
108.211	001	Kjeldahl Nitrogen	EPA 351.2
108.264	001	Phosphate, Ortho	EPA 365.3
108.266	001	Phosphorus, Total	EPA 365.4
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.381	001	Oil and Grease	EPA 1664A
108.390	001	Turbidity	SM2130B
108.400	001	Acidity	SM2310B
108.410	001	Alkalinity	SM2320B
108.420	001	Hardness (calc.)	SM2340B
108.430	001	Conductivity	SM2510B
108.440	001	Residue, Total	SM2540B
108.441	001	Residue, Filterable	SM2540C
108.442	001	Residue, Non-filterable	SM2540D
108.443	001	Residue, Settleable	SM2540F
108.464	001	Chlorine	SM4500-Cl F
108.470	001	Cyanide, Manual Distillation	SM4500-CN C
108.472	001	Cyanide, Total	SM4500-CN E
108.473	001	Cyanide, amenable	SM4500-CN G
108.490	001	pH	SM4500-H+ B
108.493	001	Ammonia	SM4500-NH3 D or E (19th/20th)
108.497	001	Ammonia	SM4500-NH3 G (19th/20th)
108.510	001	Nitrite	SM4500-NO2 B
108.530	001	Dissolved Oxygen	SM4500-O C

108.540	001	Phosphate, Ortho	SM4500-P E
108.541	001	Phosphorus, Total	SM4500-P E
108.582	001	Sulfide	SM4500-S= F (19th/20th)
108.590	001	Biochemical Oxygen Demand	SM5210B
108.591	001	Carbonaceous BOD	SM5210B
108.602	001	Chemical Oxygen Demand	SM5220D
108.610	001	Total Organic Carbon	SM5310B
108.640	001	Surfactants	SM5540C
108.660	001	Chemical Oxygen Demand	HACH8000

**Field of Testing: 109 - Toxic Chemical Elements of Wastewater**

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8

109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	021	Iron	EPA 200.8
109.020	022	Tin	EPA 200.8
109.020	023	Titanium	EPA 200.8
109.190	001	Mercury	EPA 245.1

**Field of Testing: 110 - Volatile Organic Chemistry of Wastewater**

110.040	040	Halogenated Hydrocarbons	EPA 624
110.040	041	Aromatic Compounds	EPA 624
110.040	042	Oxygenates	EPA 624
110.040	043	Other Volatile Organics	EPA 624

**Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater**

111.101	032	Polynuclear Aromatic Hydrocarbons	EPA 625
111.101	033	Adipates	EPA 625
111.101	034	Phthalates	EPA 625
111.101	036	Other Extractables	EPA 625
111.170	030	Organochlorine Pesticides	EPA 608
111.170	031	PCBs	EPA 608
111.273	001	Oil and Grease	EPA 1664A

**Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste**

114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.103	001	Chromium (VI)	EPA 7196A
114.140	001	Mercury	EPA 7470A

Aqueous Only

114.141	001	Mercury	EPA 7471A
114.221	001	Cyanide, Total	EPA 9012A
114.222	001	Cyanide	EPA 9014
114.241	001	Corrosivity - pH Determination	EPA 9045C

**Field of Testing: 115 - Extraction Test of Hazardous Waste**

115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
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**Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste**

116.030	001	Gasoline-range Organics	EPA 8015B
116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021B
116.040	062	BTEX	EPA 8021B
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B

**Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B
117.017	001	TRPH Screening	EPA 418.1
117.110	000	Extractable Organics	EPA 8270C
117.111	071	Pesticides	EPA 8270C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.210	000	Organochlorine Pesticides	EPA 8081A
117.220	000	PCBs	EPA 8082
117.240	000	Organophosphorus Pesticides	EPA 8141A
117.250	000	Chlorinated Herbicides	EPA 8151A
117.270	000	Carbamates, N-methylcarbamates	EPA 8318

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>TPH-G in Water (EPA 8015B)</b>								
Preservation: Add HCl to pH<2; Store cool at 4°C								
Container: VOA Vial w/ HCL								
Amount Required: 40ml								
Hold Time: 14 days								
Gasoline	6.0	50 µg/L		20	70 - 130	20	70 - 130	20
surr: 4-Bromofluorobenzene (FID)	0.0010				70 - 130	20		20

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>TPH-G in Soil (EPA 8015B)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 50gm								
Hold Time: 14 days								
Gasoline	0.027	1.0 mg/kg		20	70 - 130	20	70 - 130	20
surr: 4-Bromofluorobenzene (FID)	0.0050		70 - 130	20				20

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>TPH-D (C10-C28) in Water (EPA 8015B)</b>								
Preservation: Store cool at 4°C								
Container: 1L Amber Glass Unpreserved								
Amount Required: 1L								
Hold Time: 14 days								
Diesel	25	50 µg/L		20	70 - 130	20	70 - 130	20
surr: o-Terphenyl			34 - 150					
<b>TPH-MO (C14-C40) in Water (EPA 8015B)</b>								
Preservation: Store cool at 4°C								
Container: 1L Amber Glass Unpreserved								
Amount Required: 1L								
Hold Time: 14 days								
Motor Oil	25	100 µg/L		20	62 - 132	20	62 - 132	20
surr: o-Terphenyl	5.0		0 - 200	20	62 - 132	20	62 - 132	20

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>TPH-D (C10-C28) in Soil (EPA 8015B)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 50gm								
Hold Time: 14 days								
Diesel	4.0	10 mg/kg		20	48 - 131	20	48 - 131	20
surr: o-Terphenyl			11.8 - 130					
<b>TPH-MO (C14-C40) in Soil (EPA 8015B)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 50gm								
Hold Time: 14 days								
Motor Oil	5.0	10 mg/kg			48 - 131	20	62 - 132	20
surr: o-Terphenyl			11.8 - 130	20				



## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>8081A Twining in Water (EPA 8081A)</b>								
Preservation: Store cool at 4°C								
Container: 1L Amber Glass Unpreserved			Amount Required: 1L		Hold Time: 7 days			
4,4'-DDD	0.0040	0.050 µg/L				20		20
4,4'-DDE	0.0020	0.050 µg/L				20		20
4,4'-DDT	0.0040	0.050 µg/L				20		20
Aldrin	0.0030	0.050 µg/L				20		20
alpha-BHC	0.0040	0.050 µg/L				20		20
alpha-Chlordane	0.0020	0.050 µg/L				20		20
beta-BHC	0.0040	0.050 µg/L				20		20
Chlordane (tech)	0.0020	0.10 µg/L				20	45 - 119	20
Chlordane (n.o.s.)	0.0020	0.10 µg/L				20		20
delta-BHC	0.0030	0.050 µg/L				20		20
Dieldrin	0.0020	0.050 µg/L			36 - 146	20	36 - 146	20
Endosulfan I	0.0030	0.050 µg/L				20		20
Trifluralin	0.0030	0.050 µg/L				20		20
Endosulfan II	0.0020	0.050 µg/L				20		20
Endosulfan sulfate	0.0030	0.050 µg/L				20		20
Endrin	0.0030	0.050 µg/L			30 - 147	20	30 - 147	20
Endrin aldehyde	0.0040	0.050 µg/L				20		20
Endrin ketone	0.0040	0.050 µg/L				20		20
gamma-BHC (Lindane)	0.0030	0.050 µg/L			19 - 140	20	19 - 140	20
gamma-Chlordane	0.0020	0.050 µg/L				20		20
Heptachlor	0.0020	0.050 µg/L			34 - 111	20	34 - 111	20
Heptachlor epoxide	0.0040	0.050 µg/L				20		20
Methoxychlor	0.0060	0.050 µg/L				20		20
Toxaphene	0.10	0.50 µg/L				20	41 - 126	20
surr: Decachlorobiphenyl (DCB)			28.2 - 144					
surr: Tetrachloro-meta-xylene (TMX)			34.4 - 113					

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8081A Twining in Soil (EPA 8081A)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 100gm								
Hold Time: 14 days								
4,4'-DDD	0.0010	0.0083 mg/kg				20		20
4,4'-DDE	0.0020	0.0083 mg/kg				20		20
4,4'-DDT	0.0030	0.0083 mg/kg			25 - 160	20	25 - 160	20
Aldrin	0.0050	0.0083 mg/kg			42 - 122	20	42 - 122	20
alpha-BHC	0.0050	0.0083 mg/kg				20		20
alpha-Chlordane	0.0020	0.0083 mg/kg				20		20
beta-BHC	0.0020	0.0083 mg/kg				20		20
Chlordane (tech)	0.030	0.030 mg/kg				20	45 - 119	20
Chlordane (n.o.s.)	0.030	0.030 mg/kg				20		20
delta-BHC	0.0020	0.0083 mg/kg				20		20
Dieldrin	0.0020	0.0083 mg/kg			36 - 146	20	36 - 146	20
Endosulfan I	0.0020	0.0083 mg/kg				20		20
Trifluralin	0.0030	0.0083 mg/kg						
Endosulfan II	0.0020	0.0083 mg/kg				20		20
Endosulfan sulfate	0.0010	0.0083 mg/kg				20		20
Hexachlorobenzene	0.0090	0.050 mg/kg						
Endrin	0.0030	0.0083 mg/kg			30 - 147	20	30 - 147	20
Hexachlorocyclopentadiene	0.011	0.050 mg/kg						
Endrin aldehyde	0.0020	0.0083 mg/kg				20		20
Endrin ketone	0.0010	0.0083 mg/kg				20		20
gamma-BHC (Lindane)	0.0060	0.0083 mg/kg			19 - 140	20	19 - 140	20
gamma-Chlordane	0.0020	0.0083 mg/kg				20		20
Heptachlor	0.0080	0.0083 mg/kg			34 - 111	20	34 - 111	20
Heptachlor epoxide	0.0020	0.0083 mg/kg				20		20
Methoxychlor	0.0020	0.0083 mg/kg				20		20
Toxaphene	0.0050	0.017 mg/kg				20	41 - 126	20
surr: Decachlorobiphenyl (DCB)								11.4 - 122
surr: Tetrachloro-meta-xylene (TMX)								8.5 - 170

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8270C Twining in Water (EPA 8270C)</b>								
Preservation: Store cool at 4°C								
Container: 1L Amber Glass Unpreserved			Amount Required: 1L		Hold Time: 7 days			
N-Nitrosodimethylamine	1.4	5.0 µg/L						
Aniline	0.42	5.0 µg/L						
Phenol	0.63	5.0 µg/L			5 - 112	20	5 - 112	20
Bis(2-chloroethyl)ether	0.51	5.0 µg/L						
2-Chlorophenol	0.69	5.0 µg/L			23 - 134	20	23 - 134	20
1,3-Dichlorobenzene	0.29	5.0 µg/L						
1,4-Dichlorobenzene	0.59	5.0 µg/L			20 - 124	20	20 - 124	20
1,2-Dichlorobenzene	0.32	5.0 µg/L						
Benzyl alcohol	0.60	5.0 µg/L						
Bis(2-chloroisopropyl)ether	0.46	5.0 µg/L						
2-Methylphenol	0.93	5.0 µg/L						
Hexachloroethane	0.98	5.0 µg/L						
4-Methylphenol	1.1	5.0 µg/L						
N-Nitrosodi-n-propylamine	0.36	5.0 µg/L			5 - 230	20	5 - 230	20
Nitrobenzene	0.66	5.0 µg/L						
Isophorone	0.42	5.0 µg/L						
2-Nitrophenol	1.3	5.0 µg/L						
2,4-Dimethylphenol	1.2	5.0 µg/L						
Bis(2-chloroethoxy)methane	0.28	5.0 µg/L						
2,4-Dichlorophenol	0.79	5.0 µg/L						
1,2,4-Trichlorobenzene	0.22	5.0 µg/L			44 - 142	20	44 - 142	20
Naphthalene	0.29	5.0 µg/L						
Benzoic acid	0.84	5.0 µg/L						
4-Chloroaniline	0.78	5.0 µg/L						
2,6-Dichlorophenol	0.59	5.0 µg/L						
Hexachlorobutadiene	0.62	5.0 µg/L						
4-Chloro-3-methylphenol	0.57	5.0 µg/L			22 - 147	20	22 - 147	20
2-Methylnaphthalene	0.35	5.0 µg/L						
Hexachlorocyclopentadiene	0.83	5.0 µg/L						
2,4,5-Trichlorophenol	2.3	5.0 µg/L						
2,4,6-Trichlorophenol	2.5	5.0 µg/L						
2-Chloronaphthalene	0.29	5.0 µg/L						
2-Nitroaniline	0.88	5.0 µg/L						
Dimethyl phthalate	0.27	5.0 µg/L						
Acenaphthylene	0.27	5.0 µg/L						
2,6-Dinitrotoluene	1.0	5.0 µg/L						
3-Nitroaniline	0.98	5.0 µg/L						
Acenaphthene	0.59	5.0 µg/L			47 - 145	20	47 - 145	20
2,4-Dinitrophenol	1.9	5.0 µg/L						
Dibenzofuran	0.21	5.0 µg/L						
4-Nitrophenol	1.6	5.0 µg/L						
2,4-Dinitrotoluene	0.70	5.0 µg/L			39 - 139	20	39 - 139	20
Fluorene	0.50	5.0 µg/L						
Diethyl phthalate	0.32	5.0 µg/L						
4-Chlorophenyl phenyl ether	0.45	5.0 µg/L						
4-Nitroaniline	1.6	5.0 µg/L						

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
1,2-Diphenylhydrazine	0.49	5.0 µg/L						
Benzidine	1.2	5.0 µg/L						
N-Nitrosodiphenylamine	0.58	5.0 µg/L						
4,6-Dinitro-2-methylphenol	0.51	5.0 µg/L						
4-Bromophenyl phenyl ether	0.52	5.0 µg/L						
Hexachlorobenzene	0.42	5.0 µg/L						
Pentachlorophenol	1.3	5.0 µg/L				20		20
Phenanthrene	0.26	5.0 µg/L						
Anthracene	0.31	5.0 µg/L						
Di-n-butyl phthalate	0.65	5.0 µg/L						
Fluoranthene	0.34	5.0 µg/L						
Pyrene	0.26	5.0 µg/L			52 - 115	20	52 - 115	20
Butyl benzyl phthalate	0.76	5.0 µg/L						
Benzo (a) anthracene	0.56	5.0 µg/L						
Chrysene	0.25	5.0 µg/L						
Bis(2-ethylhexyl) phthalate	0.58	5.0 µg/L						
Di-n-octyl phthalate	0.36	5.0 µg/L						
7,12-Dimethylbenz(a)anthracene	0.44	5.0 µg/L						
Benzo (b) fluoranthene	0.67	5.0 µg/L						
Benzo (k) fluoranthene	0.70	5.0 µg/L						
Benzo (a) pyrene	0.46	5.0 µg/L						
3,3'-Dichlorobenzidine	1.1	5.0 µg/L						
Indeno(1,2,3-cd)pyrene	0.58	5.0 µg/L						
Dibenzo(a,h)anthracene	0.39	5.0 µg/L						
Benzo(ghi)perylene	0.36	5.0 µg/L						
alpha-BHC	0.39	5.0 µg/L						
beta-BHC	0.34	5.0 µg/L						
gamma-BHC (Lindane)	0.31	5.0 µg/L						
delta-BHC	0.58	5.0 µg/L						
Heptachlor	0.43	5.0 µg/L				20		20
Heptachlor epoxide	0.71	5.0 µg/L						
Aldrin	0.60	5.0 µg/L						
Endosulfan I	1.2	5.0 µg/L						
4,4'-DDE	0.57	5.0 µg/L						
Endosulfan II	3.8	5.0 µg/L						
4,4'-DDD	0.58	5.0 µg/L						
4,4'-DDT	0.51	5.0 µg/L				20		20
Dieldrin	0.49	5.0 µg/L						
Endrin aldehyde	1.2	5.0 µg/L						
Endosulfan sulfate	0.66	5.0 µg/L				20		20
Endrin	1.4	5.0 µg/L						
surr: 2-Fluorophenol			22 - 92					
surr: Phenol-d5			10 - 94					
surr: Nitrobenzene-d5			41 - 110					
surr: 2-Fluorobiphenyl			40 - 92					
surr: 2,4,6-Tribromophenol			49 - 138					
surr: d14-Terphenyl			44 - 131					

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8270C Twining in Soil (EPA 8270C)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 100gm								
Hold Time: 14 days								
N-Nitrosodimethylamine	0.051	0.33 mg/kg						
N-Nitrosomethylethylamine	0.080	0.33 mg/kg						
Methyl Methanesulfonate	0.050	0.33 mg/kg						
N-Nitrosodiethylamine	0.050	0.33 mg/kg						
Ethyl Methanesulfonate	0.050	0.33 mg/kg						
Phenol	0.050	0.33 mg/kg			5 - 112	20	5 - 112	20
Bis(2-chloroethyl)ether	0.050	0.33 mg/kg						
2-Chlorophenol	0.050	0.33 mg/kg			23 - 134	20	23 - 134	20
1,4-Dichlorobenzene	0.050	0.33 mg/kg			20 - 124	20	20 - 124	20
Benzyl alcohol	0.069	0.33 mg/kg						
Bis(2-chloroisopropyl)ether	0.050	0.33 mg/kg						
2-Methylphenol	0.050	0.33 mg/kg						
Acetophenone	0.050	0.33 mg/kg						
N-Nitrosopyrrolidine	0.086	0.33 mg/kg						
Hexachloroethane	0.050	0.33 mg/kg						
o-Toluidine	0.050	0.33 mg/kg						
4-Methylphenol	0.087	0.33 mg/kg						
N-Nitrosodi-n-propylamine	0.050	0.33 mg/kg			5 - 230	20	5 - 230	20
Nitrobenzene	0.050	0.33 mg/kg						
N-Nitrosopiperidine	0.050	0.33 mg/kg						
Isophorone	0.050	0.33 mg/kg						
2-Nitrophenol	0.050	0.33 mg/kg						
2,4-Dimethylphenol	0.050	0.33 mg/kg						
Bis(2-chloroethoxy)methane	0.050	0.33 mg/kg						
2,4-Dichlorophenol	0.050	0.33 mg/kg						
1,2,4-Trichlorobenzene	0.050	0.33 mg/kg			44 - 142	20	44 - 142	20
Benzoic acid	0.054	0.33 mg/kg						
Safrole	0.050	0.33 mg/kg						
2,6-Dichlorophenol	0.050	0.33 mg/kg						
N-Nitrosodi-n-butylamine	0.050	0.33 mg/kg						
4-Chloro-3-methylphenol	0.050	0.33 mg/kg			22 - 147	20	22 - 147	20
2-Methylnaphthalene	0.050	0.33 mg/kg						
Hexachlorocyclopentadiene	0.050	0.33 mg/kg						
2,4,5-Trichlorophenol	0.074	0.33 mg/kg						
2,4,6-Trichlorophenol	0.12	0.33 mg/kg						
2-Chloronaphthalene	0.050	0.33 mg/kg						
2-Nitroaniline	0.050	0.33 mg/kg						
1,4-Naphthoquinone	0.050	0.33 mg/kg						
Dimethyl phthalate	0.050	0.33 mg/kg						
Acenaphthylene	0.050	0.33 mg/kg						
1,3-Dinitrobenzene	0.086	0.33 mg/kg						
2,6-Dinitrotoluene	0.050	0.33 mg/kg						
3-Nitroaniline	0.050	0.33 mg/kg						
5-Nitro-o-toluidine	0.050	0.33 mg/kg						
1,2-Diphenylhydrazine	0.050	0.33 mg/kg						
Acenaphthene	0.050	0.33 mg/kg			47 - 145	20	47 - 145	20

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike		Blank Spike / LCS	
					%R	RPD	%R	RPD
2,4-Dinitrophenol	0.093	0.33 mg/kg						
Pentachlorobenzene	0.050	0.33 mg/kg						
4-Nitrophenol	0.12	0.33 mg/kg						
1-Naphthylamine	0.056	0.33 mg/kg						
2,4-Dinitrotoluene	0.050	0.33 mg/kg			39 - 139	20	39 - 139	20
2-Naphthylamine	0.050	0.33 mg/kg						
2,3,4,6-Tetrachlorophenol	0.050	0.33 mg/kg						
Fluorene	0.050	0.33 mg/kg						
Diethyl phthalate	0.050	0.33 mg/kg						
4-Chlorophenyl phenyl ether	0.050	0.33 mg/kg						
Methapyrilene	0.050	0.33 mg/kg						
4-Nitroaniline	0.059	0.33 mg/kg						
4-Aminobiphenyl	0.11	0.33 mg/kg						
Diphenylamine	0.050	0.33 mg/kg						
Benzidine	0.050	0.33 mg/kg						
N-Nitrosodiphenylamine	0.10	0.33 mg/kg						
4,6-Dinitro-2-methylphenol	0.050	0.33 mg/kg						
Phenacetin	0.050	0.33 mg/kg						
Pentachloronitrobenzene	0.050	0.33 mg/kg						
4-Bromophenyl phenyl ether	0.050	0.33 mg/kg						
Hexachlorobenzene	0.050	0.33 mg/kg						
Pentachlorophenol	0.050	0.33 mg/kg				20		20
Phenanthrene	0.050	0.33 mg/kg						
Anthracene	0.050	0.33 mg/kg						
Di-n-butyl phthalate	0.050	0.33 mg/kg						
Fluoranthene	0.050	0.33 mg/kg						
Pyrene	0.050	0.33 mg/kg			52 - 115	20	52 - 115	20
p-Dimethylaminoazobenzene	0.050	0.33 mg/kg						
3,3'-Dimethylbenzidine	0.050	0.33 mg/kg						
Butyl benzyl phthalate	0.050	0.33 mg/kg						
2-Acetylaminofluorene	0.050	0.33 mg/kg						
Benzo (a) anthracene	0.050	0.33 mg/kg						
Chrysene	0.050	0.33 mg/kg						
Bis(2-ethylhexyl) phthalate	0.050	0.33 mg/kg						
Di-n-octyl phthalate	0.050	0.33 mg/kg						
7,12-Dimethylbenz(a)anthracene	0.050	0.33 mg/kg						
Benzo (b) fluoranthene	0.050	0.33 mg/kg						
Benzo (k) fluoranthene	0.050	0.33 mg/kg						
Benzo (a) pyrene	0.050	0.33 mg/kg						
3,3'-Dichlorobenzidine	0.050	0.33 mg/kg						
3-Methylcholanthrene	0.050	0.33 mg/kg						
Indeno(1,2,3-cd)pyrene	0.050	0.33 mg/kg						
Dibenzo(a,h)anthracene	0.050	0.33 mg/kg						
Benzo(ghi)perylene	0.050	0.33 mg/kg						
O,O,O-Triethyl phosphorothioate	0.050	0.33 mg/kg						
Pronamide	0.050	0.33 mg/kg						
surr: 2-Fluorophenol			22 - 92					
surr: Phenol-d5			10 - 94					
surr: Nitrobenzene-d5			41 - 110					
surr: 2-Fluorobiphenyl			40 - 92					

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
surr: 2,4,6-Tribromophenol			49 - 138					
surr: d14-Terphenyl			44 - 131					

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Blank Spike / LCS %R	RPD	RPD
<b>Antimony Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 100ml Hold Time: 180 days								
Antimony	0.0014	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Arsenic Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 100ml Hold Time: 180 days								
Arsenic	0.0023	0.010 mg/L		20	70 - 130	20	85 - 115	20
<b>Barium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 100ml Hold Time: 180 days								
Barium	0.00013	0.010 mg/L		20	70 - 130	20	85 - 115	20
<b>Beryllium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 100ml Hold Time: 180 days								
Beryllium	0.00020	0.0010 mg/L		20	70 - 130	20	85 - 115	20
<b>Cadmium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Cadmium	0.00020	0.0010 mg/L		20	70 - 130	20	85 - 115	20
<b>Chromium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Chromium	0.00091	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Cobalt Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Cobalt	0.00056	0.0020 mg/L		20	70 - 130	20	85 - 115	20
<b>Copper Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Copper	0.00095	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Lead Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Lead	0.0014	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Mercury Total EPA 245.1 in Water (EPA 245.1)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 1L Plastic w/ HNO <sub>3</sub> Amount Required: 1L Hold Time: 28 days								
Mercury	0.035	0.20 µg/L		20	70 - 130	20	80 - 120	20
<b>Molybdenum Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml Hold Time: 180 days								
Molybdenum	0.00075	0.0050 mg/L		20	70 - 130	20	85 - 115	20



## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>Nickel Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Nickel	0.00051	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Selenium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Selenium	0.0018	0.020 mg/L		20	70 - 130	20	85 - 115	20
<b>Silver Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Silver	0.0011	0.0050 mg/L		20	70 - 130	20	85 - 115	20
<b>Thallium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Thallium	0.0024	0.020 mg/L		20	70 - 130	20	85 - 115	20
<b>Vanadium Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Vanadium	0.0030	0.010 mg/L		20	70 - 130	20	85 - 115	20
<b>Zinc Total EPA 200.7 in Water (EPA 200.7)</b>								
Preservation: Add HNO <sub>3</sub> to pH<2								
Container: 125mL Plastic w/ HNO <sub>3</sub> Amount Required: 200ml                      Hold Time: 180 days								
Zinc	0.00080	0.0050 mg/L		20	70 - 130	20	85 - 115	20

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>Antimony Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Antimony	0.10	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Arsenic Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:10g	Hold Time:180 days			
Arsenic	0.22	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Barium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:10g	Hold Time:180 days			
Barium	0.13	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Beryllium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:10g	Hold Time:180 days			
Beryllium	0.032	0.40 mg/kg		20	75 - 125	20	75 - 125	20
<b>Cadmium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Cadmium	0.023	0.40 mg/kg		20	75 - 125	20	75 - 125	20
<b>Chromium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:50gm	Hold Time:180 days			
Chromium	0.078	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Cobalt Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Cobalt	0.022	0.80 mg/kg		20	75 - 125	20	75 - 125	20
<b>Copper Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Copper	0.069	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Lead Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:10g	Hold Time:180 days			
Lead	0.16	2.0 mg/kg		20	70 - 130	20	70 - 130	20
<b>Mercury Total 7471A in Soil (EPA 7471A)</b>								
Preservation:Store at STP								
Container:Metal Sleeve								
				Amount Required:2gm	Hold Time:28 days			
Mercury	0.0095	0.040 mg/kg		20	70 - 130	20	70 - 130	20
<b>Molybdenum Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Molybdenum	0.13	2.0 mg/kg		20	75 - 125	20	75 - 125	20

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>Nickel Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Nickel	0.091	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Selenium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Selenium	0.36	5.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Silver Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Silver	0.10	2.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Thallium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Thallium	0.46	5.0 mg/kg		20	75 - 125	20	75 - 125	20
<b>Vanadium Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Vanadium	0.38	2.5 mg/kg		20	75 - 125	20	75 - 125	20
<b>Zinc Total EPA 6010B in Soil (EPA 6010B)</b>								
Preservation:Store cool at 4°C								
Container:Metal Sleeve								
				Amount Required:200ml	Hold Time:180 days			
Zinc	0.060	2.0 mg/kg		20	75 - 125	20	75 - 125	20

