Linda S. Adams Secretary for Environmental Protection

State Water Resources Control Board

Division of Financial Assistance

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3rd USTCF 5-YEAR REVIEW SUMMARY

USTCF Claim No.: 3672 Claimant Name: John Wolf Site Name: San Paso Truck and Auto

Site Address: 81 Wellsona Road

City: Paso Robles, CA 93440 LOP: San Luis Obispo County

Regional Board: Central Coast (Region 3)

Caseworker: Corey Walsh Lead Agency Case No: 830 Global ID: T0607900181 Date LOC Issued: 9/4/1992

USTCF Expenditures to Date: \$116,124

USTCF Priority Classification: B

I. CASE INFORMATION

Tank	Size in	Contents	Contents Closed in Place/	
No.	Gallons		Removed/Active?	
1	5,000	Unleaded Gas	Removed	11/1989
2	5,000	Unleaded Gas	Removed	11/1989
3	5,000	Regular Gas	Removed	11/1989
4	3,000	Diesel	Removed	11/1989
5	10,000	Gasoline	Active ¹	
6	10,000	Gasoline	Active ¹	
7	10,000	Gasoline	Active ¹	
8	Unknown	Diesel ²	Active ¹	
9	Unknown	Diesel ²	Active ¹	

II. RELEASE INFORMATION

Source of Release: UST system.

• Date of Release: Reported as 2/16/1990.

• Affected Media: Soil and groundwater.

III. SITE CHARACTERIZATION INFORMATION

A. Site Information

 GW Basin: Salinas Hydrological Unit, Paso Robles Hydrological Area, Nacimiento Reservoir Hydrological Sub-Area.

Beneficial Uses: Municipal and domestic supply.

Land Use Designation: Commercial

² Aboveground Tank

California Environmental Protection Agency

May 12-13, 2010 Meeting

¹ According to first quarter 2010 monitoring report, the truck and auto fueling facility is inactive.

- Distance to Nearest Supply Well (Municipal or Domestic): According to GeoTracker, there is one active supply wells located within a ½-mile radius of the site. The well is located 260 feet west-southwest of the site.
- Minimum Groundwater Depth: 21.09 feet below ground surface (bgs) in well MW-
- Maximum Groundwater Depth: 33.08 feet bgs in well MW-4
- Flow Direction: West to Northwest
- Soil Types: Soil underlying the site consists of sandy clay and silt with occasional pebbles from surface to about 9 to 10 feet bgs. Underlying the sandy clay and silt is sand and silty sand with gravel that appears to coarsen with depth. The sand unit is present to about 24 to 26 feet bgs. Beneath the sand unit is clay and silt which appears to be in thin beds or lenses near the top, interbedded with thin sand beds, and becoming more clay-rich with depth.³
- Maximum Depth Sampled: 51 feet bgs (B-11 in 2005)

B. Well Information

	21 11011 1110111141011						
Well Designation	Date Installed	Screen Interval	Most Recent DTW				
		(feet bgs)	(2/4/10)				
MW-1	1991	22.5 – 27.5	22.51				
MW-2	1991	20 – 30	21.95				
MW-3	1991	20 – 30	22.85				
MW-4	2005	15 – 35	20.96				
MW-5	2005	15 – 35	21.82				
MW-6	2008	20 – 35	22.04				
MW-7	2008	20 – 35	21.20				
MW-8	2008	19 - 34	21.20				
VEW-1	1991	0 – 19	Destroyed				

