Site Hazard Assessment
Recommendation for No Further Action

SITE INFORMATION:
Dave's Pit Stop
6195 Van Giesen
West Richland, WA 99353

Parcel ID: 136074012156001
Section/Township/Range: 36/10N/27E
Latitude: 46.30271
Longitude:-119.36785
Ecology Facility Site ID No.: 73274126
UST Site ID: 100981
VCP ID No.: CE0279

Site scored/ranked for the August 2010 update

Background/Site Description

The site known as Dave's Pit Stop has historically operated as a service station since1952 although the name of the station has changed over the years. Currently, it is still operating as a mini mart but no longer sells gasoline or heating oil. Dave's Pit Stop is located at 6195 Van Giesen in West Richland, Washington (see Figure 1). Two 10,000 gallon gasoline underground storage tanks (USTs) were installed in 1952. At a later date (date unknown) two 10,000 gallon USTs were installed to store heating oil.

In 1998 the station quit selling gas and in April 2000 all of the USTs on site were removed. The owner of Dave's Pit Stop in 2000 was Colin Bleiler of Columbia Oil Company (Richland, WA). Petroleum Pump & Equipment (Kennewick, WA) was hired to excavate, decommission, and transport the USTs offsite and White Shield, Inc. (Grandview, WA) was hired to provide environmental sampling and consulting at the site. Soil excavation began on April 10, 2000 and a completed report was received by the Washington State Department of Ecology (Ecology) on June 14, 2000 (1). The location and orientation of the tanks is shown in Figure 2A. Because the tanks were all located together and parallel to one another they were all removed together from one large rectangular excavation hole measuring 35'(l)x 36'(w)x14'(d). Soil was removed from the top and the perimeter first. Sites where environmental samples were taken for analysis are shown in Figure 2B.

During the excavation Rick Funderburk of White Shield, Inc. (WSI) inspected all of the tanks. He noted that both of the oil USTs were in fair condition with minor corrosion and no visible holes. He also noted that there was some soil staining along the east side wall where the one of the oil tanks had been removed. In the report Mr. Funderburk did not described the condition of either gasoline UST but he did mention that there was soil staining at the soil/groundwater interface. When the pumping dispensers were removed it

was noted that there were strong petroleum odors but there was not a mention of soil staining. During the excavation groundwater was encountered at approximately fourteen feet. Eleven soil samples (individual samples and composites) and one water sample were taken from the excavation site by WSI and analyzed by OnSite Environmental Inc. of Redmond, Washington (see Figure 2B). Four of the samples were taken from the sidewalls, four from the area surrounding the dispenser islands and three from the stockpile. The water sample was taken from the center of the excavation hole. Some samples were analyzed for gas, diesel, benzene, toluene, ethylbenzene, and xylene (BTEX) while others were only analyzed for select contaminants (see Table 1). All of the excavated soil was placed on a liner on site.

Results are shown in Tables 1-3. The majority of the samples did not contain contaminants. However, soil samples taken from the east side of the excavation wall and the water sample did contain contaminates that exceed present Model Toxic Control Act (MTCA) standards for soil and water (see Tables 2 and 3). Based on the sampling results, WSI recommended that all of the excavated soil be handled as a petroleum contaminated soil (pcs) waste and properly disposed. All of the stockpiled material (~109 cubic yards) was taken to Lower Valley Remediation in Mabton, Washington. The WSI report stated that contaminants were still present within the confines of the excavation site and recommended that more remediation be performed. The report also stated that groundwater monitoring should be performed at the site since contaminated water was encountered at the site. On April 25, 2000 the excavation hole was backfilled. The report did not specify where the backfill material came from.

In an Ecology document (ERTS #C511943) dated August, 9, 2000 Dick Bassette indicated that no site visit was performed by Ecology staff and that contaminants still remain on site. He recommended that the site receive an interim action. Mr. Bassett spoke with the owner, Colin Bleiler, who told him he was looking into a cost effective means of cleaning up the remaining contamination. According to available records cleanup at the site did not resume until 2005.