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>8260B Twining in Water (EPA 8260B)</b>								
Preservation: Add HCl to pH<2; Store cool at 4°C								
Container: VOA Vial w/ HCL								
Amount Required: 3x40ml								
Hold Time: 14 days								
Dichlorodifluoromethane (CFC-12)	0.19	0.50 µg/L						
Chloromethane	0.16	0.50 µg/L						
Vinyl chloride	0.16	0.50 µg/L						
Bromomethane	0.32	1.0 µg/L						
Chloroethane	0.16	0.50 µg/L						
Trichlorofluoromethane (CFC-11)	0.13	0.50 µg/L						
Ethanol	27	50 µg/L						
Trichlorotrifluoroethane (CFC-113)	0.11	1.0 µg/L						
1,1-Dichloroethene	0.14	0.50 µg/L			70 - 130	20	70 - 130	20
Carbon disulfide	0.14	0.50 µg/L						
Iodomethane	0.43	1.0 µg/L						
Acrolein	1.5	10 µg/L						
Methylene chloride	0.20	1.0 µg/L						
Acetone	0.55	10 µg/L						
trans-1,2-Dichloroethene	0.11	0.50 µg/L						
tert-Butyl alcohol (TBA)	1.9	20 µg/L						
Methyl tert-Butyl Ether (MTBE)	0.36	1.0 µg/L						
Acetonitrile	3.9	10 µg/L						
Di-isopropyl ether (DIPE)	0.13	0.50 µg/L						
1,1-Dichloroethane	0.12	0.50 µg/L						
Acrylonitrile	2.9	5.0 µg/L						
Ethyl tert-Butyl Ether (ETBE)	0.18	1.0 µg/L						
Vinyl acetate	0.34	0.50 µg/L						
cis-1,2-Dichloroethene	0.15	0.50 µg/L						
2,2-Dichloropropane	0.24	1.0 µg/L						
Bromochloromethane	0.20	0.50 µg/L						
Chloroform	0.14	0.50 µg/L						
Carbon tetrachloride	0.16	0.50 µg/L						
2-Butanone (MEK)	0.31	10 µg/L						
1,1,1-Trichloroethane (TCA)	0.16	0.50 µg/L						
1,1-Dichloropropene	0.12	0.50 µg/L						
Isobutyl alcohol	9.6	20 µg/L						
Propionitrile	3.0	10 µg/L						
Tert-Amyl Methyl Ether (TAME)	0.10	1.0 µg/L						
Benzene	0.10	0.50 µg/L			70 - 130	20	70 - 130	20
Methacrylonitrile	2.1	5.0 µg/L						
1,2-Dichloroethane (1,2-DCA)	0.10	0.50 µg/L						
Trichloroethene (TCE)	0.17	0.50 µg/L			70 - 130	20	70 - 130	20
Dibromomethane	0.14	0.50 µg/L						
1,2-Dichloropropane	0.10	0.50 µg/L						
Bromodichloromethane	0.13	0.50 µg/L						
Methyl Methacrylate	0.19	0.50 µg/L						
2-Chloroethylvinyl ether	0.33	1.0 µg/L						
cis-1,3-Dichloropropene	0.11	0.50 µg/L						
Toluene	0.27	0.50 µg/L			70 - 130	20	70 - 130	20
4-Methyl-2-pentanone (MIBK)	0.31	1.0 µg/L						

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike		Blank Spike / LCS	
					%R	RPD	%R	RPD
trans-1,3-Dichloropropene	0.14	0.50 µg/L						
Tetrachloroethene (PCE)	0.12	0.50 µg/L						
1,1,2-Trichloroethane	0.12	0.50 µg/L						
Ethyl methacrylate	0.17	1.0 µg/L						
Dibromochloromethane	0.11	0.50 µg/L						
1,3-Dichloropropane	0.10	0.50 µg/L						
1,2-Dibromoethane (EDB)	0.22	0.50 µg/L						
2-Hexanone	0.32	1.0 µg/L						
Ethylbenzene	0.10	0.50 µg/L						
Chlorobenzene	0.10	0.50 µg/L			70 - 130	20	70 - 130	20
1,1,1,2-Tetrachloroethane	0.12	0.50 µg/L						
m,p-Xylene	0.20	1.0 µg/L						
o-Xylene	0.10	0.50 µg/L						
Styrene	0.10	0.50 µg/L						
Bromoform	0.12	1.0 µg/L						
Isopropylbenzene	0.10	1.0 µg/L						
trans-1,4-Dichloro-2-butene	0.34	5.0 µg/L						
Bromobenzene	0.10	0.50 µg/L						
n-Propylbenzene	0.10	1.0 µg/L						
1,1,2,2-Tetrachloroethane	0.21	1.0 µg/L						
1,3,5-Trimethylbenzene	0.11	0.50 µg/L						
2-Chlorotoluene	0.10	0.50 µg/L						
1,2,3-Trichloropropane (123TCP)	0.29	0.50 µg/L						
4-Chlorotoluene	0.10	0.50 µg/L						
tert-Butylbenzene	0.10	1.0 µg/L						
1,2,4-Trimethylbenzene	0.10	1.0 µg/L						
sec-Butylbenzene	0.10	0.50 µg/L						
p-Isopropyltoluene	0.10	1.0 µg/L						
1,3-Dichlorobenzene	0.040	0.50 µg/L						
1,4-Dichlorobenzene	0.10	0.50 µg/L						
n-Butylbenzene	0.13	0.50 µg/L						
Hexachloroethane	0.24	1.0 µg/L						
1,2-Dichlorobenzene	0.12	0.50 µg/L						
1,2-Dibromo-3-chloropropane (DBCP)	0.39	5.0 µg/L						
1,2,4-Trichlorobenzene	0.10	1.0 µg/L						
Hexachlorobutadiene	0.10	1.0 µg/L						
Naphthalene	0.15	0.50 µg/L						
1,2,3-Trichlorobenzene	0.10	0.50 µg/L						
Xylenes		2.0 µg/L						
surr: 4-Bromofluorobenzene			70 - 130					
surr: Dibromofluoromethane			70 - 130					
surr: Toluene-d8			70 - 130					

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>8260B Twining in Soil (EPA 8260B)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
Amount Required: 10g								
Hold Time: 14 days								
Dichlorodifluoromethane (CFC-12)	0.000094	0.0010 mg/kg						
Chloromethane	0.00013	0.0010 mg/kg						
Vinyl chloride	0.00015	0.0010 mg/kg						
Bromomethane	0.00071	0.0010 mg/kg						
Chloroethane	0.00020	0.0010 mg/kg						
Trichlorofluoromethane (CFC-11)	0.00015	0.0010 mg/kg						
Ethanol	0.011	0.050 mg/kg						
1,1,2-Trichloro-1,2,2-trifluoroethane	0.00017	0.0010 mg/kg						
Trichlorotrifluoroethane (CFC-113)	0.00017	0.0010 mg/kg						
1,1-Dichloroethene	0.00018	0.0010 mg/kg			70 - 130	20	70 - 130	20
Carbon disulfide	0.00013	0.0010 mg/kg						
Iodomethane	0.00035	0.0010 mg/kg						
Acrolein	0.0039	0.050 mg/kg						
Methylene chloride	0.00030	0.0020 mg/kg						
Acetone	0.00068	0.020 mg/kg						
trans-1,2-Dichloroethene	0.00016	0.0010 mg/kg						
tert-Butyl alcohol (TBA)	0.0021	0.020 mg/kg						
Methyl tert-Butyl Ether (MTBE)	0.00035	0.0010 mg/kg						
Di-isopropyl ether (DIPE)	0.00015	0.0010 mg/kg						
Chloroprene	0.00016	0.0010 mg/kg						
1,1-Dichloroethane	0.000081	0.0010 mg/kg						
Acrylonitrile	0.0028	0.010 mg/kg						
Ethyl tert-Butyl Ether (ETBE)	0.00012	0.0010 mg/kg						
Vinyl acetate	0.00044	0.0010 mg/kg						
cis-1,2-Dichloroethene	0.000073	0.0010 mg/kg						
2,2-Dichloropropane	0.00020	0.0010 mg/kg						
Bromochloromethane	0.00025	0.0010 mg/kg						
Chloroform	0.00011	0.0010 mg/kg						
Carbon tetrachloride	0.00014	0.0010 mg/kg						
2-Butanone (MEK)	0.00030	0.0010 mg/kg						
1,1,1-Trichloroethane (TCA)	0.00012	0.0010 mg/kg						
1,1-Dichloropropene	0.00016	0.0010 mg/kg						
Tert-Amyl Methyl Ether (TAME)	0.00018	0.0010 mg/kg						
Benzene	0.00019	0.0010 mg/kg			70 - 130	20	70 - 130	20
1,2-Dichloroethane (1,2-DCA)	0.00014	0.0010 mg/kg						
Trichloroethene (TCE)	0.000099	0.0010 mg/kg			70 - 130	20	70 - 130	20
Dibromomethane	0.00016	0.0010 mg/kg						
1,2-Dichloropropane	0.00014	0.0010 mg/kg						
Bromodichloromethane	0.00013	0.0010 mg/kg						
Methyl Methacrylate	0.00031	0.0010 mg/kg						
2-Chloroethylvinyl ether	0.00040	0.020 mg/kg						
cis-1,3-Dichloropropene	0.000089	0.0010 mg/kg						
Toluene	0.00016	0.0010 mg/kg			70 - 130	20	70 - 130	20
4-Methyl-2-pentanone (MIBK)	0.00031	0.0010 mg/kg						
trans-1,3-Dichloropropene	0.00011	0.0010 mg/kg						
Tetrachloroethene (PCE)	0.00014	0.0010 mg/kg						

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike		Blank Spike / LCS	
					%R	RPD	%R	RPD
1,1,2-Trichloroethane	0.00017	0.0010 mg/kg						
Ethyl methacrylate	0.00077	0.0010 mg/kg						
Dibromochloromethane	0.00011	0.0010 mg/kg						
1,3-Dichloropropane	0.00012	0.0010 mg/kg						
1,2-Dibromoethane (EDB)	0.00013	0.0010 mg/kg						
2-Hexanone	0.00028	0.0010 mg/kg						
Ethylbenzene	0.00015	0.0010 mg/kg						
Chlorobenzene	0.00016	0.0010 mg/kg			70 - 130	20	70 - 130	20
1,1,1,2-Tetrachloroethane	0.00011	0.0010 mg/kg						
m,p-Xylene	0.00029	0.0010 mg/kg						
o-Xylene	0.000096	0.0010 mg/kg						
Styrene	0.00011	0.0010 mg/kg						
Bromoform	0.00013	0.0010 mg/kg						
Isopropylbenzene	0.00011	0.0010 mg/kg						
trans-1,4-Dichloro-2-butene	0.00025	0.0010 mg/kg						
Bromobenzene	0.000096	0.0010 mg/kg						
n-Propylbenzene	0.00014	0.0010 mg/kg						
1,1,2,2-Tetrachloroethane	0.00015	0.0010 mg/kg						
1,3,5-Trimethylbenzene	0.00015	0.0010 mg/kg						
2-Chlorotoluene	0.00012	0.0010 mg/kg						
1,2,3-Trichloropropane (123TCP)	0.00022	0.0010 mg/kg						
4-Chlorotoluene	0.00012	0.0010 mg/kg						
tert-Butylbenzene	0.00013	0.0010 mg/kg						
1,2,4-Trimethylbenzene	0.00013	0.0010 mg/kg						
sec-Butylbenzene	0.00012	0.0010 mg/kg						
p-Isopropyltoluene	0.00013	0.0010 mg/kg						
1,3-Dichlorobenzene	0.00015	0.0010 mg/kg						
1,4-Dichlorobenzene	0.00019	0.0010 mg/kg						
n-Butylbenzene	0.00015	0.0010 mg/kg						
1,2-Dichlorobenzene	0.000091	0.0010 mg/kg						
1,2-Dibromo-3-chloropropane (DBCP)	0.00039	0.0050 mg/kg						
1,2,4-Trichlorobenzene	0.00014	0.0010 mg/kg						
Hexachlorobutadiene	0.00016	0.0010 mg/kg						
Naphthalene	0.00029	0.0010 mg/kg						
1,2,3-Trichlorobenzene	0.00018	0.0010 mg/kg						
Chlorodifluoromethane	0.00051	0.0010 mg/kg						
Dichlorotetrafluoroethane (CFC-114)	0.0050	0.010 mg/kg						
Xylenes		0.0010 mg/kg						
surr: Dibromofluoromethane			70 - 130	20				
surr: Toluene-d8			70 - 130	20				
surr: 4-Bromofluorobenzene			70 - 130	20				

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>8082 Twining in Water (EPA 8082)</b>								
Preservation: Store cool at 4°C								
Container: 1L Amber Glass Unpreserved			Amount Required: 1L			Hold Time: 7 days		
Total PCBs	0.10	0.50 µg/L						
PCB-1016	0.15	0.50 µg/L			50 - 114	20	50 - 114	20
PCB-1221	0.10	0.50 µg/L				20		20
PCB-1232	0.10	0.50 µg/L				20		20
PCB-1242	0.10	0.50 µg/L				20		20
PCB-1248	0.10	0.50 µg/L				20		20
PCB-1254	0.10	0.50 µg/L				20		20
PCB-1260	0.12	0.50 µg/L			8 - 127	20	8 - 127	20
surr: Decachlorobiphenyl (DCB)				40.7 - 154				
surr: Tetrachloro-meta-xylene (TMX)				24 - 140				



Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	RPD	Blank Spike / LCS %R	RPD
<b>8082 Twining in Soil (EPA 8082)</b>								
Preservation: Store cool at 4°C								
Container: Metal Sleeve								
			Amount Required: 100gm		Hold Time: 14 days			
PCB-1016	0.011	0.017 mg/kg			45 - 117	20	45 - 117	20
PCB-1221	0.011	0.017 mg/kg				20		20
PCB-1232	0.011	0.017 mg/kg				20		20
PCB-1242	0.011	0.017 mg/kg				20		20
PCB-1248	0.011	0.017 mg/kg				20		20
PCB-1254	0.011	0.017 mg/kg				20		20
PCB-1260	0.011	0.017 mg/kg			45 - 117	20	45 - 117	20
Total PCBs	0.0060	0.017 mg/kg						
surr: Decachlorobiphenyl (DCB)			17.2 - 156	20				
surr: Tetrachloro-meta-xylene (TMX)			20.6 - 119					



## APPENDIX E

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American Analytics Quality Assurance Manual,  
Accreditation, and Method Reporting Limits



**American Analytics, Inc.**

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Title: Quality Manual: Stationary Laboratory

Filename: 1005v14.doc

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1	12-19-1996	
2	12-18-1998	
3	02-09-2000	
4	09-19-2000	
5	12-12-2001	
6	07-22-2002	
7	10-04-2002	
8	03-25-2003	
9	12-14-2004	
10	02-05-2008	
11	03-10-2009	
12	01-26-2010	
13	03-14-2013	
14	01-06-2015	

Prepared By

Date

Technical Review

Date

*Allan A*

01-06-2015

01-06-2015

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Name/Title:

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QA Approval/Date:

*Allan A*

01-06-2015

Allen Aminian, Quality Manager

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## 1.0 PROGRAM DESCRIPTION

American Analytics provides laboratory services for environmental analysis. The laboratory occupies approximately 6500 square feet of a facility at 9765 Eton Avenue, Chatsworth, CA 91311. American Analytics performs environmental analytical tests in various sample matrices including: soils, sludges, water, wastewater, drinking water, vapors and hazardous materials. The laboratory performs the analyses in accordance with methods specified in the EPA manual, Methods for Analyzing Hazardous Waste (SW-846, Third Edition, 1986 and SW-846, Update III, Revision 1, December 1996), the EPA methods published in the Federal Register (CFR 40 Part 136, October 26, 1984), the Standard Methods for the Examination of Water and Waste Water (American Public Health Association) and other official public testing procedures. The analyses performed by American Analytics are listed in Tables 1, 2, and 3.

**Table 1**  
**Organic Analyses Performed by American Analytics**

EPA Method	Compound Class
8015B	Fuels and Nonhalogenated Volatile Organics
8015M, 8015B, LUFT	Extractable Fuel Hydrocarbons
602	Aromatic Volatile Organics
8021B	Aromatic Volatile Organics
8081A	Organochlorine Pesticides by GC
8082	Polychlorinated Biphenyls (PCB's) by GC
8240, 8260B, 624	Volatile Organics by GC/MS
8270C, 625	Semi Volatile Organics by GC/MS
8310, 610	Polynuclear Aromatic Hydrocarbons (PAHs) by HPLC
524.2	Volatile Organic Compounds in Drinking water
CDHS SRL PT/GCMS	1,2,3-Trichloropropane
8270M	1,4-Dioxane by Isotope Dilution



**Table 2**  
**Inorganic Elemental Analyses Performed by American Analytics**

<b>Parameter</b>	<b>EPA Method</b>
Aluminum	6010B,6020B,200.7,200.8
Antimony	7041,6010B,6020B, 200.7,200.8
Arsenic	7060A,SM3113B, SM3120B,6010B,6020B,200.7,200.8
Barium	SM3120B, 6010B,6020B, 200.7,200.8
Beryllium	7091,SM3113B,SM3120B,6010B,6020B, 200.7,200.8
Boron	200.7,200.8,
Cadmium	7131A,SM3113B,SM3120B,6010B,6020B, 200.7,200.8
Calcium	SM3120B,200.7,200.8
Chromium	7191A,SM3113B,SM3120B,6010B,6020B, 200.7,200.8
Chromium (VI)	218.6, 7196, 7199
Cobalt	SM3120B,6010B,6020B, 200.7,200.8
Copper	SM3120B,6010B,6020B, 200.7,200.8
Iron	SM3120B,6010B,200.7
Lead	7421,SM3113B, 7421,6010B,6020B, 200.7, 200.8
Lithium	6010B,6020B,200.7,200.8
Magnesium	SM3120B,200.7,200.8,6010B,6020B
Manganese	SM3120B,200.7,200.8,6010B,6020B
Mercury	245.1,7470,7471
Molybdenum	SM3120B,6010B,6020B, 200.7,200.8
Nickel	SM3120B,6010B,6020B, 200.7,200.8
Potassium	SM3120B,200.7,200.8, 6010B,6020B
Selenium	7740,SM3113B,SM3120B,6010B,6020B, 200.7,200.8
Silver	7761,SM3113B,SM3120B,6010B,6020B, 200.7,200.8
Silica	SM3120B,200.7,200.8
Sodium	SM3120B,200.7,200.8
Strontium	6010B,6020B
Thallium	7841,200.9,279.2,SM3120B,6010B,6020B, 200.7,200.8
Tin	200.7
Vanadium	SM3120B,6010B,6020B, 200.7,200.8
Zinc	SM3120B,6010B,6020B, 200.7,200.8

**Table 3**  
**General Chemistry Analyses Performed by American Analytcs**

Parameter	EPA Method
California Waste Extraction Test (WET)	CCR Chapter 11, Art. 5
Toxicity Characteristic Leaching Procedure (TCLP)	1310, 1311
Synthetic Precipitation Leaching Procedure (SPLP)	1312
Alkalinity	SM 2320 B
Ammonia	SM4500-NH3 D or E (19 <sup>th</sup> )
BOD	SM 5210B
TOC	SM5310B
Chloride	300.0
Chlorine Residual	SM4500-Cl G
COD	410.4, SM 5220D, HACH 8000
Cyanide	SM 4500 CN C, E, and G
Fluoride	300.0
Hardness – Total as CaCO <sub>3</sub>	SM2340B,SM2340C,SM3120B,200.7
Nitrate	300.0
Nitrite	300.0
Perchlorate	314.0
Oil & Grease	413.1, 1664A, SM5520B
Oxygen Dissolved	SM4500-O G
pH	150.1,9040B, 9045C,SM4500-H+B
Phosphate – Ortho	300.0
Residue, Total (TS)	SM2540B
Residue, Filterable (TDS)	SM2540C
Residue, Nonfilterable (TSS)	SM2540D
Residue, Settleable (SS)	SM2540F
Specific Conductance	SM2510B
Sulfate	300.0
Sulfide	SM 4500-S2-D
Ferrous Iron	SM 3500
Divalent Manganese by IC	EPA 300M
Volatile Fatty Acids by IC	EPA 300M
Permanganate	SM 4500
Chromate by IC	EPA 300M

Turbidity	180.1
Total Recoverable Petroleum Hydrocarbons (TRPH)	418.1
Light gases (Methane, Ethane, Ethene) by FID	EPA 8015M
Fixed Gases by TCD	EPA Method 3C, ASTM D1946
Dissolved Gases by FID	RSK-175

American Analytics is committed to producing the highest quality analytical product possible. It is important that our product meets and surpasses the analytical needs of our clients, and that our data is reliable and legally defensible. In addition, American Analytics is committed to continually improving its work product by using the latest analytical technology, keeping up to date on current environmental regulations, and improving our client service.

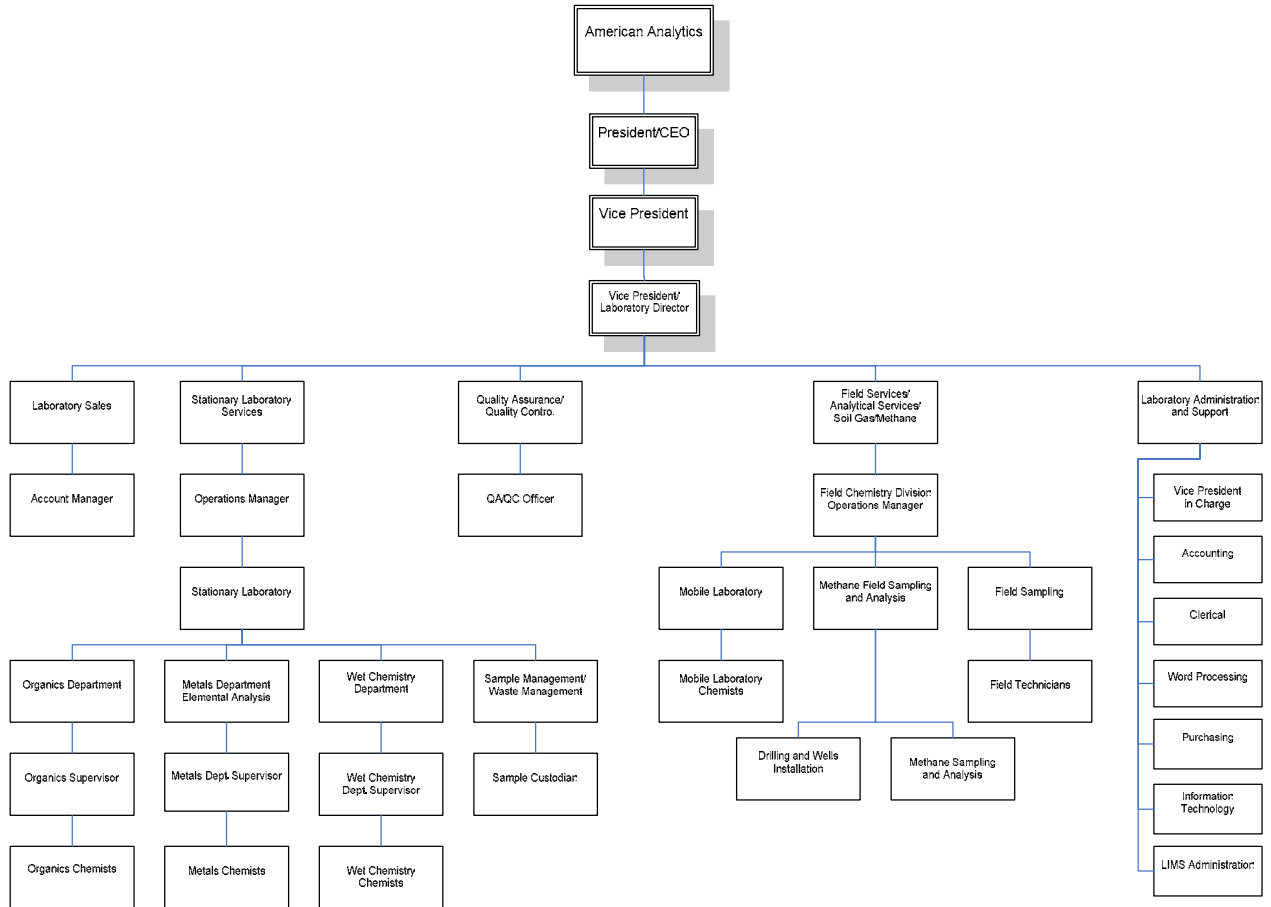
## 2.0 **PROGRAM ORGANIZATION AND RESPONSIBILITY**

The vice president and laboratory director of American Analytics are responsible for major decisions concerning the laboratory. The overall performance of the laboratory is the responsibility of the operations manager who monitors the day-to-day operations of the laboratory.

The QA/QC officer under the supervision of the laboratory director is responsible for the implementation and maintenance of the Quality Assurance/Quality Control (QA/QC) program. The QA/QC officer is also responsible for reviewing and updating the QA/QC manual as necessary when changes are made to existing QA/QC practices in the laboratory. This is necessary since the American Analytics QA/QC program is dynamic and changing as necessary to continuously improve the quality of work in the laboratory.

The organics department supervisor is responsible for the validation of all data generated in the organics section of the laboratory. The inorganics department supervisor is responsible for the validation of all data generated in the inorganics section of the laboratory. The analytical chemists are trained in the Standard Operating Procedures (SOPs) and supervised by the operations manager and the section supervisors. All personnel are experienced in trace analytical chemistry and environmental analysis.

Figure 1  
American Analytics Organization Chart



### **3.0 PERSONNEL AND QUALIFICATIONS**

#### **3.1 The chief laboratory personnel are listed below:**

##### **Michael M. Uziel, Ph.D., Vice President**

Dr. Uziel, Vice President of American Analytics, is a graduate of the University of California, Berkeley with a Ph.D. and M.S. in civil engineering, and a B.S. in biochemistry. He has over 20 years experience in the toxic waste industry and analytical chemistry.

Dr. Uziel has worked in both Southern and Northern California investigating underground tank leaks, performing soil and groundwater investigations and clean-ups, soil gas surveys, developing and implementing remedial investigation/feasibility studies (RI/FS). He has a great deal of experience working with such agencies as the State Regional Water Quality Control Board and the State Department of Health Services. He also worked on planning chemical analysis work including QA/QC programs on several federal Superfund toxic waste sites.

