



**Linda S. Adams**  
Secretary for  
Environmental Protection

# State Water Resources Control Board

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## 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/](http://www.waterboards.ca.gov/water_issues/programs/ustcf/)



**Arnold Schwarzenegger**  
Governor

## **NOTIFICATION OF OPPORTUNITY FOR PUBLIC COMMENT**

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: 5011;  
SITE ADDRESS: SHELL #204-6678-9102, 6431 RIVERSIDE BOULEVARD,  
SACRAMENTO, CA 95831

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 February 15, 2011, 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 February 15, 2011, commencing at 9:00 a.m. 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 (H&SC) 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 H&SC Section 25299.39.2(a), to recommend closure of your UST case to the State Water Board, enclosed is a copy of the UST Case Closure Summary for your UST case. The case closure summary contains information about your UST case and forms the basis for the 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 local agency 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

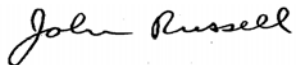
At the meeting, interested persons will be allowed to comment orally on the case closure recommendation (including the case closure summary), subject to the following time limits. The UST Cleanup Fund claimant and the local agency overseeing corrective action at the site will be allowed five minutes 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 noon on January 20, 2011. Please provide the following information in the subject line: **February 15, 2011 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, 24<sup>th</sup> Floor [95814]  
P.O. Box 100  
Sacramento, CA 95812-0100  
(tel) 916-341-5600  
(fax) 916-341-5620  
(email) [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)

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

Sincerely,



John Russell, P.G., Fund Manager  
Underground Storage Tank Cleanup Fund

Enclosure

cc: Dale A & Pamela A Miles  
6431 Riverside Boulevard  
Sacramento, CA 95831

Val Siebal  
Sacramento County Environmental Management Department  
Environmental Compliance Division  
10590 Armstrong Avenue, Suite A  
Mather, CA 95655-4153

Barry Marcus  
Sacramento County Environmental Management Department  
Environmental Compliance Division  
10590 Armstrong Avenue, Suite A  
Mather, CA 95655-4153

Jack Bellan  
Sacramento County Environmental Management Department  
Environmental Compliance Division  
10590 Armstrong Avenue, Suite A  
Mather, CA 95655-4153

Brian Newman  
Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

Tom Magney  
Conestoga-Rovers & Associates  
19449 Riverside Drive, Suite 230  
Sonoma, CA 95476

City of Sacramento  
Department of Utilities  
Attn: Marty Hanneman, Director  
1395 35<sup>th</sup> Avenue  
Sacramento, CA 95822

Elks Sacramento Lodge 6  
6446 Riverside Boulevard  
Sacramento, CA 95831-1023

Tsakopoulos Family Trust  
7423 Fair Oaks Boulevard, #10  
Carmichael, CA 95608

Ramiro S A Inversiones  
7777 Greenback Lane, #101  
Citrus Heights, CA 95610

cc: Riverside Associates  
6373 Riverside Boulevard  
Sacramento, CA 95831

Deolinda M Lacey Trust Breanne Lacey Trust

Deolinda M Lacey Trust Breanne Lacey Trust  
or Current Resident

Marilyn M Lee

Crestwater Garden Homes Association  
8250 Calvine Road, #330  
Sacramento, CA 95831-1107

Crestwater Garden Homes Association  
or Current Residents



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## 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 Shell Station, 6431 Riverside Boulevard, Sacramento, California (Site).

### Agency Information

Agency Name: Sacramento County Environmental Management Department (SCEMD)	Address: 10590 Armstrong Avenue, Suite A Mather, CA 95655
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### Case Information

SCEMD Case No: B533	Global ID: T0606700107
Site Name: Shell #204-6678-9102	Site Address: 6431 Riverside Blvd Sacramento, CA 95825
Responsible Party: Equilon Enterprises LLC, Assignee C/O: Shell Oil Products US – HSE/S&E	Address: 20945 South Wilmington Avenue, Carson, CA 90810
USTCF Claim No.: 5011	Number of Years Case Open: 23
USTCF Expenditures to Date: \$143,943	

### Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active ?	Date
1	550	Waste Oil	Removed	November 2005
2	10,000	Regular Gasoline	Removed	November 2005
3	10,000	Supreme Gasoline	Removed	November 2005
4	10,000	Unleaded Gasoline	Removed	November 2005
5	10,000	Gasoline	Active	
6	10,000	Gasoline	Active	
7	10,000	Gasoline	Active	

### Release Information

- Source of Release: UST System
- Date of Release: Per GeoTracker, the release was discovered on December 30, 1986 and reported on August 11, 1987
- Affected Media: Soil and Groundwater

### Site Information

- GW Basin: Sacramento Valley

- Beneficial Uses: Municipal and Domestic Water Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), and Industrial Process Supply (PRO)
- Land Use Designation: Commercial and Residential
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no Department of Public Health (DPH) water supply wells within ½ mile of the Site. Two wells were identified after a well survey was conducted. The Lakefill Well is located approximately 175 feet northeast of the Site and a domestic well is located 900 feet east of the Site.
- Minimum Groundwater Depth: 3.98 feet below ground surface (bgs) at monitoring well MW-6.
- Maximum Groundwater Depth: 11.30 feet bgs at monitoring well MW-1.
- Groundwater Flow Direction: Sporadic ranging the entire compass at the Site and regionally easterly with an average gradient of 0.004 feet/foot (ft/ft).
- Soil Types: The Site is underlain by interbedded and intermixed sand, silt and clays.
- Maximum Depth Sampled: 40 feet bgs

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent Depth To Groundwater (feet bgs) (January 2010)
MW-1	2/16/88	6.5-16.5	9.25
MW-2	2/16/88	8-18	8.61
MW-3	2/16/88	8-18	8.77
MW-4	2/16/88	6.5-16.5	9.88
MW-5	2/16/88	10-25	9.62
MW-6	12/3/03	3.5-15	6.30
MW-7	12/3/03	3.5-16	7.26
MW-8D	2/23/09	40 - 50	4.62
MW-8S	2/23/09	3.5-16	4.30

**Contaminant Concentration**

Contaminant	Soil (mg/kg)		Water (µg/L)		WQOs (µg/L)
	Maximum	Latest	Maximum	Latest (January 2010)	
TPHg	4,240*	NA	6,500	<50	5
Benzene	8.46*	NA	33	NA	0.15
Toluene	256*	NA	110	NA	42
Ethylbenzene	105*	NA	900	NA	29
Xylenes	566*	NA	860	NA	17
MTBE	190*	NA	4,300	23	5
TBA	0.23	NA	3,770	<10	12
1,2-DCA	<0.005	NA	0.35	<0.5	0.4

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: milligrams per kilogram, parts per million

ug/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives

\*: Soil Maximum values all came from one sample in one boring PL-7@4.5 feet bgs in October 1998.

### **Site Description**

The subject Site is an operating Shell-branded service station located on the eastern corner of Riverside Boulevard and Florin Road in Sacramento, CA. The Station layout includes an underground fuel storage complex, four product dispenser islands, a service garage and a station building.

