

## State Water Resources Control Board

### UST CASE CLOSURE REVIEW SUMMARY REPORT

#### Agency Information

Agency Name: Sacramento County Environmental Health Department (County)	Address: 11020 Sun Center Drive # 200 Rancho Cordova, CA 95670
Agency Caseworker: Jack Bellan	Case No.: B559

#### Case Information

USTCF Claim No.: 7200	GeoTracker Global ID: T0606700444
Site Name: P&P Building Wrecking, Inc.	Site Address: 8589 Florin Road Sacramento, CA 95828
Responsible Party: P&P Building Wrecking, Inc. Attn. Matt Pino	Address: 8589 Florin Road Sacramento, CA 95828
USTCF Expenditures to Date: \$119,949	Number of Years Case Open: 22

URL: [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0606700444](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606700444)

#### 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 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 Case Information (Conceptual Site Model)**. Highlights of the case follow:

This case is a commercial storage facility. An unauthorized release was reported in December 1991 following the removal of two USTs. An unknown volume was excavated to a reported depth of 30 feet in the source area, was aerated on site (from 1991-1995), and then used to backfill the open pit. No other active soil or groundwater remediation has been conducted at the Site. Since 1997, four monitoring wells have been installed and sporadically monitored. According to groundwater data, water quality objectives have been achieved or nearly achieved for all constituents.

The petroleum release is limited to the shallow soil and groundwater. According to data available in GeoTracker, there are no supply wells regulated by the California Department of Public Health or surface water bodies within 250 feet of the defined plume boundary. There was an onsite domestic well referenced in the County no further action response letter, but according to permit records from the County, that well was destroyed in 2002. No other water supply wells have been identified within 250 feet of the defined plume boundary in files reviewed. Water is provided to water users near the Site by the Florin County Water District. 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. Remaining petroleum hydrocarbon constituents are limited and stable and concentrations are decreasing. Corrective actions have been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

#### **Rationale for Closure under the Policy**

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 1. The contaminant plume that exceeds water quality objectives is less than 100 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 250 feet from the defined plume boundary. The onsite domestic well referenced in the County NFA response letter was destroyed in 2002 per County permit records. The contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives has or will be achieved within a reasonable time frame.
- Vapor Intrusion to Indoor Air: The case meets Policy Criterion 2a by Scenario 3b. The maximum benzene concentration in groundwater is less than 1,000 micrograms per liter ( $\mu\text{g/L}$ ). The minimum depth to groundwater is greater than 10 feet, overlain by soil containing less than 100 milligrams per kilogram ( $\text{mg/kg}$ ) of total petroleum hydrocarbons (TPH).
- Direct Contact and Outdoor Air Exposure: This case meets Policy Criterion 3b. Although no document titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to residual soil contamination found that maximum concentrations of petroleum constituents remaining in soil will have no significant risk of adversely affecting human health. The soil impacted with petroleum hydrocarbons identified during UST removal activities was remediated onsite then used as backfill of the excavation with County approval.

#### **Objections to Closure and Responses**

In their September 2012 letter, the County objects to UST case closure because:

- Additional groundwater sampling is required for review.  
RESPONSE: Groundwater concentrations are non-detect for all chemicals of concern.
- Site historical data for groundwater, soil, and original tank excavation are required.  
RESPONSE: Available data provide an adequate conceptual site model upon which to evaluate the site for closure. Additional work is not necessary.
- A sensitive receptor survey is required including public participation within a 500 foot radius.  
RESPONSE: Information from a sensitive receptor survey will not change the conceptual site model. In addition, potential affected parties will be notified of any recommendation for case closure.
- The domestic well referenced in the No Further Action Request needs to be included in the sensitive receptor report.  
RESPONSE: According to Sacramento County permit records, the well was destroyed in 2002.

**Determination**

Based on the review performed in accordance with Health & Safety Code Section 25299.39.2 subdivision (a), the Fund Manager has determined that closure of the case is appropriate.

**Recommendation for Closure**

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. Sacramento County has the regulatory responsibility to supervise the abandonment of monitoring wells.



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Lisa Babcock, P.G. 3939, C.E.G. 1235

  
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Date

Prepared by: Kenyatta Dumisani

**ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW**

The case complies with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the Site do not pose significant risk to human health, safety, or the environment.