Dr. Uziel's experience in analytical chemistry goes beyond his recent experience. In the early seventies, Dr. Uziel worked as an analytical chemist at the Department of Hydraulics and Sanitary Engineering at the University of California, Berkeley. As part of his work, Dr. Uziel planned and constructed the analytical chemistry laboratory of the department. Later he served as a teaching assistant in undergraduate and graduate courses in analytical chemistry at the university. Dr. Uziel's doctoral research included extensive personal use of gas chromatography systems, and other analytical techniques at U.C. Berkeley - Richmond field station. As an honor student in Biochemistry (U.C. Berkeley), Dr. Uziel performed biochemical research where he extensively used analytical equipment in the biochemistry department and biodynamics laboratory of U.C. Berkeley.

##### **George Havalias, Laboratory Director**

Mr. Havalias is a graduate of the University of Missouri at Rolla with a B.S. in chemical engineering. He has over twenty years experience in the area of environmental analyses at both state and commercial laboratory levels. He has also served as a process/project engineer in the field of petrochemical refinery design for a major engineering firm in Southern California.

As laboratory director, Mr. Havalias oversees the QA/QC program at American Analytics and is responsible for monitoring and improving the quality of the analytical data produced by the laboratory. He also assists with the training of new personnel in existing methods, and is actively involved with bringing new methods on-line to broaden the spectrum of analytical testing performed by the laboratory.

##### **Allen Aminian, QA/QC Manager, Technical Director**

Mr. Aminian has a Bachelor of Science degree in Chemistry from the University of Kansas. He has over twenty years of experience in the environmental industry with emphasis on organic analyses, including EPA methods 8260, 8270, 8081 and 8015. Allen is well versed in all aspects of the laboratory operations and is responsible for the implementation, maintenance, and continuing improvement of the quality assurance/quality control program at American Analytics. This process is accomplished by working in coordination with the laboratory director. Specific responsibilities include: updates to the QA/QC manual, writing and updating standard operating procedures, internal quarterly audits, establishing control limits and charts, coordinate and oversee the analysis and reporting of check samples.

#### **Viorel Vasile, Operations Manager, Field Chemistry Division Manager**

Mr. Vasile has a Masters degree in Chemical Engineering from the University of Bucharest. Viorel coordinates and oversees the day to day laboratory operations and is responsible for the quality and on time delivery of analytical results to the client. Viorel also coordinates all aspects of field mobile laboratory operations including: Scheduling of field operations, client interface, vehicle maintenance, instrument maintenance, chemist training and quality assurance/quality control elements of field chemistry operations.

#### **Eydie Schwartz, Inorganics Section Supervisor**

Ms. Schwartz is a graduate of the California State University at Long Beach, with a Masters degree in Microbiology. She has over twenty years of experience in the field of environmental analytical chemistry and has worked at both the analytical chemist and supervisory levels. As supervisor, she is responsible for all aspects of the day to day operations of the Inorganics division of the laboratory. She is responsible for scheduling the work, data review and meeting turnaround time commitments for analytical results. She is also responsible for instrument maintenance, method development, and training of new personnel.

### **3.2 Personnel Responsibilities**

Laboratory Director - supervise and manage laboratory operations, laboratory work quality, client interface, final report approval and signature.

Operations Manager – Oversee laboratory workflow process, manage day - to - day laboratory operations for all sections of the laboratory, meet client specific project requirements. Assemble and review final reports ensuring that all quality standards are met.

QA/QC Manager – Implement and maintain the QA/QC program in the laboratory.

Section Supervisor - supervise and manage day - to - day operations of respective laboratory department, second party review of laboratory analytical data.

Chemist - perform analyses, review raw data, data reduction, and reporting to electronic LIMS system.

Sample Custodian - receive all laboratory samples, check samples and chains-of-custody, sample log in and storage, project number initiation.

Waste Management Coordinator - organize and categorize laboratory wastes, control waste storage, manage waste pick-up and disposal.

### **3.3 Personnel Training**

All laboratory personnel are trained directly by the Sections Supervisor or the Operations Manager on laboratory safety, analytical techniques, use of analytical equipment, data compilation, data reduction, LIMS system operation, and all other laboratory operations. Certain laboratory personnel are required to take appropriate 40 hour or 24 hour OSHA training courses depending on their responsibilities. Refresher courses are taken every year. Documentation on this OSHA training is maintained in each employee's personnel file.

New, experienced laboratory personnel are required to demonstrate their capabilities to the Operations Manager and/or Laboratory Director prior to beginning any work on their own. New, inexperienced laboratory personnel are also required to work with the Operations Manager, Laboratory Director, and/or other experienced chemists prior to working on their own. All new employees must work under direct supervision until they have demonstrated the ability to perform analyses or other work properly.

As previously mentioned, all training records are maintained in each employee's personal file. In addition, employee reviews and/or performance evaluations are documented in the personal files.

### **4.0 SAFETY**

Safety in the laboratory is the primary consideration of American Analytics. The laboratory is furnished with a state-of-the-art environment, as well as the necessary protection against any accident. The staff is trained in the handling of hazardous materials, and emergency and response procedures, in the event of an accident.

For safety reasons, all the work involving chemicals is confined to designated areas equipped with chemical hoods and special air exchange ventilation.

All hazardous materials are disposed of per California Department of Health Services (CDOHS) regulations and transported to legal Class I disposal or recycling facilities. Manifest records are kept in the laboratory files.

## 5.0 QA/QC OBJECTIVES FOR MEASUREMENT DATA

The effectiveness of a QA/QC program is measured by the quality of the data generated by the laboratory. Data quality is judged in terms of precision, accuracy, representativeness, completeness, and comparability. These terms are defined and described as follows:

- **Precision:** Is the degree to which the measurement is reproducible. Actual control limits for the precision will depend upon the specific method; in general, the relative percent difference (RPD) should be within 30%, the limit set by the EPA for the Contract Laboratory Program (CLP).
- **Accuracy:** Is a determination of how close the measurement is to the true value. Unless specified otherwise in special contracts and particular methods, American Analytics parameter for accuracy is  $\pm$  three standard deviations from the mean, with two standard deviations established as a warning for system check.
- **Representativeness:** Is the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Analytical data should represent the sample analyzed regardless of the heterogeneity of the original sample matrix. For example, with samples consisting of several phases, it may be advisable to analyze each phase separately and to determine each phase proportionately in terms of the whole sample.
- **Comparability:** Expresses the confidence with which one data set can be compared to another data set of the same property. Comparability is assured through the use of established and approved analytical methods, consistency in the basis of analysis (wet weight, volume, etc.), and consistency in reporting units (ppm, ppb, etc.).
- **Completeness:** Completeness is a measure of the percent of valid or usable data in relation to all information obtained for a valid scientific study. For completeness, it is expected that the methodology proposed for chemical characterization of the samples collected will provide data meeting QC acceptance criteria following standard laboratory data review and validation for at least 95% of all samples collected. Completeness may also be defined as a comparison of the number of tests successfully completed (with acceptable QC) to the total number of tests requested.



- **Method Detection Limit:** Method detection limits are determined for all methods performed in the laboratory. For each method, a seven replicate study is performed by which the recovery of the parameters of interest are calculated and used to obtain the detection limits.

The quality objectives for the analyses conducted in the laboratory are presented in Table 4.

**Table 4**  
**Precision, Accuracy and Completeness Objectives**

Reference AA SOP#	Analysis	Precision RPD	Accuracy (%LCS Recovery)	Completeness (% Val. Data)
3005	ICP Metals (Al, Ba, As, Ca, Cr, Cu, Pb, Mn, Ni, Se, Sn, Tl, Sb, Be, Cd, Co, Fe, Mg, Mo, Ag, B, K, Na, V, Zn)	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
3010	ICPMS Metals (Al, Ba, As, Ca, Cr, Cu, Pb, Mn, Ni, Se, Tl, Sb, Be, Cd, Mo, K, Si Co, Mg, Na, Mo, V, Ag, Zn)	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
3015	Graphite Furnace Metals (As, Be, Cr, Se, Tl, Sb, Cd, Pb, Ag)	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
3020	Cold Vapor Metals (Hg)	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4505	Anions by IC Nitrate Nitrite	30% Aqueous Samples; 40%	80-120% or Historical Control Limits	95%

Reference AA SOP#	Analysis	Precision RPD	Accuracy (%LCS Recovery)	Completeness (% Val. Data)
	Sulfate o-Phosphate Chloride Bromide Fluoride	Nonaqueous or historical control limits		
4515 4520	Hexavalent Chromium by IC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4510	Perchlorate By IC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4525	Divalent Manganese By IC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%

Reference AA SOP#	Analysis	Precision RPD	Accuracy (%LCS Recovery)	Completeness (% Val. Data)
4530	Volatile Fatty Acids by IC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4350	Alkalinity	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4015	Ammonia as N			
4020	BOD			
4405	TOC			
4120	Ferrous Iron			
4125	Chlorine Residual			
4115	COD			
4140	Cyanide			
4310	Hardness – Total as CaCO <sub>3</sub>			
4220	Oil & Grease Gravimetric			
4135	Total Rec. Petr. Hydrocarbons			
4025	Oxygen Dissolved			
4005	pH			
4225	Residue, Total (TS)			
4205	Residue, Filterable (TDS)	30% Aqueous Samples; 40% Nonaqueous or historical control limits	80-120% or Historical Control Limits	95%
4210	Residue, Nonfilterable (TSS)			
4215	Residue, Settleable (SS)			
4010	Specific Conductance			
4110	Sulfides			
4105	Turbidity			

Reference AA SOP#	Analysis	Precision RPD	Accuracy (%LCS Recovery)	Completeness (% Val. Data)
4130	Hexavalent Chromium colorometric	30%	80-120%	95%
5405 5430	Volatile Organics by GC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	Historical Control Limits Or Method Specific Limits	95%
5805 5810	Polynuclear Aromatic Hydrocarbons (PAHs) by HPLC	30% Aqueous Samples; 40% Nonaqueous or historical control limits	Historical Control Limits Or Method Specific Limits	95%
5615 5620 5625	Semi-Volatile Organics (Organochlorine Pesticides and PCB's) by GC	30% Aqueous Samples; 40% Nonaqueous Or historical Control limits	Historical Control Limits Or Method Specific Limits	95%
5420  5605 5610	Alcohols by GC/FID  TPH Extractable by GCFID	30% Aqueous Samples; 40% Nonaqueous Or historical Control limits	Historical Control Limits Or Method Specific Limits	95%
5005 5010 5025 5020	Volatile Organics by GC/MS  TPH GRO by GCMS	30% Aqueous Samples; 40% Nonaqueous or historical control limits	Historical Control Limits Or Method Specific Limits	95%
5030	Volatile Organics in Drinking Water by GC/MS	30%	Historical Control Limits Or Method Specific Limits	95%

Reference AA SOP#	Analysis	Precision RPD	Accuracy (%LCS Recovery)	Completeness (% Val. Data)
5015	1,2,3- Trichloropropane by GCMSMS	30%	Historical Control Limits Or Method Specific Limits	95%
5205 5215	Semi-Volatile Organics by GC/MS	30% Aqueous Samples; 40% Nonaqueous or historical control limits	Historical Control Limits Or Method Specific Limits	95%
5210	1,4-Dioxane by Isotope dilution	30%	Historical Control Limits Or Method Specific Limits	95%
5415	Light Gases by GC/FID	30%	Historical Control Limits Or Method Specific Limits	95%
5425	Fixed Gases	30%	Historical Control Limits Or Method Specific Limits	95%
5410	Dissolved Gases	30%	Historical Control Limits Or Method Specific Limits	95%

## 6.0 SAMPLE CUSTODY AND HANDLING

In the laboratory and in the field, correct sampling, handling, and storage of the samples are essential to produce reliable concentration data for the samples.

American Analytics sample collecting and sample handling procedures are as follows:

- Sample Collection
- Sample Preservation
- Sample Custody
- Sample Handling

## 6.1 Sample Collection

Sampling equipment, appropriate containers, appropriate preservatives, and careful monitoring of holding times are a few of the points which must be considered in order to minimize possible contamination or other threats to the integrity of the sample. Proper sample collection and handling is the responsibility of the sample collector, who must follow EPA guidelines. If the sample collector requires assistance, American Analytics will provide written instructions for sample collection, handling, and storage, as well as, proper sample containers. The guidelines for sampling are given in Chapter Four of EPA Manual SW-846, and are summarized in Appendix A. In addition, Chapter Four of SW-846 presents general information on sampling techniques and guidelines. Any client requiring assistance will be referred to these references, and/or provided copies of the same if unable to obtain copies of documents before analysis.

## 6.2 Sample Preservation

The guidelines followed for sample preservation can be found in Chapter Four of EPA Manual SW-846 and are summarized in Table 4. Preservation techniques are usually performed in the field when the samples are collected.

**Table 5**  
**Sample Handling Procedures**

EPA Method	Sample Container <sup>1</sup>	Sample Preservation	Preferred Volume	EPA Holding Time <sup>4</sup>
<b>Volatile Organics</b>				
8015M (Gasoline Range)	VOA	Store @ 4°C	3 x 40 ml	14 days
602	VOA	Store @ 4°C <sup>(2,3)</sup>	3 x 40 ml	14 days
8021	VOA	Store @ 4°C <sup>(2,3)</sup>	3 x 40 ml	14 days
8260B/524.2	VOA	Store @ 4°C <sup>(2,3)</sup>	3 x 40 ml	14 days
624	VOA	Store @ 4°C <sup>(2,3)</sup>	3 x 40 ml	14 days

EPA Method	Sample Container <sup>1</sup>	Sample Preservation	Preferred Volume	EPA Holding Time <sup>4</sup>
<b>Semi-Volatile Organics</b>				
8081A/8082	1L Amber	Store @ 4°C	1000 ml	7/40 days
625/8270/1625M	1L Amber	Store @ 4°C	1000 ml	7/40 days
8310/610	1L Amber	Store @ 4°C	1000 ml	7/40 days
8015M (Diesel Range)/ TPH CC	250 ml Amber	Store @ 4°C	250 ml	14/40 days
TRPH (418.1)	250 ml Amber	Store @ 4°C, H <sub>2</sub> SO <sub>4</sub>	250 ml	28 days
<b>General Chemistry</b>				
pH	1L Plastic/Glass	Store @ 4°C	100 ml	Immediately
Mercury	500 ml Plastic	HNO <sub>3</sub> to pH<2	500 ml	28 days
Chromium (VI)	250 ml Plastic	Store @ 4°C	250 ml	24 hours
All other metals	500 ml Plastic	HNO <sub>3</sub> to pH<2	500 ml	6 months
Alkalinity	250 ml Plastic	Store @ 4°C	100 ml	14 days
Ammonia	500 ml Plastic	Store @ 4°C, H <sub>2</sub> SO <sub>4</sub>	500 ml	28 days
BOD	500 ml Plastic	Store @ 4°C	500 ml	48 hours
Chloride	250 ml Plastic	Store @ 4°C	100 ml	28 days
Chlorine Residual	500 ml Plastic	Store @ 4°C	500 ml	Immed.
COD, TOC	250 ml Plastic	Store @ 4°C, H <sub>2</sub> SO <sub>4</sub>	250	28 Days
Cyanide	500 ml Plastic	Store @ 4°C NaOH	500	14 Days
Fluoride	250 ml Plastic	Store @ 4°C	200 ml	28 days
Hardness – Total as CaCO <sub>3</sub>	250 ml Plastic	Store @ 4°C	250 ml	6 months
Nitrate	250 ml Plastic	Store @ 4°C	250 ml	48 hours
Nitrite	250 ml Plastic	Store @ 4°C	250 ml	48 hours
Perchlorate	250 ml Plastic	Store @ 4°C	250 ml	28 days
Divalent Manganese	40 ml VOA	Store @ 4°C	40 ml	14 days
Volatile Fatty Acids	40 ml VOA	Store @ 4°C	40 ml	14 days
Oil & Grease	1 L Glass	Store @ 4°C, H <sub>2</sub> SO <sub>4</sub>	1000 ml	28 days

EPA Method	Sample Container <sup>1</sup>	Sample Preservation	Preferred Volume	EPA Holding Time <sup>4</sup>
Oxygen Dissolved	500 Glass Bottle and Top	Store @ 4°C	500 ml	Immed.
Phosphate – Ortho	250 ml Plastic	Store @ 4°C	100 ml	48 hours
Residue, Total (TS)	250 ml Plastic	Store @ 4°C	250 ml	7 days
Residue, Filterable (TDS)	250 ml Plastic	Store @ 4°C	250 ml	7 days
Residue, Nonfilterable (TSS)	250 ml Plastic	Store @ 4°C	250 ml	7 days
Residue, Settleable (SS)	1 L Plastic	Store @ 4°C	1000 ml	48 hours
Specific Conductance	250 ml Plastic	Store @ 4°C	100 ml	28 days
Sulfate	250 ml Plastic	Store @ 4°C	100 ml	28 days
Sulfide	500 ml Plastic	Store @ 4°C, NaOH pH>9, Zn Acetate	500 ml	7 days
Turbidity	250 ml Plastic	Store @ 4°C	100 ml	48 hours

#### Notes for Table 5:

- VOA (volatile organic analysis) vial 40 ml with Teflon-faced silicone cap liner. Samples are collected with no headspace.  
1L Amber, a one liter amber glass bottle with Teflon-lined screw cap. If amber bottles are not available, wrap the bottle in aluminum foil to protect from light.
- If the sample contains free or combined chlorine, add sodium thiosulfate (10 mg/40 ml) to the VOA vial before collecting the sample. For the 1L amber glass bottle, add 80 mg sodium thiosulfate per liter of sample.
- If the water sample is to be stored for more than 7 days before analysis, add HCl to adjust the pH to <2.
- 14 days means: Analysis must occur within 14 days of sampling. 7/40 means: 7 days for extraction and 40 days for analysis, depending on sample matrix. Waters are 7 days, soils are 14 days.



### 6.3 Sample Custody

Chain-of-custody procedures have been established to document the identity of a sample and its handling from the time of collection until its ultimate disposal. A chain-of-custody must accompany all samples.

The sampling technician in the field initiates a chain-of-custody record which remains with the sample throughout its handling from the field collection, to delivery to the laboratory, to analysis in the laboratory. A sample chain-of-custody record is shown in Figure 1.


Verification of sample integrity is one of the main responsibilities of the sample control officer. The sample is inspected to ensure that:

- The sample is clearly marked and sampling date is included.
- The sample was collected in an appropriate container for the analysis.
- The sample is properly preserved.
- There is sufficient volume to do all the analyses required.
- Samples should match those in the chain-of-custody

If the above conditions are met, the sample is then assigned a unique log number which, in addition to being attached to the sample container, is entered on the chain-of-custody record, in the sample log book, and into the computerized data handling system (electronic LIMS). Besides the project and log numbers, the computerized record also contains the client name, the sample description, the sample matrix type, the required analytical parameters, and the report due date. All records of received materials are maintained.

If the above conditions are not met, the client who originally brought the sample to the laboratory must be contacted and notified. Option can be given as to what can be done with the samples as is or if new samples are required.

Figure 2. Chain-of-Custody Sample Form



**AMERICAN ANALYTIX CHAIN-OF-CUSTODY RECORD**  
 9765 ETON AVE., CHATSWORTH, CA 91311  
 (818) 968-5547 (818) 998-5548 1-800-533-TEST 1-800-533-8378 FAX (818) 998-7258

DATE: \_\_\_\_\_  
 PAGE: \_\_\_\_\_ OF \_\_\_\_\_

AA Client		Phone		Sample's Name		
Project Manager		P.O. No.		Sample's Signature		
Project Name		Project No.		Project Manager's Signature		
Job Name and Address		DEFLECTION LIMITS		ANALYSIS REQUIRED		
		Test Name				
AA I.D.#	Client's I.D.	Date	Time	Sample Type	Number of Containers	Test Requirements
SAMPLE INTEGRITY TO BE FILLED IN BY RECEIVING LAB						
Sample Intact						
Sample Properly Cooled						
Sample Accepted						
If Not Why:						
AA Project No.						

DISTRIBUTION: White - Laboratory, Canary - Laboratory, Pink - Account Executive, Gold - Client

## 6.4 Sample Handling

After samples have been logged in, the samples (or subsamples) are refrigerated at 4°C. VOA vials are separated from other samples to prevent vapor-phase cross contamination. If aliquots or subsamples are to be split out of a sample, care is taken to ensure that the subsamples are representative of the original. Blending or grinding may be required.

American Analytics follows the general procedures for sample handling for trace organic analysis as discussed in Chapter 8 of the "Handbook for Analytical Quality Control in Water and Wastewater Laboratories" (EPA, 1979). Specific procedures for sample handling are given in EPA Manual SW-846 or in the Federal Register, and are summarized in Table 4 for the methods performed by American Analytics. Field personnel are informed of the guidelines for sample collection and container labeling. They are also informed of the policy governing acceptance or rejection of samples delivered for analysis. All samples and extracts are tracked from receipt, storage, handling, analysis, reporting, and disposal by their unique American Analytics sample number.

Samples are available to personnel within the laboratory who need access. Refrigerators are centrally located. Sample controllers provide some sample security and only authorized laboratory personnel may store and/or handle samples in the laboratory.

## 7.0 CALIBRATION PROCEDURES

All reagent chemicals used by American Analytics are of ACS reagent grade or better, purchased from reputable laboratory supply companies. Standards are prepared in the laboratory from high-purity starting materials or purchased as standard concentrates.

Calibration procedures differ by analytical method (refer to Table 6 for specific details.)

### 7.1 Instrument Calibration

#### 7.1.1 Volatile Organics by GC/MS

The instrument tune is checked with BFB (bromofluorobenzene) every twelve (12) hours of operation. Specific ions resulting from electron impact fragmentation must meet EPA specified ion abundance criteria. The initial calibration of the GC/MS is conducted as necessary, using standards prepared at five different concentrations. Response factors of the System Performance Check Compounds (SPCC's) must exceed 0.300. The percent relative standard deviation of the Cali-

bration Check Compounds (CCC's) must be less than or equal to 30%. Percent relative standard deviation of non-CCC's must be less than or equal to 15%.

A continuing calibration check is analyzed every twelve (12) hours. The SPCC response factors must be greater than 0.300, and the CCC response factors may not deviate more than 20% from the average response factor of the initial calibration. The internal standard calibration method is used to quantitate samples.

#### 7.1.2 Base/Neutral and Acid Extractable Organics by GC/MS

The instrument tune is checked with DFTPP (decafluorotriphenylphosphine) every twelve (12) hours of operation. Specific ions resulting from electron impact fragmentation must meet EPA specified ion abundance criteria. The initial calibration of the GC/MS is conducted as necessary, using standards prepared at five different concentrations. Response factors of the System Performance Check Compounds (SPCC's) must exceed 0.050. The percent relative standard deviation of the Calibration Check Compounds (CCC's) must be less than or equal to 30%. The percent relative standard deviation of non-CCC's must be less than or equal to 15%.

A continuing calibration check is analyzed every twelve (12) hours. The SPCC response factors must be greater than 0.050, and the CCC response factors may not deviate more than 20% from the average response factor of the initial calibration. The internal standard calibration method is used to quantitate samples.

#### 7.1.3 Volatile Organics by Gas Chromatography

Initial calibration is performed with a minimum five (5) standards prepared at five different concentrations. The percent relative standard deviation of the response factors for each analyte calculated at each of the five concentration levels must not exceed 20%. Prior to sample analysis a calibration verification standard is run to verify the validity of the calibration. The percent difference between the average response factor of the initial standard curve for a specific parameter and the response factor of the continuing calibration for the same parameter must be within +/- 15%. If this criterion is not met for all parameters then the average of the responses for all parameters must be within +/- 15%.

#### 7.1.4 Semi-Volatile Organics by Gas Chromatography

Initial calibration is performed with a minimum five (5) standards prepared at five different concentrations. The percent relative standard deviation of the response factors for each analyte calculated at each of the five concentration levels must not exceed 20%. Prior to sample analysis a calibration verification standard is run to verify the validity of the calibration. The percent difference between the average response factor of the initial standard curve for a specific parameter and the

response factor of the continuing calibration for the same parameter must be within +/- 15%. If this criterion is not met for all parameters then the average of the responses for all parameters must be within +/- 15%.

#### 7.1.5 Metals by ICP

Each day prior to sample analysis, an instrument calibration is performed. The calibration is then verified by analyzing the Initial Calibration Verification (ICV) standard which must lie within 10% of the true concentration. Following the ICV, a Continuing Calibration Verification (CCV) standard is analyzed every ten (10) samples which must also lie within 10% of the true concentration. Standards are prepared by diluting mixed-element concentrates, which are themselves prepared from commercially available solutions. Comparability studies are carried out frequently to validate the concentrations of the commercial standards.

#### 7.1.6 Metals by Graphite Furnace

Each day prior to sample analysis, an instrument calibration is performed for each metal of interest using a minimum of three (3) standards. The calibration curve for each metal must have a correlation coefficient of 0.995 or greater. Following the initial calibration, a Continuing Calibration Verification (CCV) is analyzed every ten (10) samples. The calculated concentrations of the target metals must lie within 10% of the theoretical concentrations of the metals in the CCV. Standards are prepared by diluting mixed-element concentrates, which are themselves prepared from commercially available solutions. Comparability studies are carried out frequently to validate the concentrations of the commercial standards.

#### 7.1.7 Metals by ICPMS

Each day prior to sample analysis, the ICPMS is calibrated by performing five (5) analytical runs comprised of a blank and four (4) standards prepared at different concentrations covering the range of interest. Prior to analysis, each of the calibration standards including the blank is spiked with a mix of internal standards. When the analyses are completed, the instrument is calibrated using linear regression analysis, by plotting the relative response (response relative to ISTD response) for each element versus the concentration in  $\mu\text{g/L}$  and determining the slope (m), intercept (b), and correlation coefficient (r) of the calibration curve. This is automatically performed by the ICP-OES software. The correlation coefficient  $r^2$  for each element must be  $\geq 0.995$ , or the calibration must be repeated. Following the initial calibration, an Initial Calibration Verification (ICV) standard prepared from a separate source (independent) from the calibration standard source; matrix matched (the same concentration of acid as contained in the standards and samples) must be analyzed. The percent recovery of each of the elements of interest must be between 90 and 110% when compared to the theoretical value of the concentration of each element in the standard. When performing the analytical sequence, the initial calibration must be verified by analyzing a Continuing

Calibration Verification (CCV) standard prepared from the same source as the calibration standards. The CCV is analyzed with a frequency of one (1) for every ten (10) analytical samples and the percent recovery of each of the elements of interest must be between 90 and 110% when compared to the theoretical value of the concentration of each element in the standard Continuing Calibration Verification (CCV). All standards are prepared by diluting mixed-element concentrates, which are themselves prepared from commercially available solutions. Comparability studies are carried out frequently to validate the concentrations of the commercial standards.

