



**TULARE COUNTY  
HEALTH & HUMAN SERVICES AGENCY**

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February 21, 2013

Mr. Pete Mizera  
State Water Resources Control Board  
1001 I Street, 16<sup>th</sup> Floor  
Sacramento, CA 95814

Subject: Comment Letter – Gas and Goodies Case Closure Summary  
Claim Number 8575, Site Address: 1076 East Rankin Avenue, Tulare, CA 93274

Dear Mr. Mizera,

Thank you for the opportunity to comment on the above referenced Underground Storage Tank Cleanup Fund (Fund) Case Closure Recommendation. The Tulare County Local Oversight Program (LOP) would like to take this opportunity to bring to your attention additional information that is not reflected in the Gas and Goodies Case Closure Summary. We respectfully request that the Fund review this additional information and reconsider whether case closure is appropriate.

Please find below excerpts from the *UST Case Closure Summary Report* in bold italics, followed by the LOP responses and comments.

**Rational for Closure under the Policy**

- ***“General Criteria: The case meets all eight Policy general Criteria.”***

LOP Comment: Of the eight Policy general criteria, the position of the LOP is that criterion f “Secondary source has been removed to the extent practicable” has not been met at the site. The following sections of the UST Case Closure Summary Report details the Fund’s position that the secondary source has been removed to the extent practicable:

***Summary section (Page 1): “An unauthorized leak was identified in December 1993 after three gasoline USTs had been removed. Over-excavation was conducted in 1993 to a total depth of 38 feet. Dual phase extraction was briefly conducted in October 2007 and approximately 407 pounds of total petroleum hydrocarbons as hydrocarbons (TPHg) were removed from the subsurface.”***

**Remediation Summary (Page 8):**

- ***“Soil Excavation: Excavation conducted to a depth of 38 feet in 1993 (VIER [sp], 2011).***

LOP Comment: The LOP reviewed the case file in an attempt to reconcile soil investigation results in the vicinity of the former UST cavity that were inconsistent with replacement of the native petroleum-contaminated soil with imported backfill. A summary of these inconsistencies is contained in the first

paragraph under item "f" of the *Low Threat UST Case Closure Policy Evaluation*<sup>1</sup> performed by VEIR Corp:

"During the 1993 UST replacement, overexcavation of an unknown quantity of gasoline-containing soil was reported to have been performed. However, subsequent drilling through the location of the former USTs encountered native soils at depths similar to the base of the UST cavity and detected gasoline hydrocarbons at depths as shallow as 15 fbg."

The report entitled *Underground Tank Removals, Ave 200, Tulare, CA* by AAT Environmental dated October 26, 1993 states: "The site was over-excavated in the area of the known soil contamination and confirmation soil samples were collected after a depth of 38 feet below grade was reached."

The report indicates that relatively high concentrations of gasoline constituents were reported in analysis of soil samples collected from the bottom and sidewalls of the excavation. The results of these soil samples are presented below:

Sample	Depth	Benzene	Toluene	Ethyl Benzene	Xylenes	TPH - Gasoline
S- 1	38'	1.9	27.0	38.0	200.0	1100
S- 2	15'	ND	ND	ND	ND	ND
S- 3	20'	1.5	98.0	98.0	860.0	3600
S- 4	30'	5.2	83.0	218.0	580.0	2400
S- 5	30'	4.4	66.0	144.0	470.0	1700

The October 26, 1993 report does not indicate what was done with the excavated soil.

Further review of the case file did not reveal any subsequent reports clarifying the disposition of the soil from the over-excavation. The sole indication of the disposition of the excavated soil was the handwritten notes dated May 30th and June 2<sup>nd</sup>, 1995 (attached):

"5-30-95 WESTERN BORING (NEAR DISPENSERS - ODORS STARTING AT ABOUT 5' B.S.G.)"

"6-02-95 T/C JOHN JONES. EXCAVATED DIRT WAS PUT BACK INTO THE FORMER TANK PIT TO REDUCE COSTS OF HAVING IT HAULED AWAY. JOHN WILL LOOK FOR PICTURES HE TOOK AT THE TIME OF ABANDONMENT/EXCAVATION AND GET BACK TO ME."

The LOP followed up with the former employee who had authored the notes and confirmed with him that the soil had in fact been returned to the excavation. Further evidence is the results of soil samples and well logs from depths between the surface and 38 feet below grade in soil borings and vapor extraction wells subsequently completed within the excavation footprint. Since the soil was returned to the excavation, the LOP does not concur that the "case meets all eight Policy general criteria" as the secondary source has not been removed to the extent practicable.

