# UST CASE CLOSURE SUMMARY

## Agency Information

| | |
|---|---|
| Current Agency Name: State Water Resources Control Board (State Water Board) | Address: 1001 I Street, P.O. Box 2231 Sacramento, CA 95812 |
| Current Agency Caseworker: Mr. Matthew Cohen | Case No.: N/A |

| | |
|---|---|
| Former Agency Name: Los Angeles County Department of Public Works (Prior to 7/1/2013) | Address: 900 South Fremont Avenue Alhambra, CA 91803 |
| Former Agency Caseworker: Rani Iyer | Case No.: 001558-038347 |

## Case Information

| | |
|---|---|
| USTCF Claim No.: 9760 | Global ID: T10000000569 |
| Site Name: ConocoPhillips No. 256350 | Site Address: 10951 East Imperial Highway Norwalk, CA 90650 |
| Responsible Party: ConocoPhillips Company Attention: Holly Quasem | Address: 3900 Kilroy Airport Way, Suite 210 Long Beach, CA 90806 |
| USTCF Expenditures to Date: None | Number of Years Case Open: 5 |

**URL:** http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000000569

## Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This Case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Low-Threat Policy is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model (CSM) upon which the evaluation of the Case has been made is described in **Attachment 2: Summary of Basic Site Information.** Highlights of the Conceptual Site Model of the Case are as follows:

The release at the Site was discovered when two 10,000 gallon gasoline underground storage tanks (UST), and a 500 gallon waste-oil tank were removed from the Site in October 1993. During the 1993 UST removals, approximately 168 tons of impacted soil was removed from the Site. The Site is operated as an active fueling facility.

The petroleum release is limited to the shallow soil. Groundwater was not encountered beneath the site during soil sampling to an approximate depth of 60 feet below ground surface (bgs). The nearest surface water body is San Gabriel River, which is located approximately 0.65 miles northwest of the Site. The nearest public supply wells regulated by the California Department of Public Health are located approximately 3,665 feet southwest of the Site. Public water is provided by the City of Norwalk. Public supply wells are usually constructed with competent sanitary seals. Remaining petroleum

constituents are limited. Remedial actions have been implemented and additional corrective action would be unnecessary and costly. Additional assessment/monitoring will not likely change the CSM. Remaining petroleum constituents do not pose significant risk to human health, safety or the environment.

**Rationale for Closure under the Policy**

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy.

- Groundwater Media- Specific Criteria – Site releases **HAVE NOT AFFECTED GROUNDWATER**. Soil does not contain sufficient mobile constituents [leachate, vapors, or light non-aqueous-phase liquids (LNAPL)] to cause groundwater to exceed the groundwater criteria in this Policy.

- Petroleum Vapor Intrusion to Indoor Air – Site meets **EXCEPTION.** Exposure to petroleum vapors associated with historical fuel system releases are comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities.

- Direct Contact and Outdoor Air Exposure – Site meets **CLASS (3) a**. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1. The estimated naphthalene concentrations are less than the thresholds in Table 1 of the Policy for direct contact. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

**Objection to Closure**

State Water Board, Los Angeles County Department of Public Works, or Los Angeles Regional Water Quality Control Board staffs do not object to UST case closure.

**Recommendation for Closure**

The corrective action performed at this Site ensures the protection of human health, safety, the environment and is consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations, applicable state policies for water quality control and the applicable water quality control plan, and case closure is recommended.

Prepared By: Sheena Dhillon 8/30/2013
Sheena Dhillon Date
Engineering Student Assistant

Reviewed By: 8/30/2013
Benjamin Heningburg, PG No. 8130 Date
Senior Engineering Geologist

## ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The Site complies with State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the site do not pose significant risk to human health, safety, or the environment.

