

State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: Santa Ana Regional Water Quality Control Board (Regional Water Board)	Address: 3737 Main Street, Suite 500 Riverside, CA 92501
Agency Caseworker: Tom Mbeke-Ekanem	Case No.: 083001181T

Case Information

USTCF Claim No.: 4678	GeoTracker Global ID: T0605900929
Site Name: Chevron #9-1921	Site Address: 3801 South Bristol Street Santa Ana, CA 92704
Responsible Party: Chevron USA	Address: PO Box 2833 La Habra, CA 90632
USTCF Expenditures to Date: \$1,490,000	Number of Years Case Open: 26

To view all public documents for this case available on GeoTracker use the following URL:
http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605900929

Summary

The Low-Threat Underground Storage Tank (UST) 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. Highlights of the case follow:

This case is an active commercial petroleum fueling facility. An unauthorized release was reported in December 1988 following the removal of four USTs (three gasoline, one waste oil). Reportedly, 706 cubic yards of impacted soil were excavated to a depth of 18 feet below ground surface (bgs) and disposed offsite in 1988, and an additional 50 cubic yards of contaminated soil was removed in 1995. Groundwater extraction was conducted between March 2011 and February 2013, which removed 141,796 gallons of contaminated groundwater. Soil vapor extraction was conducted between March 2011 and May 2012, which removed 260 pounds of total petroleum hydrocarbons as gasoline (TPHg). Since 1989, 25 groundwater and five remediation monitoring wells have been installed and monitored; 12 wells have been abandoned. According to groundwater data, water quality objectives have been achieved or nearly achieved for all constituents except benzene and methyl tert-butyl ether (MTBE).

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no public water supply wells within 1,000 feet of the projected plume boundary. No other water supply wells have been identified within 1,000 feet of the projected plume boundary in files reviewed. The Santa Ana Gardens Channel (concrete lined channel) is located approximately 250 feet east (upgradient) of the projected plume boundary. The unauthorized release is located within the service area of a public water system, as defined in the Policy. The affected shallow groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected shallow groundwater will be used as a source of drinking

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water in the foreseeable future. Other designated beneficial uses of the affected shallow groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting. Remaining petroleum hydrocarbon constituents are limited and stable, and concentrations are decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

Rationale for Closure under the Policy

- **General Criteria:** The case meets all eight Policy general criteria.
- **Groundwater Specific Criteria:** The case meets Policy Criterion 1 by Class 5. The case is no risk to the Santa Ana Gardens Channel which is concrete lined and is located approximately 250 feet east (upgradient) of the projected plume boundary. Otherwise, the case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well is greater than 1,000 feet from the projected plume boundary. The dissolved concentration of benzene is less than 3,000 micrograms per liter ($\mu\text{g/L}$) and the dissolved concentration of MTBE is less than 1,000 $\mu\text{g/L}$.
- **Vapor Intrusion to Indoor Air:** Onsite, the case meets the Policy Exclusion for Active Station. Soil vapor evaluation is not required because the Site is an active commercial petroleum fueling facility and the release characteristics do not pose an unacceptable health risk. Offsite, the case meets Policy Criterion 2a by Scenario 3b. The maximum benzene concentration in groundwater is less than 1,000 $\mu\text{g/L}$. The minimum depth to groundwater is greater than 10 feet, overlain by soil containing less than 100 milligrams per kilogram (mg/kg) of TPH.
- **Direct Contact and Outdoor Air Exposure:** The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use, and the concentration limits for a Utility Worker are not exceeded. There are no soil sample 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 percent benzene and 0.25 percent naphthalene. Therefore, benzene can be used as a surrogate for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Policy Table 1. Therefore, the 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.

Determination

The Fund Manager has determined that corrective action performed at the Site is consistent with the requirements of Health and Safety code section 25296.10, subdivision (a), and that closure of the case is appropriate.

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Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. Orange County has the regulatory responsibility to supervise the abandonment of monitoring wells.

Lisa Babcock

Lisa Babcock, P.G. 3939, C.E.G. 1235

7/6/15

Date

Prepared by: Kirk Larson, P.G.

**Response to Request for Teleconference
Regarding Chevron #9-1921 located at 3801 South Bristol Street, Santa Ana
Claim 4678**

The State Water Board sent the Regional Water Board a copy of the Review Summary Report and an invitation to participate in a teleconference regarding the case on February 6, 2015. The Regional Board did not respond to either request. State Water Board staff determined that the lack of response indicated the County has no objections to closure.

The Low Threat Closure Checklist dated June 9, 2014 indicated that the site met general and specific criteria for LTCP closure, yet the Regional Water Board indicated the case should be kept open. An indication of the Regional Water Board staff's earlier concerns was listed on the GeoTracker Path to Closure Plan dated December 23, 2013, which stated:

Comment: Site has high benzene concentration of 4,400 µg/L and TBA concentration of 24,000 µg/L detected in monitoring wells VEW-2 and MW-17, respectively. Dual phase extraction system was operated at the site till it was shut down recently. Groundwater monitoring will be continuing till concentrations reach low threat criteria.

Response: The comment is reflective of site conditions prior to December 2013. The July 2014 sampling event indicated a maximum benzene concentration of 550 µg/L and maximum TBA concentration of 9,300 µg/L. Substantial remediation at the site has reduced benzene concentrations by over 99%, and has significantly reduced TBA concentrations. The data continue to indicate strong decreasing trends in both benzene and TBA, and natural attenuation will likely reduce remaining concentrations to levels below the Water Quality Objectives.