#### 7.1.8 Ion Chromatography (IC) Analyses

Classical anions: fluoride, chloride, nitrate, nitrite, phosphate, and sulfate; perchlorate, light fatty acids, permanganate, and low level hexavalent chromium fall into this category. Initial calibration is performed by analyzing a minimum of five (5) standards prepared at five different concentrations. The instrument is calibrated by plotting the response for each target compound versus the concentration and determining the slope (m), intercept (b), and correlation coefficient (r) of the calibration curve using linear regression analysis. This is automatically performed by the data system software. The correlation coefficient  $r^2$  for each target compound must be  $\geq 0.995$ , or the calibration must be repeated. Following the initial calibration, in order to verify that standards have been prepared accurately and the calibration was performed correctly, an Initial Calibration Verification (ICV) standard must be analyzed using a standard of known concentration prepared from an independent source. The percent recovery of each of the target compounds must be between 90 and 110% when compared to the theoretical value of the concentration of each compound in the standard. If this criterion is not met for all compounds, the ICV must be re-analyzed. If again the criterion is not met the instrument must be re-calibrated. When performing the analytical sequence, the initial calibration must be verified by analyzing a Continuing Calibration Verification (CCV) standard prepared from the same source as the calibration standards. The CCV is analyzed with a frequency of one (1) for every ten (10) analytical samples and the percent recovery of each of the compounds of interest must be between 90 and 110% when compared to the theoretical value of the concentration of each element in the standard Continuing Calibration Verification (CCV). All standards are prepared by diluting mixed-element concentrates, which are themselves prepared from commercially available solutions. Comparability studies are carried out frequently to validate the concentrations of the commercial standards.

#### 7.1.9 High Performance Liquid Chromatography (HPLC) Analyses

Polynuclear Aromatic Hydrocarbons (PAHs) fall into this category. The initial calibration is performed by analyzing a minimum five (5) standards prepared at five different concentrations. The ratio of the response of each compound to the concentration of the compound for each calibration level is calculated to obtain the

response factor (RF) of the compound at each level. The calibration for each compound is assumed to be linear if the percent relative standard deviation of the response factors for each compound calculated at each of the five concentration levels does not exceed 20%. If this criterion is met, the RF used for quantification purposes is the average of the RFs calculated at each calibration level for each of the target compounds. Prior to sample analysis, an Initial Calibration Verification (ICV) standard is analyzed to verify the validity of the calibration. The percent difference between the average response factor of the initial calibration for a specific compound and the response factor of the ICV for the same compound must be within +/- 30%. The ICV is prepared from a standard source that is different from the source used to prepare the calibration standards. When performing the analytical sequence, the initial calibration is verified by analyzing a Continuing Calibration Verification (CCV) standard prepared from the same source as the calibration standards. The CCV is analyzed with a frequency of one (1) for every twenty (20) analytical samples and the percent difference between the average response factor of the initial calibration for a specific compound and the response factor of the CCV for the same compound must be within +/- 15%. All standards are prepared by diluting mixed-element concentrates, which are themselves prepared from commercially available solutions. Comparability studies are carried out frequently to validate the concentrations of the commercial standards.

#### 7.1.10 Colorimetric Analyses

Hexavalent chromium, ferrous iron, sulfides, COD, permanganate, and cyanide fall into this category. A calibration curve of at least three standards is prepared daily. The correlation coefficient of the curve must be 0.995 or greater.

#### 7.1.11 Potentiometric Analyses

Ammonia falls into this category. A calibration curve of at least three standards is prepared daily. The correlation coefficient of the curve must be 0.995 or greater.

#### 7.1.12 Titrimetric Analyses

Hardness, alkalinity, and calcium fall into this category. Titrants are standardized every three months with primary standards.

#### 7.1.13 Gravimetric Analyses

Oil and grease, dissolved solids, and suspended solids fall into this category. Each analysis depends heavily on the accuracy of the balance used. For this reason, balances are calibrated annually and checked on a weekly basis with class "S" weights. The recorded weight must agree within 0.1% of the expected weight.

7.1.14 pH

The pH meter is calibrated with two buffers separated by three pH units prior to analysis each day. The reading must be within 0.1 unit of the true value.

7.1.15 BOD

An ambient air calibration of the DO meter is performed daily prior to sample analysis. The calibration is also verified by taking a DO measurement of laboratory reagent water saturated with DO. The DO concentration must fall within +/- 15% of the literature value of water saturated with DO at the temperature at which the measurement is taken.

**Table 6**  
**Calibration Procedures**

Reference AA SOP#	Analysis	Calibration Methods	Frequency	Acceptance Criteria
<b>General Chemistry</b>				
4505	<b>Anions by IC</b> Nitrate Nitrite Sulfate Phosphate Chloride Bromide	Calibration Curve  Continuing Calibration	As needed base on CCV  Every 10 samples	>= 0.995 correlation  +/- 10% of theoretical value
4510	Perchlorate by IC	Calibration Curve  Continuing Calibration	As needed base on CCV  Every 10 samples	>= 0.995 correlation  +/- 10% of theoretical value
4525	Divalent Manganese by IC	Calibration Curve  Continuing Calibration	As needed base on CCV  Every 10 samples	>= 0.995 correlation  +/- 10% of theoretical value



Reference AA SOP#	Analysis	Calibration Methods	Frequency	Acceptance Criteria
4530	Volatile Fatty Acids by IC	Calibration Curve  Continuing Calibration	As needed base on CCV  Every 10 samples	$\geq 0.995$ correlation  $\pm 10\%$ of theoretical value
4515 4520	Hexavalent Chromium By IC	Calibration Curve  Continuing Calibration	As needed based on CCV  Every 10 samples	$\geq 0.999$ correlation  $\pm 10\%$ of theoretical value
4135	Total Recoverable Petroleum Hydrocarbons	Calibration Curve  Continuing Calibration	As needed based on CCV  Every 20 samples	$\geq 0.995$ correlation  $\pm 20\%$ of theoretical value
4005	pH	Two buffers	Daily	Within 0.1 unit of true value
4115 4140	COD Cyanide	Calibration Curve  Continuing Calibration	As needed base on CCV  Every 20 samples	$\geq 0.995$ correlation  $\pm 10\%$ of theoretical value
4205 4210 4220	Total Dissolved Solids Total Suspended Solids Oil and Grease, Gravimetric	Balance Check  Balance Service and calibration	Weekly  Annually	Within 0.1% of expected value

Reference AA SOP#	Analysis	Calibration Methods	Frequency	Acceptance Criteria
<b>Elemental Analysis</b>				
3005	<b>ICP Metals</b> (Al, Ba, As, Ca, Cr, Cu, Pb, Mn, Ni, Tl, Sb, Be, Cd, Co, Se, Sn, B, Fe, Mg, Mo, Si, K, Na, V, Ag, Zn)	Calibration curve  Calibration blank  Continuing calibration	Each batch  Every 10 samples  Every 10 samples	>= 0.995 correlation  within 3 std dev. of the mean  +/- 10% of the theoretical value
3010	<b>ICPMS Metals</b> (Al, Be, Cr, As, Mn, V, Sb, Ca, Co, Pb, Mo, K, Zn, Ba, As, Cd, Cu, Mg, Na, Ni, Si, Tl, Ag)	Calibration curve  Continuing calibration	Each batch  Every 10 samples	>= 0.995 correlation  +/- 10% of the theoretical value
3015	<b>Graphite Furnace Metals</b> (As, Be, Cr, Se, Tl, Sb, Cd, Pb, Ag)	Calibration curve  Continuing calibration	Each batch  Every 10 samples	>= 0.995 correlation  +/- 10% of the theoretical value
3020	Cold Vapor Metals (Hg)	Calibration curve	Daily	>= 0.995 correlation
<b>Organic Analyses</b>				
5405  5430	Volatile Organics by GC	Calibration curve (5 pt minimum)  Continuing calibration standard	As needed based on CCV results  Each batch	Percent RSD <=20  Percent RSD <=10  Specific to each method (refer to SOP)
5410  5415	Dissolved Gases by GCFID  Methane by GC/FID  Fixed gases by	Calibration curve (5 pt minimum)  Continuing calibration standard	As needed based on CCV result  Every 10 samples	Percent RSD <=20    <=15 percent

Reference AA SOP#	Analysis	Calibration Methods	Frequency	Acceptance Criteria
5425  5420	GC/TCD Alcohols by GC/FID			
5615 5620 5625	Semi-Volatile Organics (Organochlorin e Pesticides and PCB's) by GC	Calibration curve (5 pt minimum)  Continuing calibration standard	As needed based on CCV results  Each batch	Percent RSD <=20  Percent RSD <=10  Specific to each method (refer to SOP)
5605 5610	TPH Extractable by GC/FID	Calibration curve (5 pt minimum)  Continuing calibration standard	As needed based on CCV results  Each batch	Percent RSD <=20  Percent Diff <=15
5805 5810	Polynuclear Aromatic Hydrocarbons (PAHs) by HPLC	Calibration curve (5 pt minimum)  Continuing calibration standard	As needed based on CCV results  Each batch	Percent RSD <=20  Specific to each method (refer to SOP)
5005 5010 5015 5020 5025	Volatile Organics by GC/MS	Tune check w/BFB  Initial calibration  Continuing calibration	Every 12 hours of operation  As needed based on CCV results(CCC's and SPCC's)  Every 12 hours of operation	Ion abundance criteria(see SOP)  SPCC's with RF>= 0.300; CCC's %RSD<= 30; Non CCC's %RSD <=15  SPCC's with RF>= 0.300; CCC's RF deviates < =20% from average of initial calibration
5030	Volatile	Tune check w/BFB	Every 12 hours of	Ion abundance criteria

Reference AA SOP#	Analysis	Calibration Methods	Frequency	Acceptance Criteria
	Organics in Drinking Water	Initial calibration	operation  As needed based on CCV	(see SOP)  %RSD $\leq$ 20 for all analytes
		Continuing calibration	Every 12 hours of operation	%Diff $\leq$ 30 for all analytes
5205 5215 5210	Semi-Volatile Organics by GC/MS	Tune check w/BFB	Every 12 hours of operation	Ion abundance criteria(see SOP)
		Initial calibration	As needed based on CCV results(CCC's and SPCC's)	SPCC's with RF> 0.050; CCC's %RSD $\leq$ 30; Non CCC's %RSD $\leq$ 15
		Continuing calibration	Every 12 hours of operation	SPCC's with RF $\geq$ 0.050; CCC's RF deviates $\leq$ 20% from average of initial calibration

## 7.2 Standards Preparation and Calibration Procedures

### 7.2.1 Standard Preparation

Commercially prepared and certified stock standard solutions are used, if they are available, from suppliers such as Supelco, Accustandard or Ultra Scientific.

Otherwise, the standards are prepared in the laboratory, using reagent grade chemicals. Working solutions are prepared by diluting the stock solutions accordingly.

The standard preparation procedures are documented in detail in the method specific laboratory Standard Operating Procedures (SOP's). Information regarding

the standard preparation date, lab identification code, concentration, vendor, lot numbers, expiration date and other details are documented in the appropriate standard preparation log book. All neat organic compounds are entered into an inventory system which includes recording the following: purity, date received, supplier, supplier stock number, lot number and storage location. Stock and working solutions are traceable to the parent compound. When a new standard is prepared, its response is compared with that of the replaced standard to check for gross errors. Standards from commercial sources are replaced no later than the expiration date supplied by the manufacturer or one year, whichever is sooner. When determining a standard replacement schedule, consideration must be made for stability and volatility of the solvent as well as the analyte.

### 7.2.2 External Standard Calibration Procedure

For each analyte of interest, prepare calibration standards at three to five concentration levels as specified in the SOP by adding volumes of one or more stock standards to a volumetric flask, and diluting to volume with an appropriate solvent. One of the external standards should be at a concentration near, but above, the method detection limit. The other concentrations should correspond to the expected range of concentrations found in real samples, or should define the working range of the detector.

Inject each calibration standard using the technique that will be used to introduce the actual samples into the gas chromatograph (e.g., 1- to 5- $\mu$ L injections, purge-and-trap, etc.) Tabulate peak height or area responses against the mass injected. The results can be used to prepare a calibration curve for each analyte. Alternatively, for samples that are introduced into the gas chromatograph using a syringe, the ratio of the response to the amount injected, defined as the calibration factor (CF), can be calculated for each analyte at each standard concentration. For analytical methods using the external standard calibration procedure if the percent relative standard deviation (%RSD) of the calibration factor is less than 20% over the working range, linearity through the origin can be assumed, and the average calibration factor can be used in place of a calibration curve.

$$\text{Calibration Factor} = \frac{\text{Area of Peak}}{\text{Mass injected (in nanograms)}}$$

$$\text{Percent Difference} = \frac{R_1 - R_2}{R_1} \times 100$$

Where:

R<sub>1</sub> = Calibration factor from first analysis.

R<sub>2</sub> = Calibration factor from succeeding analyses.

$$\%RSD = \frac{S}{X} \times 100$$

Where:

S = Standard deviation of calculated calibration factors.

X = Arithmetic mean of calculated calibration factors.

### 7.2.3 Internal Standard Calibration Procedure

To use this approach, the analyst must select one or more internal standards that are similar in analytical behavior to the compounds of interest. The analyst must further demonstrate that the measurement of the internal standard is not affected by method or matrix interferences. Due to these limitations, no internal standard applicable to all samples can be suggested.

Tabulate the peak height or area responses against the concentration of each compound and internal standard. Calculate response factors (RF) for each compound as follows:

$$RF = (A_s C_{is}) / (A_{is} C_s)$$

Where:

A<sub>s</sub> = Response for the analyte being measured.

A<sub>is</sub> = Response for the internal standard.

C<sub>is</sub> = Concentration of the internal standard.

C<sub>s</sub> = Concentration of the analyte being measured.

The RF must meet method specific criteria for each parameter of interest as stated in the Standard Operating Procedure (SOP).

### 7.2.4 Method of Standard Additions

Equal portions of sample are added to water blank and standard. For more accuracy multiple additions of sample are made. The absorbance of each solution is determined and then plotted on the vertical axis of a graph, with the concentrations of the known standards plotted on the horizontal axis. When the resulting line is extrapolated back to zero absorbance, the point of interception of the abscissa is the concentration of the unknown.

## 8.0 STANDARD OPERATING PROCEDURES

Methods specified in the Federal Register, October 26, 1984 and in EPA Manual SW-846 are the basis for Standard Operating Procedures (SOP) used by

American Analytics. An SOP is present for each analysis performed by American Analytics. These SOPs are kept in the laboratory for use by the analysts.

Standard Operating Procedures may only be changed by the QA/QC officer following final approval by the Laboratory Director.

## **9.0 DATA RECORDING, REDUCTION, VALIDATION, AND REPORTING**

### **9.1 Data Recording**

All analytical procedures are recorded in laboratory notebooks. This includes the method used, the sample identity, any variations from the standard procedure, dilution of the sample, volumes used, etc. The originals of all records and notebooks are kept on file in the laboratory. Clients may receive copies of the records, along with the official report that is submitted. Other records are kept separately from the laboratory in the administrative files.

### **9.2 Data Reduction**

Most data produced in the laboratory are generated through the use of dedicated instrumentation with microcomputer interfaces. These PC-based systems receive the original signal from the instrument to which the sample or extract was submitted. The PC--or, for some larger instruments, a dedicated minicomputer--transforms the raw signal into a quantitative value.

An experienced analyst reviews this "candidate" result either on screen or on a printout, verifying identifications, double-checking quantitative formulas, and acquiring final numerical values. The analyst writes out calculated results or checks off computer-produced results directly on the computer printout. The printout is cross-referenced to a file number in a bound run log.

Some instruments are configured to operate without computers. For these, the signal is recorded as a strip-chart trace, as numerical output on a printer strip, or as a direct reading from a digital or analog dial. In such cases, the analyst must then reduce the data to a reportable format, multiplying the original signal by a calibration factor or comparing it with a standard curve. Blank correction may be required. The aliquot result must be divided by the mass or volume of the sample to produce a concentration-based final result. Simple programs are used for some calculations; most are carried out on handheld scientific calculators. All these data are recorded in a bench book for the particular determination in question. The analyst enters results for single or multiple component tests in the assigned book by hand.

Some lab tests, such as titrations or sensory evaluations, do not use instruments. For these, the analyst records the quantitative result or observation

directly in a bound book. The same calculations as those described in the last paragraph may be needed; if so, they are recorded in the book.

Raw data with accompanying calculations are maintained in individual project files for future reference.

### **9.3 Data Validation**

After data reduction has occurred, draft reports of the analytical results are submitted to the operations manager for review. The raw data and calculations are reviewed to ensure that the chemists correctly interpreted the data and did not make errors in the calculation of the reported analytical results. The operations manager also reviews the data to ensure the all QA/QC requirements are met. For each analytical method the analytical batch is checked to ensure that all QA/QC elements were performed. The QA/QC results are checked to identify potential deviations from the method QA/QC acceptance criteria. If deviations are found, the appropriate corrective action ( see section 13.0) must be taken before the results can be released.

### **9.4 Reporting**

After the data is reviewed, the final report is printed automatically by use of the Laboratory Information Management System (LIMS). An example page of the analytical report can be seen in Figure 2. If there is a client inquiry prior to completion of all analytical work on a specific project, a partial report of analytical results can be printed by the LIMS. Supplemental items can also be generated by the LIMS and submitted to the client such as:

- QA/QC reports in various formats
- Tabulated chronological trending of analytical results
- Results in electronic format (Excel, DBF, ASCII comma and quote delimited and various other formats.

When the final report is printed, it is reviewed and signed by the project manager.

Final reports are stored in their respective project files within the laboratory.



Figure 3.  
Example of Analytical Report Format



LABORATORY ANALYSIS RESULTS

Page 1

Client:  
Project No.: N/A  
Project Name:  
Sample Matrix: Water  
Method: EPA 8020 (BTEX)

AA Project No.: A135218-17  
Date Received: 02/11/00  
Date Reported: 02/23/00  
Units: ug/L

Date Sampled:	02/10/00	02/10/00	02/10/00	02/10/00	
Date Analyzed:	02/16/00	02/16/00	02/16/00	02/16/00	
AA ID No.:	102247	102248	102249	102250	
Client ID No.:	MW-6	MW-4	MW-7	MW-5	MRL
<u>Compounds:</u>					
Benzene	<0.3	<0.3	0.50	0.40	0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	0.3
Toluene	<0.3	<0.3	<0.3	<0.3	0.3
Xylenes	<0.5	<0.5	<0.5	0.50	0.5

George Havalias  
Laboratory Director

## **10.0 INTERNAL QUALITY CONTROL CHECKS**

### **10.1 Continuing Calibration Standards**

Continuing calibration standards are used to verify the validity of an instrument or method calibration and dictate their ability to accurately quantify the concentration of a target parameter in an unknown sample. The chemical compounds that must be used in the calibration of each method are listed in the appropriate SOP. The results generated from the analysis of a continuing calibration standard must lie within specific acceptance criteria otherwise corrective action must be taken which may require instrument or method re-calibration.

### **10.2 Method Blanks**

Method blanks for aqueous samples consist of organic-free or deionized water carried through the analytical scheme like a sample. For solid matrices method blanks are prepared using Ottawa sand to simulate solid matrix effects. Method blanks serve to measure contamination associated with laboratory storage, preparation, or instrumentation. For most tests, one method blank is analyzed in every analytical batch of samples.

### **10.3 Travel Blanks and Field Blanks**

Travel and field blanks identify contamination that occurs during sample transportation or collection. Travel blanks originate in the laboratory, where a sample vial is filled with organic-free reagent water and carried with other sample containers out to the field and then back to the lab. Field blanks originate as empty sample vials, which are carried to the sampling site and filled with organic-free water at the location.

### **10.4 Sample Blanks**

Sample blanks are used when characteristics such as color or turbidity interfere with a determination. In a spectrophotometric method, for example, the natural absorbency of the sample is measured and subtracted from the absorbency of the developed sample. Sample blanks are run only as necessary.

### **10.5 Calibration Blanks**

Calibration blanks are prepared with standards to create a calibration curve. They differ from other standards only by the absence of an analyte, and provide the "zero-point" for the curve.

## 10.6 Internal Standards

Internal standards are measured amounts of certain compounds added after sample preparation or extraction. They are used in an internal standard calibration method to correct sample results suffering from capillary column injection losses, purging losses, or the effects of viscosity. Internal standard calibration is currently used for volatile organics, semi-volatile organics, GC/MS extractables, and metals by ICP.

## 10.7 Surrogates

Surrogates are measured amounts of certain compounds added before sample preparation or extraction. Analysts measure the recovery of the surrogate to determine systematic extraction problems. Surrogates are added to all samples analyzed for chlorinated pesticides, GC/MS extractables, volatiles, and GC volatiles.

## 10.8 Spikes

Spikes are aliquots of samples to which known amounts of an analyte have been added. Stock solutions used for spiking are purchased or prepared independently of calibration standards. Prepared and analyzed in each batch of samples, spikes are subjected to the same preparation/extraction procedure and analysis as the samples in question. Spike recovery measures the effects of interferences in the sample matrix and reflects the accuracy of the determination. Spike recoveries are calculated as follows:

$$P = 100 (A - B) / T$$

Where:

P = percent spike recovery

A = concentration determined in spiked sample

B = concentration determined in original unspiked sample

T = true value of spike added.

The accuracy of each method is assessed by maintenance of records on matrix spike analysis. After the first five spike samples have been analyzed, the average  $P_a$  and standard deviation  $S_p$  of the percent recovery for each spike compound are calculated. The accuracy assessment is expressed as a percent recovery interval from  $P_a - 2S_p$  to  $P_a + 2S_p$ . The values of  $P_a$  and  $S_p$  are updated after each five to ten measurements. In addition, all spike recovery measurements after the first five are plotted on control charts, as percent recovery vs. analysis number. (Control charts are described in detail in Section 12.3 of this manual.) Any measurement higher than  $P_a + 2S_p$  or lower than  $P_a - 2S_p$  serves as a warning that the analytical system may be out-of-control.

## 10.9 Duplicates and Duplicate Spikes

Duplicates are additional aliquots of a sample that are subjected to the same preparation-and analytical scheme as the sample. When the analyte concentration is consistently below the detection limit, duplicate spikes are substituted for duplicates. Duplicates and duplicate spikes are prepared and analyzed in every batch basis of samples. The relative percent difference (RPD) between duplicates or duplicate spikes measures the precision of a given analysis and is calculated as follows:

$$\text{RPD} = [(R1 - R2)/R_{av}] \times 100 \quad (\text{or}) = [(S1 - S2)/S_{av}] \times 100$$

where R1 and R2 = duplicate determinations of the analyte in the sample

S1 and S2 = observed concentrations of analyte in the spike and its duplicate

R<sub>av</sub> = average determination of the analyte concentration in the original sample

S<sub>av</sub> = average of observed analyte concentrations in spike and its duplicate

## 10.10 Laboratory Control Standards

Laboratory control standards (LCS's)--or quality control check standards (QCCS's)—for aqueous samples are aliquots of organic-free or deionized water to which known amounts of an analyte have been added. For solid matrices, LCSs are prepared using Ottawa sand to which known amounts of an analyte have been added. Sand is used to simulate solid matrix effects. The LCSs are subjected to the same preparation/ extraction procedure and analysis as samples. Stock solutions used for LCS's are purchased or prepared independently of calibration standards. LCS recovery tests the functioning of analytical methods and equipment.

LCS's are prepared and analyzed with every batch of samples. The true value and recovered concentration are archived and retrievable for statistical analysis. Laboratory control limits are calculated when 30 data points become available. Control charts for LCS's can be generated on demand.

## 11.0 PERFORMANCE AND SYSTEM AUDITS

### 11.1 Performance Audits

Performance audits are carried out to quantitatively evaluate the measurements made by the laboratory on a regular basis.

The audits are carried out under the supervision of the QA/QC officer. The QA/QC Officer is trained in audit performance. Training is performed by other senior laboratory personnel with experience in auditing. External reference samples are analyzed bi-annually to audit the performance of the analytical procedures,

particularly to assess the accuracy of the measurements. These audits are performed for each method carried out by the laboratory. The audit samples are not identified, and are carried through the analytical procedure exactly the same as normal samples. The reference samples are obtained from commercial suppliers.

## 11.2 System Audits

A system audit is a qualitative evaluation of all components of the laboratory quality control measurement system. The laboratory is audited quarterly by the laboratory QA/QC officer. This systems audit includes evaluation of the analytical instruments, personnel, facilities, adherence to the method procedures, and quality control. Examples of questions addressed by the QA/QC officer during a system audit are shown in Appendix B.

Clients are provided access, by request, to our laboratory to perform their own audits as well.

## 11.3 Review of Analytical and Quality Control Results

The project manager reviews both the sample data and the quality control data. This review covers 100% of the analyses which are performed. Quality control is monitored through the use of control charts, as described in Section 12.3.

Any incorrect or out-of-control situations which are detected by the supervisor are corrected before analysis is allowed to continue. Corrective actions are described in Section 13.0.

All analytical and quality control results and corrective action procedures must be reviewed and approved by a supervisor and the QA officer. Approval must be indicated by their signature.

## 12.0 ROUTINE PROCEDURES TO ASSESS DATA PRECISION, ACCURACY, AND COMPLETENESS

### 12.1 Precision

Precision is determined by duplicate analyses, as previously described in Section 5.0. Precision is calculated as the relative percent difference (RPD) between duplicate samples:

$$RPD = \frac{X_A - X_B}{X_m} \times 100$$

Where  $X_A$  and  $X_B$  are values from duplicate analyses and  $X_m$  is the mean value of  $X_A$  and  $X_B$ . Values of RPD are calculated, and plotted on a control chart, as described in Section 12.3.

If the control limits for precision are exceeded, then corrective action must be taken before the analysis is completed. The upper and lower control limits and warning limits for precision are defined as follows:

$$\begin{aligned} \text{Upper Control Limit, UCL} &= \text{RPD} + 3s \\ \text{Lower Control Limit, LCL} &= \text{RPD} - 3s \\ \text{Upper Warning Limit, UWL} &= \text{RPD} + 2s \\ \text{Lower Warning Limit, LWL} &= \text{RPD} - 2s \end{aligned}$$

Where the standard deviation  $s$  of the RPD is:

$$s = \sqrt{\frac{\sum (RPD)^2 - (\sum RPD)^2 / n}{n - 1}}$$

Where  $n$  is the number of duplicate pairs evaluated for the parameter in question.

## 12.2 Accuracy

Accuracy is defined for spiked samples as the percent recovery  $P$ :

$$P = 100 \frac{A - B}{T}$$

Where  $A$  is the measured spike sample value,  $B$  is the sample value before spiking (background), and  $T$  is the value of the spike which was added to the sample.

The average recovery  $P_a$  is calculated as:

$$P_a = \sum P_i / n$$

Where  $i$  ranges from 1 to  $n$ ,  $n$  is the number of spike samples and  $P_i$  is the recovery of the spiked analyte in each sample.

