UNDERGROUND STORAGE TANK (UST) CASE CLOSURE SUMMARY

Agency Information

Agency Name: Santa Ana Regional Water Quality Control Board (Santa Ana Water Board)	Address: 3737 Main Street, Suite 500 Riverside, CA 92501
Agency Caseworker: Kyle Wright	Case No.: 083001073T

Case Information

UST Cleanup Fund (Fund) Claim No.: 14311	Global ID: T0605900847
Site Name: Thrifty Oil #376	Site Address: 801 N Bristol Street Santa Ana, CA 92703 (Site)
Responsible Party Thrifty Oil Company Attention: Jeff Suryakusuma	Address: 13116 Imperial Highway Santa Fe Springs, CA 90670
Fund Expenditures to Date: $1,495,000	Number of Years Case Open: 22

GeoTracker Case Record: http://geotracker.waterboards.ca.gov/?gid=T0605900847

Summary

This case has been proposed for closure by the State Water Resources Control Board at the request of the Santa Ana Regional Water Quality Control Board, which concurs with closure.

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 because they pose a low threat to human health, safety, and the environment. The Site meets all of the required criteria of the Policy and therefore, is subject to closure.

The Site is an active commercial petroleum fueling facility. An unauthorized release was reported in March 1988. In December 1994 four gasoline USTs of unknown size were removed, and approximately 660 tons of impacted soil was excavated to depths of 27 to 29 feet below ground surface (bgs) and disposed of offsite. Dual phase extraction (DPE) and groundwater extraction were conducted intermittently between May 2001 and

January 2017 removing approximately 29,100 pounds of petroleum hydrocarbons and 5.5 million gallons of contaminated groundwater. From 1998 to 2017, approximately 17.89 gallons of free product were recovered from onsite wells and free product has not been observed in groundwater monitoring wells since 2017. Additional DPE activities conducted in February 2017 suggested active remediation efforts had maximized mass removal potential and additional corrective actions are not necessary.

Since 1995, 44 groundwater monitoring and extraction wells have been installed and monitored in two water-bearing zones; ten of the wells have since been abandoned. According to groundwater data, water quality objectives have been achieved or nearly achieved except in the source area.

The residual petroleum constituents remaining in soil and groundwater are limited in extent and occur at such depth that they pose a low risk via the petroleum vapor intrusion pathway. The plume of impacted groundwater is less than 100 feet in length and petroleum constituent concentrations in monitoring wells have consistently decreased indicating that the plume is stable. Concentrations of total petroleum hydrocarbons as gasoline (TPHg) indicates that the bioattenuation zone is limited to between five and 10 feet in the former UST area. However, extensive remediation has been conducted in this area and in 2017 additional DPE activities resulted in low removal rates and asymptotic system conditions indicating effective removal of secondary source. Furthermore, the Site is an active retail fueling station and exempt from the vapor intrusion criteria in the Policy.

Remaining petroleum constituents are limited, stable, and decreasing. Additional assessment would be unnecessary and will not likely change the conceptual model. Any remaining petroleum constituents do not pose significant risk to human health, safety, or the environment under current conditions.

Rationale for Closure Under the Policy

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy.
- Groundwater Media-Specific Criteria – Site meets the criteria in **Class 1**. The contaminant plume that exceeds water quality objectives is less than 100 feet in length. There is no free product. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.
- Petroleum Vapor Intrusion to Indoor Air – Site meets the **EXCEPTION** for vapor intrusion to indoor air. 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 **Criteria 3 (a)**. Maximum concentrations of petroleum constituents in soil from confirmation soil samples are less than or equal to those listed in Table 1 of the Policy.

  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% benzene and 0.25% naphthalene. Therefore, benzene concentrations 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 Table 1 of the Policy. Therefore, estimated naphthalene concentrations meet the thresholds in Table 1 and the Policy criteria for direct contact with a safety factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

Recommendation for Closure

The corrective action performed at this Site ensures the protection of human health, safety, and the environment. The corrective action performed at this Site is consistent with chapter 6.7 of division 20 of the Health and Safety Code, implementing regulations, applicable state policies for water quality control and applicable water quality control plans. Case closure is recommended.

Reviewed By:

Matthew Cohen, P.G. No. 9077
Senior Engineering Geologist

6/4/2021
Date