**The case complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.<sup>1</sup>**

<p><b>Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations?</b>          The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST site closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><b>Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this case?</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><b>If so, was the corrective action performed consistent with any order?</b></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><b>General Criteria</b>          General criteria that must be satisfied by all candidate sites:</p> <p><b>Is the unauthorized release located within the service area of a public water system?</b></p> <p><b>Does the unauthorized release consist only of petroleum?</b></p> <p><b>Has the unauthorized (“primary”) release from the UST system been stopped?</b></p> <p><b>Has free product been removed to the maximum extent practicable?</b></p> <p><b>Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?</b></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>

<sup>1</sup> Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.  
[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2012/rs2012\\_0016atta.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf)

<p><b>Has secondary source been removed to the extent practicable?</b></p> <p><b>Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?</b></p> <p><b>Nuisance as defined by Water Code section 13050 does not exist at the Site?</b></p> <p><b>Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?</b></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><b><u>Media-Specific Criteria</u></b>        Candidate sites must satisfy all three of these media-specific criteria:</p> <p><b>1. Groundwater:</b>        To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:</p> <p><b>Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?</b></p> <p><b>Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites?</b></p> <p>If YES, check applicable class: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p><b>For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?</b></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><b>2. Petroleum Vapor Intrusion to Indoor Air:</b>        The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.</p> <p><b>Is the Site an active commercial petroleum fueling facility?</b>        Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

<p><b>a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?</b>          If YES, check applicable scenarios: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4</p> <p><b>b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?</b></p> <p><b>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?</b></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>
<p><b>3. Direct Contact and Outdoor Air Exposure:</b>          The Site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).</p> <p><b>a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?</b></p> <p><b>b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?</b></p> <p><b>c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?</b></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA</p>

## ATTACHMENT 2: SUMMARY OF BASIC CASE INFORMATION (Conceptual Site Model)

### Site Location/History

- The Site is located 0.2 miles east from the intersection of Florin Road and Florin-Perkins Road and is a commercial storage yard with an office/shop area.
- The Site is bounded by residential properties to the south across Florin Road, a commercial truck storage facility to the west, mixed use empty lot to the north, and residential properties to the west.
- A site map showing the location of the former USTs, monitoring wells and groundwater level contours is provided at the end of this closure review summary (Earthtec, Inc., 2012).
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source: UST system.
- Date reported: March 1991.
- Status of Release: USTs removed.
- Free Product: None reported.

### Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/Removed/Active	Date
1	4,000 gallon	Gasoline	Removed	February 1991
2	6,000 gallon	Diesel	Removed	February 1991

### Receptors

- GW Basin: Sacramento Valley-South American
- Beneficial Uses: Municipal and Domestic Supply.
- Land Use Designation: Aerial photograph available on GeoTracker suggests mixed residential and commercial land use in the vicinity of the Site.
- Public Water System: Florin County Water District.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no public supply wells regulated by the California Department of Public Health within 250 feet of the defined plume boundary. The domestic well referenced by the County in the NFA response letter was destroyed in 2002 per County permit records. No other water supply wells were identified within 250 feet of the defined plume boundary in the files reviewed.
- Distance to Nearest Surface Water: There is no identified surface water within 250 feet of the defined plume boundary.

### Geology/Hydrogeology

- Stratigraphy: The Site is underlain by interbedded and intermixed sand, silt, and clay.
- Maximum Sample Depth: 77.97 feet below ground surface (bgs).
- Minimum Groundwater Depth: 75.47 feet bgs at monitoring well MW-3.
- Maximum Groundwater Depth: 79.09 feet bgs at monitoring well MW-2.
- Current Average Depth to Groundwater: Approximately 77.50 feet bgs.
- Saturated Zones(s) Studied: Approximately 35 - 80 feet bgs.
- Appropriate Screen Interval: Yes.
- Groundwater Flow Direction: South to southwest with an average gradient of 0.003 feet/foot (July 2012).

**Monitoring Well Information**

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (12/17/2009)
MW-1	January 1997	unknown – 98	77.43
MW-2	January 1997	unknown – 100	77.97
MW-3	January 1997	unknown – 98	77.67
MW-4	January 1997	unknown – 99	76.96

NM: Not measured

**Remediation Summary**

- Free Product: None reported in GeoTracker.
- Soil Excavation: Unknown volume excavated from the former source area in 1991 to a maximum depth of 30 feet bgs and aerated onsite, and according to personal account, soil was used to backfill the pit in 1995.
- In-Situ Soil Remediation: No remediation activity on site reported.
- Groundwater Remediation: No remediation activity on site reported.