In May 2005 GeoPro Geologic Services (Battle Ground, WA), acting as a sub-contractor for Blue Mountain Environmental Consulting (Waitsburg, WA), was hired to install three groundwater monitoring wells at the site and to implement a groundwater monitoring program (see Figure 3A and 3B). Wells were drilled and installed on May 24, 2005 using a Geoprobe GP-40 drill rig (2). Monitoring Wells MW-1 and MW-2 were 19 feet below ground surface (bgs) and MW-3 was 16 bgs. Depth to groundwater ranged from 14.2 to 14.8 bgs. Groundwater samples were collected on May 28, 2005 using a peristaltic pump. Water samples were sent to OnSite Environmental Inc. and analyzed for TPH-Gas, BTEX, and MTBE. Results are shown in Table 5 (First Quarter). GeoPro completed a total of four quarters of groundwater sampling at the site on August 24, 2006 (see Table 4). All water samples tested were below the Practical Quantification Limit (PLQ) for all analytes for all four quarters. All four reports prepared by GeoProbe were received by Ecology as evidenced by date stamps. The last report was received by Ecology on November 13, 2006.

In January 2008 Mr. Bleiler sold the property to Jongha and Sungae Han. The details of the cleanup status at the time the property changed hands are vague. Ecology records indicate that the site was in enrolled in the Voluntary Cleanup Program (VCP) on January 25, 2008. Peter Trabusiner of Blue Mountain Environmental pursued a "No Further Action" (NFA) request with Ecology in September 2008. In an Ecology memo dated September 4, 2008 Brain Deeken, Toxics Cleanup Program, communicated to Mr. Trabusiner that he had reviewed the file on Dave's Pit Stop which included the quarterly groundwater monitoring reports (Attachment A). Mr. Deeken indicated that in order to achieve an NFA Mr. Trabusiner would have obtain more soil sampling at the site either by excavation or soil boring since the records indicated that the soil was not fully decontaminated when the USTs were removed. Mr. Trabusiner, acting under the assumption that the new owner wanted to seek an NFA, initiated more soil sampling at the site.

On October 20, 2008 five borings were drilled to a depth of 10 feet and soil samples were taken. The borings were performed by Environmental West (Spokane, WA). The ground borings were drilled to the north and east of the original tank excavation site (see Figure 2A "GP"). The soil samples were sent to OnSite Environmental Inc. and analyzed for TPH-Gas and BTEX. The results are shown in Table 5. All five samples were below PQL for all analytes and well below MTCA cleanup standards for unrestricted land use. A report documenting the soil sample was prepared by Blue Mountain Environmental (6). However, the report was not immediately made available to Ecology. A miscommunication existed between Blue Mountain Environmental and the new owners of the site in regard to payment for the work that was performed. As a result, Ecology did not receive the soil boring report and on July 20, 2009 the site was terminated from the VCP due to lack of cleanup activity at the property. The termination letter was sent to Mr. Bleiler and it is unclear if notification was ever sent to Mr. and Mrs. Han. On May 6, 2010 Mr. and Mrs. Han received and official notice from Ecology that a Site Hazard Assessment (SHA) would be conducted.

Site Hazard Assessment

James Coleman of the Benton-Franklin Health district began reviewing files for Dave's Pit stop in March 2010. The file contained the ground boring report that was prepared by Blue Mountain Environmental (6). No date stamp was present on the front cover so it is unclear the exact date when it was submitted to Ecology. In early July Mr. Coleman met with Peter Trabusiner. Mr. Trabusiner explained that he had corresponded with Brian Deeken of Ecology regarding the site. However, Mr. Trabusiner said that at some point Brian Deeken left his position at Ecology and that no decision had been made regarding the site status. Mr. Trabusiner provided Mr. Coleman a copy of the soil boring report during the meeting.

On July 23, 2009 Mr. Coleman met with Mrs. Han at the site. Mrs. Han said that she and her husband started leasing the business from Mr. Bleiler in 1995 and then purchased the property in January 2008. The site is located on the western edge of West Richland and is 1.75 miles west of the Yakima River. There is a mobile home park to the west and north and open land to the south. The mobile home park is on city water and sewer.

