

State Water Resources Control Board

REVIEW SUMMARY REPORT – ADDITIONAL WORK PRELIMINARY REVIEW – JULY 2014

Agency Information

Agency Name: Orange County Environmental Health (County)	Address: 1241 E Dyer Road, Suite 120 Santa Ana, CA 92705-5611
Agency Caseworker: Kevin Lambert	Case No.: 88UT134

Case Information

USTCF Claim No.: 11073	GeoTracker Global ID: T0605900775
Site Name: Arco #3016	Site Address: 12422 Valley View Street Garden Grove, CA 92845
Responsible Party: Bobby Lu Atlantic Richfield Company	Address: 6 Centerpointe Drive La Palma, CA 90623
USTCF Expenditures to Date: \$0	Number of Years Case Open: 26

To view all public documents for this case available on GeoTracker use the following URL.

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605900775

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 does not meet 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 July 1988. Five USTs, four gasoline and one waste oil, were removed in August 1988. Approximately 4,500 cubic yards of impacted soil were excavated from 2 to 6 feet below ground surface (bgs) and treated onsite in 1989. Additionally, approximately 3,400 cubic yards of impacted soil was excavated to 7 feet bgs and treated onsite in 1990. Periodic mobile high vacuum dual phase extraction events were conducted between September 1999 and February 2002, which removed 230,400 gallons of groundwater and 1,715 pounds of hydrocarbons. Over-purge events were conducted between November 2002 and January 2003, which removed 3,600 gallons of contaminated groundwater. An in-situ chemical oxidation (ISCO) event was conducted in October 2009 and another in February 2010. Since 1988, 38 groundwater and remediation wells have been installed. Currently, 15 wells are being monitored regularly and 5 wells have been destroyed. According to groundwater data, water quality objectives have not been achieved.

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 defined plume boundary. No other water supply wells have been identified within 1,000 feet of the defined plume boundary in files reviewed. The unauthorized release is located in an area with public water supply, as defined in the Policy. The affected groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of impacted groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting.

Rationale for Closure under the Policy

- **General Criteria:** The case meets all eight Policy general criteria.
- **Groundwater Specific Criteria:** The case does not meet Policy Criteria. The plume that exceeds water quality objectives is less than 250 feet in length. The case would meet Groundwater-Specific Criteria 2 and 4, but does not because benzene concentrations are much greater than the Policy required maximum of 3,000 µg/L and 1,000 µg/L, respectively. There is no free product and the nearest water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
- **Vapor Intrusion to Indoor Air:** On Site: 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. Off Site: this case meets Policy Criterion 2b. Although no document titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to petroleum constituents was performed by Fund staff. The assessment found that there is no significant risk of petroleum vapors adversely affecting human health. The Site is commercial (Burger King), paved, and has engineered controls (large exhaust fans over grill).
- **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 Residential and 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.

Objections to Closure and Responses

In their letter dated January 14, 2014, the County objects to UST case closure because:

- The benzene concentration of 14,000 µg/L reported in the third quarter 2013 sampling event is too high.
RESPONSE: We concur that the case does not meet all of the additional characteristics of one of the five classes of sites.

