

State Water Resources Control Board

UST CASE CLOSURE SUMMARY

Agency Information

Agency Name: Alameda County Environmental Health (ACEH)	Address: 1131 Harbor Bay Parkway Alameda, CA 94502
Agency Caseworker: Mr. Mark Detterman	Case No.: RO0000076

Case Information

USTCF Claim No.: None	Global ID: T0600100110
Site Name: Arco Station #04931	Site Address: 731 West MacArthur Boulevard Oakland, CA 94609 (Site)
Responsible Parties: Raj Mulkh & Kulwinder Bhatia, et. al. Attention: Raj Mulkh	Address: 4445 Pinewood Drive Union City, CA 94587-4824
Vintners Distributors, Inc.	28456 Century Street Hayward, CA 94545-4800
Atlantic Richfield Company Attention: Mr. Jim Smith	201 Helios Way, Sixth Floor Houston, TX 77079
Ahmed Dobashi	3480 Ridgewood Way Richmond, CA 94806
Abdulrahim Alazani	2410 San Carlos Avenue Castro Valley, CA 94546
USTCF Expenditures to Date: Not applicable	Number of Years Case Open: 23

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600100110

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 case meets all of the required criteria of the Policy. Highlights of the Conceptual Site Model upon which the evaluation of the case has been made are as follows:

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The Site is an active commercial petroleum fueling facility. Residual petroleum constituents in soil were discovered when the underground storage tanks (USTs) and associated piping were removed and replaced between November 1991 and April 1992. Approximately 1,900 cubic yards of petroleum impacted soil were excavated and transported off-Site during UST replacements. In October 2002, the UST piping was upgraded. The volume of petroleum impacted soil excavated during this event was not reported.

Remediation activities included operation of a groundwater extraction treatment system (GWETS) which extracted light non-aqueous phase liquids (LNAPL) and petroleum-impacted groundwater from the secondary source area between November 1992 and July 1995. The GWETS extracted approximately 4.6 million gallons of groundwater and 3.2 pounds of petroleum constituents during system operations. As of December 1995, approximately 23 pounds of LNAPL had been removed from the Site by the GWETS or hand bailing. LNAPL was last observed at the Site during 1994.

In January 1992, a four-hour soil vapor extraction test was performed at the Site. The test concluded that vapor extraction was not likely to be a feasible remedial option for petroleum impacted soil beneath the Site. In-situ bioremediation enhancement using oxygen releasing compound (ORC) socks was initiated in November 1995. The ORC socks were used in wells A-8 and A-9. The ORC socks were removed from these two wells in 1997 since data indicated that intrinsic bioremediation was occurring at the Site.

There are no public water supply wells or surface water bodies within 1,000 feet of the Site. Historical groundwater data indicate that the groundwater flow direction is predominantly toward the west. The average depth to groundwater is approximately seven feet below ground surface. Historical groundwater data indicate that petroleum constituents are either non-detect or have established a stable or decreasing concentration trend in all wells.

Public water is provided by East Bay Municipal Utility District. Public water supply wells are constructed with competent sanitary seals. Residual petroleum constituents are limited to shallow soil and groundwater and vertical and horizontal limits of the plume are adequately defined. Remaining petroleum constituents pose a low risk to human health, safety, or the environment.

Objections to Closure

The ACEH does not object to case closure.

Rationale for Closure under the Policy

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy.
- Groundwater Media-Specific Criteria – Site meets the criterion in **CLASS 1**. The contaminant plume that exceeds water quality objectives is less than 100 feet in length.
- Petroleum Vapor Intrusion to Indoor Air Criteria – Site meets the **EXCEPTION** for vapor intrusion to indoor air. Exposures 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 Criteria – Site meets **CRITERIA (3) a**. Maximum concentrations of petroleum constituents in soil from confirmation soil samples are less than or

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equal to those listed in Table 1 of the Policy. The estimated naphthalene concentrations are less than the thresholds in Table 1 of the Policy for direct contact. 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 of 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, the environment and is consistent with chapter 6.7 of the Health and Safety Code and implementing regulations, applicable state policies for water quality control and the applicable water quality control plan, and case closure is recommended.

Prepared By: Trinh Pham
Trinh Pham
Water Resource Control Engineer

7/16/14

Date

Reviewed By: George Lockwood
George Lockwood, PE#59556
Senior Water Resource Control Engineer

7/16/14

Date

