



Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board

Division of Financial Assistance

1001 I Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(800) 813-FUND (3863) • FAX (916) 341-5806 • www.waterboards.ca.gov/water_issues/programs/ustcf/



Arnold Schwarzenegger
Governor

December 7, 2009

Four Star Automotive
Attn: Bruce Ferrario

NOTIFICATION OF PUBLIC HEARING

UNDERGROUND STORAGE TANK (UST) CLEANUP FUND (FUND), MEETING
NOTIFICATION FOR CASE CLOSURE RECOMMENDATION, PURSUANT TO HEALTH AND
SAFETY CODE SECTION 25299.39.2: CLAIM NUMBER: 13020; SITE ADDRESS:
1101N MAIN STREET, LAKEPORT, CA

By this letter, as Fund Manager, I am informing you of the Fund's intent to recommend closure of your UST site cleanup case to the State Water Resources Control Board (State Water Board) at its January 19, 2010, Board meeting.

In the interim, any reasonable, necessary, and eligible costs that you incur and submit in a properly documented reimbursement request will continue to be reimbursed by the Fund, as monies are available.

Meeting Notice

The State Water Board is planning to consider closing your UST case at its meeting that will be held on January 19, 2010 commencing at 9:00 AM in the Coastal Hearing Room, Second Floor of the Cal/EPA Building, 1001 I Street, Sacramento, California.

Under separate cover at a later date, you will receive an agenda for this meeting.

Legal Authority

Health & Safety Code Section 25299.39.2(a) requires that the Fund Manager notify UST owners or operators who have a Letter of Commitment (LOC) that has been in active status for five or more years and to review the case history of these sites on an annual basis unless otherwise notified by the UST owner or operator. In addition, the H&SC section further states that the Fund Manager, with approval of the UST owner or operator, may recommend regulatory case closure to the State Water Board. This process is called the "5-Year Review." The State Water Board may close or require the closure of a UST case that is under the jurisdiction of a regional water quality control board (regional water board) or a local agency participating in the State Water Board's local oversight program.

Discussion

Having obtained your approval and pursuant to Health and Safety Code Section 25299.39.2(a) to recommend closure of your UST case to the State Water Board, enclosed is a copy of the

California Environmental Protection Agency



UST Case Closure Summary for your UST case. The case closure summary contains information about your UST case and forms the basis for UST Cleanup Fund manager's recommendation to the State Water Board for UST case closure. A copy of the Case Closure Summary is also being provided to your environmental consultant and the regional water board that has been overseeing corrective action at your site. Other interested persons may obtain a copy of the Case Closure Summary by contacting Ms. Dennise Walker, at (916) 341-5789.

Comments

At the meeting, interested persons will be allowed to comment orally on the case closure recommendation (including the case closure summary), subject to the following time limits. The UST Cleanup Fund claimant and the regional water board overseeing corrective action at the site will be allowed five minutes for oral comment, with additional time for questions by the State Water Board members. Other interested persons will be allotted a lesser amount of time to address the State Water Board. At the meeting, the State Water Board may grant UST case closure, deny case closure, or may continue consideration until a later meeting.

Written comments on the case closure summary must be received by the State Water Board by 12:00 p.m. on December 31, 2009. Please provide the following information in the subject line: January 19, 2010 Board Meeting, UST Case Closure, and applicable site address and UST Cleanup Fund claim number. Comments must be addressed to:

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100
(tel) 916-341-5600
(fax) 916-341-5620
(email) commentletters@waterboards.ca.gov

If you have any questions regarding this matter, please contact Mr. Robert Trommer at (916) 341-5684.