The site is flat with a slight slope toward the street (Van Giesen) to the north. The surface of the site is not entirely covered. There is a concrete parking pad north of the store that is approximately the same width as the store and extends to the asphalt of the street. Asphalt extends from the east and west edge of the concrete pad for approximately 60 feet where it then becomes asphalt. The asphalt once covered the area right up to the front of the shop located to the west of the store. This is the approximate location of the excavation site. According to Mrs. Han, the asphalt was removed during the tank excavation and was never replaced. Ground water monitoring wells were located on the property. The well drilling report indicated that soils at the site were medium sand down to about seven feet followed by gravel and pebbles to sixteen feet (2). Starting at sixteen feet there was a mix of gravel and clay silt layers to the bottom of the wells (~19 feet). The drilling reports indicated that groundwater was encountered at approximately 14 feet and the ground water flow was to the southeast. Total annual precipitation at the site is approximately 7.5 inches.

The City of West Richland receives all of its water from approximately nine different wells located in and around the city. All are within a two mile radius of Dave's Pit Stop. The closest well to the site is "DNR Well#3" which is 700 feet due north. The City of West Richland has a wellhead protection area and Dave's Pit Stop is located in the southern portion of protection area (see Figure 4).

Pathway Information

The **Surface Water Pathway** is not likely a significant route of potential exposure at this site, nor is the **Air Pathway**, due to the entirely subsurface nature of any possible remaining contamination.

Groundwater

Four quarters of groundwater monitoring were completed in August 2006. Quarterly reports were reviewed by Brian Deeken at Ecology in September 2008. All water samples taken were below PQLs.

Conclusions and Recommendations

As mentioned in the section above four quarters of ground water monitoring were completed and reviewed by Ecology. At Mr. Deeken's request, Blue Mountain Environmental completed soil borings and soil sampling in October 2008. All soil samples were below PQLs for TPH-Gas and BTEX.

The sources of the initial contamination (USTs and pumping dispensers) have been removed from the site and the analytical data indicates that petroleum contamination is no longer in the soil or groundwater at the site. It is recommended that Dave's Road Pit site receive a No Further Action.

References:

1. Lust Closure Report, Dave's Pit Stop, WSI Job No.-400-001-01, White Shield, Inc., June 6, 2000.

2. Groundwater Monitoring Wells Installation and Sampling Report, Project No. 050408A, GeoPro Geologic Services, June 20, 2005.

3. Quarterly Report: Groundwater Monitoring, Dave's Pit Stop Site, GeoPro Geologic Services, November 21, 2005.

4. Third Quarterly Report: Groundwater Monitoring, Dave's Pit Stop Site, GeoPro Geologic Services, February 20, 2006.

5. Fourth Quarterly Report: Groundwater Monitoring, Dave's Pit Stop Site, GeoPro Geologic Services, September 19, 2006.

6. Soil Sampling Report: Dave's Pit Stop Site, Blue Mountain Environmental Consulting, October 20, 2008.

7. Washington Climate – Net Rainfall Table

8. Washington State Department of Ecology, Water Rights Application System (WRATS) printout for two-mile radius of site.

Appendix I: Figures, Tables and Attachments

Figure 1. Aerial View of Dave's Pit Stop.