IV. MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS4

Contaminant	Soil (mg/kg)		USEPA RSLs		Water (ug/L)		CA MCLs
	Maximum	Latest	Residential	Industrial	Maximum	Latest	(ug/L)
			(mg/kg)	(mg/kg)		(2/4/10)	
TPH-g	190	NA	NA	NA	820,000	850	NA
TPH-d	200	NA	NA	NA	3,100	2,300	NA
Benzene	0.16	NA	1.1	5.6	17,000	2.1	1
Toluene	35	NA	5,000	46,000	100,000	7.7	150
Ethylbenzene	15	NA	5.7	29	8,700	360	300
Total Xylenes	97	NA	600	2,600	59,000	1,100	1,750
MTBE	ND	NA	39	190	45	ND<0.5	13 primary
							5 secondary
TBA	NA	NA	NA	NA	ND<5	NA	12 ¹
1,2-DCA	NA	NA	0.45	2.2	ND<0.5	NA	0.5

³ Walch Geosciences, Corrective Action Plan for San Paso Truck and Auto, January 10, 2006

California Environmental Protection Agency



⁴ Maximum contaminant concentrations shown here have been taken from available data in GeoTracker and USTCF files.

Contaminant	Soil (mg/kg)		USEPA RSLs		Water (ug/L)		CA MCLs
	Maximum	Latest	Residential	Industrial	Maximum	Latest	(ug/L)
			(mg/kg)	(mg/kg)		(2/4/10)	
Lead	NA	NA	400	800	NA	NA	15
PCE	NA	NA	0.57	2.7	NA	NA	5
TCE	NA	NA	2.8	14	NA	NA	5

Regional Screening Levels Established in September 2008

MCL Maximum Contaminant Levels

NA Not Analyzed or No Data Available

Not detected at or above method detection limits. ND

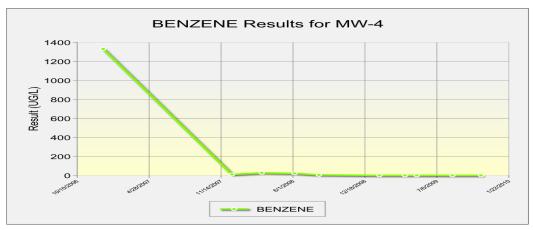
OEHHA Notification Level

V. FREE PRODUCT

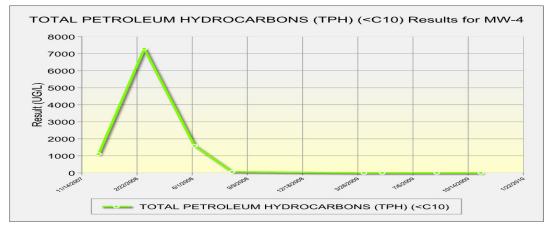
None identified.

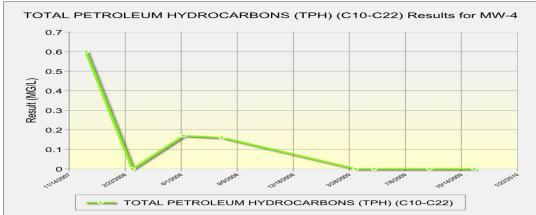
VI. SOIL AND GROUNDWATER REMEDIATION

- **A. Soil Excavation**: According to available documents⁵, an estimated 2,350 cubic vards of impacted soil was excavated and aerated on site. Final deposition of the aerated soil is not known.
- **B. In-Situ Soil Remediation**: In 1991, a soil vapor extraction (SVE) system was proposed. However, there is no indication that SVE was implemented. In 2006, a dual phase extraction pilot test was conducted. Low vapor concentrations resulted in this technology not being selected.
- **C. Groundwater Remediation**: In 1991, a pump-and-treat system was proposed. However, there is no indication that the pump-and-treat system was constructed and implemented. In July 2009 and continuing weekly until October 2009, hydrogen peroxide in a 10% solution was injected into wells. Volume of hydrogen peroxide injected was 75 gallons per event.
- **D. Groundwater Concentration Trends**: Groundwater contaminant concentration trends from monitoring well MW-4 are presented below.