Sincerely,



Ronald M. Duff, P.E., Fund Manager
Underground Storage Tank Cleanup Fund

Enclosure

cc: See next page.

cc: RWQCB - Central Valley
Ms. Pamela Creedon
11020 Sun Center Drive, Suite 20
Rancho Cordova, CA 95670-6114

RWQCB - Central Valley
Mr. Brian Newman
11020 Sun Center Drive, Suite 20
Rancho Cordova, CA 95670-6114

RWQCB - Central Valley
Mr. Glenn Meeks
11020 Sun Center Drive, Suite 20
Rancho Cordova, CA 95670-6114

Engineering/Remediation Resources Group
Robin Mock
4585 Pacheco Blvd.
Martinez, CA 94553-2233

Michael & Patricia McCallum

Gary & Terri Konkol

Lowell Alan Grant

Lowell & Connie Mahan

Cynthia Parlee

Paul & Lisa Vartabedian

Samudra Priya Dias

Betty Owens

Bhavesh & Sangitaben



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Draft UST Case Closure Summary

This underground storage tank (UST) Case Closure Summary has been prepared in support of a recommendation by the Petroleum Underground Storage Tank Cleanup Fund (Fund) to the State Water Resources Control Board (State Water Board) for closure of the UST case at 1101 North Main Street in Lakeport, California (Site). All record owners of fee title for this site as well as adjacent property owners and other interested parties, as appropriate, have been notified of the recommendation for closure and were given an opportunity to provide comments.

Agency Information

Agency Name: Central Valley Regional Water Quality Control Board, Sacramento Office (Regional Board)	Address: 11020 Sun Center Drive, Suite 200, Rancho Cordova, CA, 95670-6114
Responsible staff person: Glenn Meeks	Title: Engineering Geologist

Case Information

RWQCB Case No: 170089	Global ID: T0603300068
Site Name: Former West Lake Station	Site Address: 1101 N Main Street, Lakeport, CA
Responsible Party (RP): Four Star Automotive	USTCF Expenditures to Date: \$ 508,573
Contact: Bruce Ferrario	Number of Years Open: 12
USTCF Claim No.: 13020	

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active?	Date
T-1	7,500	Gasoline	Removed	Oct 97
T-2	5,000	Gasoline	Removed	Oct 97
T-3	3,000	Gasoline	Removed	Oct 97
T-4	3,000	Gasoline	Removed	Oct 97
T-5	1,500	Waste Oil	Removed	Sep 99
T-6	500	Waste Oil	Removed	Mar 00
T-7	500	Waste Oil	Removed	Mar 00

Release Information

- Source of Release: UST system.
- Date of Release: 10/17/97.
- Affected Media: Soil and groundwater.

Site Information

- GW Basin: Scotts Valley.
- Beneficial Uses: Municipal and Domestic (MUN), Agricultural (AGR), Industrial Service (IND), and Industrial Process (PRO).
- Land Use Designation: Commercial and Residential.
- Distance to Nearest Supply Well: according to GeoTracker, no public supply wells are within ½ mile of the site.
- Minimum depth to groundwater (DTW): 2.4 feet below ground surface (bgs) at monitoring well MW-7.
- Maximum DTW: 9.4 feet bgs at monitoring well MW-6.
- Flow Direction: east southeast.
- Soil Types: interbedded and intermixed sand, silt, and clay.

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (Jan 09)	Oxygen Concentrations (mg/L)
MW-1	Jan 99	5-20	8.46	2.22
MW-2	Jan 99	5-20	8.21	2.06
MW-3	Jan 99	5-20	8.44	0.99
MW-4	Dec 99	5-20	8.68	2.06
MW-5	Dec 99	5-20	8.05	3.00
MW-6	Dec 99	5-20	8.36	1.02
MW-7	Jan 02	6-21	7.11	1.07
MW-8S	Jan 02	10-20	7.90	1.00
MW-8D	Jan 02	38-48	8.29	0.10
MW-9	Nov 02	5-20	8.84	3.07
MW-10	Nov 02	5-20	8.06	2.77

Contaminant Concentration

Contaminant	Soil (mg/kg)		Water (ug/L)*		WQOs (ug/L)
	Maximum	Latest	Maximum	Latest (Jan 09)	
TPH-g**	NA	NA	19,000	1,000	5
TPH-d	NA	NA	NA	NA	56
Benzene	NA	NA	290	25	0.15
Toluene	NA	NA	740	6.4	40
Ethylbenzene	NA	NA	710	48	29
Xylenes	NA	NA	1,500	19	17
MTBE	NA	NA	380	0.87	5
TBA	NA	NA	26	<5	12
1,2-DCA	NA	NA	7.8	<0.5	0.4
Lead	NA	NA	NA	<0.5	15
PCE	NA	NA	NA	NA	0.06
TCE	NA	NA	NA	NA	0.8

NA Not Analyzed, Not Applicable, or Data Not Available

WQO Water Quality Objectives

* ug/L equals parts per billion

** TPH-g measured 120 ug/L on July 23, 2008



Site Description

The site is a relatively flat, less than 1/4-acre in size, and formerly contained a convenience store and two fueling islands. Currently an office building resides on the site. The property is located in central Lakeport approximately 700 feet west of Clear Lake.