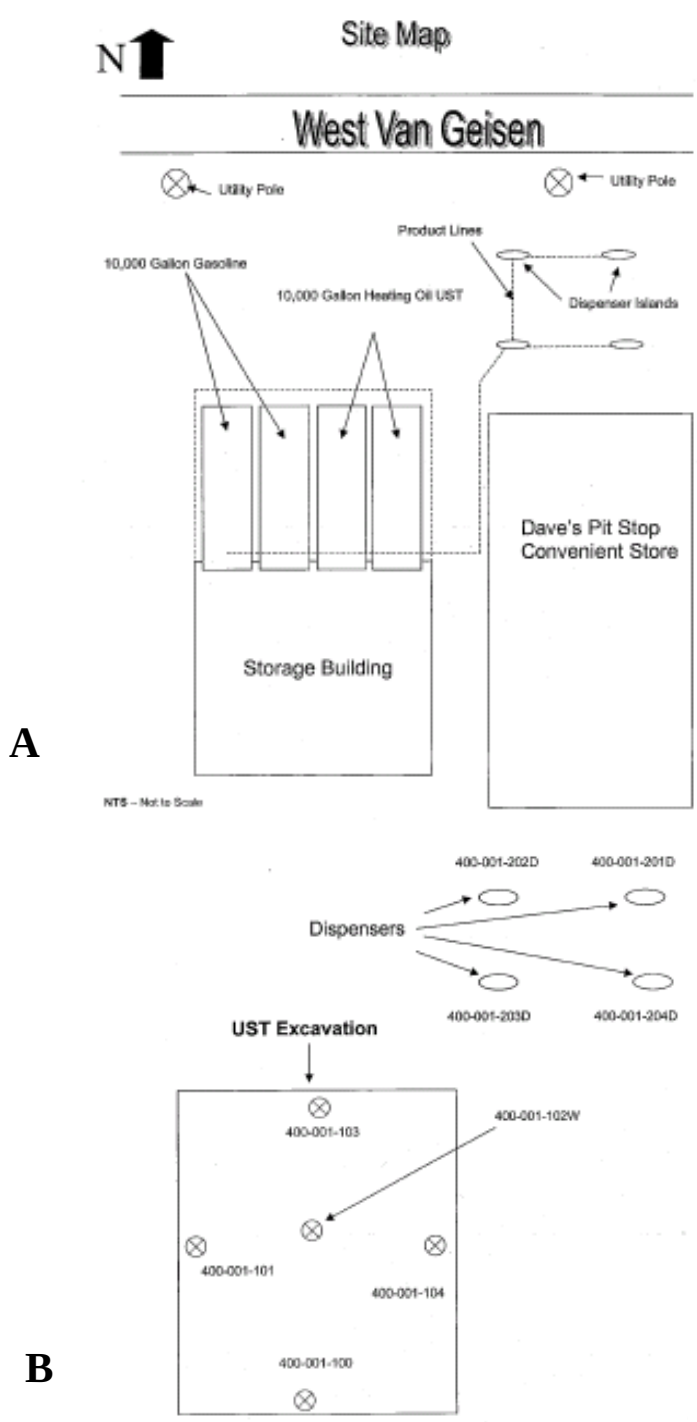

Figure 2. Diagram of Location of Underground Storage Tanks (Panel A) and Sampling Sites (Panel B). Source (1)

