

State Water Resources Control Board

UNDERGROUND STORAGE TANK (UST) CASE CLOSURE SUMMARY

Agency Information

Agency Name: Orange County Health Care Agency Division of Environmental Health (County)	Address: 1241 E. Dyer Rd. Suite 120 Santa Ana, CA 92705
Agency Caseworker: Dan Weerasekera	Case No.: 85UT114

Case Information

UST Cleanup Fund (Fund) Claim No.: 8914	Global ID: T0605900033
Site Name: ARCO #1905	Site Address: 18025 Magnolia Street Fountain Valley, CA 92708-5638
Responsible Party Speedway, LLC Attention: Paula Sime	Address (RP): 301 Ocean Boulevard, Suite 1600 Long Beach, CA 90802
Fund Expenditures to Date: \$1,052,805	Number of Years Case Open: 34

[GeoTracker Case Record](http://geotracker.waterboards.ca.gov/?gid=T0605900033): <http://geotracker.waterboards.ca.gov/?gid=T0605900033>

Summary

This case has been proposed for closure by the State Water Resources Control Board at the request of the Orange County Healthcare Agency, 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 currently operates as an active fueling facility. An unauthorized release was reported in December 1985 following the removal of four gasoline USTs. In October 1997, a product release of 5,000 gallons from a dispenser occurred following a car driving off with the nozzle in the vehicle. Approximately two feet of free product was measured in onsite wells W-6 and W-23 subsequent to the October 1997 product release.

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Hand bailing of free product began in October 1997 and removed an unreported amount of product, reducing free product to a non-measurable thickness. Free product has not been reported since 2003. Soil vapor extraction (SVE) was conducted between May 1992 and June 1994, removing approximately 5,305 pounds of vapor-phase petroleum hydrocarbons. A dual phase extraction (DPE) system began operation in January 2000. The SVE portion of the DPE system operated until May 2010, removing approximately 84,706 pounds of petroleum hydrocarbons. Removal rates at shutdown in 2010 were less than one pound per day. The groundwater extraction component of the DPE system intermittently operated from December 2000 to January 2020 and removed approximately 10.3 million gallons of impacted groundwater.

Since 1986, 20 groundwater monitoring wells have been installed and regularly monitored. Benzene and methyl tert-butyl ether (MTBE) constituent plumes have been delineated, are stable to decreasing in areal extent, and the recent concentrations are less than 150 µg/L. The boundary of the plumes are greater than 3,000 ft from the nearest drinking water well. The affected groundwater is not currently being used as a source of drinking water and it is highly unlikely that it will be used as a source of drinking water in the foreseeable future.

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 2**. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary. The dissolved concentration of benzene is less than 3,000 micrograms per liter (µg/L), and the dissolved concentration of MTBE is less than 1,000 µg/L.
- 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 from 5 to 10 ft bgs. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of

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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, PG No. 9077
Senior Engineering Geologist

April 5, 2021
Date