The upper and lower control and warning limits are:

$$\begin{aligned} \text{UCL} &= P_a + 3S_p \\ \text{LCL} &= P_a - 3S_p \\ \text{UWL} &= P_a + 2S_p \\ \text{LWL} &= P_a - 2S_p \end{aligned}$$

Where the estimated standard deviation of the recovery  $S_p$  is calculated as:

$$S_p = \left[ \sum (P_i - P_a)^2 \right]^{1/2} \text{ Where: } i \text{ ranges from } 1 \text{ to } n$$

Values of percent recovery P are plotted on control charts, as described in Section 12.3.

### 12.3 Control Charts

Control charts are used to monitor the precision and accuracy of the analytical methods, and to determine whether the QC data are within control limits. The construction and use of control charts are described in Reference 2, and in Chapter 7 of Reference 3.

A control chart shows how a measured quantity compares with previous measurements of that quantity. Control and warning limits are calculated as described in Section 10.3. Information is compiled and incorporated into the control charts by the QA/QC Officer on a monthly basis.

If the data exceeds the control limits, (i.e., if the measured value is more than three standard deviations away from the previously established average), then corrective action must be taken before the results are reported. If the data exceeds the warning limits, (i.e., if the measured value is more than two but less than three standard deviations away from the previously established average), then the system should be monitored for possible corrective action. The control and warning limits are recalculated periodically, after every 20 measurements or once a year, whichever is more frequent.

### 13.0 CORRECTIVE ACTION

Quality control failures logically fall into two categories:

- Single QC outliers
- Systematic failure

QC outliers are identified by comparing the results from the analysis of the QA/QC samples to the control limits established for each method. Analytical control limits are maintained for laboratory control standards (LCS's), method blanks, spike recoveries, duplicates, and surrogate recoveries. In addition, many analytical methods have quality control criteria for calibrations, sensitivity checks, and other method-specific quality checks that are performed routinely. The acceptance limits for most QA/QC criteria are based on historical data collected in the laboratory and are revised periodically.

If one of the above checks does not meet the acceptance criteria, the analyst at the bench, and sometimes the section supervisor, initiates corrective action. Such action is initiated by documenting the failure, identifying the source of the problem and deciding on a course of action to correct the problem. Once the source of the

problem is identified, implementation of the corrective action is usually quick with little interruption in analysis. The nature of the problem, corrective action, and the result are documented in the laboratory corrective action form.

Systematic failures of a method, issues of method compliance, consistent contamination that the analyst cannot resolve, QC issues raised in audit reports, or QC issues that impact data already reported, are examples of more serious problems that are dealt with directly by the laboratory QA/QC officer who with the assistance of management and other technical staff in the laboratory identify the appropriate corrective action that will solve the problem. All details of this process are formally documented for future reference.

**Table 7**  
**Summary of Corrective Action Procedures**

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
<b>General Chemistry</b>				
4505	<b>Anions by IC</b>	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards
	Nitrate			
	Nitrite			
	Sulfate	Continuing Calibration	$\pm 10\%$ of theoretical value	Recalibrate, rerun last 20 samples
	Phosphate			
	Chloride	Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
	Bromide			
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze



Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
4515 4520	Hexavalent Chromium By IC	Calibration Curve	$\geq 0.999$ correlation	Rerun calibration standards
		Continuing Calibration	$\pm 10\%$ of theoretical value	Recalibrate, rerun last 10 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate	Above 10 X RDL; %RPD must be $\leq 20\%$ .	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
4135	Total Recoverable Petroleum Hydrocarbons	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards
		Continuing Calibration	$\pm 20\%$ of theoretical value	Recalibrate, rerun last 20 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate, Duplicate spike	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
4005	pH	Two buffers	Within 0.1 unit of true value	Recalibrate instrument
		Duplicate	% RPD must be within current control limits	Rerun to confirm matrix interference
		Laboratory control standard	Within current control limits	Solve problem and reanalyze batch
4115	COD	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards
4140	Cyanide	Continuing Calibration	$\pm 10\%$ of theoretical value	Recalibrate, rerun last 20 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
4205	Total Dissolved Solids	Balance Check	Within 0.1% of expected value	Recalibrate balance
4210	Total Suspended Solids	Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
4220	Oil and Grease, Gravimetric	Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate, Duplicate spike	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
<b>Elemental Analysis</b>				
3005	<b>ICP Metals</b> (Al, Ba, As, Ca, Cr, Cu, Pb, Mn, Ni, Ag, Se, Tl, Sb, Be, Cd, Co, B, Fe, Mg, Mo, K, Si, Na, V, Zn)	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards
		Calibration blank	Within 3 standard deviation of mean	Rerun blank
		Continuing Calibration	$\pm 10\%$ of theoretical value	Recalibrate, rerun last 20 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate, Duplicate spike	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
3010	<b>ICPMS Metals</b>	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
	(Al, Be, As, Cr, Mn, V, Sb, Ca, Co, Mo, Pb, Mo, Zn, Ba, Cd, Cu, Mg, Na, K, Si, Ni, Tl, Ag)	Calibration blank	Within 3 standard deviation of mean	Rerun blank
		Continuing Calibration	+/- 10% of theoretical value	Recalibrate, rerun last 20 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate, Duplicate spike	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
3015	<b>Graphite Furnace Metals</b> (As, Be, Cr, Se, Tl, Cd, Sb, Pb, Ag)	Calibration Curve	$\geq 0.995$ correlation	Rerun calibration standards
		Continuing Calibration	+/- 10% of theoretical value	Recalibrate, rerun last 20 samples
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
3020	Cold Vapor Metals (Hg)	Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate, Duplicate spike	Above 10 X RDL; %RPD must be within current control limits	Reprep to confirm matrix interference

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
<b>Organic Analyses</b>				
5405 5430 5410 5415 5425 5420	Volatile Organics by GC	Calibration Curve  Continuing Calibration  Method Blank  Spiked sample  Duplicate spike  Laboratory control standard  Surrogate recovery	%RSD <= 20  %RSD <=10  Within limits dictated in method specific SOP  Less than 5X reporting detection limit  Within current control limits  %RPD must be within current control limits  Within current control limits  Within current control limits	Rerun calibration standards  Rerun cont. calibration; recalibrate if still out  Solve Problem; Reanalyze batch  Examine LCS; if LCS also out, reprep batch and reanalyze  Reprep to confirm matrix interference  Examine spike; if spike also out, reprep batch and reanalyze  Reprep and reanalyze sample
5615 5620 5625	Semi-Volatile Organics (Organochlorin e Pesticides and PCB's) by GC	Calibration Curve  Continuing Calibration	%RSD <= 20  %RSD <=10  Within limits dictated in method specific SOP	Rerun calibration standards  Rerun cont. calibration; recalibrate if still out

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate spike	%RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
		Surrogate recovery	Within current control limits	Reprep and reanalyze sample
5605 5610	TPH Extractable by GC/FID	Calibration Curve	%RSD $\leq$ 20	Rerun calibration standards
		Continuing Calibration	%Diff $\leq$ 15	Rerun cont. calibration; recalibrate if still out
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate spike Laboratory control standard	%RPD must be within current control limits	Reprep to confirm matrix interference
		Surrogate recovery	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
			Within current control limits	Reprep and reanalyze sample
5805 5810	Polynuclear Aromatic Hydrocarbons (PAHs) by HPLC	Calibration Curve	%RSD $\leq$ 20	Rerun calibration standards
		Continuing Calibration	Within limits dictated in method specific SOP	Rerun cont. calibration; recalibrate if still out
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate spike	%RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
		Surrogate recovery	Within current control limits	Reprep and reanalyze sample
5005 5010 5015 5020 5025	Volatile Organics by GC/MS	Tune Check with BFB	Ion abundance criteria (See SOP)	Tune instrument; repeat
		Calibration Curve	SPCC's with RF > 0.300; CCC's %RSD < 30; Non CCC's %RSD < 15	Recalibrate instrument
		Continuing Calibration	SPCC's with RF > 0.300; CCC's RF deviates < 20%	Rerun cont. calibration; recalibrate if still out

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Method Blank	from average of initial calibration  Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate spike	%RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
		Surrogate recovery	Within current control limits	Reprep and reanalyze sample
5030	Volatile Organics in Drinking Water by GC/MS	Tune Check with BFB	Ion abundance criteria (See SOP)	Tune instrument; repeat
		Calibration Curve	%RSD $\leq$ 20 for all analytes	Recalibrate instrument
		Continuing Calibration	%Diff $\leq$ 30 for all analytes	Rerun cont. calibration; recalibrate if still out
		Method Blank	Less than 5X reporting detection limit  Within current	Solve Problem; Reanalyze batch  Examine LCS; if LCS



Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Spiked sample	control limits	also out, reprep batch and reanalyze
		Duplicate spike	%RPD must be within current control limits	Reprep to confirm matrix interference
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
		Surrogate recovery	Within current control limits	Reprep and reanalyze sample
5205 5215 5210	Semi-Volatile Organics by GC/MS	Tune Check with DFTPP	Ion abundance criteria (See SOP)	Tune instrument; repeat
		Calibration Curve	SPCC's with RF > 0.050; CCC's %RSD < 30; Non CCC's %RSD < 15	Recalibrate instrument
		Continuing Calibration	SPCC's with RF > 0.050; CCC's RF deviates < 20% from average of initial calibration	Rerun cont. calibration; recalibrate if still out
		Method Blank	Less than 5X reporting detection limit	Solve Problem; Reanalyze batch
		Spiked sample	Within current control limits	Examine LCS; if LCS also out, reprep batch and reanalyze
		Duplicate spike	%RPD must be within current control limits	Reprep to confirm matrix interference

Reference AA SOP#	Analysis	Control Item	Acceptance Criteria	Corrective Action
		Laboratory control standard	Within current control limits	Examine spike; if spike also out, reprep batch and reanalyze
		Surrogate recovery	Within current control limits	Reprep and reanalyze sample

#### 14.0 EQUIPMENT

The American Analytics laboratory is equipped with state of the art instrumentation and other laboratory equipment that provide the ability to perform a large variety of environmental and other analytical testing. The equipment is continually upgraded in order to extend to our clients the benefits of newly emerging technology.

Following is a list of the major equipment currently in use at American Analytics.

As new methods are developed and we add new equipment, the above lists and tables are appropriately updated.

**Table 8**  
**Laboratory Equipment List**

AMERICAN ANALYTICS Laboratory Equipment List Stationary Laboratory		
Quantity	Description	Model
<b>Organics Department</b>		
11	Hewlett Packard Gas Chromatographs	HP 5890
2	Screening Gas Chromatographs	SRI
1	High Performance Liquid Chromatograph (HPLC)	HP 1050
2	Hewlett Packard Mass Spectrometer Detectors	HP 5970
7	Hewlett Packard Mass Spectrometer Detectors	HP 5971
2	Hewlett Packard Mass Spectrometer Detectors	HP 5972
1	Varian Saturn 4D GC/MS/MS	Saturn 4D
2	OI PID/FID Tandem Detectors	OI 4430
1	OI ELCD Detector	OI 4420
1	Hewlett Packard TCD Detector	N/A
4	Hewlett Packard FID Detector	N/A
2	Hewlett Packard ECD Detector	N/A
1	UV Absorbance Variable Wavelength Detector (VWD)	HP 1050
1	Programmable Fluorescence Detector (FLD)	HP 1046A
4	Tekmar Purge and Trap Unit	LSC2000
4	Tekmar 16 Position Autosampler	ALS2016
2	Varian Closed System Multi-position Auto-samplers	ARCHON
3	OI Purge and Trap Unit	OI 4560
2	OI 16 Position Autosamplers	OI MPM-16
4	Hewlett Packard Autoinjectors	HP 7673A
2	Hewlett Packard Auto-injectors	HP 7673B
2	Foxboro Miran Infrared Spectrometers	1A
1	Tekmar Pulse Sonication Disruptor	TSD-375
<b>Inorganics / Metals</b>		
1	Varian Graphite Furnace AA Spectrophotometer	Spectr AA-400
1	Perkin Elmer ICPMS Elemental Analysis Spectrometer	ELAN 5000
1	ICP Atomic Emission Spectrophotometer	TJA trace
1	Perkin Elmer Flow Injection Mercury System	FIMS
1	Dionex Ion Chromatograph	DX-500
1	Dionex Ion Chromatograph	DX-100
1	Dionex Ion Chromatograph	DX-300
1	Shimadzu TOC Analyzer	TOC-5000A
1	Multi-Parameter Instrument	WTW Multilab P4
1	HF Instruments Turbidimeter	DRT100B
2	pH Meters	N/A
<b>Data/Information Management</b>		
5	Hewlett Packard GC/MS Data System	Enviroquant
1	Gas Chromatography Data Acquisition System	Turbochrom III
1	Laboratory Information Management System	Element by Promium
18	IBM Compatible Computer Systems	Dell / Pentium 4
5	Hewlett Packard Laser Jet Printers	4 Plus

## 15.0 INSTRUMENT MAINTENANCE AND REPAIR

Instruments are maintained according to the manufacturer's specifications. Major maintenance/repair is performed by or under the direction of the manufacturer's service personnel. Records of instrument checks and maintenance are kept in logbooks. The maintenance log contains the date, analyst, instrument fault (if any), and corrective or preventive maintenance performed.

## 16.0 REFERENCES

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## APPENDIX A

### Sampling Procedures

(From EPA Manual SW-846, Third Edition, 1986)

#### 1.0 SAMPLE HANDLING AND PRESERVATION

This section deals separately with volatile and semi-volatile organics. Refer to Section 6.1 and Table 4 of this manual for recommended sample containers, sample preservation, and sample holding times.

#### 2.0 VOLATILE ORGANICS

We use new standard 40 ml glass screw-cap VOA vials with Teflon-faced silicone septum for sampling both liquid and solid matrices. The vials and septum are precleaned by the supplier or manufacturer with certificate according to the EPA procedures.

When collecting the samples, liquids and solids are introduced into the vials gently to reduce agitation which might drive off volatile compounds. Liquid samples should be poured into the vial without introducing any air bubbles within the vial as it is being filled. Should bubbling occur as a result of violent pouring, the sample must be poured out and the vial refilled. Each VOA vial is filled until there is a meniscus over the lip of the vial. The screw-top lid with the septum (Teflon side toward the sample) is then tightened onto the vial. After tightening the lid, the vial is inverted and tapped to check for air bubbles. If there are any air bubbles present the sample must be retaken. Three VOA vials are filled per sample location.

VOA vials for samples with solid or semi-solid (sludges) matrices are completely filled as best as possible. The vials should be tapped slightly as they are filled to try to eliminate as much free air space as possible. Three vials are also filled per sample location.

VOA vials are filled and labeled immediately at the point when the sample is collected. They should **NOT** be filled near a running motor or any type of exhaust system because discharged fumes and vapors may contaminate the samples. The three vials from each sampling location are then sealed in separate plastic bags to prevent cross-contamination between samples particularly if the sampled waste is suspected of containing high levels of volatile organics. (Activated carbon may also be included in the bags to prevent cross-contamination from highly contaminated samples.) VOA samples may also be contaminated by diffusion of volatile organics through the septum during shipment and storage. To monitor possible contamination, a trip blank prepared from distilled deionized water should be carried throughout the sampling, storage, and shipping process.

### 3.0 **SEMI-VOLATILE ORGANICS**

(This includes Pesticides and Herbicides)

New precleaned containers (see Section 2.0 Volatile Organics above) used to collect samples for the determination of semi-volatile organic compounds. The sample containers should be of glass or Teflon and have screw-top covers with Teflon liners. In situations where Teflon is not available, solvent-rinsed aluminum foil may be used as a liner. Highly acidic or basic samples may react with the aluminum foil, causing eventual contamination of the sample. Plastic containers or lids may **NOT** be used for the storage of samples due to the possibility of sample contamination from the phthalate esters and other hydrocarbons within the plastic. Sample containers are filled with care so as to prevent any portion of the collected sample coming in contact with the sampler's gloves, thus causing contamination. Samples should not be collected or stored in the presence of exhaust fumes. If the sample comes in contact with the sampler (e.g., if an automatic sampler is used), run reagent water through the sampler and use as a field blank.

### 4.0 **SAFETY**

Safety should always be the primary consideration in the collection and handling of samples. A thorough understanding of the waste production process, as well as all of the potential hazards making up the waste, should be investigated whenever possible. The site should be visually evaluated just prior to sampling to determine additional safety measures. Minimum protection of gloves and safety glasses should be worn to prevent sample contact with the skin and eyes. As a minimum, a respirator should be worn even when working outdoors if organic vapors are present. More hazardous sampling missions may require the use of supplied air and special clothing. Any sampling program should have the proper safety plan specifying safety procedures and protective equipment, clothing, and monitoring. It is beyond the scope of this manual to design a safety plan for all possible safety requirements for sampling in the field. Field sampling will be performed by the laboratory clients per their safety procedures.

## APPENDIX B

### Audit Procedures

#### 1.0 PERFORMANCE AUDIT

- 1.1 QA/QC officer submits check sample to the analyst.
- 1.2 Analyst performs test and submits report form according to normal procedures.
- 1.3 QA/QC officer checks laboratory results against the actual concentrations in the check sample.
- 1.4 If any parameter falls outside the acceptance criteria for the method, then the source of the problem must be located, and corrected before further analysis can continue.

#### 2.0 SYSTEMS AUDIT

The systems audit is a qualitative evaluation of the laboratory to ensure that the SOPs are being carried out correctly and that QA/QC procedures are being followed. The QA/QC officer will check the following items:

- 2.1 The analytical instruments must be in proper working order. For the gas chromatograph, there must be a sufficient supply of the proper purity of gases; the proper columns and detectors must be used for each analysis; the detector response should be high enough to meet quantity limits (periodic checks with standards establish the detector response); the gas chromatograph must be in proper working order, and any faults corrected.
- 2.2 The analysts must follow the proper procedures for preparing and analyzing samples, and for reporting results. The QA/QC officer will observe the analytical procedures and check the data analysis and reporting methods. He will note any deviations from established procedures which must be corrected.
- 2.3 The QA/QC officer will check 10% of the laboratory analyses to assure that the data is being reported correctly. This requires checking the chromatograms, verifying peak identifications, and compound quantities.

## GLOSSARY

**ACCURACY:** The degree of agreement of a measurement (or an average of measurements of the same thing)  $X$ , with an accepted reference or true value  $T$ , usually expressed as the difference between the two values  $X-T$ , or the difference as a percentage of the reference or true value  $100 (X-T)/T$ , and sometimes expressed as a ratio  $X/T$ . Accuracy is a measure of the bias in a system.

**ANALYTICAL BATCH:** The basic unit for analytical quality control is the analytical batch. The analytical batch is defined as samples which are analyzed together with the same method sequence and the same lots of reagents and with the manipulations common to each sample within the same time period or in continuous sequential time periods. Samples in each batch should be of similar composition.

**AUDIT:** A systematic check to determine the quality of operation of some function or activity. Audits may be of two basic types: (1) performance audits in which quantitative data is independently obtained for comparison with routinely obtained data in a measurement system or, (2) system audits of a qualitative nature that consist of an on-site review of a laboratory's quality assurance system and physical facilities for sampling, calibration, and measurement.

**BLANK:** A blank is an artificial sample designed to monitor the introduction of artifacts into the process. For aqueous samples, reagent water is used as a blank matrix; however, a universal blank matrix does not exist for solid samples, and therefore, no matrix is used. The blank is taken through the appropriate steps of the process. A reagent blank is an aliquot of analyte-free water or solvent analyzed with the analytical batch. Field blanks are aliquots of analyte-free water or solvents brought to the field in sealed containers and transported back to the laboratory with the sample containers. Trip blanks and equipment blanks are two specific types of field blanks. Trip blanks are not opened in the field. They are a check on sample contamination originating from sample transport, shipping, and from site conditions. Equipment blanks are opened in the field and the contents are poured appropriately over or through the sample collection device, collected in a sample container, and returned to the laboratory as a sample. Equipment blanks are a check on sampling device cleanliness.

**CALIBRATION CHECK:** Verification of the ratio of instrument response to analyte amount, a calibration check, is done by analyzing for analyte standards in an appropriate solvent. Calibration check solutions are made from a stock solution which is different from the stock used to prepare standards.



**CHECK SAMPLE:** A blank which has been spiked with the analyte(s) from an independent source in order to monitor the execution of the analytical method is called a check sample. The level of the spike shall be at the regulatory action level when applicable. Otherwise, the spike shall be at five times the estimate of the quantification limit. The matrix used shall be phase matched with the samples and well characterized: for an example, reagent grade water is appropriate for an aqueous sample.

**MATRIX SPIKE/DUPLICATE ANALYSIS:** In matrix spike/duplicate analysis, predetermined quantities of stock solutions of certain analytes are added to a sample matrix prior to sample extraction and analysis. Samples are split into duplicates, spiked, and analyzed. Percent recoveries are calculated for each of the analytes detected. The relative percent difference between the samples is calculated and used to assess analytical precision. The concentration of the spike should be at the regulatory standard level or the estimated or actual method quantification limit.

**MQL:** The method quantification limit (MQL) is the minimum concentration of a substance that can be measured and reported.

**PERFORMANCE AUDITS:** Procedures used to determine quantitatively the accuracy of the total measurement system or its component parts.

**PQL:** The practical quantity limit (PQL) is the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

**PRECISION:** A measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is best expressed in terms of the standard deviation. Precision may also be described in terms of the relative percent difference (RPD) between two measurements, A and B, defined as  $RPD = 100 \frac{(A-B)}{((A+B)/2)}$ .

**QUALITY ASSURANCE:** The total integrated program for assuring the reliability of monitoring and measurement data. A system for integrating the quality planning, quality assessment, and quality improvement efforts to meet user requirements.

**QUALITY CONTROL:** The routine application of procedures for obtaining prescribed standards of performance in the monitoring and measurement process.

**STANDARD CURVE:** A standard curve is a curve which plots concentrations of known analyte standard versus the instrument response to the analyte.

**SURROGATE:** Surrogates are organic compounds which are similar to analytes of interest in chemical composition, extraction, and chromatography, but which are not normally found in environmental samples. These compounds are spiked into all blanks, standards, samples, and spiked samples prior to analysis. Percent recoveries are calculated for each surrogate.

**WATER:** Reagent, analyte-free, or laboratory pure water means distilled or deionized water which is free of contaminants that may interfere with the analytical test in question.

Rev. No.	Effective Date	Revision Summary
14	01-06-2015	Updated all sections of the document referencing SOP names to reflect the current SOP names used by American Analytics.
14	01-06-2015	Updated the page numbers on the Table of Contents on pages 3,4, and 5
14	01-06-2015	Added EPA methods 8015M, 8015B, and Luft for Extractable fuel hydrocarbons to Table 1 on page 6
14	01-06-2015	Added EPA method 1312 Synthetic Precipitation Leaching Procedure to Table 3 on page 8
14	01-06-2015	Updated the Organization chart on page 10, figure 1
14	01-06-2015	Updated ICP Metals compound list by adding As, Se, Sn, Ag, and Boron to the list. Table 4 on page 15 , Table 6 on page 30, and Table 7 on page 47.
14	01-06-2015	Updated ICPMS Metals by adding As and removing Na, K, and Fe from the list. Table 4 on page 15
14	01-06-2015	Updated GFAA Metals list by removing Be, Co, and Cu from the list. Table 4 page 15 , Table 6 on page 30, and Table 7 on page 48.
14	01-06-2015	Removed Oil & Grease by IR from Table 4 on page 17.
14	01-06-2015	SM Method for Nitrate and Nitrite were removed from Table 4 on page 18. Added TPH Extractable by GCFID and TPH GRO by GCMS to Table 4 on page 18.
14	01-06-2015	Removed Oil & Grease by IR from Table 6 on page 29 and Table 7 on page 45.
14	01-06-2015	Removed Flame AA Metals and added ICPMS Metals and the list of compound and other associated QA criteria. Table 6 on page 30.
14	01-06-2015	Added Dissolved Gases by GCFID, Methane by GCFID, Fixed Gases by GCFID, Alcohols by GCFID, and their associated QA criteria to Table 6 on page 30.
14	01-06-2015	Added TPH Extractable by GCFID and the associated QA criteria to Table 6 on page 31 and Table 7 page 50.
14	01-06-2015	SM Method for Nitrate and Nitrite were removed from Table 7 on page 45.
14	01-06-2015	Removed Flame AA Metals and added ICPMS Metals and the list of compound and other associated QA

criteria. Table 7 on page 47.

14	01-06-2015	Added in section 7.1 "Instrument Calibration" the sections: Metals by ICPMS, Ion Chromatography (IC) Analyses, High Performance Liquid Chromatography (HPLC) Analyses, and Potentiometric Analyses.
14	01-06-2015	Modified Table 8 "Laboratory Equipment List" to reflect the current equipment operated by the laboratory.



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

**CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION**

Is hereby granted to

**American Analytics Inc.**

**Stationary Laboratory**

9765 Eton Avenue

Chatsworth, CA 91311

Scope of the certificate is limited to the  
"Fields of Testing"  
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site,  
proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of  
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1471**

Expiration Date: **03/31/2015**

Effective Date: **04/01/2013**

Richmond, California  
subject to forfeiture or revocation

  
\_\_\_\_\_  
David Mazzer, Ph.D., Assistant Division Chief  
Division of Drinking Water and Environmental Management



**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH  
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM  
Accredited Fields of Testing**



**American Analytics Inc.**  
Stationary Laboratory  
9765 Eton Avenue  
Chatsworth, CA 91311  
Phone: (818) 998-5547

**Certificate No.: 1471  
Renew Date: 3/31/2015**

**Field of Testing: 102 - Inorganic Chemistry of Drinking Water**

102.030	001	Bromide	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate	EPA 300.0
102.030	007	Nitrite	EPA 300.0
102.030	008	Phosphate, Ortho	EPA 300.0
102.030	010	Sulfate	EPA 300.0
102.045	001	Perchlorate	EPA 314.0
102.100	001	Alkalinity	SM2320B
102.120	001	Hardness	SM2340B
102.121	001	Hardness	SM2340C
102.130	001	Conductivity	SM2510B
102.140	001	Total Dissolved Solids	SM2540C
102.145	001	Total Dissolved Solids	EPA 160.1
102.190	001	Cyanide, Total	SM4500-CN E
102.192	001	Cyanide, amenable	SM4500-CN G
102.260	001	Total Organic Carbon	SM5310B
102.510	001	Calcium	SM3120B
102.510	002	Magnesium	SM3120B
102.510	003	Potassium	SM3120B
102.510	004	Silica	SM3120B
102.510	006	Hardness (calculation)	SM3120B
102.520	001	Calcium	EPA 200.7
102.520	002	Magnesium	EPA 200.7
102.520	003	Potassium	EPA 200.7
102.520	004	Silica	EPA 200.7
102.520	005	Sodium	EPA 200.7
102.520	006	Hardness (calculation)	EPA 200.7
102.551	002	Chlorine, Free, Combined, Total	SM4500-Cl G

**Field of Testing: 103 - Toxic Chemical Elements of Drinking Water**

103.040	002	Antimony	SM3113B
103.040	003	Arsenic	SM3113B
103.040	005	Beryllium	SM3113B
103.040	006	Cadmium	SM3113B
103.040	007	Chromium	SM3113B

As of 7/1/2014, this list supersedes all previous lists for this certificate number.  
Customers: Please verify the current accreditation standing with the State.