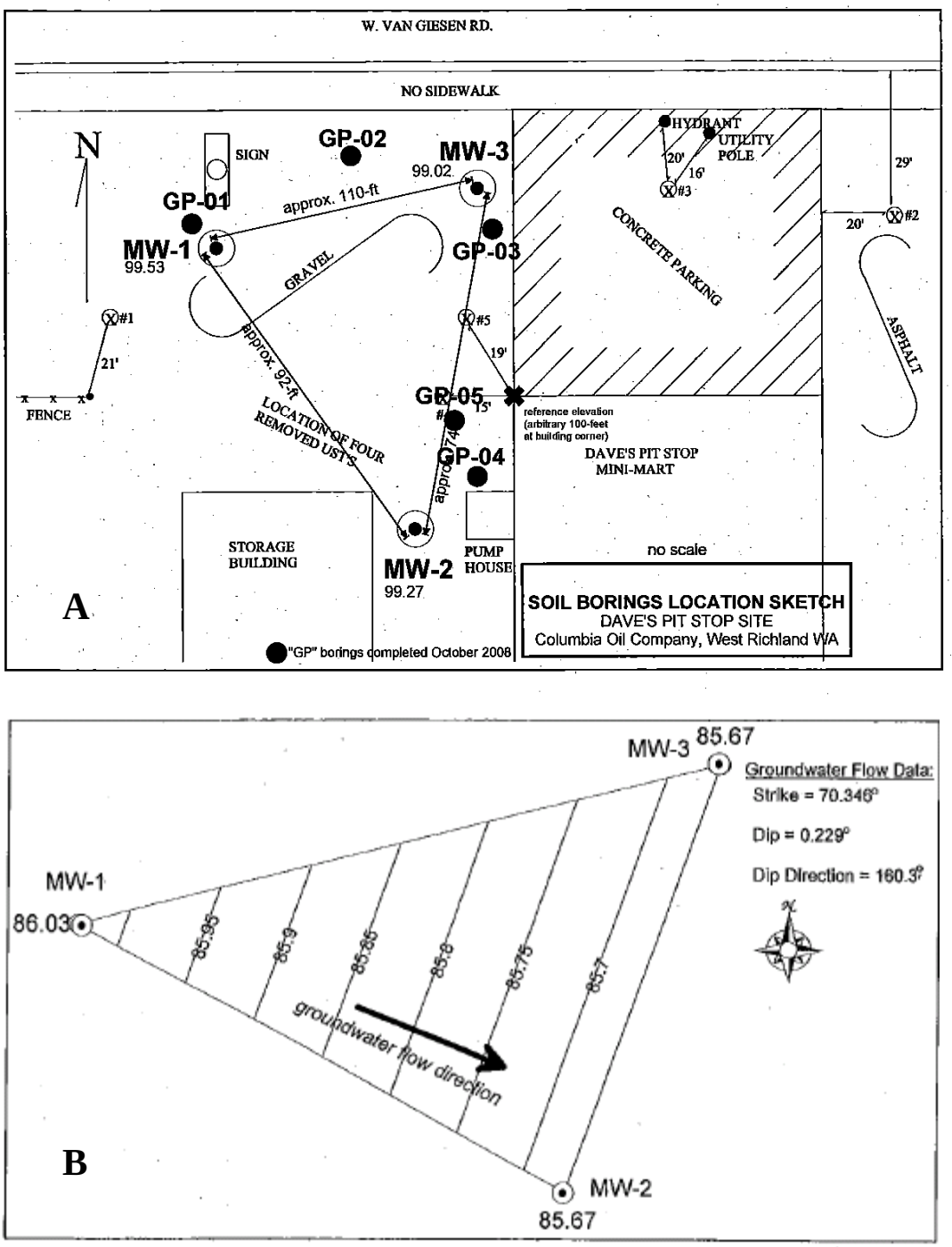

Figure 3. Diagram Showing Location of Ground Water Monitoring Wells and Soil Sampling (Panel A). Ground Water Gradient Map for November 2005 (Panel B). Sources (3,6)