**Most Recent Concentrations of Petroleum Constituents in Soil\***

Constituent	Maximum 0-5 feet bgs [mg/kg and (date)]	Maximum 5-10 feet bgs [mg/kg and (date)]
Benzene	NA	0.083 (01/1995)
Ethylbenzene	NA	<0.005 (01/1995)
Naphthalene	NA	NA
PAHs	NA	NA

\*: Former source area excavated to 30 feet bgs  
 NA: Not Analyzed, Not Applicable or Data Not Available  
 mg/kg: Milligrams per kilogram, parts per million  
 <: Not detected at or above stated reporting limit  
 PAHs: Polycyclic aromatic hydrocarbons

**Most Recent Concentrations of Petroleum Constituents in Groundwater**

Sample	Sample Date	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)
MW-1	12/17/09	<50	<50	<0.5	<0.5	<0.5	<1	<1	<10
MW-2	12/17/09	<50	<50	<0.5	<0.5	<0.5	<1	<1	<10
MW-3	12/17/09	<50	<50	<0.5	<0.5	<0.5	<1	<1	<10
MW-4	12/17/09	<50	<50	<0.5	<0.5	<0.5	<1	<1	<10
<b>WQOs</b>		<b>5</b>	<b>56</b>	<b>0.15</b>	<b>42</b>	<b>29</b>	<b>17</b>	<b>5<sup>a</sup></b>	<b>1,200<sup>b</sup></b>

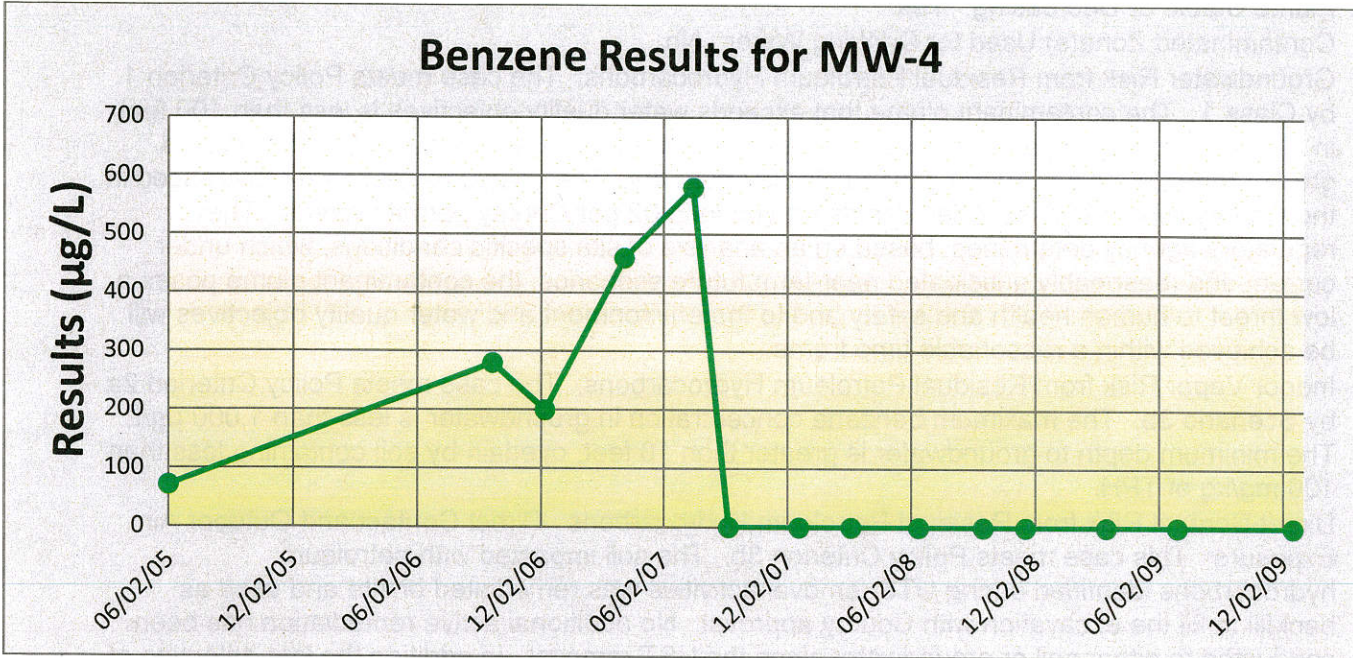
NA: Not Analyzed, Not Applicable or Data Not Available  
 µg/L: Micrograms per liter, parts per billion  
 <: Not detected at or above stated reporting limit  
 TPHg: Total petroleum hydrocarbons as gasoline  
 TPHd: Total petroleum hydrocarbons as diesel  
 MTBE: Methyl tert-butyl ether  
 TBA: Tert-butyl alcohol  
 WQOs: Water Quality Objectives, Regional Water Quality Control Board (Regional Water Board) Basin Plan  
<sup>a</sup>: Secondary maximum contaminant level (MCL)  
<sup>b</sup>: California Department of Public Health, Response Level