**The Site complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.[1]**

| | |
|---|---|
| **Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations?**<br>The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST case closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this Site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure. | ☒ Yes ☐ No |
| **Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this Site?** | ☐ Yes ☒ No |
| **If so, was the corrective action performed consistent with any order?** | ☐ Yes ☐ No ☒ NA |
| **<u>General Criteria</u>**<br>General criteria that must be satisfied by all candidate sites:<br>**Is the unauthorized release located within the service area of a public water system?**<br>**Does the unauthorized release consist only of petroleum?**<br>**Has the unauthorized ("primary") release from the UST system been stopped?**<br>**Has free product been removed to the maximum extent practicable?**<br>**Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?** | ☒ Yes ☐ No<br>☒ Yes ☐ No<br>☒ Yes ☐ No<br>☐ Yes ☐ No ☒ NA<br>☒ Yes ☐ No |

[1] Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.

| | |
|---|---|
| **Has secondary source been removed to the extent practicable?** | ☒ Yes ☐ No |
| **Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code, Section 25296.15?** | ☒ Yes ☐ No |
| **Does nuisance as defined by Water Code, section 13050 exist at the Site?** | ☐ Yes ☒ No |
| **Are there unique Site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?** | ☐ Yes ☒ No |
| **<u>Media-Specific Criteria</u>**<br>Candidate sites must satisfy all three of these media-specific criteria:<br><br>**1. Groundwater:**<br>To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites: | |
| **Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?** | ☐ Yes ☐ No ☒ NA |
| **Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?**<br>If YES, check applicable class: ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5** | ☐ Yes ☐ No ☒ NA |
| **For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?** | ☐ Yes ☒ No ☐ NA |
| **2. Petroleum Vapor Intrusion to Indoor Air:**<br>The Site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies. | |
| **Is the Site an active commercial petroleum fueling facility?**<br>Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk. | ☒ Yes ☐ No |
| **a. Do site-specific conditions at the release Site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?**<br>If YES, check applicable scenarios: ☐ **1** ☐ **2** ☐ **3** ☐ **4** | ☐Yes ☐ No ☒ NA |
| **b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?** | ☐ Yes ☐ No ☒ NA |

| | |
|---|---|
| **c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?** | ☐ Yes ☐ No ☒ NA |
| **3. Direct Contact and Outdoor Air Exposure:**<br>The Site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c). | |
| **a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?** | ☒ Yes ☐ No ☐ NA |
| **b. Are maximum concentrations of petroleum constituents in soil less than levels that a site-specific risk assessment demonstrates will have no significant risk of adversely affecting human health?** | ☐ Yes ☐ No ☒ NA |
| **c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?** | ☐ Yes ☐ No ☒ NA |

## ATTACHMENT 2: SUMMARY OF BASIC INFORMATION (Conceptual Site Model)

### Site Location/ History

- The Site is located on Imperial Hwy at the intersection of Shoemaker Avenue and Bloomfield Avenue in Norwalk.
- The Site is currently an active fueling station.
- The Site is bounded by residential to the southeast, and northeast, and commercial to the northwest.
- Nature of Contaminants of Concern: Petroleum hydrocarbons only
- Primary Source of Release: UST system
- Discovery Date: 1987
- Release Type: Petroleum[2]
- Free Product: None observed.

**Table A. USTs:**

| Tank No. | Size | Contents | Status | Date |
|---|---|---|---|---|
| 1 | 10,000 gallon | Gasoline | Removed | 1993 |
| 2 | 10,000 gallon | Gasoline | Removed | 1993 |
| 3 | 500 gallon | Waste Oil | Removed | 1993 |

### Receptors

- Groundwater Basin: Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin (4-11.04)
- Groundwater Beneficial Uses: Municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).
- Designated Land Use: Residential.
- Public Water System: City of Norwalk
- Distance to Nearest Surface Waters: San Gabriel River is located approximately 0.65 miles west of the Site.
- Distance to Nearest Supply Wells: California Department of Public Health Supply Well #1910098-017 (Golden State Water Company- Norwalk) is located approximately 3,665 feet southwest of the Site.