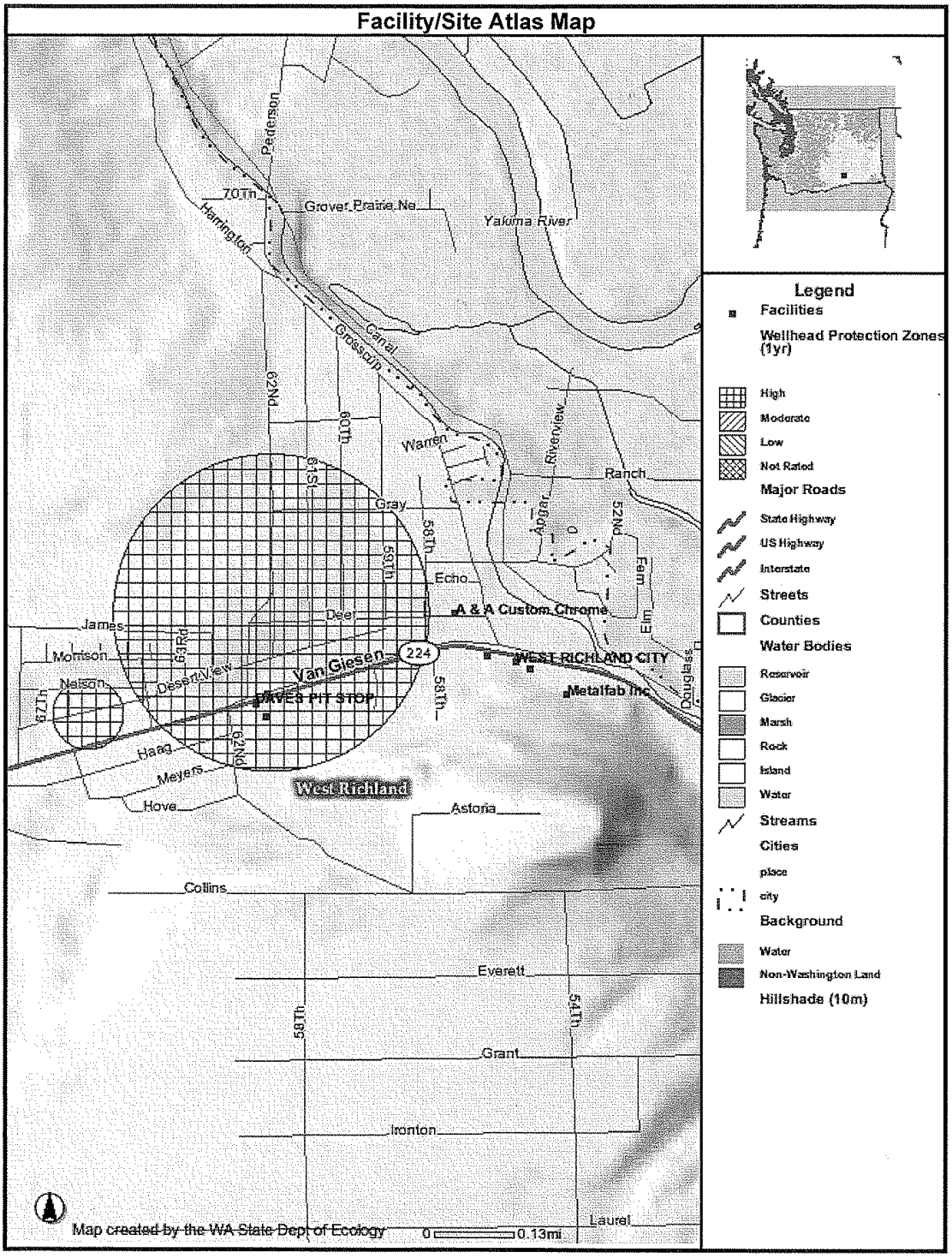

Figure 4. City of West Richland Wellhead Protection Area

Table 1. Results of Soil Sampling from Tank Excavation and Stockpile

LABORATORY ANALYTICAL RESULTS FOR SOIL SAMPLES
Results are in parts per million (ppm) for soil.

SAMPLE NUMBER	LOCATION/DEPTH	NWTPH-G	B	T	E	X	NWTPH-Dx	
							Diesel Fuel	Oil
400-001-100 400-001-101 Composite	South sidewall @ 5' West sidewall @ 5'	ND	ND	ND	ND	ND	ND	220
400-001-103 400-001-104 Composite	North sidewall @ 8' East sidewall @ 8'	3,100	1.9	4.5	2.6	169	670	82
400-001-100	South sidewall @ 5'	NT	NT	NT	NT	NT	ND	ND
400-001-101	West sidewall @ 5'	NT	NT	NT	NT	NT	69	ND
400-001-103	North sidewall @ 8'	ND	ND	ND	ND	ND	ND	ND
400-001-104	East sidewall @ 8'	4,900	1.0	0.30	2.0	196	1,000	ND
400-001-201D	Dispenser #1	ND	ND	ND	ND	ND	NT	NT
400-001-202D	Dispenser #2	ND	ND	ND	ND	ND	NT	ND
400-001-203D 400-001-204D Composite	Dispenser #3 Dispenser #4	ND	ND	ND	ND	ND	ND	ND
400-001-301sp 400-001-302sp	Stockpile	ND	ND	ND	ND	ND	NT	NT
400-001-302sp 400-001-303sp	Stockpile	NT	NT	NT	NT	NT	260	ND

NWTPH-Dx = Northwest Total Petroleum Hydrocarbons, Diesel Extended
NWTPH-G = Northwest Total Petroleum Hydrocarbons, Gasoline
B = Benzene
T = Toluene
E = Ethyl benzene
X = Total Xylenes
NT = Not Tested

Source (1)

Table 2. Soil Samples Exceeding Method A Model Toxic Control Act for Unrestricted Land Uses (mg/kg)

Sample	Gas	Benzene	Toluene	Ethylbenzene	Xylene	Diesel
103/104 Composite	3,100	1.9	4.5	2.6	169	670
104	4,900	1.0	0.3	2.0	196	1,000
MTCA Cleanup Level	100	0.03	7	6	9	2,000

Table 3. Water Sample Exceeding Method A Model Toxic Control Act for Groundwater (ug/L)

Sample	Gas	Benzene	Toluene	Ethylbenzene	Xylene	Diesel
102W	190,000	870	4,200	590	17,200	ND
MTCA Cleanup Level	800	5	1,000	700	1,000	500

Table 4. Groundwater Monitoring at Dave's Pit Stop for Four Quarters

First Quarter: May 28, 2005

Monitor Well	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	m,p-Xylene µg/L	o-Xylene µg/L	TPH-Gas µg/L
MW-1	ND	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND	ND	ND