Site History

This site was operated as a retail gasoline and service station until 1997. Four gasoline USTs were removed in October 1997, one waste oil UST was removed in September 1999, and two waste oil USTs were removed in March 2000. The station building, canopy, and pump islands were removed in 1999/2000. Two major excavations were conducted in late 1999 and early 2000, which combined removed more than 1,500 tons of contaminated soil from the site. Eleven groundwater monitoring wells were installed from January 1999 through November 2002, and the monitoring record has been regular. According to Geotracker, the Regional Board has not yet conducted a closure review of this site.

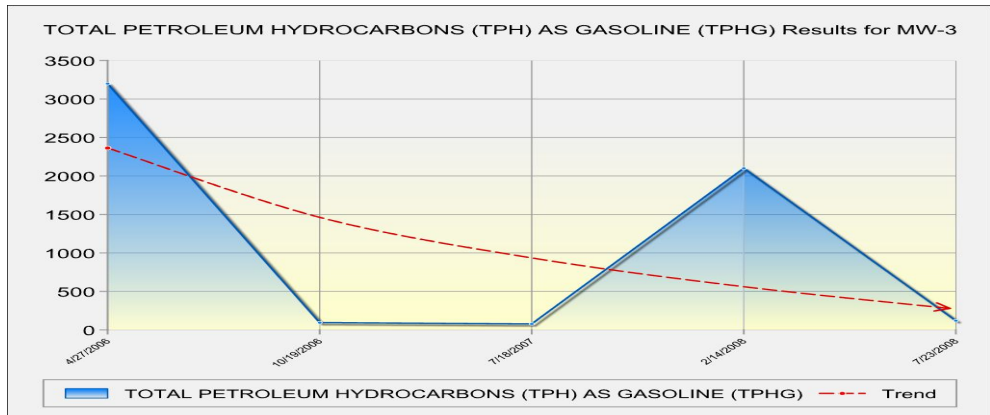
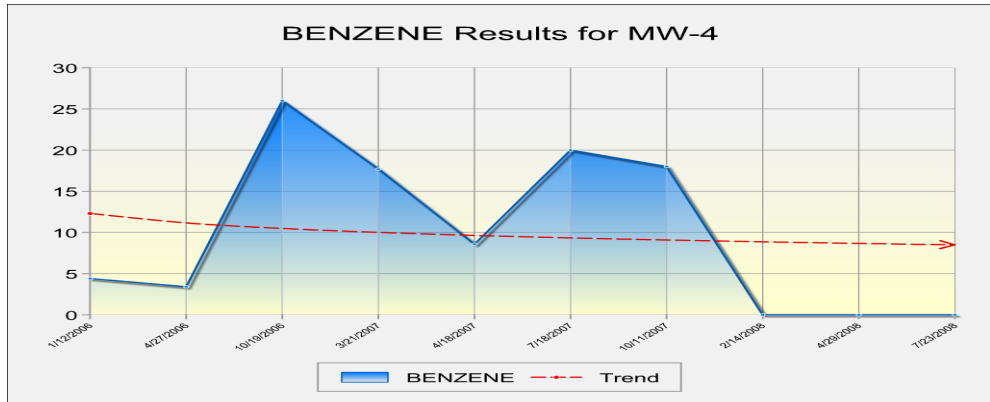
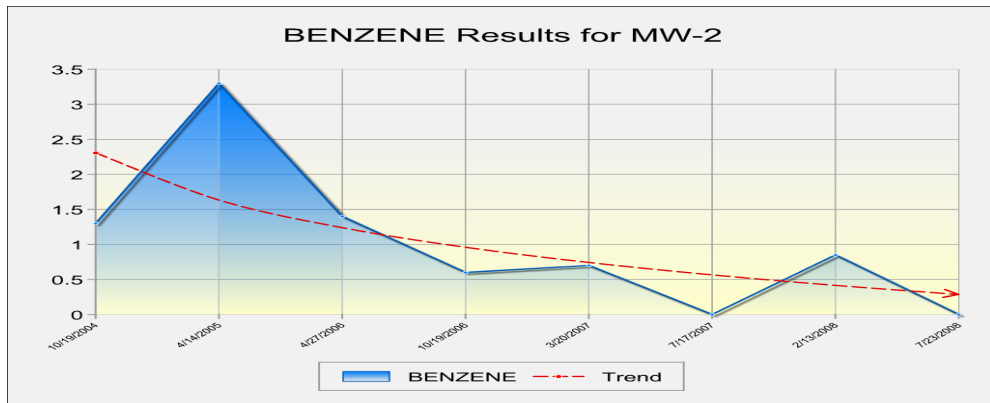
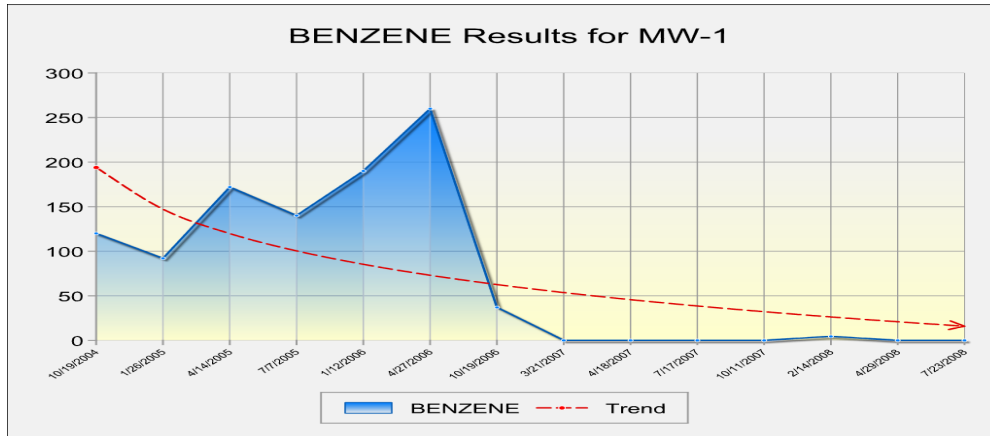
Remediation Summary