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<sup>1</sup> Third Quarter 2012 Progress Report for the Gas N' Goodies, Page 8, VEIR Corp, August 29, 2012

**Remediation Summary (Page 8):**

- ***In-Situ Soil/Groundwater Remediation: Dual phase extraction pilot test was conducted in October 2007, which removed approximately 407 pounds of TPHg. In October 2007, the rate of removal was 3.5 pounds of TPHg per day [Note: The relevant report<sup>2</sup> which is the apparent source of this value actually states that the rate of removal was “an average of 3.4 pounds per hour and 81.4 pounds per day”]. Soil vapor extraction was installed on Site in 2012 and has not yet operated.***

LOP Comment: A summary of pilot test results is provided in the second and third paragraphs under item “f” of the *Low Threat UST Case Closure Policy Evaluation*<sup>3</sup> performed by VEIR Corp:

“From October 2, through 7, 2007 a DPE pilot test was performed. The maximum influent concentration measured was 10,000 ppmv. During the DPE pilot test an estimated total of 407 pounds of hydrocarbons were extracted during 120 hours for an average of 3.4 pounds per hour and 81.4 pounds per day. Approximately 14, 600 gallons of fluids were also recovered during the 120 hours of DPE operations for an average of 2 gpm and 2,920 gpd.”

“On December 16, 2010, VEIR Corp performed a SVET hours [sp] using tank cavity vapor extraction wells VW-3s and VW-3d as the shallow and deep zone extraction wells. The maximum influent concentration measured was 10,000 ppmv. During the SVET an estimated total of 68.9 pounds of hydrocarbons were extracted during seven hours for an average of 9.84 pounds per hour and 236.2 pounds per day. No other secondary source removal has been conducted at the site.”

Based on the above pilot test results, relatively high concentrations of hydrocarbons remain in place at the site. Together with the fact that the soil was returned to the excavation, the LOP does not concur that the “case meets all eight Policy general criteria” as the secondary source has not been removed to the extent practicable. It is the LOP’s position that the existing soil vapor extraction system, which was installed in 2012, should be approved for operation.

- ***“Groundwater: The case meets Policy Criterion 1 by Class 1. The plume that exceeds WQO is less than 100 feet in length. No free product is present. The nearest water supply well is greater than 250 feet from the defined plume boundary.”***

LOP Comment: For the most recent semiannual groundwater monitoring event conducted on July 26, 2012, it appears that the “defined plume boundary” on that date may well have been less than 100 feet. In this event, the gasoline constituents were not detected in down gradient monitoring well MW-4, located approximately 75 feet from the former USTs.

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<sup>2</sup> Third Quarter 2012 Progress Report for the Gas N’ Goodies, Page 8, VEIR Corp, August 29, 2012

<sup>3</sup> Third Quarter 2012 Progress Report for the Gas N’ Goodies, Page 8, VEIR Corp, August 29, 2012

However, in the previous semiannual groundwater monitoring event conducted on March 14, 2012, Benzene and TPHg were detected in MW-4 at concentrations of 2 ug/L and 67 ug/L, respectively. Historic groundwater monitoring results indicate the average length of the defined plume boundary to be greater than 100 feet.

Past USTCF 5-Year Review Summary reports indicate that the nearest supply well, according to Geotracker, to be located 643 feet from the site. Therefore, given the predominant plume length of greater than 100 feet, it is the position of the LOP that the site conditions do not satisfy this media-specific screening criteria.

- ***Vapor intrusion to Indoor Air: The case meets the Policy Active Station Exemption – Soil vapor intrusion evaluation is not required because the Site is an active commercial petroleum fueling facility.***

LOP Comment: A review of the case file was the notation "OLD PIPING DISCOVERED" next to the checkbox for "All piping removed" on the Abandonment Inspection Report dated October 20, 1993 (attached). This notation indicates that the UST system piping had been replaced at some point and that the old piping was abandoned in place. When the vapor extraction piping was installed during the fourth quarter of 2011, older steel piping was reportedly encountered between the existing canopy and building and hydrocarbon-containing soils were observed at depths as shallow as one foot.

There is no information in the case file on the configuration of this older steel piping. It is therefore unclear as whether the site investigation to date has adequately assessed any former USTs, dispensers or piping runs previously existing at the site.

However, available information indicates that the USTs, dispensers, and product piping were in excess of 30 feet laterally from the occupied structure and TPH as gasoline does not exceed 100 mg/kg within 30 feet of the occupied structure. Therefore, the LOP concurs that this media-specific criteria is met because the site is an active commercial petroleum fueling facility, and the release characteristics are not reasonably believed to pose an unacceptable health risk.