### Geology/ Hydrogeology

- Average Groundwater Depth: Approximately 95 feet below ground surface (bgs)
- Minimum Groundwater Depth: Approximately 90 feet bgs
- Groundwater Flow Direction: South to Southeast
- Geology: The Site overlies soil composed of alluvial and fill deposits including sandy clayey silt, ranging from 9 to 10.5 feet in thickness. Beneath the alluvial and fill deposits near the former USTs exists sandy silt ranging from 10.5 to 15.5 feet thickness, and near the former waste tank exists silty sand, ranging from 10.5 to 15.5 feet thickness. The site underlies soil composed of silty and poorly graded sand to 60.5 feet.
  Hydrogeology: Groundwater beneath the Site is unconfined to semi-confined.

[2] "Petroleum" means crude oil, or any fraction thereof, which is liquid at standard conditions of temperature and pressure, which means at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute.
(Health & Saf. Code, § 25299.2.)

**Corrective Actions**

- Two USTs removed from the Site in 1993.
- One waste-oil tank removed from the Site in 1993.
- During the 1993 UST system removal, approximately 168 tons of impacted soils were removed from the Site.

**Table B. Concentrations of Petroleum Constituents in Soil**

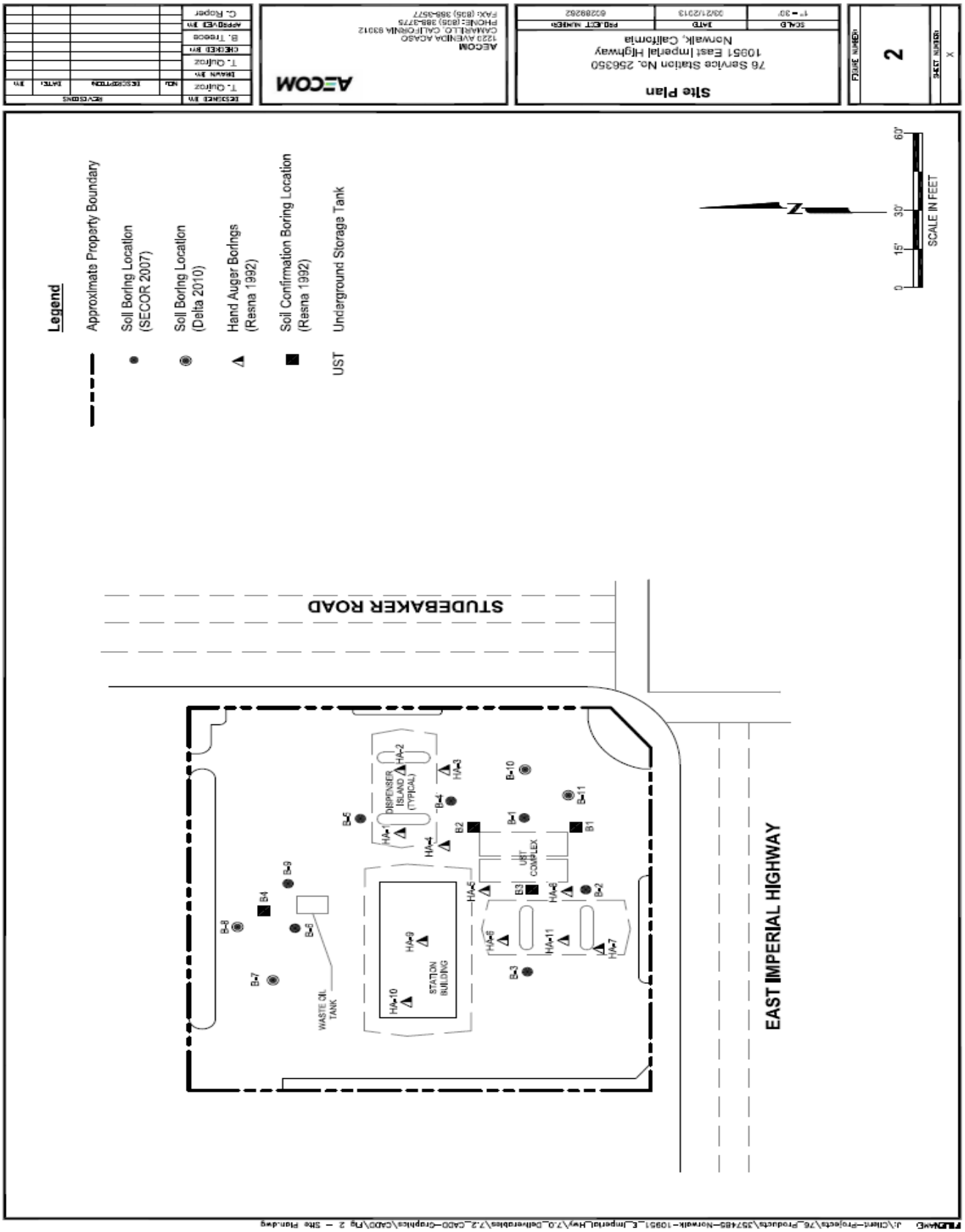
| Constituent | Maximum 0-5 feet bgs (mg/kg) | Maximum 5-10 feet bgs (mg/kg) |
|---|---|---|
| Benzene | <0.005 | <0.001 |
| Ethylbenzene | <0.005 | <0.001 |
| Naphthalene | Not Analyzed | Not Analyzed |
| PAHs* | Not Analyzed | Not Analyzed |