- **Free Product:** none identified in site wells.
- **Soil Excavation:** Two excavation events have been conducted at this site. In late 1999, approximately 944 tons of petroleum contaminated soils were excavated from the vicinity of the former gasoline USTs and 153 tons were excavated from the vicinity of the 1,500 gallon waste oil UST. The final dimensions of the gasoline and waste oil basins were 38'x55'x16' deep and 15'x14'x15' deep, respectively. In early 2000, approximately 355 tons of contaminated soils were removed from beneath the former station building and 65 tons were removed from the vicinity of the two 500 gallon waste oil tanks.
- **In-Situ Soil Remediation:** none conducted.
- **Groundwater Remediation:** none conducted.

General Site Conditions

- **Geology and Hydrogeology:** The site is underlain primarily by interbedded and intermixed silty sand, sandy silt, sandy clay, and clay. Depths to groundwater in monitoring wells range from approximately 2 feet to 9 feet bgs. Groundwater elevations fluctuate seasonally with precipitation and lake level, peaking in late winter and early spring and declining into autumn. The groundwater gradient at the Site ranges from 0.008 to the southeast to 0.017 to the east. In November 2002, the site consultant, W.A. Craig conducted a slug test on four monitoring wells and subsequently estimated that the hydraulic conductivities ranged from 6 to 12 gallons per day per square foot; typical of a silty sand aquifer. The groundwater flow velocity was estimated to range from 0.029 to 0.058 feet per day. Locally, shallow groundwater is not a source of drinking water (W.A. Craig, Dec. 02, p. 8).
- **Groundwater Trends:**
 - The principal constituents of concern are TPHg and Benzene. The concentration trends are shown below in parts per billion (ug/L): source area (MW-1 and MW-2), down gradient (MW-4), All concentration trends are down. The January 2009 data for TPHg in MW-3 was 1,000 ug/L in July 2008 and is generally trending downward.