103.040	010	Lead	SM3113B
103.040	013	Selenium	SM3113B
103.040	014	Silver	SM3113B
103.060	001	Aluminum	SM3120B
103.060	003	Barium	SM3120B
103.060	004	Beryllium	SM3120B
103.060	007	Chromium	SM3120B
103.060	008	Copper	SM3120B
103.060	009	Iron	SM3120B
103.060	011	Manganese	SM3120B
103.060	015	Silver	SM3120B
103.060	017	Zinc	SM3120B
103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8
103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	017	Boron	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.150	014	Thallium	EPA 200.9
103.160	001	Mercury	EPA 245.1

103.310	001	Chromium (VI)	EPA 218.6
<b>Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water</b>			
104.035	001	1,2,3-Trichloropropane	SRL 524M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2
104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethene	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2

As of 7/1/2014, this list supersedes all previous lists for this certificate number.  
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104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.045	005	Trihalomethanes	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	004	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	005	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	006	Trichlorotrifluoroethane	EPA 524.2
104.050	007	tert-Butyl Alcohol (TBA)	EPA 524.2
104.050	008	Carbon Disulfide	EPA 524.2
104.050	009	Methyl Isobutyl Ketone	EPA 524.2

**Field of Testing: 108 - Inorganic Chemistry of Wastewater**

108.020	001	Conductivity	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.113	001	Boron	EPA 200.8
108.113	002	Calcium	EPA 200.8
108.113	003	Magnesium	EPA 200.8
108.113	004	Potassium	EPA 200.8
108.113	005	Silica	EPA 200.8
108.113	006	Sodium	EPA 200.8
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	004	Nitrate	EPA 300.0
108.120	005	Nitrite	EPA 300.0
108.120	006	Nitrate-nitrite	EPA 300.0
108.120	007	Phosphate, Ortho	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.183	001	Cyanide, Total	EPA 335.4
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.350	001	Total Recoverable Petroleum Hydrocarbons	EPA 418.1
108.381	001	Oil and Grease	EPA 1664A
108.390	001	Turbidity	SM2130B
108.410	001	Alkalinity	SM2320B
108.420	001	Hardness (calculation)	SM2340B

As of 7/1/2014, this list supersedes all previous lists for this certificate number.  
 Customers: Please verify the current accreditation standing with the State.

108.421	001	Hardness	SM2340C
108.430	001	Conductivity	SM2510B
108.440	001	Residue, Total	SM2540B
108.441	001	Residue, Filterable TDS	SM2540C
108.442	001	Residue, Non-filterable TSS	SM2540D
108.443	001	Residue, Settleable	SM2540F
108.447	001	Boron	SM3120B
108.447	002	Calcium	SM3120B
108.447	003	Hardness (calculation)	SM3120B
108.447	004	Magnesium	SM3120B
108.447	005	Potassium	SM3120B
108.447	006	Silica	SM3120B
108.447	007	Sodium	SM3120B
108.465	001	Chlorine, Total	SM4500-Cl G
108.470	001	Cyanide, Manual Distillation	SM4500-CN C
108.472	001	Cyanide, Total	SM4500-CN E
108.473	001	Cyanide, amenable	SM4500-CN G
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B
108.493	001	Ammonia	SM4500-NH3 D or E (19th/20th)
108.531	001	Dissolved Oxygen	SM4500-O G
108.580	001	Sulfide	SM4500-S= D
108.590	001	Biochemical Oxygen Demand	SM5210B
108.602	001	Chemical Oxygen Demand	SM5220D
108.610	001	Total Organic Carbon	SM5310B
108.630	001	Oil and Grease	SM5520B (20th)
108.660	001	Chemical Oxygen Demand	HACH8000

**Field of Testing: 109 - Toxic Chemical Elements of Wastewater**

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	003	Arsenic	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	019	Selenium	EPA 200.7
109.010	021	Silver	EPA 200.7

109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8
109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.025	015	Thallium	EPA 200.9
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1
109.311	001	Thallium	EPA 279.2
109.410	003	Arsenic	SM3113B
109.410	007	Chromium	SM3113B
109.410	011	Lead	SM3113B
109.410	015	Selenium	SM3113B
109.410	016	Silver	SM3113B
109.430	001	Aluminum	SM3120B
109.430	002	Antimony	SM3120B
109.430	003	Arsenic	SM3120B
109.430	004	Barium	SM3120B
109.430	005	Beryllium	SM3120B
109.430	007	Cadmium	SM3120B
109.430	009	Chromium	SM3120B
109.430	010	Cobalt	SM3120B
109.430	011	Copper	SM3120B
109.430	012	Iron	SM3120B
109.430	013	Lead	SM3120B
109.430	015	Manganese	SM3120B

109.430	016	Molybdenum	SM3120B
109.430	017	Nickel	SM3120B
109.430	019	Selenium	SM3120B
109.430	021	Silver	SM3120B
109.430	023	Thallium	SM3120B
109.430	024	Vanadium	SM3120B
109.430	025	Zinc	SM3120B
109.810	001	Chromium, Total	SM3500-Cr D (18th/19th)
109.825	001	Iron	SM3500-Fe D (18th/19th)

**Field of Testing: 110 - Volatile Organic Chemistry of Wastewater**

110.020	000	Aromatic Volatiles	EPA 602
110.040	040	Halogenated Hydrocarbons	EPA 624
110.040	041	Aromatic Compounds	EPA 624
110.040	042	Oxygenates	EPA 624
110.040	043	Other Volatile Organics	EPA 624

**Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater**

111.060	000	Polynuclear Aromatics	EPA 610
111.101	032	Polynuclear Aromatic Hydrocarbons	EPA 625
111.101	034	Phthalates	EPA 625
111.101	036	Other Extractables	EPA 625
111.170	030	Organochlorine Pesticides & PCBs	EPA 608
111.170	031	PCBs	EPA 608
111.270	001	Oil and Grease	EPA 413.1
111.272	001	Oil and Grease	SM5520B (20th)
111.273	001	Oil and Grease	EPA 1664A

**Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste**

114.010	001	Antimony	EPA 6010B
114.010	002	Arsenic	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	012	Selenium	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B

114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020
114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.031	001	Antimony	EPA 7041
114.040	001	Arsenic	EPA 7060A
114.071	001	Beryllium	EPA 7091
114.081	001	Cadmium	EPA 7131A
114.091	001	Chromium	EPA 7191
114.103	001	Chromium (VI)	EPA 7196A
114.106	001	Chromium (VI)	EPA 7199
114.131	001	Lead	EPA 7421
114.140	001	Mercury	EPA 7470A
114.141	001	Mercury	EPA 7471A
114.170	001	Selenium	EPA 7740
114.181	001	Silver	EPA 7761
114.191	001	Thallium	EPA 7841
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.241	001	Corrosivity - pH Determination	EPA 9045C

**Field of Testing: 115 - Extraction Test of Hazardous Waste**

115.020	001	Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311
115.021	001	TCLP Inorganics	EPA 1311
115.022	001	TCLP Extractables	EPA 1311
115.023	001	TCLP Volatiles	EPA 1311
115.030	001	Waste Extraction Test (WET)	CCR Chapter11, Article 5, Appendix II
115.040	001	Synthetic Precipitation Leaching Procedure (SPLP)	EPA 1312

**Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste**

116.020	030	Nonhalogenated Volatiles	EPA 8015B
116.020	031	Ethanol and Methanol	EPA 8015B
116.030	001	Gasoline-range Organics	EPA 8015B

116.040	041	Methyl tert-butyl Ether (MTBE)	EPA 8021B
116.040	061	Aromatic Volatiles	EPA 8021B
116.040	062	BTEX	EPA 8021B
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B
116.100	001	Total Petroleum Hydrocarbons - Gasoline	LUFT GC/MS
116.100	010	BTEX and MTBE	LUFT GC/MS
116.110	001	Total Petroleum Hydrocarbons - Gasoline	LUFT

**Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste**

117.010	001	Diesel-range Total Petroleum Hydrocarbons	EPA 8015B
117.015	001	Diesel-range Total Petroleum Hydrocarbons	LUFT GC/MS
117.016	001	Diesel-range Total Petroleum Hydrocarbons	LUFT
117.017	001	TRPH Screening	EPA 418.1
117.110	000	Extractable Organics	EPA 8270C
117.140	000	Polynuclear Aromatic Hydrocarbons	EPA 8310
117.210	000	Organochlorine Pesticides & PCBs	EPA 8081A
117.220	000	PCBs	EPA 8082

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>Gasoline Range Organics 8015M in Water (EPA 8015M)</b>								
Preservation: Add HCl to pH<2; Store cool at 4°C								
Container: 01_40mL Clear Vial			Amount Required: 3 x 40ml		Hold Time: 14 days			
(pre-pres.) HCl; Cool to 4° C								
surr: a,a,a-Trifluorotoluene			80 - 120					
1,4-Difluorobenzene								
Gasoline Range Organics (GRO)	17	100 ug/L			70 - 130	30	75 - 125	30
<b>Gasoline Range Organics 8015M in Soil (EPA 8015M)</b>								
Preservation: Cool 4°C								
Container: 10_Metal Sleeve Cool to 4° C			Amount Required: 250 grams		Hold Time: 14 days			
surr: a,a,a-Trifluorotoluene								
			80 - 120					
1,4-Difluorobenzene								
Gasoline Range Organics (GRO)	0.025	0.50 mg/kg			70 - 130	40	75 - 125	40

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>Diesel Range Organics 8015M in Water (EPA 8015M)</b>								
Preservation: Cool 4°C								
Container: 02_1000mL Amber Glass			Amount Required: 1 Liter		Hold Time: 14 days			
Cool to 4°C								
Diesel Range Organics as Diesel	0.060	0.10 mg/L			70 - 130	30	75 - 125	30
surr: o-Terphenyl			50 - 150					
Diesel Range Organics (C13-C24)	0.060	0.10 mg/L						
<b>Diesel Range Organics 8015M in Soil (EPA 8015M)</b>								
Preservation: Cool 4°C								
Container: 10_Metal Sleeve Cool to 4°C			Amount Required: 250 grams		Hold Time: 14 days			
Diesel Range Organics as Diesel	3.0	5.0 mg/kg			70 - 130	40	75 - 125	40
surr: o-Terphenyl			50 - 150					



**American Analytics, Inc.****Analytical Method Information**

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>TPH Extractable in Water (EPA 8015M)</b>								
Preservation: Cool 4°C								
Container:		02_1000mL Amber Glass			Amount Required: 1 L Hold Time: 14 days			
Cool to 4° C								
Diesel Range Organics as Diesel	0.030	0.10 mg/L			50 - 150	30	60 - 140	30
surr: o-Terphenyl			50 - 150					
Motor Oil	1.0	1.0 mg/L						
Preservation: Cool 4°C								
Container:		10_Metal Sleeve Cool to 4° C			Amount Required:		250 g Hold Time: 14 days	
Diesel Range Organics as Diesel	3.0	5.0 mg/kg			50 - 150	40	60 - 140	40
Motor Oil	10	10 mg/kg						
surr: o-Terphenyl			50 - 150					

## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8081A/8082 OCPs/PCBs in Water (EPA 8081A)</b>								
Preservation: Cool 4°C								
Container: 02_1000mL Amber Glass								
Cool to 4° C								
4,4'-DDD	0.0070	0.050 ug/L			50 - 150	30	60 - 140	30
4,4'-DDE	0.0080	0.050 ug/L			50 - 150	30	60 - 140	30
4,4'-DDT	0.011	0.050 ug/L			50 - 150	30	60 - 140	30
Aldrin	0.0060	0.050 ug/L			50 - 150	30	60 - 140	30
beta-BHC	0.0060	0.050 ug/L			50 - 150	30	60 - 140	30
delta-BHC	0.0070	0.050 ug/L			50 - 150	30	60 - 140	30
alpha-BHC	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
gamma-BHC (Lindane)	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
gamma-Chlordane	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
alpha-Chlordane	0.0060	0.050 ug/L			50 - 150	30	60 - 140	30
Chlordane	0.070	1.0 ug/L						
surr: Decachlorobiphenyl			50 - 150					
Dieldrin	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
Endosulfan I	0.0060	0.050 ug/L			50 - 150	30	60 - 140	30
Endosulfan II	0.0070	0.050 ug/L			50 - 150	30	60 - 140	30
Endosulfan sulfate	0.0080	0.050 ug/L			50 - 150	30	60 - 140	30
Endrin	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
Endrin aldehyde	0.0080	0.050 ug/L			50 - 150	30	60 - 140	30
Endrin ketone	0.0080	0.050 ug/L			50 - 150	30	60 - 140	30
Heptachlor	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
Heptachlor epoxide	0.0050	0.050 ug/L			50 - 150	30	60 - 140	30
Methoxychlor	0.010	0.050 ug/L			50 - 150	30	60 - 140	30
surr: Tetrachloro-meta-xylene			50 - 150					
Toxaphene	4.0	5.0 ug/L						

## 8081A/8082 OCPs/PCBs in Soil (EPA 8081A/8082)

Preservation: Cool 4°C

Container:

10\_Metal Sleeve Cool to 4° C

Amount Required: 250 grams Hold Time: 14 days

4,4'-DDD	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
4,4'-DDE	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
4,4'-DDT	0.40	4.0 ug/kg			50 - 150	40	60 - 140	40
Aldrin	0.20	2.0 ug/kg			50 - 150	40	60 - 140	40
beta-BHC	0.30	2.0 ug/kg			50 - 150	40	60 - 140	40
delta-BHC	0.20	2.0 ug/kg			50 - 150	40	60 - 140	40

## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike		Blank Spike / LCS	
					%R	RPD	%R	RPD
alpha-BHC	0.20	2.0 ug/kg			50 - 150	40	60 - 140	40
gamma-BHC (Lindane)	0.20	4.0 ug/kg			50 - 150	40	60 - 140	40
gamma-Chlordane	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
alpha-Chlordane	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
Chlordane	3.0	20 ug/kg						
surr: Decachlorobiphenyl			50 - 150					
Dieldrin	0.30	2.0 ug/kg			50 - 150	40	60 - 140	40
Endosulfan I	0.30	2.0 ug/kg			50 - 150	40	60 - 140	40
Endosulfan II	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
Endosulfan sulfate	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
Endrin	0.20	4.0 ug/kg			50 - 150	40	60 - 140	40
Endrin aldehyde	0.30	4.0 ug/kg			50 - 150	40	60 - 140	40
Endrin ketone	0.40	4.0 ug/kg			50 - 150	40	60 - 140	40
Heptachlor	0.30	2.0 ug/kg			50 - 150	40	60 - 140	40
Heptachlor epoxide	0.20	2.0 ug/kg			50 - 150	40	60 - 140	40
Methoxychlor	0.20	20 ug/kg			50 - 150	40	60 - 140	40
surr: Tetrachloro-meta-xylene			50 - 150					
Toxaphene	10	100 ug/kg						

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8082 PCBs in Water (EPA 8082)</b>								
Preservation: Cool 4°C								
Container: 02_1000mL Amber Glass								
Cool to 4° C								
Amount Required: 1L								
Hold Time: 7 days								
Aroclor-1016	0.10	1.0 ug/L			50 - 150	30	60 - 140	30
Aroclor-1221	0.10	1.0 ug/L						
Aroclor-1232	0.10	1.0 ug/L						
Aroclor-1242	0.10	1.0 ug/L						
Aroclor-1248	0.10	1.0 ug/L						
Aroclor-1254	0.10	1.0 ug/L			50 - 150	30	60 - 140	30
Aroclor-1260	0.10	1.0 ug/L						
Aroclor-1268	0.10	1.0 ug/L						
surr: Decachlorobiphenyl			50 - 150					
surr: Tetrachloro-meta-xylene			50 - 150					
<b>8082 PCBs in Soil (EPA 8082)</b>								
Preservation: Cool 4°C								
Container: 10_Metal Sleeve Cool to 4° C								
Amount Required: 250 grams								
Hold Time: 14 days								
Aroclor-1016	2.0	20 ug/kg			50 - 150	40	60 - 140	40
Aroclor-1221	2.0	20 ug/kg						
Aroclor-1232	2.0	20 ug/kg						
Aroclor-1242	2.0	20 ug/kg						
Aroclor-1248	2.0	20 ug/kg						
Aroclor-1254	2.0	20 ug/kg			50 - 150	40	60 - 140	40
Aroclor-1260	2.0	20 ug/kg						
Aroclor-1268	2.0	20 ug/kg						
surr: Decachlorobiphenyl			50 - 150					
surr: Tetrachloro-meta-xylene			50 - 150					

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>CAM Dissolved Metals Less Hg 6000/7000 in Water (EPA 6010B/7000)</b>								
Preservation:pH<2 w/HNO3, Cool at 4°C								
Container:*** DEFAULT CONTAINER								
Amount Required:500 mL								
Hold Time:180 days								
***								
Antimony	0.020	0.20 mg/L			75 - 125	20	80 - 120	20
Arsenic	0.0060	0.0070 mg/L			75 - 125	20	80 - 120	20
Barium	0.0010	0.20 mg/L			75 - 125	20	80 - 120	20
Beryllium	0.0010	0.020 mg/L			75 - 125	20	80 - 120	20
Cadmium	0.0010	0.020 mg/L			75 - 125	20	80 - 120	20
Chromium	0.0030	0.050 mg/L			75 - 125	20	80 - 120	20
Cobalt	0.0020	0.050 mg/L			75 - 125	20	80 - 120	20
Copper	0.0020	0.050 mg/L			75 - 125	20	80 - 120	20
Lead	0.0020	0.0050 mg/L			75 - 125	20	80 - 120	20
Molybdenum	0.0010	0.050 mg/L			75 - 125	20	80 - 120	20
Nickel	0.0040	0.050 mg/L			75 - 125	20	80 - 120	20
Selenium	0.0040	0.0050 mg/L			75 - 125	20	80 - 120	20
Silver	0.0060	0.020 mg/L			75 - 125	20	80 - 120	20
Thallium	0.010	0.10 mg/L			75 - 125	20	80 - 120	20
Vanadium	0.0020	0.20 mg/L			75 - 125	20	80 - 120	20
Zinc	0.0010	0.050 mg/L			75 - 125	20	80 - 120	20

**Mercury Dissolved EPA 7470A/7471A in Water (EPA 7470A)**

Preservation:Field Filter; add HNO3 to pH<2

Container:06\_500mL w/ HNO3 Plastic

Amount Required:500 ml

Hold Time:28 days

Mercury	pH <2	0.00050	0.00050 mg/L		75 - 125	20	80 - 120	20
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**CAM Dissolved Metals Less Hg 6000/7000 in Soil (EPA 6010B/7000)**

Preservation:Cool 4°C

Container:10\_Metal Sleeve Cool to 4° C

Amount Required:250 gm

Hold Time:180 days

Antimony	10	10 mg/kg			75 - 125	40	80 - 120	20
Arsenic	0.50	0.50 mg/kg			75 - 125	40	80 - 120	20
Barium	10	10 mg/kg			75 - 125	40	80 - 120	20
Beryllium	1.0	1.0 mg/kg			75 - 125	40	80 - 120	20
Cadmium	1.0	1.0 mg/kg			75 - 125	40	80 - 120	20
Chromium	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20
Cobalt	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20
Copper	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20
Lead	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20
Molybdenum	5.0	5.0 mg/kg			75 - 125	40	80 - 120	20
Nickel	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20
Selenium	0.50	0.50 mg/kg			75 - 125	40	80 - 120	20
Silver	1.0	1.0 mg/kg			75 - 125	40	80 - 120	20
Thallium	5.0	5.0 mg/kg			75 - 125	40	80 - 120	20
Vanadium	10	10 mg/kg			75 - 125	40	80 - 120	20
Zinc	3.0	3.0 mg/kg			75 - 125	40	80 - 120	20

**Mercury Dissolved EPA 7470A/7471A in Soil (EPA 7471A)**

Preservation:Cool 4°C

Container:10\_Metal Sleeve Cool to 4° C

Amount Required:250 gm

Hold Time:28 days

Mercury	0.050	0.050 mg/kg			75 - 125	20	80 - 120	20
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## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>8260B+OXYGENATES in Water (EPA 8260B)</b>								
Preservation: Add HCl to pH<2; Store cool at 4°C								
Container:	01_40mL Clear Vial			Amount Required: 3-40ml Hold Time:				
14 days								
(pre-pres.) HCl; Cool to 4° C								
Acetone	2.0	10 ug/L						
tert-Amyl Methyl Ether (TAME)	0.30	2.0 ug/L						
Benzene	0.20	0.50 ug/L			70 - 130	30	75 - 125	30
Bromobenzene	0.30	0.50 ug/L						
Bromochloromethane	0.50	0.50 ug/L						
Bromodichloromethane	0.20	0.50 ug/L					75 - 125	30
Bromoform	0.50	0.50 ug/L			70 - 130	30	75 - 125	30
Bromomethane	0.50	0.50 ug/L						30
2-Butanone (MEK)	2.0	10 ug/L						
tert-Butyl alcohol (TBA)	7.0	10 ug/L						
sec-Butylbenzene	0.20	0.50 ug/L						
tert-Butylbenzene	0.20	0.50 ug/L						
n-Butylbenzene	0.20	0.50 ug/L						
Carbon Disulfide	0.30	0.50 ug/L						
Carbon Tetrachloride	0.30	0.50 ug/L					75 - 125	30
Chlorobenzene	0.30	0.50 ug/L			70 - 130	30	75 - 125	30
Chlorobenzene-d5								
Chloroethane	0.50	0.50 ug/L					75 - 125	30
Chloroform	0.30	0.50 ug/L			70 - 130	30	75 - 125	30
Chloromethane	0.40	0.50 ug/L					65 - 125	30
2-Chlorotoluene	0.30	0.50 ug/L						
4-Chlorotoluene	0.20	0.50 ug/L						
1,2-Dibromo-3-chloropropane	0.40	1.0 ug/L						
Dibromochloromethane	0.30	0.50 ug/L					75 - 125	30
1,2-Dibromoethane (EDB)	0.30	0.50 ug/L						
Dibromomethane	0.40	0.50 ug/L						
1,3-Dichlorobenzene	0.10	0.50 ug/L						
1,2-Dichlorobenzene	0.30	0.50 ug/L						
1,4-Dichlorobenzene	0.30	0.50 ug/L					75 - 125	30

## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	LCS RPD
Dichlorodifluoromethane (R12)	0.50	0.50 ug/L						
1,1-Dichloroethane	0.20	0.50 ug/L			70 - 130	30	70 - 125	30
1,2-Dichloroethane (EDC)	0.30	0.50 ug/L					75 - 125	30
1,1-Dichloroethylene	0.30	0.50 ug/L			70 - 130	30	70 - 130	30
trans-1,2-Dichloroethylene	0.40	0.50 ug/L					75 - 125	30
cis-1,2-Dichloroethylene	0.20	0.50 ug/L			70 - 130	30	75 - 125	30
1,2-Dichloropropane	0.50	0.50 ug/L			70 - 130	30	75 - 130	30
2,2-Dichloropropane	0.40	0.50 ug/L						
1,3-Dichloropropane	0.10	0.50 ug/L						
cis-1,3-Dichloropropylene	0.20	0.50 ug/L					75 - 125	30
trans-1,3-Dichloropropylene	0.20	0.50 ug/L						
1,1-Dichloropropylene	0.20	0.50 ug/L						
Diisopropyl ether (DIPE)	0.50	2.0 ug/L						
Ethanol	40	200 ug/L						
Ethylbenzene	0.20	0.50 ug/L			70 - 130	30	75 - 125	30
Ethyl-tert-Butyl Ether (ETBE)	0.40	2.0 ug/L						
Hexachlorobutadiene	0.40	1.0 ug/L						
2-Hexanone (MBK)	2.0	10 ug/L						
Iodomethane	0.30	0.50 ug/L						
Isopropylbenzene	0.20	0.50 ug/L						
4-Isopropyltoluene	0.20	1.0 ug/L						
Methyl-tert-Butyl Ether (MTBE)	0.40	2.0 ug/L			70 - 130	30	75 - 125	30
Methylene Chloride	5.0	5.0 ug/L					75 - 130	30
4-Methyl-2-pentanone (MIBK)	0.70	10 ug/L						
Naphthalene	0.20	2.0 ug/L						
n-Propylbenzene	0.20	0.50 ug/L			70 - 130	30		
Styrene	0.20	0.50 ug/L						
1,1,1,2-Tetrachloroethane	0.40	0.50 ug/L						
1,1,2,2-Tetrachloroethane	0.30	0.50 ug/L					70 - 135	30
Tetrachloroethylene (PCE)	0.50	0.50 ug/L			70 - 130	30	75 - 125	30
Toluene	0.30	0.50 ug/L			70 - 130	30	75 - 125	30

## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Spike RPD	Blank Spike / LCS %R	LCS RPD
1,2,3-Trichlorobenzene	0.20	0.50 ug/L						
1,2,4-Trichlorobenzene	0.20	0.50 ug/L						
1,1,1-Trichloroethane	0.30	0.50 ug/L			70 - 130	30	75 - 125	30
1,1,2-Trichloroethane	0.30	0.50 ug/L					75 - 125	30
Trichloroethylene (TCE)	0.20	0.50 ug/L			70 - 130	30	75 - 125	30
Trichlorofluoromethane (R11)	0.20	0.50 ug/L						
1,2,3-Trichloropropane	0.30	0.50 ug/L						
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	0.30	0.50 ug/L						
1,3,5-Trimethylbenzene	0.20	0.50 ug/L			70 - 130	30		
1,2,4-Trimethylbenzene	0.30	0.50 ug/L						
Vinyl acetate	0.30	0.50 ug/L						
Vinyl chloride	0.50	0.50 ug/L			70 - 130	30	75 - 125	30
o-Xylene	0.30	0.50 ug/L					75 - 125	30
m,p-Xylenes	0.40	1.0 ug/L						

## 8260B+OXYGENATES in Soil (EPA 8260B)

Preservation: Cool 4°C

Container:

10\_Metal Sleeve Cool to 4° C Amount Required:

250 gr Hold Time: 14 days

Acetone	14	50 ug/kg						
tert-Amyl Methyl Ether (TAME)	3.0	5.0 ug/kg						
Benzene	0.40	2.0 ug/kg			70 - 130	40	75 - 125	30
Bromobenzene	0.70	5.0 ug/kg						
Bromochloromethane	2.0	5.0 ug/kg						
Bromodichloromethane	0.80	5.0 ug/kg					75 - 125	30
Bromoform	2.0	5.0 ug/kg			70 - 130	40	75 - 125	30
Bromomethane	2.0	5.0 ug/kg						30
2-Butanone (MEK)	6.0	50 ug/kg						
tert-Butyl alcohol (TBA)	20	20 ug/kg						
tert-Butylbenzene	0.70	5.0 ug/kg						
sec-Butylbenzene	0.80	5.0 ug/kg						
n-Butylbenzene	0.60	5.0 ug/kg						
Carbon Disulfide	4.0	5.0 ug/kg						
Carbon Tetrachloride	0.40	5.0 ug/kg					75 - 125	30
Chlorobenzene	0.40	5.0 ug/kg			70 - 130	40	75 - 125	30
Chlorobenzene-d5								
Chloroethane	0.80	5.0 ug/kg					75 - 125	30
Chloroform	0.80	5.0 ug/kg			70 - 130	40	75 - 125	30



## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	LCS RPD
Chloromethane	0.50	5.0 ug/kg					65 - 125	30
2-Chlorotoluene	0.60	5.0 ug/kg						
4-Chlorotoluene	0.50	5.0 ug/kg						
1,2-Dibromo-3-chloropropane	2.0	10 ug/kg						
Dibromochloromethane	2.0	5.0 ug/kg					75 - 125	30
1,2-Dibromoethane (EDB)	2.0	5.0 ug/kg						
Dibromomethane	2.0	5.0 ug/kg						
1,2-Dichlorobenzene	0.60	5.0 ug/kg						
1,3-Dichlorobenzene	0.30	5.0 ug/kg						
1,4-Dichlorobenzene	0.60	5.0 ug/kg					75 - 125	30
1,4-Dichlorobenzene-d4								
Dichlorodifluoromethane (R12)	0.70	5.0 ug/kg						
1,1-Dichloroethane	0.30	5.0 ug/kg			70 - 130	40	70 - 125	30
1,2-Dichloroethane (EDC)	2.0	5.0 ug/kg					75 - 125	30
trans-1,2-Dichloroethylene	2.0	5.0 ug/kg					75 - 125	30
cis-1,2-Dichloroethylene	2.0	5.0 ug/kg			70 - 130	40	75 - 125	30
1,1-Dichloroethylene	3.0	5.0 ug/kg			70 - 130	40	70 - 130	30
1,2-Dichloropropane	1.0	5.0 ug/kg			70 - 130	40	75 - 130	30
2,2-Dichloropropane	2.0	5.0 ug/kg						
1,3-Dichloropropane	2.0	5.0 ug/kg						
1,1-Dichloropropylene	0.60	5.0 ug/kg						
trans-1,3-Dichloropropylene	2.0	5.0 ug/kg						
cis-1,3-Dichloropropylene	1.0	5.0 ug/kg					75 - 125	30
Diisopropyl ether (DIPE)	2.0	5.0 ug/kg						
Ethanol	1000	1000 ug/kg						
Ethylbenzene	0.70	2.0 ug/kg			70 - 130	40	75 - 125	30
Ethyl-tert-Butyl Ether (ETBE)	4.0	5.0 ug/kg						
Hexachlorobutadiene	0.80	10 ug/kg						
2-Hexanone (MBK)	13	50 ug/kg						
Iodomethane	5.0	5.0 ug/kg						
Isopropylbenzene	0.50	5.0 ug/kg						
4-Isopropyltoluene	0.50	5.0 ug/kg						
Methyl-tert-Butyl Ether (MTBE)	2.0	5.0 ug/kg			70 - 130	40	75 - 125	30
Methylene Chloride	5.0	50 ug/kg					75 - 130	30
4-Methyl-2-pentanone (MIBK)	6.0	50 ug/kg						
Naphthalene	3.0	10 ug/kg						

## American Analytics, Inc.

## Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Spike RPD	Blank Spike / LCS %R	LCS RPD
n-Propylbenzene	0.70	5.0 ug/kg			70 - 130	40		
Styrene	0.50	5.0 ug/kg						
1,1,1,2-Tetrachloroethane	0.70	5.0 ug/kg						
1,1,2,2-Tetrachloroethane	2.0	5.0 ug/kg					70 - 135	30
Tetrachloroethylene (PCE)	1.0	5.0 ug/kg			70 - 130	40	75 - 125	30
Toluene	0.60	2.0 ug/kg			70 - 130	40	75 - 125	30
1,2,4-Trichlorobenzene	0.90	5.0 ug/kg						
1,2,3-Trichlorobenzene	2.0	5.0 ug/kg						
1,1,2-Trichloroethane	2.0	5.0 ug/kg					75 - 125	30
1,1,1-Trichloroethane	0.60	5.0 ug/kg			70 - 130	40	75 - 125	30
Trichloroethylene (TCE)	0.90	5.0 ug/kg			70 - 130	40	75 - 125	30
Trichlorofluoromethane (R11)	3.0	5.0 ug/kg						
1,2,3-Trichloropropane	3.0	5.0 ug/kg						
1,1,2-Trichloro-1,2,2-trifluoroethane (R113)	3.0	5.0 ug/kg						
1,3,5-Trimethylbenzene	0.50	5.0 ug/kg			70 - 130	40		
1,2,4-Trimethylbenzene	0.40	5.0 ug/kg						
Vinyl acetate	3.0	5.0 ug/kg						
Vinyl chloride	2.0	5.0 ug/kg			70 - 130	40	75 - 125	30
o-Xylene	0.50	2.0 ug/kg					75 - 125	30
m,p-Xylenes	1.0	2.0 ug/kg						

## APPENDIX F

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### Field Forms



# ESE PROJECT HEALTH AND SAFETY FIELD MEETING FORM

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Project No.: \_\_\_\_\_

Project Name: \_\_\_\_\_

Location: \_\_\_\_\_

Meeting Conducted by: \_\_\_\_\_

Topics Discussed:

Physical Hazards: \_\_\_\_\_

Chemical Hazards: \_\_\_\_\_

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) information for the site: (Applicable warning is checked)

- WARNING: This area contains a chemical known to the State of California to cause cancer.
- WARNING: This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Personal Protection: \_\_\_\_\_

Decontamination: \_\_\_\_\_

Special Site Considerations: \_\_\_\_\_

\_\_\_\_\_

Emergency Information: \_\_\_\_\_

Hospital Location: \_\_\_\_\_

Attendees

Name/Company (printed)

Signature

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Meeting Conducted by: \_\_\_\_\_

Signature





PROJECT:		<b>Log of Boring No.</b>			
BORING LOCATION:		ELEVATION AND DATUM:			
DRILLING CONTRACTOR:		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		TOTAL DEPTH:		MEASURING POINT:	
DRILLING EQUIPMENT:		DEPTH TO WATER:	FIRST	COMPL:	24 HRS.
SAMPLING METHOD:		LOGGED BY:			
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:			REG. NO.

DEPTH (feet)	SAMPLES			DESCRIPTION NAME (USCS Symbol): color, moist. % by wt, plast., density, structure, cementation, react. W/HCl, geo. inter. Surface Elevation:	PID READING (ppm)	REMARKS
	Sample No.	Sample	Blows / 6 inches			
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						



## FIELD INSTRUMENT CALIBRATION SHEET

**Project Name:** \_\_\_\_\_ **Project Number:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Date:** \_\_\_\_\_

**Equipment Type:** \_\_\_\_\_

**Manufacturer:** \_\_\_\_\_

**Model Number:** \_\_\_\_\_ **Serial Number:** \_\_\_\_\_

Calibration (as necessary, minimum twice per day):

**Calibration #1** **Time:** \_\_\_\_\_

Calibration Standard: \_\_\_\_\_

Instrument Reading: \_\_\_\_\_

**Calibration #2** **Time:** \_\_\_\_\_

Calibration Standard: \_\_\_\_\_

Instrument Reading: \_\_\_\_\_

**Calibration #3** **Time:** \_\_\_\_\_

Calibration Standard: \_\_\_\_\_

Instrument Reading: \_\_\_\_\_

**Calibration #4** **Time:** \_\_\_\_\_

Calibration Standard: \_\_\_\_\_

Instrument Reading: \_\_\_\_\_

Date of Last Calibration: \_\_\_\_\_ Date(s) Instrument Used: \_\_\_\_\_

Name of person(s) who calibrated instruments: \_\_\_\_\_

**Calibration Standards Used:**

(1) \_\_\_\_\_

(2) \_\_\_\_\_

(3) \_\_\_\_\_

(4) \_\_\_\_\_

Source of Calibration Standards: \_\_\_\_\_

Misc. Comments:

\_\_\_\_\_  
\_\_\_\_\_

Calibrated by: \_\_\_\_\_







# EQUIPMENT MAINTENANCE LOG



Project Name: \_\_\_\_\_

Project Number: \_\_\_\_\_

Equipment Type: \_\_\_\_\_

Model/Serial No. \_\_\_\_\_

Date: \_\_\_\_\_

Performed by: \_\_\_\_\_

<b>CAUSE/REASON</b>	Indicate the reason for equipment repair or replacement
<b>WORK PERFORMED</b>	Describe the equipment maintenance work performed including the hours to perform work and the parts and service costs:
<b>COMMENTS</b>	Describe any follow up needed:



## APPENDIX G

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### Screening Levels

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; \* = where n SL < 100X c SL; \*\* = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information													Contaminant		Screening Levels													Protection of Ground Water SSLs														
SFO (mg/kg-day) <sup>1</sup>	k <sub>e</sub>	IUR (ug/m <sup>3</sup> ) <sup>1</sup>	k <sub>e</sub>	RfD <sub>o</sub> (mg/kg-day)	k <sub>e</sub>	RfC <sub>1</sub> (mg/m <sup>3</sup> )	k <sub>e</sub>	v <sub>o</sub>	muta-	GIABS	ABS	C <sub>sat</sub> (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup> Residential Soil (mg/kg)	Industrial Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup> Industrial Soil (mg/kg)	Resident Air (ug/m <sup>3</sup> )	key	Industrial Air (ug/m <sup>3</sup> )	key	DTSC Residential Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Industrial Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
															ATTENUATION FACTORS:																											
															EXISTING BUILDINGS <sup>2</sup>													FUTURE BUILDINGS <sup>3</sup>														
															500													1000														
															2000																											
1.8E-02	C	5.1E-06	C	1.5E-01	I							0.1	ALAR	1596-84-5	3.0E+01	c	--	1.3E+02	c	--	5.5E-01	c	2.4E+00	c	--	--	--	--	--	--	2.8E+02	2.4E+03	5.5E+02	4.8E+03	4.3E+00	c	--	9.5E-04	c	--		
8.7E-03	I	2.2E-06	I	4.0E-03	I							0.1	Acetate	30560-19-1	6.1E+01	c**	--	2.7E+02	c*	--	1.3E+00	c**	5.6E+00	c**	9.0E-01	4.5E+00	4.5E+02	4.5E+03	9.0E+02	9.0E+03	--	--	8.9E+00	c**	--	2.0E-03	c**	--				
				9.0E-03	I	V						1.1E+05	Acetaldehyde	75-07-0	1.1E+01	c**	--	4.9E+01	c**	--	1.3E+00	c**	5.6E+00	c**	9.0E-01	4.5E+00	4.5E+02	4.5E+03	9.0E+02	9.0E+03	--	--	2.6E+00	c**	--	5.2E-04	c**	--				
				2.0E-02	I							0.1	Acetochlor	34256-82-1	1.2E+03	n	--	1.6E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5E+02	n	--	2.8E-01	n	--		
				9.0E-01	I	3.1E+01	A	V				1.1E+05	Acetone	67-64-1	6.1E+04	n	--	6.7E+05	nms	--	3.2E+04	n	1.4E+05	n	--	--	1.6E+07	1.4E+08	3.2E+07	2.8E+08	1.4E+04	n	--	2.9E+00	n	--	2.9E+00	n	--			
				2.0E-03	X	V						1.1E+05	Acetone Cyanohydrin	75-86-5	5.0E+01	n	--	2.1E+02	n	--	2.1E+00	n	8.8E+00	n	--	--	1.1E+03	8.8E+03	2.1E+03	1.8E+04	4.2E+00	n	--	8.4E+04	n	--	8.4E+04	n	--			
				6.0E-02	I	V						2.5E+03	Acetonitrile	75-05-8	8.1E+02	n	--	3.4E+03	n	--	6.3E+01	n	2.6E+02	n	--	--	3.2E+04	2.6E+05	6.3E+04	5.2E+05	1.3E+02	n	--	2.6E+02	n	--	2.6E+02	n	--			
3.8E+00	C	1.3E-03	C	1.0E-01	I							0.1	Acetophenone	98-86-2	7.8E+03	ns	--	1.2E+05	nms	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9E+03	n	--	5.8E-01	n	--		
				5.0E-04	I	2.0E-05	I	V				2.3E+04	Acetylaminofluorene, 2-	53-96-3	1.4E+01	c	--	6.1E-01	c	--	2.2E-03	c	9.4E-03	c	--	--	1.1E+00	9.4E+00	2.2E+00	1.9E+01	1.6E-02	c	--	1.6E-02	c	--	7.2E-05	c	--			
5.0E-01	I	1.0E-04	I	2.0E-03	I	6.0E-03	I	M				0.1	Acrolein	107-02-8	1.4E-01	n	--	6.0E-01	n	--	2.1E-02	n	8.8E-02	n	--	--	1.1E+01	8.8E+01	2.1E+01	1.8E+02	4.2E-02	n	--	8.4E-06	n	--	8.4E-06	n	--			
				5.0E-01	I	1.0E-03	I					0.1	Acrylamide	79-06-1	2.4E-01	c	--	4.6E+00	c	--	1.0E-02	c	1.2E-01	c	--	--	5.0E+02	1.2E+02	1.0E+01	2.4E+02	5.0E+02	n	--	1.1E-05	c	--	1.1E-05	c	--			
				5.0E-01	I	1.0E-03	I					0.1	Acrylic Acid	79-10-7	3.0E+04	n	--	3.9E+05	nm	--	1.0E+00	n	4.4E+00	n	--	--	5.0E+02	4.4E+03	1.0E+03	8.8E+03	9.9E+03	n	--	2.0E+00	n	--	2.0E+00	n	--			
5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V				1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c*	0.055	1.1E+00	c*	0.12	4.1E-02	c*	1.8E-01	c*	8.4E-03	4.2E-02	4.2E+00	4.2E+01	8.4E+00	8.4E+01	5.2E-02	c*	--	1.1E-05	c*	--	1.1E-05	c*	--			
				6.0E-03	P							0.1	Adiponitrile	111-69-3	8.5E+06	nm	--	3.6E+07	nm	--	6.3E+00	n	2.6E+01	n	--	--	3.2E+03	2.6E+04	6.3E+03	5.2E+04	6.3E+03	n	--	5.2E+04	n	--	5.2E+04	n	--			
5.6E-02	C			1.0E-02	I							0.1	Alachlor	15972-60-8	9.5E+00	c*	--	4.1E+01	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+00	c	2.0E+00	8.6E-04	c	1.6E-03			
				1.0E-03	I							0.1	Aldicarb	116-06-3	6.2E+01	n	--	8.2E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+01	n	3.0E+00	4.9E-03	n	7.5E-04			
				1.0E-03	I							0.1	Aldicarb Sulfone	1646-88-4	6.2E+01	n	--	8.2E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+01	n	2.0E+00	4.4E-03	n	4.4E-04			
				1.0E-03	I							0.1	Aldicarb sulfonamide	1646-87-3	6.2E+01	n	--	8.2E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+01	n	2.0E+00	4.4E-03	n	4.4E-04			
1.7E+01	I	4.9E-03	I	3.0E-05	I							0.1	Aldrin	309-00-2	3.1E-02	c*	--	1.4E-01	c	--	5.7E-04	c	2.5E-03	c	--	--	2.9E-01	2.5E+00	5.7E-01	5.0E+00	4.6E-03	c	--	7.5E-04	c	--	7.5E-04	c	--			
				2.5E-01	I							0.1	Allyl	74223-64-6	1.5E+04	n	--	2.1E+05	nm	--	2.1E+00	n	4.4E+00	n	--	--	5.0E+01	4.4E+02	1.0E+02	8.8E+02	4.9E+03	n	--	1.9E+00	n	--	1.9E+00	n	--			
				5.0E-03	I	1.0E-04	X					0.1	Allyl Alcohol	107-18-6	3.1E+02	n	--	4.1E+03	n	--	1.0E-01	n	4.4E+00	n	--	--	5.0E+01	4.4E+02	1.0E+02	8.8E+02	1.0E+02	n	--	2.0E-02	n	--	2.0E-02	n	--			
2.1E-02	C	6.0E-06	C	1.0E-03	I	V						1.4E+03	Allyl Chloride	107-05-1	7.2E-01	c**	--	3.2E+00	c**	--	4.7E-01	c**	2.0E+00	c**	--	--	2.4E+02	2.0E+03	4.7E+02	4.0E+03	7.3E-01	c**	--	2.3E-04	c**	--	2.3E-04	c**	--			
				1.0E+00	P	5.0E-03	P					1.4E+03	Aluminum	7429-90-5	7.7E+04	n	--	1.1E+06	nm	--	5.2E+00	n	2.2E+01	n	--	--	2.6E+03	2.2E+04	5.2E+03	4.4E+04	2.0E+04	n	--	3.0E+04	n	--	3.0E+04	n	--			
				4.0E-04	I							1.4E+03	Aluminum Phosphide	20859-73-8	3.1E+01	n	--	4.7E+02	n	--	5.2E+00	n	2.2E+01	n	--	--	2.6E+03	2.2E+04	5.2E+03	4.4E+04	8.0E+00	n	--	8.0E+00	n	--	8.0E+00	n	--			
				3.0E-04	I							0.1	Amdro	67485-29-4	1.8E+01	n	--	2.5E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.9E+00	n	--	2.1E+03	n	--			
				9.0E-03	I							0.1	Ametryn	834-12-8	5.5E+02	n	--	7.4E+03	n	--	4.7E-04	c	2.0E-03	c	--	--	2.4E-01	2.0E+00	4.7E-01	4.0E+00	1.5E+02	n	--	1.6E-01	n	--	1.6E-01	n	--			
				2.0E-02	P							0.1	Aminobiphenyl, 4-	92-67-1	2.5E-02	c	--	1.1E-01	c	--	4.7E-04	c	2.0E-03	c	--	--	2.4E-01	2.0E+00	4.7E-01	4.0E+00	3.0E-03	c	--	3.0E-03	c	--	3.0E-03	c	--			
				8.0E-02	P							0.1	Aminophenol, m-	591-27-5	4.9E+03	n	--	6.6E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6E+03	n	--	6.1E-01	n	--				
				2.0E-02	P							0.1	Aminophenol, p-	123-30-8	1.2E+03	n	--	1.6E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	4.0E+02	n	--	1.5E-01	n	--				
				2.5E-03	I							0.1	Amitraz	33089-61-1	1.5E+02	n	--	2.1E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	8.2E+00	n	--	4.2E+00	n	--				
				1.0E-01	I							1.4E+04	Ammonia	7664-41-7	1.6E+04	n	--	2.3E+05	nm	--	1.0E+02	n	4.4E+02	n	--	--	5.0E+04	4.4E+05	1.0E+05	8.8E+05	4.0E+03	n	--	4.0E+03	n	--	4.0E+03	n	--			
				3.0E-03	X	V						1.4E+04	Ammonium Sulfamate	7773-06-0	1.6E+04	n	--	2.3E+05	nm	--	3.1E+00	n	1.3E+01	n	--	--	1.6E+03	1.3E+04	3.1E+03	2.6E+04	6.3E+00	n	--	6.3E+00	n	--	6.3E+00	n	--			
				3.0E-03	X	V						1.4E+04	Amyl Alcohol, tert-	75-85-4	8.2E+01	n	--	3.4E+02	n	--	3.1E+00	n	1.3E+01	n	--	--	1.6E+03	1.3E+04	3.1E+03	2.6E+04	4.0E+03	n	--	4.0E+03	n	--	4.0E+03	n	--			
5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I					0.1	Aniline	62-53-3	9.3E+01	c**																										



Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; J = New Jersey; O = EPA Office of Water; F = See FAQ; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; R = RBA applied (See User Guide for Arsenic notice); c = cancer; \* = where n SL < 100X c SL; \*\* = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information												Contaminant			Screening Levels													Protection of Ground Water SSLs															
SFO (mg/kg-day) <sup>1</sup>	k <sub>e</sub>	IUR (ug/m <sup>3</sup> ) <sup>1</sup>	k <sub>e</sub>	RfD <sub>o</sub> (mg/kg-day)	k <sub>e</sub>	RF <sub>C1</sub> (mg/m <sup>3</sup> )	k <sub>e</sub>	Vol <sub>o</sub>	muta-	GIABS	ABS	C <sub>sat</sub> (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup> Residential Soil	Industrial Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup> Industrial Soil	Resident Air (ug/m <sup>3</sup> )	key	Industrial Air (ug/m <sup>3</sup> )	key	DTSC Residential Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Industrial Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
				5.0E-03	P	1.0E+00	X	V				2.8E+02	Cyclohexene	110-83-8	3.1E+02	ns	--	2.9E+03	ns	--	1.0E+03	n	4.4E+03	n	--	--	--	--	5.0E+05	4.4E+06	1.0E+06	8.8E+06	7.0E+01	n	--	4.6E-02	n	--					
				2.0E-01	I								Cyclohexylamine	108-91-8	1.2E+04	n	--	1.6E+05	nm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.8E+03	n	--	1.0E+00	n	--				
				5.0E-03	I								Cyhalothrin/karate	68085-85-8	3.1E+02	n	--	4.1E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	n	--	6.8E+01	n	--			
				1.0E-02	I								Cypermethrin	52315-07-8	6.2E+02	n	--	8.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+02	n	--	3.2E+01	n	--			
2.4E-01	I	6.9E-05	C	7.5E-03	I								Cyromazine	66215-27-8	4.6E+02	n	--	6.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5E+02	n	--	3.8E-02	n	--				
				2.0E-01	I								DDD	72-54-8	2.2E+00	c	--	9.6E+00	c	--	4.1E-02	c	1.8E-01	c	--	--	--	2.1E+01	1.8E+02	4.1E+01	3.6E+02	3.1E-02	c	--	7.2E-03	c	--						
3.4E-01	I	9.7E-05	C										DDE, p,p'-	72-55-9	1.6E+00	c	--	6.8E+00	c	--	2.9E-02	c	1.3E-01	c	--	--	--	1.5E+01	1.3E+02	2.9E+01	2.6E+02	2.3E-01	c	--	5.4E-02	c	--						
3.4E-01	I	9.7E-05	I	5.0E-04	I							0.03	DDT	50-29-3	1.9E+00	c*	--	8.6E+00	c*	--	2.9E-02	c	1.3E-01	c	--	--	--	1.5E+01	1.3E+02	2.9E+01	2.6E+02	2.3E-01	c*	--	7.7E-02	c*	--						
				1.0E-02	I								Dacthal	1861-32-1	6.2E+02	n	--	8.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2E+02	n	--	1.5E-01	n	--				
				3.0E-02	I								Dalapon	75-99-0	1.8E+03	n	--	2.5E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0E+02	n	2.0E+02	1.2E-01	n	4.1E-02				
7.0E-04	I			7.0E-03	I								Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'-(BDE-209)	1163-19-5	4.3E+02	n	--	3.3E+03	c**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E+02	c**	--	6.2E+01	c**	--				
				4.0E-05	I								Demeton	8065-48-3	2.5E+00	n	--	3.3E+01	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.7E-01	n	--	6.7E-01	n	--				
1.2E-03	I			6.0E-01	I								Di(2-ethylhexyl)adipate	103-23-1	4.4E+02	c*	--	1.9E+03	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.5E+01	c	4.0E+02	4.7E+00	c	2.9E+01				
6.1E-02	H			4.2E-03	P								Diallate	2303-16-4	8.7E+00	c	--	3.8E+01	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.2E-01	c	--	7.8E-04	c	--				
				7.0E-04	A								Diazinon	333-41-5	4.3E+01	n	--	5.8E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+01	n	--	6.5E-02	n	--				
8.0E-01	P	6.0E-03	P	1.0E-02	X							9.8E+02	Dibenzothiophene	132-65-0	7.8E+02	n	--	1.2E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.5E+01	n	--	1.2E+00	n	--				
				2.0E-04	P	2.0E-04	I	V	M				Dibromo-3-chloropropane, 1,2-	96-12-8	5.3E+03	c	--	6.4E-02	c	--	1.7E-04	c	2.0E-03	c	--	--	--	8.5E-02	2.0E+00	1.7E-01	4.0E+00	3.3E-04	c	2.0E-01	1.4E-07	c	8.6E-05						
				4.0E-04	X								Dibromobenzene, 1,3-	108-36-1	2.5E+01	n	--	3.3E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.3E+00	n	--	5.1E-03	n	--				
				1.0E-02	I								Dibromobenzene, 1,4-	106-37-6	6.2E+02	n	--	8.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3E+02	n	--	1.2E-01	n	--				
8.4E-02	I	2.7E-05	C	2.0E-02	I							8.0E+02	Dibromochloromethane	124-48-1	7.3E-01	c	--	3.2E+00	c	--	1.0E-01	c	4.5E-01	c	--	--	--	5.0E+01	4.5E+02	1.0E+02	9.0E+02	1.7E-01	c	8.0E+01(F)	4.5E-05	c	2.1E-02						
2.0E+00	I	6.0E-04	I	9.0E-03	I	9.0E-03	I	V					Dibromomethane, 1,2-	106-93-4	3.6E-02	c	--	1.6E-01	c	--	4.7E-03	c	2.0E-02	c	--	--	--	2.4E+00	2.0E+01	4.7E+00	4.0E+01	7.5E-03	c	5.0E-02	2.1E-06	c	1.4E-05						
				1.0E-02	H	4.0E-03	X	V					Dibromomethane (Methylene Bromide)	74-95-3	2.3E+01	n	--	9.8E+01	n	--	4.2E+00	n	1.8E+01	n	--	--	--	2.1E+03	1.8E+04	4.2E+03	3.6E+04	8.0E+00	n	--	2.0E-03	n	--						
				3.0E-04	P								Dibutyltin Compounds	NA	1.8E+01	n	3100	2.5E+02	n	100000	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0E+00	n	--	1.5E-01	n	--				
				3.0E-02	I								Dicamba	1918-00-9	1.8E+03	n	--	2.5E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.7E+02	n	--	1.5E-01	n	--				
				4.2E-03	P								Dichloro-2-butene, 1,4-	764-41-0	7.4E-03	c	--	3.2E-02	c	--	6.7E-04	c	2.9E-03	c	--	--	--	3.4E-01	2.9E+00	6.7E-01	5.8E+00	1.3E-03	c	--	6.2E-07	c	--						
				4.2E-03	P								Dichloro-2-butene, cis-1,4-	1476-11-5	7.4E-03	c	--	3.2E-02	c	--	6.7E-04	c	2.9E-03	c	--	--	--	3.4E-01	2.9E+00	6.7E-01	5.8E+00	1.3E-03	c	--	6.2E-07	c	--						
				4.2E-03	P								Dichloro-2-butene, trans-1,4-	110-57-6	7.4E-03	c	--	3.2E-02	c	--	6.7E-04	c	2.9E-03	c	--	--	--	3.4E-01	2.9E+00	6.7E-01	5.8E+00	1.3E-03	c	--	6.2E-07	c	--						
5.0E-02	I			4.0E-03	I								Dichloroacetic Acid	79-43-6	1.1E+01	c*	--	4.6E+01	c*	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5E+00	c*	6.0E+01	3.1E-04	c*	1.2E-02					
				9.0E-02	I	2.0E-01	H	V					Dichlorobenzene, 1,2-	95-50-1	1.8E+03	ns	--	9.3E+03	ns	--	2.1E+02	n	8.8E+02	n	--	--	--	1.1E+05	8.8E+05	2.1E+05	1.8E+06	3.0E+02	n	6.0E+02	3.0E-01	n	5.8E-01						
5.4E-03	C	1.1E-05	C	7.0E-02	A	8.0E-01	I	V					Dichlorobenzene, 1,4-	106-46-7	2.6E+00	c	--	1.1E+01	c	--	2.6E-01	c	1.1E+00	c	--	--	--	1.3E+02	1.1E+03	2.6E+02	2.2E+03	4.8E-01	c	7.5E+01	4.6E-04	c	7.2E-02						
4.5E-01	I	3.4E-04	C										Dichlorobenzidine, 3,3'	91-94-1	1.2E+00	c	--	5.1E+00	c	--	8.3E-03	c	3.6E-02	c	--	--	--	4.2E+00	3.6E+01	3.6E+00	7.2E+01	1.2E-01	c	--	8.1E-04	c	--						
				9.0E-03	X								Dichlorobenzophenone, 4,4'	90-98-2	5.5E+02	n	--	7.4E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.8E+01	n	--	4.7E-01	n	--				
				2.0E-01	I	1.0E-01	X	V					Dichlorodifluoromethane	75-71-8	8.7E+01	n	--	3.7E+02	n	--	1.0E+02	n	4.4E+02	n	--	--	--	5.0E+04	4.4E+05	1.0E+05	8.8E+05	2.0E+02	n	--	3.0E-01	n	--						
5.7E-03	C	1.6E-06	C	2.0E-01	P								Dichloroethane, 1,1-	75-34-3	3.6E+00	c	--	1.6E+01	c	--	1.8E+00	c	7.7E+00	c	--	--	--	9.0E+02	7.7E+03	1.8E+03	1.5E+04	2.7E+00	c	--	7.8E-04	c	--						
9.1E-02	I	2.6E-05	I	6.0E-03	X	7.0E-03	P	V					Dichloroethane, 1,2-	107-06-2	4.6E-01																												