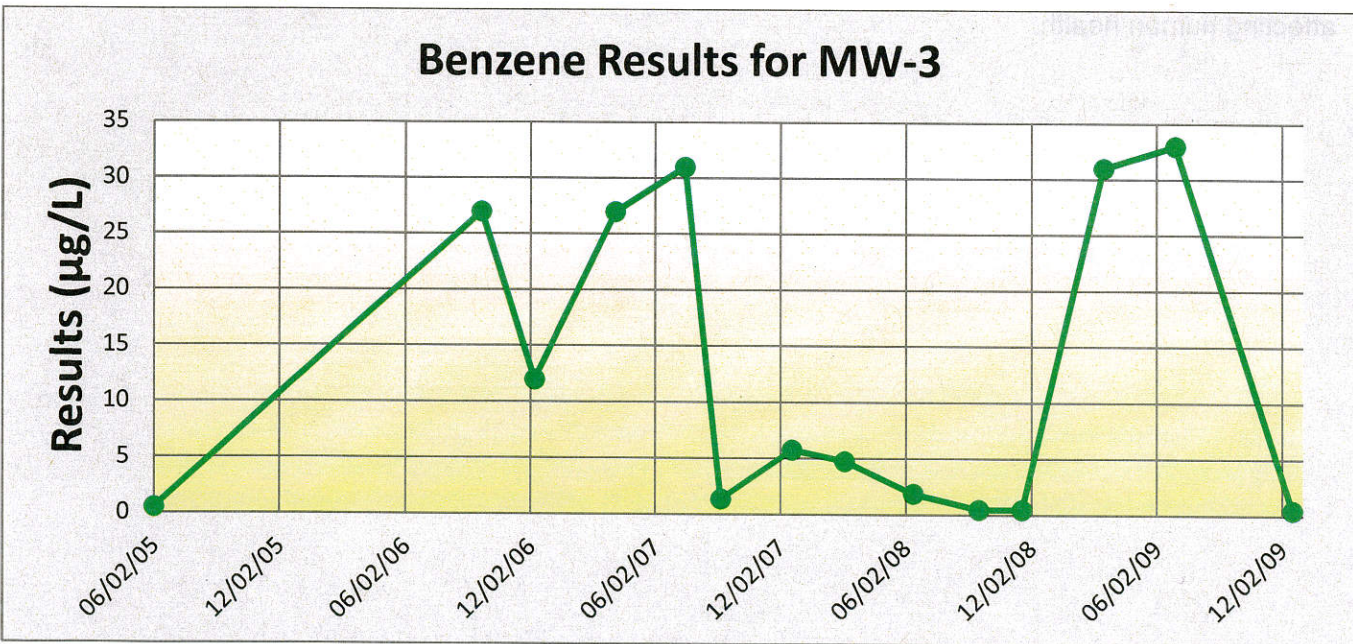
**Groundwater Trends**

- There are 14 years of irregular groundwater monitoring data for this case. Benzene trends are shown below for source area (MW-4) and downgradient (MW-3):

**Source Area Well (MW-4)**



**Downgradient Well (MW-3)**



### Evaluation of Current Risk

- Estimate of Hydrocarbon Mass in Soil: Approximately 0.010 gallons of TPHg
- Soil/Groundwater tested for methyl tert-butyl ether (MTBE): Yes, see table above.
- Oxygen Concentrations in Soil Vapor: None reported.
- Plume Length: <100 feet long.
- Plume Stable or Decreasing: Yes.
- Contaminated Zone(s) Used for Drinking Water: No.
- Groundwater Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 1 by Class 1. The contaminant plume that exceeds water quality objectives is less than 100 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 250 feet from the defined plume boundary. The onsite domestic well referenced in the County NFA response letter was destroyed in 2002 per County permit records. The regulatory agency determines, based on an analysis of site specific conditions, which under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame.
- Indoor Vapor Risk from Residual Petroleum Hydrocarbons: The case meets Policy Criterion 2a by Scenario 3b. The maximum benzene concentration in groundwater is less than 1,000 µg/L. The minimum depth to groundwater is greater than 10 feet, overlain by soil containing less than 100 mg/kg of TPH.
- Direct Contact Risk from Residual Petroleum Hydrocarbons: Direct Contact and Outdoor Air Exposure: This case meets Policy Criterion 3b. The soil impacted with petroleum hydrocarbons identified during UTS removal activities was remediated onsite and used as backfill to fill the excavation with County approval. No additional active remediation has been conducted to either soil or groundwater since the UST removal. In addition the last detection of petroleum hydrocarbons in groundwater was in 2008 as levels below WQO's. Therefore, a professional assessment of site-specific risk from exposure shows that maximum concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