Sensitive Receptor Survey

According to Geotracker, no wells lie within ½ mile of the site.

Risk Evaluation

A Tier 2 Risk-Based Corrective Action (RBCA) groundwater model was performed in 2002 and the consultant (W.A. Craig) predicted that contaminant concentrations would decrease over time without active remediation. The RBCA analysis estimated the potential health risks associated with exposures to hydrocarbons in soil and groundwater to be very low, given current land use and exposure pathways. Predicted risk levels for carcinogenic exposures were less than or equal to 10^{-7} and predicted hazard quotients were less than or equal to 10^{-2} (W.A. Craig, Dec. 02). The Fund has reviewed and agrees with this analysis.

Closure

Has corrective action performed ensured the protection of human health, safety and the environment? Yes.

Is corrective action and UST case closure consistent with State Water Board Resolution 92-49? Yes.

Is achieving background water quality feasible? No.

To remove all traces of residual petroleum constituents at this site would require the additional excavation of soil. The excavation would have to be very large, would seriously impact the operating business, and would likely impact local traffic and public utilities. If complete removal of detectable traces of petroleum constituents becomes the standard for UST corrective actions, however, the statewide technical and economic implications will be enormous. For example, disposal of soils from comparable areas of excavation throughout the state would greatly impact already limited landfill space. In light of the precedent that would be set by requiring additional excavation at this site and the fact that beneficial uses are not threatened, attaining background water quality at the RP's site is not feasible.

If achieving background water quality is not feasible,

Is the alternative cleanup level consistent with the maximum benefit to the people of the state? Yes.

It is impossible to determine the precise level of water quality that will be attained given the limited residual petroleum hydrocarbons that remain at the site, but in light of all the factors discussed above, and the fact that the residual petroleum constituents will not unreasonably affect present and anticipated beneficial uses of groundwater, a level of water quality will be attained that is consistent with the maximum benefit to the people of the state.

Will the alternative cleanup level unreasonably affect present and anticipated beneficial uses of water? No.

Impacted groundwater is not used as a source of drinking water or any other beneficial use currently and it is highly unlikely that the impacted groundwater will be used as a source of drinking water or any other beneficial use in the foreseeable future.

Will the alternative level of water quality exceed water quality prescribed in applicable Basin Plans? No.



The final step in determining whether cleanup to a level of water quality less stringent than background is appropriate for this site requires a determination that the alternative level of water quality will not result in water quality less than that prescribed in the relevant basin plan. Pursuant to SWRCB Resolution 92-49, a site may be closed if the basin plan requirements will be met within a reasonable time frame.

Have factors contained in Title 23 of the California Code of Regulations, Section 2550.4 been considered? Yes.

In approving an alternative level of water quality less stringent than background, the State Water Board has also considered the factors contained in California Code of Regulations, title 23, section 2550.4, subdivision (d). As discussed earlier, the adverse effect on shallow groundwater will be minimal and localized, and there will be no adverse effect on the groundwater contained in deeper aquifers, given the physical and chemical characteristics of petroleum constituents, the hydrogeological characteristics of the site and surrounding land, and the quantity of the groundwater and direction of the groundwater flow. In addition, the potential for adverse effects on beneficial uses of groundwater is low, in light of the proximity of the groundwater supply wells, the current and potential future uses of groundwater in the area, the existing quality of groundwater, the potential for health risks caused by human exposure, the potential damage to wildlife, crops, vegetation, and physical structures, and the persistence and permanence of potential effects.

Finally, a level of water quality less stringent than background is unlikely to have any impact on surface water quality, in light of the volume and physical and chemical characteristics of petroleum constituents; the hydrogeologic characteristics of the site and surrounding land; the quantity and quality of groundwater and direction of groundwater flow, the patterns of precipitation in the region, and the proximity of residual petroleum to surface waters.

Has the requisite level of water quality been met? No.

The current groundwater plume is stable and shrinking in size and concentration.