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Toxicity and Chemical-specific Information											Contaminant				Screening Levels												Protection of Ground Water SSLs																	
SFO (mg/kg-day) <sup>1</sup>	ke y	IUR (ug/m <sup>3</sup> ) <sup>1</sup>	ke y	RfD <sub>o</sub> (mg/kg-day)	ke y	RfC <sub>i</sub> (mg/m <sup>3</sup> )	ke y	vo l	muta- gen	GIABS	ABS	C <sub>sat</sub> (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup>	Residential Soil (mg/kg)	Industrial Soil (mg/kg)	key	DTSC Alternative Value July 2014 <sup>1</sup>	Residential Air (ug/m <sup>3</sup> )	key	Industrial Air (ug/m <sup>3</sup> )	key	DTSC Residential Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Industrial Air <sup>1</sup> (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Residential Soil Vapor (ug/m <sup>3</sup> )	key	DTSC Industrial Soil Vapor (ug/m <sup>3</sup> )	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)	
3.0E+00	I			1.0E-03	I			V				5.3E+05	Pyridine	110-86-1	7.8E+01	n	--	1.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+01	n	--	6.8E-03	n	--			
				5.0E-04	I								Quinalphos	13593-03-8	3.1E+01	n	--	4.1E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.1E+00	n	--	4.3E-02	n	--			
													Quinoline	91-22-5	1.8E-01	c	--	7.7E-01	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4E-02	c	--	7.8E-05	c	--			
													Refractory Ceramic Fibers	NA	4.3E+07	nm	3100	1.8E+08	nm	100000	3.1E+01	n	1.3E+02	n	--	--	--	1.6E+04	1.3E+05	3.1E+04	2.6E+05	--	--	--	--	--	--	6.7E+01	n	--	4.2E+01	n	--	
				3.0E-02	I								Resmethrin	10453-86-8	1.8E+03	n	--	2.5E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.1E+02	n	--	3.7E+00	n	--		
				5.0E-02	H								Ronnel	299-84-3	3.1E+03	n	--	4.1E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2.2E-01	C	6.3E-05	C	4.0E-03	I								Rotenone	83-79-4	2.5E+02	n	--	3.3E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.1E+01	n	--	3.2E+01	n	--	
									M				Safrole	94-59-7	5.4E-01	c	--	1.0E+01	c	--	1.6E-02	c	1.9E-01	c	--	--	--	8.0E+00	1.9E+02	1.6E+01	3.8E+02	--	--	--	--	--	--	9.5E-02	c	--	5.9E-05	c	--	
				2.5E-02	I								Savey	78587-05-0	1.5E+03	n	--	2.1E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1E+02	n	--	5.0E-01	n	--	
				5.0E-03	I								Selenious Acid	7783-00-8	3.9E+02	n	--	5.8E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+02	n	--	1.0E+02	n	--	
				5.0E-03	I	2.0E-02	C						Selenium	7782-49-2	3.9E+02	n	--	5.8E+03	n	--	2.1E+01	n	8.8E+01	n	--	--	--	1.1E+04	8.8E+04	2.1E+04	1.8E+05	--	--	--	--	--	--	1.0E+02	n	5.0E+01	5.2E-01	n	2.6E-01	
				5.0E-03	C	2.0E-02	C						Selenium Sulfide	7446-34-6	3.9E+02	n	--	5.8E+03	n	--	2.1E+01	n	8.8E+01	n	--	--	--	1.1E+04	8.8E+04	2.1E+04	1.8E+05	--	--	--	--	--	--	1.0E+02	n	--	1.0E+02	n	--	
				9.0E-02	I								Sethoxydim	74051-80-2	5.5E+03	n	--	7.4E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0E+03	n	--	9.3E+00	n	--	
													Silica (crystalline, respirable)	7631-86-9	4.3E+06	nm	--	1.8E+07	nm	--	3.1E+00	n	1.3E+01	n	--	--	--	1.6E+03	1.3E+04	3.1E+03	2.6E+04	--	--	--	--	--	--	9.4E+01	n	--	8.0E-01	n	--	
				5.0E-03	I							0.04	Silver	7440-22-4	3.9E+02	n	--	5.8E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1.2E-01	H			5.0E-03	I								Simazine	122-34-9	4.4E+00	c*	--	1.9E+01	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.1E-01	c	4.0E+00	3.0E-04	c	2.0E-03	
				1.3E-02	I								Sodium Acifluorfen	62476-59-9	8.0E+02	n	--	1.1E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.6E+02	n	--	2.1E+00	n	--
				4.0E-03	I								Sodium Azide	26628-22-8	3.1E+02	n	--	4.7E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.0E+01	n	--	8.0E+01	n	--	
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C			M	0.025		Sodium Dichromate	10588-01-9	3.0E-01	c	--	6.2E+00	c	--	6.8E-06	c	8.2E-05	c	--	--	--	3.4E-03	8.2E-02	6.8E-03	1.6E-01	--	--	--	--	--	--	4.1E-02	c	--	4.1E-02	c	--	
2.7E-01	H			3.0E-02	I								Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c	--	8.6E+00	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.9E-01	c	--	2.9E-01	c	--		
				5.0E-02	A	1.3E-02	C						Sodium Fluoride	7681-49-4	3.9E+03	n	--	5.8E+04	n	--	1.4E+01	n	5.7E+01	n	--	--	--	7.0E+03	5.7E+04	1.4E+04	1.1E+05	--	--	--	--	--	--	1.0E+03	n	--	1.0E+03	n	--	
				2.0E-05	I								Sodium Fluoroacetate	62-74-8	1.2E+00	n	--	1.6E+01	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.0E-01	n	--	8.1E-05	n	--		
2.4E-02	H			1.0E-03	H								Sodium Metavanadate	13718-26-8	7.8E+01	n	--	1.2E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0E+01	n	--	2.0E+01	n	--		
				3.0E-02	I								Stirofos (Tetrachlorovinphos)	961-11-5	2.2E+01	c*	--	9.6E+01	c	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8E+00	c	--	2.8E+00	c	--			
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C			M	0.025		Stironium Chromate	7789-06-2	3.0E-01	c	--	6.2E+00	c	--	6.8E-06	c	8.2E-05	c	--	--	--	3.4E-03	8.2E-02	6.8E-03	1.6E-01	--	--	--	--	--	--	4.1E-02	c	--	4.1E-02	c	--	
				6.0E-01	I								Stironium, Stable	7440-24-6	4.7E+04	n	--	7.0E+05	nm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2E+04	n	--	4.2E+02	n	--		
				3.0E-04	A								Strychnine	57-24-9	1.8E+01	n	--	2.5E+02	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.9E+00	n	--	5.9E+00	n	--		
				2.0E-01	I	1.0E+00	I	V				8.7E+02	Styrene	100-42-5	6.0E+03	ns	--	3.5E+04	ns	--	1.0E+03	n	4.4E+03	n	--	--	--	9.4E+02	3.9E+03	4.7E+05	3.9E+06	9.4E+05	7.8E+06	--	--	1.2E+03	n	1.0E+02	1.3E+00	n	1.1E-01			
				3.0E-03	P	2.0E-03	X						Styrene-Acrylonitrile (SAN) Trimer	NA	1.8E+02	n	--	2.5E+03	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0E+01	n	--	6.0E+01	n	--			
				1.0E-03	P	2.0E-03	X						Sulfolane	126-33-0	6.2E+01	n	--	8.2E+02	n	--	2.1E+00	n	8.8E+00	n	--	--	--	1.1E+03	8.8E+03	2.1E+03	1.8E+04	--	--	--	--	--	2.0E+01	n	--	2.0E+01	n	--		
				8.0E-04	P								Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	4.9E+01	n	--	6.6E+02	n	--	1.0E+00	n	4.4E+00	n	--	--	--	5.0E+02	4.4E+03	1.0E+03	8.8E+03	--	--	--	--	--	1.1E+01	n	--	1.1E+01	n	--		
													Sulfur Trioxide	7446-11-9	1.4E+06	nm	--	6.0E+06	nm	--	1.0E+00	n	4.4E+00	n	--	--	--	5.0E+02	4.4E+03	1.0E+03	8.8E+03	--	--	--	--	--	5.0E+02	n	--	5.0E+02	n	--		
													Sulfuric Acid	7664-93-9	1.4E+06	nm	--	6.0E+06	nm	--	1.0E+00	n	4.4E+00	n	--	--	--	5.0E+02	4.4E+03	1.0E+03	8.8E+03	--	--	--	--	--	5.0E+02	n	--	5.0E+02	n	--		
				2.5E-02	I								Systhane	88671-89-0	1.5E+03	n	--	2.1E+04	n	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.5E+02	n	--	4.5E+02	n	--		
				3.0E-02	H								TCMTB	21564-17-0	1.8E+03	n	--	2.5E+04	n	--	--	--	--	--																				





**Table 1, Page 2.** Alternate soil and tapwater screening values currently recommended in lieu of the Spring 2013 RSLs.

Analyte	CAS Number	U.S. EPA Region 9 PRGs (2004)						'Cal-modified' 2004 U.S. EPA Region 9 PRGs (2004)						RSL Calculator Risk-based Concentration						FOOTNOTE
		Residential Soil		Industrial Soil		Tapwater		Residential Soil		Industrial Soil		Tapwater		Residential Soil		Industrial Soil		Tapwater		
		Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (µg/L)	Noncancer PRG (µg/L)	Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (µg/L)	Noncancer PRG (µg/L)	Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (mg/kg)	Noncancer PRG (mg/kg)	Cancer PRG (µg/L)	Noncancer PRG (µg/L)	
Furan	110-00-9		2.50E+00		8.50E+00															1
Hexamethylene Diisocyanate, 1,6-	822-06-0		1.70E-01		1.80E+00															1
Hydrazine, 1,1-dimethyl	57-14-7	1.60E-01	NA	5.70E-01	NA	2.20E-02	NA													1, 4
Hydrogen Sulfide	7783-06-4						1.10E+02													4
Lead and Compounds	7439-92-1							See text for discussion												
Maleic Hydrazide	123-33-1		1.70E+03		2.4E+03 (sat) 5.60E+03															1
Maneb	12427-38-2	8.10E+00	3.10E+02	2.90E+01	3.10E+03	1.10E+00	1.80E+02													1, 4
Mercaptobenzothiazole, 2-	149-30-4	1.70E+01	6.10E+03	5.90E+01	6.20E+04	2.30E+00	3.60E+03													6
Methylol	16752-77-5		4.40E+01		1.50E+02															1
Methyl Acetate	79-20-9				9.20E+04															1
Methyl Acrylate	96-33-3		7.00E+01		2.30E+02															1
Methyl Mercaptan	74-93-1		3.50E+01		3.50E+02		2.10E+01													6
2-(2-Methyl-1,4-chlorophenoxy)propionic acid	16484-77-8		6.10E+01		6.20E+02		3.60E+01													6
Methylcyclohexane	108-87-2		2.60E+03		8.70E+03		5.20E+03													6
Methylenediphenyl Diisocyanate	101-68-8		1.00E+01		1.00E+02		6.20E+00													1, 6
Methylstyrene, Alpha-	98-83-9		6.8E+02 (sat) 9.20E+02		6.8E+02 (sat) 3.40E+03															1
Nitroaniline, 3-	99-09-2		1.8E+01	8.2E+01		3.2E+00														6
Nitroso-di-N-butylamine, N-	924-16-3				NA		5.80E-02													1
Nitrotoluene, o-	88-72-2			2.2E+00		4.90E-02	6.10E+01													1, 4
Nitrotoluene, p-	99-99-0					6.60E-01	6.10E+01													4
Selenourea	630-10-4		3.1E+02		3.1E+03		1.8E+02													6
Tetrachloroethylene	127-18-4	4.8E-01		1.3E+00		1.0E-01														1, 4
Thiocyanate	N/A		3.10E+03		1.0E+05 (max) 3.10E+04		1.80E+03													6
Titanium	7440-32-6		1.0E+05 (max) 3.10E+05		1.0E+05 (max) 3.80E+06		1.50E+05													6
Trichlorophenol, 2,4,6-	88-06-2						6.90E+00	NA	2.50E+01	NA										2
Trichloropropane, 1,1,2-	598-77-6		7.10E+01		2.70E+02															1
Trimethylbenzene, 1,3,5-	108-67-8		2.13E+01		6.97E+01		1.23E+01													1, 4
Trimellitic Anhydride (TMAN)	552-30-7		8.60E+00		8.60E+01		5.10E+00													6

FOOTNOTES:

\* NA = Not Available. Non-carcinogenic PRG not available for carcinogen.

- Contaminants for which HERO recommends use of 2004 U.S. EPA Region 9 PRGs for soil. 2004 U.S. EPA Region 9 PRG for soil significantly more protective than Spring 2013 RSL.
- Contaminants for which HERO recommends use of 2004 U.S. EPA Region 9 'Cal-modified' PRGs for soil. 'Cal-modified' PRG significantly more protective than 2004 Region 9 PRG and Spring 2013 RSL.
- Contaminants for which HERO recommends use of the listed RSL calculator risk-based calculated concentrations. These risk-based concentrations, using the RSL calculator are significantly more protective than Spring 2013 RSLs. If beryllium or cadmium is detected in groundwater above background and determined to be a site-related contaminant contact HERO Toxicologist.
- Contaminants for which HERO recommends use of 2004 U.S. EPA Region 9 PRGs for tapwater. EPA Region 9 2004 tapwater PRG significantly more protective than Spring 2013 tapwater RSL.
- Contaminants for which HERO recommends use of 2004 U.S. EPA Region 9 'Cal-modified' PRGs for tapwater. 'Cal-modified' tapwater PRG significantly more protective than EPA Region 9 tapwater PRG and Spring 2013 tapwater RSL.
- Contaminants for which Spring 2013 RSLs are not available, but EPA Region 9 2004 PRGs are available.
- HERO recommends use of RSL calculator risk-based concentrations above for beryllium compounds except for anhydrous beryllium sulfate (CASN 13510-49-1). See the text for beryllium sulfate.



**Table 2. Page 1.** Complete Listing of VOC U.S. EPA Air RSLs Reviewed to Date.

<b>CAS No.</b>	<b>Volatile Organic Compound</b>	<b>Recommendation</b>
<b>75-07-0</b>	<b>Acetaldehyde</b>	<b>See Table 3</b>
67-6411	Acetone	Use RSLs
75-05-8	Acetonitrile	Use RSLs
107-02-8	Acrolein	Use RSLs
<b>107-13-1</b>	<b>Acrylonitrile</b>	<b>See Table 3</b>
<b>71-43-2</b>	<b>Benzene</b>	<b>See Table 3</b>
100-44-7	Benzyl Chloride	Use RSLs
<b>111-44-4</b>	<b>Bis(2-chloroethyl)ether</b>	<b>See Table 3</b>
<b>75-27-4</b>	<b>Bromodichloromethane</b>	<b>See Table 3</b>
<b>75-25-2</b>	<b>Bromoform</b>	<b>See Table 3</b>
74-83-9	Bromomethane (Methyl Bromide)	Use RSLs
<b>106-99-0</b>	<b>1,3-Butadiene</b>	<b>See Table 3</b>
<b>104-51-8</b>	<b>n-Butylbenzene</b>	<b>See Table 3</b>
<b>135-98-8</b>	<b>sec-Butylbenzene</b>	<b>See Table 3</b>
<b>98-06-6</b>	<b>tert-Butylbenzene</b>	<b>See Table 3</b>
75-15-0	Carbon Disulfide	Use RSLs
<b>56-23-5</b>	<b>Carbon Tetrachloride</b>	<b>See Table 3</b>
126-99-8	2-Chloro-1,3-butadiene (Chloroprene)	Use RSLs
108-90-7	Chlorobenzene	Use RSLs
<b>109-69-3</b>	<b>1-Chlorobutane</b>	<b>See Table 3</b>
75-45-6	Chlorodifluoromethane	Use RSLs
67-66-3	Chloroform	Use RSLs
74-87-3	Chloromethane (Methyl Chloride)	Use RSLs
<b>124-48-1</b>	<b>Dibromochloromethane</b>	<b>See Table 3</b>
74-95-3	Dibromomethane (Methylene Bromide)	Use RSLs
95-50-1	1,2-Dichlorobenzene	Use RSLs
106-46-7	1,4-Dichlorobenzene	Use RSLs
75-71-8	Dichlorodifluoromethane	Use RSLs
<b>75-34-3</b>	<b>1,1-Dichloroethane</b>	<b>See Table 3</b>
107-06-2	1,2-Dichloroethane	Use RSLs
<b>75-35-4</b>	<b>1,1-Dichloroethylene (1,1-DCE)</b>	<b>See Table 3</b>
<b>156-59-2</b>	<b>cis-1,2-Dichloroethylene (cis-1,2-DCE)</b>	<b>See Table 3</b>
156-60-5	trans-1,2-Dichloroethylene (trans-1,2-DCE)	Use RSLs
78-87-5	1,2-Dichloropropane	Use RSLs
<b>542-75-6</b>	<b>1,3-Dichloropropene</b>	<b>See Table 3</b>
100-41-4	Ethylbenzene	Use RSLs
75-21-8	Ethylene oxide	Use RSLs
<b>118-74-1</b>	<b>Hexachlorobenzene</b>	<b>See Table 3</b>

**Table 2. Page 2.** Complete Listing of VOC U.S. EPA Air RSLs Reviewed to Date.

<b>87-68-3</b>	<b>Hexachlorobutadiene</b>	<b>See Table 3</b>
77-47-4	Hexachlorocyclopentadiene	Use RSLs
67-72-1	Hexachloroethane	Use RSLs
110-54-3	n-Hexane	Use RSLs
74-90-8	Hydrogen cyanide	Use RSLs
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>See Table 3</b>
78-93-3	Methyl ethyl ketone (2-butanone)	Use RSLs
108-10-1	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	Use RSLs
<b>91-57-6</b>	<b>2-Methylnaphthalene</b>	<b>See Table 3</b>
1634-04-4	Methyl tert-Butyl Ether (MTBE)	Use RSLs
91-20-3	Naphthalene	Use RSLs
98-95-3	Nitrobenzene	Use RSLs
<b>88-72-2</b>	<b>o-Nitrotoluene</b>	<b>See Table 3</b>
103-65-1	Propyl benzene	Use RSLs
<b>100-42-5</b>	<b>Styrene</b>	<b>See Table 3</b>
<b>630-20-6</b>	<b>1,1,1,2-Tetrachloroethane</b>	<b>See Table 3</b>
<b>79-34-5</b>	<b>1,1,2,2-Tetrachloroethane</b>	<b>See Table 3</b>
<b>127-18-4</b>	<b>Tetrachloroethylene (PCE)</b>	<b>See Table 3</b>
<b>108-88-3</b>	<b>Toluene</b>	<b>See Table 3</b>
120-82-1	1,2,4-Trichlorobenzene	Use RSLs
<b>71-55-6</b>	<b>1,1,1-Trichloroethane</b>	<b>See Table 3</b>
79-00-5	1,1,2-Trichloroethane	Use RSLs
79-01-6	Trichloroethylene (TCE)	Use RSLs
75-69-4	Trichlorofluoromethane	Use RSLs
<b>96-18-4</b>	<b>1,2,3-Trichloropropane</b>	<b>See Table 3</b>
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	Use RSLs
95-63-6	1,2,4-Trimethylbenzene	Use RSLs
<b>108-67-8</b>	<b>1,3,5-Trimethylbenzene</b>	<b>See Table 3</b>
<b>75-01-4</b>	<b>Vinyl chloride</b>	<b>See Table 3</b>
95-47-6, 106-42-3, 1330-20-7, 108-38-3	Xylene(s), p-, m-, o-	Use RSLs

**Table 3. Page 1.** Alternate air screening levels currently recommended in lieu of the Spring 2013 RSLs.

CAS No.	Volatile Organic Compound	More Protective of CalEPA and Nov 2012 U.S. EPA RSL Table Criteria		DTSC Recommended Values			
		IUR (per $\mu\text{g}/\text{m}^3$ )	RfC or REL ( $\text{mg}/\text{m}^3$ )	DTSC-Modified Residential Air Screening Level Calculated using RSL Calculator		DTSC-Modified Industrial Air Screening Level Calculated using RSL Calculator	
				Cancer ( $\mu\text{g}/\text{m}^3$ )	Noncancer ( $\mu\text{g}/\text{m}^3$ )	Cancer ( $\mu\text{g}/\text{m}^3$ )	Noncancer ( $\mu\text{g}/\text{m}^3$ )
75-07-0	Acetaldehyde	2.7E-06 (C)	0.009 (S)	0.9	Use RSL	4.5	Use RSL
107-13-1	Acrylonitrile	2.9E-04 (C)	0.002 (S)	0.0084	Use RSL	0.042	Use RSL
71-43-2	Benzene	2.9E-05 (C)	0.03 (S)	0.084	Use RSL	0.42	Use RSL
111-44-4	Bis(2-chloroethyl)ether	7.1E-04 (C)	-	0.0034	-	0.017	-
75-27-4	Bromodichloromethane	3.70E-05 (C)	0.07 (R)	Use RSL	73	Use RSL	310
75-25-2	Bromoform	1.10E-06	0.07 (R)	Use RSL	73	Use RSL	310
106-99-0	1,3-Butadiene	1.7E-04 (C)	0.002 (C <sup>*</sup> )	0.014	Use RSL	0.072	Use RSL
104-51-8	n-Butylbenzene	-	0.175 (R)	-	180	-	770
135-98-8	sec-Butylbenzene	-	0.4 (SUR)	-	420	-	1800
98-06-6	tert-Butylbenzene	-	0.4 (SUR)	-	420	-	1800
56-23-5	Carbon tetrachloride	4.2E-05 (C)	0.04 (C)	0.058	42	0.29	180
109-69-3	1-Chlorobutane	-	0.14 (R)	-	150	-	610
124-48-1	Dibromochloromethane	2.7E-05 (C)	0.07 (R)	Use RSL	73	Use RSL	310
75-34-3	1,1-Dichloroethane	1.6E-06 (C)	0.7 (R)	Use RSL	730	Use RSL	3100
75-35-4	1,1-Dichloroethylene (1,1-DCE)	-	0.07 (C)	-	73	-	310
156-59-2	cis-1,2-Dichloroethylene (cis-1,2-DCE)	-	0.007 (R)	-	7.3	-	31
542-75-6	1,3-Dichloropropene	1.6E-05 (C)	0.02	0.15	Use RSL	0.77	Use RSL
118-74-1	Hexachlorobenzene	5.1E-04 (C)	0.0028 (R)	0.0048	2.9	0.024	12
87-68-3	Hexachlorobutadiene	2.20E-05	0.0035 (R)	Use RSL	3.7	Use RSL	15
75-09-2	Methylene Chloride	1E-06 (C)	0.4 (C)	0.96	420	12	1800
91-57-6	2-Methylnaphthalene	-	0.014 (R)	-	15	-	61
88-72-2	o-Nitrotoluene	6.3E-5 (R)	0.00315 (R)	0.039	3.3	0.195	14
100-42-5	Styrene	-	0.9 (C)	-	940	-	3900
630-20-6	1,1,1,2-Tetrachloroethane	7.40E-06	0.11 (R)	Use RSL	120	Use RSL	480
79-34-5	1,1,1,2,2-Tetrachloroethane	5.8E-05 (C)	0.07 (R)	Use RSL	73	Use RSL	310
127-18-4	Tetrachloroethylene (PCE)	5.9E-06 (C)	0.035 (C)	0.41	37	2.08	150
108-88-3	Toluene	-	0.3 (C)	-	310	-	1300
71-55-6	1,1,1-Trichloroethane	-	1 (C)	-	1040	-	4400
96-18-4	1,2,3-Trichloropropane	8.6E-03 (R)	0.0003	0.0001	Use RSL	0.0014	Use RSL
108-67-8	1,3,5-Trimethylbenzene	-	0.035 (R)	-	37	-	150
75-01-4	Vinyl chloride	7.8E-05 (C)	0.1	0.031 <sup>*</sup>	Use RSL	0.16	Use RSL