⁵ Walch Geosciences, Soil and Groundwater Assessment Report for San Paso Truck and Auto, March 18, 2005





VII. SENSITIVE RECEPTORS There are five wells within 1000 feet of this site. One is a DHS approved public well and it is located on site. Based on the depth to groundwater (> 20 feet bgs) and the mixed use property use, other sensitive receptors are not anticipated.

VIII. COMMENTS AND JUSTIFICATION FOR RECOMMENDED ACTION

- **A. Site Description**: The site is a truck stop with convenience store and restaurant. It is located approximately 3.5 miles from Paso Robles. There are underground storage tanks containing gasoline and above ground storage tanks containing diesel situated on the site (Figure 2⁶). The above ground storage tanks are located near the west property boundary, west of the fuel dispensers. A private well is located south of the above ground tanks near the western property boundary. This well is connected to a pressure tank and two storage tanks which supply water to the restaurant.
- **B. Site History**: Site investigations began in 1990. To date there have been 8 monitoring wells installed and at least four site assessments. Existing USTs were replaced in 1989.

⁶ Stantec Consulting Corporation, First Quarter 2010 Groundwater Monitoring Report, San-Paso Truck Stop, March 5, 2010.

- **C. Groundwater Monitoring Summary**: Groundwater monitoring commenced in 1995.
- **D. Remediation Summary**: Excavation of impacted soil with on-site treatment occurred between 1989 and 1990. An estimated 2,350 cubic yards of soil was treated. Details as to the final contaminant concentration in the soil or its final deposition have not been found.
 - A three month pilot study of injecting hydrogen peroxide into groundwater was completed in October 2009.
- **E. Contaminant Exposure Pathway Evaluation**: An evaluation of contaminant exposure pathways has not been conducted.
- **F. Recommendation**: In the Preliminary Review (2007), Fund Staff had recommended that a corrective action plan be submitted and that the responsible party be reminded of the responsibility to submit documents to GeoTracker in a timely manner. In the 2nd Review (2008), Fund Staff recommended that the Regional Board direct the RP with enforcement if necessary to implement appropriate corrective actions to expedite removal of contaminations from the subsurface.

Although many of the listed contaminant concentrations in this 3rd Review have been reduced to near or below laboratory detection levels, Fund Staff makes the following recommendations.

- Earlier groundwater monitoring reports listed the groundwater flow direction as southeast⁷ where as later reports list the groundwater flow direction as westerly⁶. Fund Staff recommends that downgradient monitoring well(s) be installed. This is important since there are no monitoring wells along the property lines to verify that the contaminant plume has been remediated and not just migrated out of the remediation area.
- The responsible party (RP) injected hydrogen peroxide into what would appear to be the up gradient location of the plume if the westerly groundwater flow⁶ direction is correct. As cited above, this does not prove that remedial technology is working only that contaminant concentration at the injection wells is being reduced. Depending upon groundwater flow direction, a well or series of wells may need to be installed to verify that the contaminant plume concentration has being reduced.
- Monitoring wells MW-6, MW-7, and MW-8 have not been surveyed as required by the state. Fund Staff recommends this be required of the RP. Providing this data will assist in evaluating plume direction.

Recycled Paper

⁷ Walch Geosciences; First Half, 2003, Ground-Water Monitoring and First Quarter, 2003 Sampling of Five Domestic Wells for the San Paso Truck and Auto; April 18, 2003

 Boring logs for monitoring wells MW-6, MW-7, and MW-8 show a clay or sandy clay zone from 24 feet bgs down to 35 feet bgs. Clay materials can retard the ability of oxidants to reach hydrocarbon contaminants that are entrained. Fund Staff recommends that a confirmation soil sampling event be conducted in order to determine the effectiveness of the oxidant application.

Fund Staff will review this site in six months to evaluate updated data.

Original signed by	4/19/2010	Original signed by 4/19/2010
John M. Warren, P.E. Engineer Technical Review Unit (916) 341-5616	Date	Robert Trommer, CHg Date Senior Engineering Geologist Chief, Technical Review Unit (916) 341-5684