- ***Direct Contact and Outdoor Air Exposure: The case meets Policy Criterion 3a. Soil removed by excavation to a depth of 38 feet and backfilled with imported fill. Since all contaminated soil was excavated, site soils are below Table 1 thresholds of the Policy. The Site is paved preventing direct contact exposure.***

LOP Comment: As shown above, the excavation was not backfilled with imported fill. The excavation report contains a site map which depicts the extent of the excavation. Based on the site map, it does not appear that the excavation extended to the area of the dispenser islands.

Prior to UST removal, two Subsurface Soil Investigations<sup>4 5</sup> were performed. Boring logs in both reports indicate that hydrocarbon odors and or staining were observed in site soils at depths as shallow as 1 – 2 feet below grade. Two samples were collected from underneath the dispensers at depths between 0 to 10 feet below surface grade. Analytical results from these soil samples are listed below underneath the screening levels from *Table 1 - Direct Contact and Outdoor Air Exposure*.

Chemical	Residential		Commercial/ Industrial		Utility Worker
	0 to 5 feet bgs mg/kg	Volatilization to outdoor air (5 to 10 mg/kg)	0 to 5 feet bgs mg/kg	Volatilization to outdoor air (5 to 10 mg/kg)	0 to 10 feet bgs mg/kg
<b>Benzene</b>	1.9	2.8	8.2	12	14
<b>Ethylbenzene</b>	21	32	89	134	314
<b>Naphthalene</b>	9.7	9.7	45	45	219
<b>PAH<sup>1</sup></b>	0.063	NA	0.68	NA	4.5
<b>Sample B7-4 East Dispenser Island @ 4 to 4.5 feet bgs</b>					
<b>Benzene</b>	0.044	0.044	0.044	0.044	0.044
<b>Ethylbenzene</b>	0.083	0.083	0.083	0.083	0.083
<b>Naphthalene</b>	NA	NA	NA	NA	NA
<b>TPH<sup>1</sup></b>	1.5	1.5	1.5	1.5	1.5
<b>Sample B8-9 West Dispenser Island 9 to 10.5 feet bgs</b>					
<b>Benzene</b>	25	25	25	25	25
<b>Ethylbenzene</b>	133	133	133	133	133
<b>Naphthalene</b>	NA	NA	NA	NA	NA
<b>TPH<sup>1</sup></b>	7300	7300	7300	7300	7300

<sup>1</sup>Analytical results for TPH substituted due to no analysis for PAH

Based in general on the reported presence of gasoline hydrocarbons at shallow depths at the site, and specifically on the analytical results from Sample B8-9, it is the position of the LOP that the site conditions do not satisfy this media-specific screening criteria.

In Summary, it is the position of the LOP that the site does not meet the following Policy criteria:

- Secondary source has not been removed to the extent practicable
- Groundwater: The case does not meet Policy Criterion 1 by Class 1
- Direct Contact and Outdoor Air Exposure: The case does not meet Policy Criterion 3a

<sup>4</sup> Level 2 Subsurface Field Investigation at existing (2) – 10,000 and (1) 8,000 gallon underground gasoline fuel tank locations, Consolidated Testing Laboratories, January 12, 1993

<sup>5</sup> Supplement to the January 12, 1993 Level 2 Subsurface Field Investigation at two (2) – 10,000 and one (1) 8,000 gallon underground fuel storage tank locations, Associated Soils Analysis, June 4, 1993

Mr. Pete Mizera  
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February 21, 2013  
Page 6

Because the site does not meet all of the Policy criteria, the LOP respectfully requests that the Fund reconsider its decision to recommend closure.

All documents referenced in this letter have been uploaded to GeoTracker. Please contact the undersigned at (559) 624-7419 or at [jmartens@tularehhsa.org](mailto:jmartens@tularehhsa.org) should you have any questions regarding this letter.

Sincerely yours,

A handwritten signature in black ink that reads "Joel Martens". The signature is written in a cursive style with a large, stylized 'J' and 'M'.

Joel Martens  
Local Oversight Program  
County of Tulare

Attachments:

cc: Lisa Babcock, UST Cleanup Fund, State Water Resources Control Board  
Kirk Larson, UST Cleanup Fund, State Water Resources Control Board  
Bob Trommer, UST Cleanup Fund, State Water Resources Control Board  
John Whiting, California Regional Water Quality Control Board  
Craig Prunier, Arcadis U.S., Inc.  
Lorraine Bostard