*Poly-aromatic hydrocarbons as benzo(a)pyrene toxicity equivalent

**Evaluation of Risk Criteria**

- Maximum Petroleum Constituent Plume Length above WQOs: Site releases **HAVE NOT AFFECTED GROUNDWATER**
- Petroleum Constituent Plume Determined Stable or Decreasing: N/A
- Soil or Groundwater Sampled for MTBE: Yes
- Residual Petroleum Constituents Pose Significant Risk to the Environment: No
- Residual Petroleum Constituents Pose Significant Vapor Intrusion Risk to Human Health: No
- Residual Petroleum Constituents Pose a Nuisance[3] at the Site: No
- Residual Petroleum Constituents in Soil Pose Significant Risk of Adversely Affecting Human Health: No.
- Residual Petroleum Constituents Pose Significant Direct Contact and Outdoor Air Exposure to Human Health: No – There are no soil samples results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene. Therefore, benzene concentrations can be directly substituted for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Table 1 of the Policy. Therefore, estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

[3] Nuisance as defined in California Water Code, section 13050, subdivision (m).


Site Plan
76 Service Station No. 256350
10951 East Imperial Highway
Norwalk, California
AECOM
1220 AVENIDA ACASO
CAMARILLO, CALIFORNIA 93012
PHONE: (805) 388-3775
FAX: (805) 388-3577
SCALE: 1" = 30'
DATE: 03/21/2013
PROJECT NUMBER: 60288262
FIGURE NUMBER: 2
SHEET NUMBER: X
Legend
Approximate Property Boundary
Soil Boring Location (SECOR 2007)
Soil Boring Location (Delta 2010)
Hand Auger Borings (Rasna 1992)
Soil Confirmation Boring Location (Rasna 1992)
UST Underground Storage Tank
N
0
15'
30'
60'
SCALE IN FEET
STUDEBAKER ROAD
EAST IMPERIAL HIGHWAY
DISPENSER ISLAND (TYPICAL)
UST COMPLEX
STATION BUILDING
WASTE OIL TANK
B-1
B-2
B-3
B-4
B-5
B-6
B-7
B-8
B-9
B-10
B-11
HA-1
HA-2
HA-3
HA-4
HA-5
HA-6
HA-7
HA-8
HA-9
HA-10
HA-11