### **Site History/Assessments**

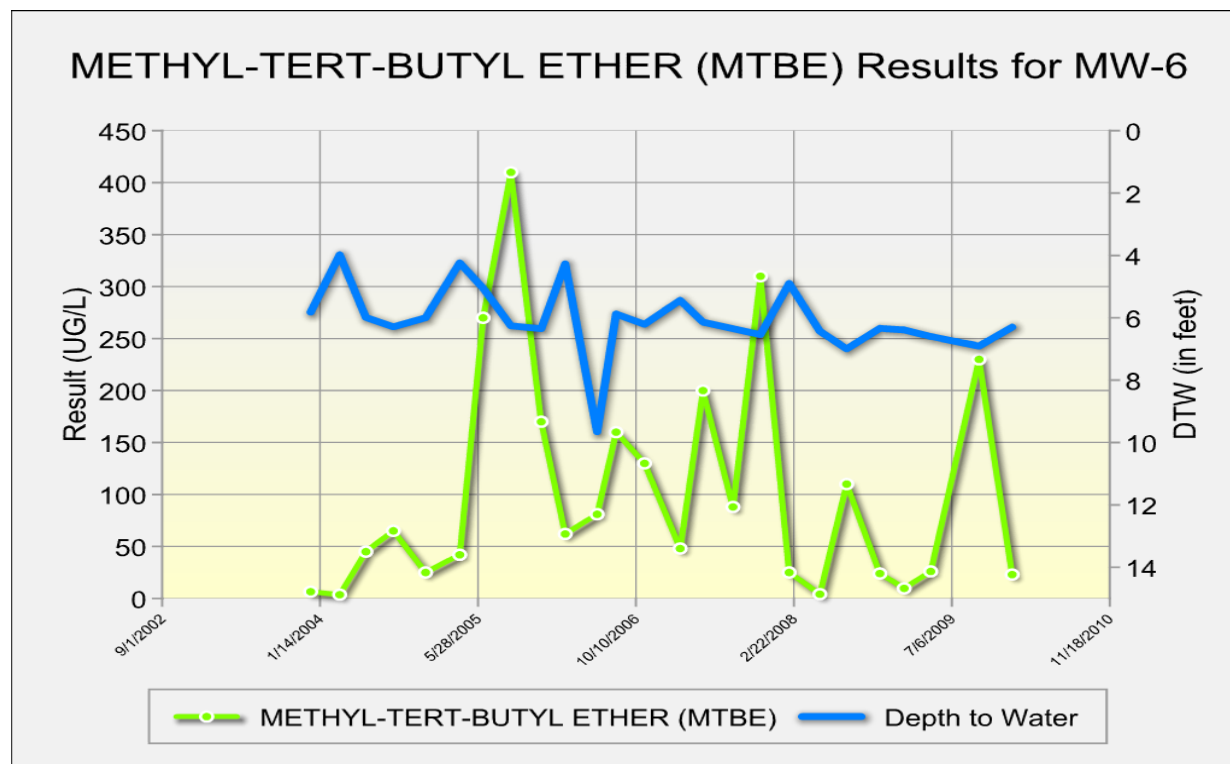
Assessments at the Site began in 1988 and have continued to be performed through 2009. In 2005, during UST removal/replacement and over excavation activities, approximately 2,300 cubic yards of soil and 76,000 gallons of groundwater were removed, transported and disposed.

### **Remediation Summary**

- Free Product: No free product was documented throughout the life of this case.
- Soil Excavation: An estimated 2,300 cubic yards of impacted soil were excavated, transported and disposed offsite in 2005.
- In-Situ Soil Remediation: None identified
- Groundwater Remediation: Approximately 76,000 gallon of groundwater was pumped from the excavation during UST removal activities. No other active remediation efforts were documented.

### **General Site Conditions**

- Geology and Hydrogeology: The Site is underlain by interbedded and intermixed sand, silt, and clay. The depth to groundwater varies seasonally between four and eleven feet bgs and the groundwater gradient is easterly at approximately 0.004 ft/ft. The closest surface water is located approximately 450 feet east and cross gradient of the Site.
- Estimate of Petroleum Hydrocarbon Mass Remaining: Conestoga Rovers & Associates (CRA), the consultant for the claimant, calculated that approximately 0.015 gallons of MTBE remain in the groundwater beneath the Site.
- Groundwater Trends: There are more than 22 years of groundwater monitoring data for this Site. The following graph shows analytical data for MW-6 which is the only remaining well to reflect any continuing impact from the release.



- Water Quality Objectives: Water Quality Objectives have already been met except for MTBE and the possible exception of TPHg. The WQO for MTBE was calculated by CRA to be met within three years using the Mann-Kendall analysis. TPHg was not detected above the reporting limit of 50 ug/L. The WQO of 5 ug/l for TPHg will be met within a reasonable period of time, if they are not currently met.