Second Quarter: September 7, 2005

Monitor Well	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	m,p-Xylene µg/L	o-Xylene µg/L	TPH-Gas µg/L
MW-1	<1.0	<1.0	<1.0	<1.0	<1.0	<100
MW-2	<4.0	<4.0	<4.0	<4.0	<4.0	<400
MW-3	<1.0	<1.0	<1.0	<1.0	<1.0	<100

Third Quarter: January 20, 2006

Monitor Well	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	m,p-Xylene µg/L	o-Xylene µg/L	TPH-Gas µg/L
MW-1	<1.0	<1.0	<1.0	<1.0	<1.0	<100
MW-2	<1.0	<1.0	<1.0	<1.0	<1.0	<100
MW-3	<1.0	<1.0	<1.0	<1.0	<1.0	<100

Fourth Quarter: August 24, 2006

Monitor Well	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	m,p-Xylene µg/L	o-Xylene µg/L	TPH-Gas µg/L
MW-1	<1.0	<1.0	<1.0	<1.0	<1.0	<100
MW-2	<1.0	<1.0	<1.0	<1.0	<1.0	<100
MW-3	<1.0	<1.0	<1.0	<1.0	<1.0	<100

"<" - Not Detected at Practical Quantification Limit ("PQL") shown

Sources (2-5)

Table 5. Summary of Soil Analysis from Boring Holes at Dave's Pit Stop

Boring	Benzene *mg/Kg*	Toluene *mg/Kg*	Ethyl Benzene *mg/Kg*	m,p-Xylene *mg/Kg*	o-Xylene *mg/Kg*	TPH-Gas *mg/Kg*
GP-1	<0.020	<0.070	<0.070	<0.070	<0.070	<7
GP-2	<0.020	<0.077	<0.077	<0.077	<0.077	<7.7
GP-3	<0.020	<0.070	<0.070	<0.070	<0.070	<7
GP-4	<0.020	<0.080	<0.080	<0.080	<0.080	<8.0
GP-5	<0.020	<0.089	<0.089	<0.089	<0.089	<8.9

"<" - Not Detected at Practical Quantification Limit ("PQL") shown

Source (6)

Attachment

Deeken, Brian (ECY)

From: Deeken, Brian (ECY)
Sent: Thursday, September 04, 2008 12:05 PM
To: 'ptrabus@urx.com'; 'bmec20@hotmail.com'
Subject: Columbia Oil Coffee Bean & Dave's Pit Stop sites

Peter,

I appreciate the phone conversation we had yesterday. As your client wants a "No Further Action" (NFA) letter for the VCP applications for these sites I am sending this email to detail the information I have and what information I will need to give an NFA for these sites (Information I need is in **bold**).

Dave's Pit Stop

1. This site has four quarters of groundwater monitoring which shows that soil contamination is not affecting groundwater at the site.
2. I have the confirmation that the environmental data for this site was submitted to EIM.
3. Composite soil samples on the North sidewall and East sidewall (400-001-103 & 400-001-104) and a grab sample on the east sidewall (400-001-104) exceeded the MTCA Method A cleanup level for gasoline & xylenes. **Additional excavation or soil borings will be needed at both locations.**

Coffee Bean

1. This site has four quarters of groundwater monitoring which shows that soil contamination is not affecting groundwater at the site.
2. I have the confirmation that the environmental data for this site was submitted to EIM.
3. Composite soil samples on the Southwest sidewall and West sidewall (400-003-108 & 400-003-107) exceeded the MTCA Method A cleanup level for gasoline, xylenes, & Ethylbenzene. **Additional excavation or soil borings will be needed at both locations.**

As we discussed in our phone conversation the options for the site are as follows: excavation, additional sampling, or a restrictive covenant for each site. Ecology does not recommend a restrictive covenant for the site as it does not relieve your client from potential liability at the site and with the new legislation sites with restrictive covenants will be re-evaluated by Ecology once every five years. If the site is found to be out of compliance with its restrictive covenant and does not fix the problem then the site can lose its NFA status.

I believe that both of these sites can be given an NFA determination within a short period of time with minimal effort. If you have any questions feel free to give me a call at (509)454-7290.

Respectfully,

Brian Deeken
Project Manager
Toxics Cleanup Program