

State Water Resources Control Board

UST CASE CLOSURE SUMMARY

Agency Information

Agency Name: County of Orange – Health Care Agency (County)	Address: 1241 E. Dyer Road, #120 Santa Ana, CA 92705-5611
Agency Caseworker: Denamarie Baker	Case No.: 99UT027

Case Information

USTCF Claim No.: None	Global ID: T0605930426
Site Name: Former Shell Service Station	Site Address: 7491 La Palma Avenue Buena Park, CA 90620 (Site)
Petitioner: Shell Oil Products US Attention: Andrea Wing	Address: 20945 South Wilmington Avenue, Carson, CA 90810
USTCF Expenditures to Date: \$0	Number of Years Case Open: 13

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605930426

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 Site meets all of the required criteria of the Policy. A summary evaluation of compliance with the Policy is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model 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 Site follow:

The release at this Site was discovered after an increase of methyl tert-butyl ether (MTBE) concentration in monitoring well (MW) MW-15 located next to the former Shell tank pit on the southeast part of the property in August 1999. The Site was formerly a World Oil and then a Shell service station. The Site is currently vacant. No underground storage tanks (USTs) are on-site.

World Oil Corporation operated a service station at this Site from 1971 to 1986. The release was remediated from 1987 to 2000. Three 10,000-gallon gasoline USTs were removed in 1987. Approximately 1,100 cubic yards (cy) of soil were excavated from the western portion of the Site. Groundwater pump and treat was performed from 1987 to 1997. Soil vapor extraction (SVE) system was operated from 1995 to 1997.

Shell operated a service station at this Site from 1987 to 2001. New USTs were installed in 1987. From 2001 to 2004, an SVE system was operated and removed approximately 4,754 pounds of vapor-phase petroleum constituents. The groundwater extraction system was operated from 2001 to 2009. As of November 2008, approximately 1.1 million gallons of groundwater were removed

Former Shell Service Station
7491 La Palma Avenue, Buena Park

and 60.5 pounds of dissolved-phase petroleum constituents were recovered. Three 10,000-gallon USTs, one 550-gallon waste oil tank, and approximately 388 cy of impacted soil were removed in January 2002.

Based on the historical groundwater data, concentration trends for total petroleum hydrocarbons as gasoline (TPHg), benzene, MTBE, tertiary-butyl alcohol (TBA), and di-isopropyl ether (DIPE) have been either stable or decreasing in all wells.

Rationale for Closure under the Policy

- General Criteria – Site meets all eight general criteria under the Policy.
- Groundwater – Site meets the Policy Groundwater-Specific Class “2”.
- Petroleum Vapor Intrusion to Indoor Air – Site meets the Policy Class “b”. A site-specific risk assessment for the vapor intrusion pathway was conducted and demonstrates that human health is protected.
- Direct Contact and Outdoor Air Exposure – Site meets the Policy Class “b”. A site-specific risk assessment from exposure shows that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting the human health. The estimated naphthalene concentrations in soil meet the thresholds in Table 1 for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

Objections to Closure

County staff objected to UST case closure because:

1. Vertical extent of benzene in soil and groundwater has not been defined.

Response: Based on information available in the record, elevated levels of residual benzene were identified on-site between 5 and 20 feet below ground surface (bgs). All soil samples from the off-site down-gradient wells installed in 1993 and 2009 and from the down-gradient borings advanced in 2008 between 5 to 20 feet bgs were non-detect.

Groundwater samples collected at depths of approximately 19 feet from the off-site down-gradient borings in 2008 were non-detect. Also, recent groundwater sampling conducted in December 2012 indicates that benzene was non-detect in the off-site down-gradient well. The screen interval for this well is from 5 to 20 feet bgs. Therefore, contamination migration has been investigated and adequately assessed. Vertical extent of benzene in soil and groundwater has been adequately defined.

2. High dissolved concentration of benzene remains at the Site.

Response: Elevated levels of dissolved benzene are limited to the west-southwest of the former Shell UST pit area measured in wells MW-25 and MW-26. Based on information available in the record, wells MW-25 and MW-26 are outside of the excavation areas from both World Oil Corporation and Shell. Groundwater concentration trend for benzene has been either stable or decreasing in all wells. Benzene was only detected twice in the down-gradient well MW-32 at