### Sensitive Receptor Survey

A well survey was conducted in 1996 by Enviros. A records search at the Department of Water Resources and an on-the-ground survey in the area identified two water supply wells; the first is the "Lakefill Well" located approximately 175 feet northeast and the second a domestic well located 900 feet east of the Site. The Lakefill Well was installed in 1977 and is sealed to 53 feet bgs and the domestic well was installed in 1950 and is 72 feet deep. Impact to the identified wells is unlikely due to the screened depths, distances of these wells from the subject Site, and their cross-gradient location from the Site. Drinking water at and near the Site is currently supplied by the City of Sacramento Public Works Department.

Surface water Bodies: The closest down-gradient surface water body is Lake Greenhaven, a private lake located approximately ½ mile southeast of the Sacramento River, and approximately 450 feet southeast of the Site.

### Risk Evaluation

As a result of removal of approximately 2,300 cubic yards of soil and 76,000 gallons impacted groundwater, there is little residual petroleum hydrocarbon in soil at the Site that would pose a threat to groundwater resources, human health, or the environment. Constituents of concern are below applicable WQO or detection limits except for MTBE concentrations in MW-6. Soil vapor sampling was completed and no MTBE was identified in these samples.



Since residual concentrations are low, the Site and public areas are paved with asphalt, and the Site is currently an operating gasoline station and the area generally commercially developed, there is little potential for hydrocarbon vapors to migrate or pose a threat to human health or the environment.

### **Closure**

**Does corrective action performed ensure 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 the Site would require significant effort and cost. Removal of all traces of residual petroleum hydrocarbon constituents that contribute to detectable concentrations in shallow groundwater can be accomplished, but would require excavation of additional soil as well as additional remediation of shallow groundwater. The soil excavation could also entail relocation of existing utilities, demolition of existing buildings, temporary closure of existing businesses and possible road closures. If complete removal of detectable traces of petroleum constituents becomes the standard for UST corrective actions, the statewide technical and economic implications will be enormous. Because of the high costs involved and minimal benefit of attaining further reductions in concentrations of MTBE and the fact that beneficial uses are not threatened, attaining background water quality at this 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. 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. 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 Plan?** 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 State Water Board 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 considers 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 hydrogeological 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.**

Although water quality objectives for MTBE have not been met, the approximate time period in which the requisite level of water quality will be met is three years. This is a reasonable period in which to meet the requisite level of water quality because the impacted groundwater is not currently being used as a source of drinking water and it is highly unlikely that impacted groundwater will be used as a source of drinking water in the future. Residential and commercial water users are currently connected to the municipal drinking water supply. Other designated beneficial uses of the impacted groundwater are not threatened and it is highly unlikely that they will be considering these factors in the context of the Site setting, Site conditions do not represent a substantial threat to human health and safety and the environment and case closure is appropriate.

**Objections to Closure and Response**

The SCEMD indicates that additional verification monitoring is not complete and must demonstrate a declining trend. In May 2010 they stated that the case should be closed in three to six months. The claimant prepared and submitted a request for closure report in September 2010.

The Fund has conducted public notification and the SCEMD has the regulatory responsibility to supervise the abandonment of monitoring wells.

**Summary and Conclusion**

A leak was identified in 1987 during UST system repair activities. Since 1988, nine monitoring wells have been installed, 2,300 cubic yards of contaminated soil were excavated, 76,000 gallons of groundwater removed and a human health risk assessment was conducted. According to reported groundwater analytical data, water quality objectives have been achieved in all but one well and it has been calculated to reach WQOs within three years. To date, \$143,943 in corrective action costs have been reimbursed by the Fund. The nearest DPH listed water supply wells are more than 2,000 feet from the Site. Impact to these wells is

unlikely due to the screened depths, distances of these wells from the subject Site. Impacted groundwater is not currently being used as a source of drinking water or other beneficial uses and water is provided to water users near the Site by the City of Sacramento Public Works Department. It is highly unlikely that any impacted groundwater will be used as a source of drinking water or other beneficial use in the foreseeable future. In addition, in the unlikely event that a water supply well is drilled in the future, that standard construction practices and requirements would prevent impacts from the contaminated area. Based on available information, the residual petroleum hydrocarbons at the Site do not pose significant risks to human health, safety, and the environment, and the Fund Manager recommends that the case be closed.

*John Russell*

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John Russell PG No. 8396

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December 15, 2010  
Date