It is estimated that Benzene and TPH-G concentrations will decrease to below detection limits in about 10 or more years. This is a reasonable period in which to meet the requisite level of water quality because it is expected that Water Quality Objectives will be achieved before shallow water resources in this area will be utilized. Residential and commercial water users in Lakeport are provided drinking water by the Lake County Water District, derived from a surface water source at great distance from the site. Neither current nor anticipated beneficial uses of water are or will be affected, and the remaining petroleum hydrocarbons at the site do not threaten human health, safety or the environment.

Objections to Closure and Response

The Regional Board objects to closure at this time because it has directed the RP to conduct a soil vapor survey and human health risk assessment (HHRA) for vapor migration and dermal exposure. In addition, the RP must conduct Public Participation and abandon site wells before closure will be considered.

The Fund manager disagrees that this case cannot be closed at this time. Based on the corrective actions conducted at the site, which include extensive excavation of contaminated soil, the limited residual petroleum hydrocarbon in the soil that may still exist does not pose significant risks to public health and safety. Between 15 to 16 feet of soil was excavated subsequent to tank removal and replaced with clean fill. Studies have shown that vapor intrusion from petroleum hydrocarbon contamination is not a concern if the top five feet of soil is clean provided free product is not present. With respect to low levels of benzene in groundwater, vapor intrusion is not a concern for the same



reason stated above. The evaluation of the risk of dermal exposure is also not necessary because of the quantity of contaminated soil that was excavated subsequent to tank removal and replaced with clean fill. Finally, the former UST location is currently covered by an office building. Consequently, there is currently no completed pathway for dermal contact with any residual soil contamination.

Although the current concentration of benzene exceeds the maximum contaminant level for drinking water, years of groundwater monitoring data have shown an overall decreasing trend. In addition, high dissolved oxygen levels in site monitoring wells suggest biodegradation will continue to consume residual hydrocarbons. Further, shallow groundwater is not used for drinking water at or near the Site and it is highly unlikely that the affected groundwater will be used as a source of drinking water in the near future. Residential and commercial water users are currently connected to the municipal drinking water supply. Other beneficial uses of the groundwater are not affected and are not likely to be affected by the remaining contamination at this site. Based on available information, the corrective action ensures the protection of human health, safety and the environment and Fund manager recommends that the case be closed.

The Fund has currently conducted public notification and the Placer County Environmental Health Department has the regulatory responsibility to supervise the abandonment of monitoring wells.

Summary and Conclusion

A retail gasoline and service station operated at this site until 1997. This site is currently occupied by an office building constructed in 2003. A release was discovered in October 1997 when four gasoline USTs were removed. Additionally, one 1,500 gallon waste oil tank was removed in September 1999, and two 500 gallon waste oil tanks were removed in March 2000. Approximately 1,500 tons of soil has been excavated since 1999. Groundwater conditions have been monitored since January 1999. There are currently 11 groundwater monitoring wells associated with the site, which have been regularly monitored. The principal constituents of concern are TPHg and Benzene. Groundwater samples collected in January 2009 contained a maximum of 1,000 ug/L of TPHg and 25 ug/l of Benzene in MW-3 located near the center of the site. It is estimated that Benzene and TPH-G concentrations will decrease to below detection limits in about 10 or more years.

The nearest well is more than 2,000 feet from the site and Clear Lake lies 700 feet east (down gradient). Clear Lake is on the 303d list of impaired water bodies due to mercury contamination and algal blooms. The residual contamination at this site is not a threat to either of these potential sensitive receptors.

Based on available information, the residual petroleum hydrocarbon contamination at the site does not pose significant risks to public health and safety and the environment and the Fund Manager recommends that the case be closed.

References

Davis, Robin, 2006. Project Manager, Utah Department of Environmental Quality, Leaking Underground Storage Tank Program. *Vapor Attenuation in the Subsurface from Petroleum Hydrocarbon Sources, Update on Field Data & Ramification on the Vapor Intrusion Risk Pathway*. 21 March.

W.A.Craig, Inc., 31 December 2002, *Report Additional Investigation and Risk-Based Corrective Action Analysis*, Former Westlake Service Station, 1101 North Main Street, Lakeport, CA.

Central Valley Regional Water Quality Control Board, 26 May 2009, memo to State Board UST Cleanup Fund.



