

State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: Santa Clara County Environmental Health Department (County)	Address: 1555 Berger Drive, Suite 300 San Jose, CA 95112
Agency Caseworker: Aaron Costa	Case No.: 06S3W12F02f

Case Information

USTCF Claim No.: 16957	GeoTracker Global ID: T0608502062
Site Name: Shell #118969	Site Address: 299 South California Ave Palo Alto, CA 94301
Responsible Party: Shell Oil Attn: Andrea Wing	Address: 20945 South Wilmington Ave. Carson, CA 90810
Responsible Party: Mortgage Investors IV, LLC	Address: 3105 Woodside Avenue Woodside, CA 94062
Responsible Party: Charles Edelstein	Address: Private Address
USTCF Expenditures to Date: \$0	Number of Years Case Open: 16

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=T0608502062

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 a former commercial petroleum hydrocarbon fueling facility that is currently developed as a three-story office building with a basement. In 1973 four USTs (one heating oil and three gasoline) were removed. An unknown volume of impacted soil was excavated to a depth of 20 feet below ground surface (bgs) during the building construction.. An unauthorized release was reported in April 1998 following an environmental investigation. No active remediation has been conducted at the Site. Since 1999, five groundwater monitoring wells have been installed and monitored. According to groundwater data, water quality objectives have not been achieved; however, remaining contaminant plume is limited in extent and does not pose a significant risk.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no public water supply wells or surface water bodies 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 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 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.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

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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. Though the dissolved concentration of benzene is greater than 3,000 micrograms per liter ($\mu\text{g/L}$) in MW-4, the benzene trend is steadily declining through natural attenuation. Otherwise, the case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is projected to be less than 250 feet in length. The nearest water supply well or surface water body is greater than 1,000 feet from the projected plume boundary. A succinct argument for closure was developed by CRA in the July 31, 2014 *Updated Site Conceptual Model and Closure Request*:

“The probability for drinking water wells to be installed within the benzene plume area is extremely unlikely. Furthermore, any potential drinking water wells would have to be screened within the upper aquifer zone of the Santa Clara Valley Sub Basin (100 feet bgs or less) in order to expose receptors to the risk of ingestion. The installation of a drinking water well within the upper aquifer zone is highly unlikely as SCVWD Z [the County] has indicated that shallow groundwater is not used for drinking water due to its poor water quality. Thus, under current and reasonably anticipated near-term groundwater exposure scenarios, site specific conditions show that there is a very low threat to human health and safety and to the environment.

CRA estimated the time it will take benzene concentrations in MW-4 to reach the dissolved concentration criteria for class 2 (3,000 $\mu\text{g/L}$) and non-drinking water ESL (27 $\mu\text{g/L}$) using a first-order decay trend from historical groundwater data (Appendix G): “The projections show that benzene will achieve Class 2 criteria within 3.6 years and the non-drinking water ESL in 59.7 years. Benzene will reach WQOs in a reasonable time frame, thus fulfilling this condition of the Class 5 groundwater criteria.”

- Vapor Intrusion to Indoor Air: The case meets Policy Criterion 2a by Scenario 4 with no bioattenuation zone. The maximum benzene, ethylbenzene, and naphthalene concentrations in soil gas are less than, respectively, 280 micrograms per cubic meter ($\mu\text{g/m}^3$), 3,600 $\mu\text{g/m}^3$, and 310 $\mu\text{g/m}^3$ beneath the building’s basement floor. These levels meet the Residential soil gas criteria. Soil vapor samples from sub-slab soil vapor probes SVP-1 and SVP-2 were collected quarterly during 2013. These sub-slab soil vapor samples indicated no detectable concentrations of benzene, ethylbenzene, or naphthalene, therefore meeting the residential and commercial criteria using direct vapor measurement with no bioattenuation zone.
- 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.

Shell #118969
299 South California Avenue, Palo Alto
Claim No: 16957

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.

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. Los Angeles County has the regulatory responsibility to supervise the abandonment of monitoring wells.

Lisa Babcock

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

2/6/15

Date

Prepared by: Caryl Sheehan, P.G. 6620