

SNOW CLEANERS INC.

EXPERT FINISHING • ALL LEATHER GOODS

MAIN OFFICE & PLANT

38 WEST SONORA ST.
STOCKTON, CA 95203

2013-03-25, 2013



RECEIVED

By Alameda County Environmental Health at 9:40 am, Mar 27, 2013

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING, SAMPLING AND
REMEDATION STATUS REPORT CERTIFICATION
ACEH Case # RO 0000357
Snow Cleaners
2678 Coolidge Avenue
Oakland, CA

Dear Mr. Wickham:

You will find enclosed one copy of the following document prepared by P&D Environmental, Inc.

- Groundwater Monitoring, Sampling And Remediation Status Report dated March 25, 2013 (document 0298.R16).

I declare, under penalty of perjury, that the information and/or recommendations contained in the above-mentioned work plan for the subject site is true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to call me at (800) 818-7669.

Cordially,
Snow Cleaners, Inc.

Harold Turner
President

Cc: Mr. LeRoy Griffin, Oakland Fire Department, Emergency Services, 250 Frank Ogawa Plaza, Suite 3341, Oakland, CA 94612 (with enclosure)

0298.L85

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave, Suite 240
Oakland, CA 94610
(510) 658-6916

March 25, 2013
Report 0298.R16

Mr. Harold Turner
Snow Cleaners, Inc.
2678 Coolidge Avenue
Oakland, CA

**SUBJECT: SEMI-ANNUAL GROUNDWATER MONITORING, SAMPLING AND
REMEDICATION STATUS REPORT**
ACDEH Case # RO 0000357
Snow Cleaners
2678 Coolidge Avenue
Oakland, CA

Dear Mr. Turner:

P&D Environmental Inc. (P&D) has prepared this report documenting the monitoring and sampling of four groundwater monitoring wells designated as MW1 through MW4 located near the subject site, and four groundwater extraction wells designated as DP1 through DP4 located at the subject site. All of the wells in the groundwater monitoring network were monitored on December 12, 2012 and all of the wells were sampled on December 12, 2012 except for DP2 and DP3 which were sampled on December 13, 2012. A Site Location Map is attached as Figure 1, and a Site Vicinity Map Detail showing all of the well locations is attached as Figure 2.

BACKGROUND

Underground Storage Tanks (USTs) associated with the former dry cleaning facility were removed and associated limited excavation of the UST pit was performed by others in 1990. In January, 1994 two groundwater monitoring wells (MW1 and MW2) were installed by others at offsite locations in Davis Street approximately five feet south of the former UST pit. P&D subsequently oversaw the installation of groundwater monitoring wells MW3 and MW4 at offsite locations on September 9, 2008. A detailed discussion of the site background and historical monitoring, sampling, and investigation are provided in P&D's Subsurface Investigation Report dated August 19, 2009 (document 0298.R6). On September 27 through 29, 2010 P&D oversaw the installation of dual-phase extraction wells DP1 through DP4, and vapor extraction wells VE1 and VE2. A detailed discussion of well installation is provided in P&D's Well Installation Report dated December 2, 2010 (document 0298.R11). The initial monitoring and sampling of the new wells was performed on October 15, 2010 in conjunction with the periodic monitoring and sampling of the existing offsite groundwater monitoring wells. Documentation of the October 15, 2010 sampling event is provided in P&D's Semi-Annual Groundwater Monitoring and Sampling Report (document 0298.R12) dated December 17, 2010.

In December 2010 a vapor extraction feasibility test was performed at well DP1. During 2011 a discharge permit was obtained from East Bay Municipal Utility District (EBMUD), a pump was installed in well DP1, and groundwater extraction feasibility testing was performed. Documentation of the vapor extraction and groundwater extraction feasibility testing is provided in P&D's Vapor Extraction and Groundwater Extraction Feasibility Test Report (document 0298.R13) dated January 24, 2012.

FIELD ACTIVITIES

P&D personnel monitored offsite groundwater monitoring wells MW1, MW2, MW3, and MW4, and onsite extraction wells DP1, DP2, DP3, and DP4 for depth to water on December 12, 2012 to the nearest 0.01 foot using an electric water level indicator. A summary of the depth to water measurements is attached with this report as Table 1.

P&D personnel attempted to measure the depth to water and depth to free product using a steel tape and water-finding and product-finding paste in well DP1, but due to pumping and associated draw down in the well at the time of monitoring it was not possible to extend measuring equipment past the pump to the water level.

Following the measurement of depth to water on December 12, 2012 each of the groundwater monitoring and extraction wells were purged with a peristaltic pump for a minimum of 15 minutes prior to being sampled. All of the wells were sampled on December 12, 2012 except for DP2 and DP3 which were sampled on December 13, 2012. Purging was performed at low flow rates to minimize turbulence and minimize the likelihood of sediments in the samples. During purging operations, the field parameters of electrical conductivity, temperature, pH, dissolved oxygen (DO), oxidation reduction potential (ORP), turbidity, and depth to water were monitored and recorded on a groundwater monitoring/well purging data sheet. Petroleum hydrocarbon odors were detected on the purge water from wells MW2, DP1, DP2, DP3, and DP4. Petroleum hydrocarbon sheen was not observed on the purge water from any of the wells, with the exception of DP2. As mentioned above, it was not possible to monitor well DP1 for the presence of free product or sheen because of active pumping in the well. Because continuous pumping was occurring at well DP1, the well was not purged prior to collection of the groundwater sample from this well using the peristaltic pump. Records of the field parameters measured during well purging are included with this report.

Once the field parameters were observed to stabilize, and the wells had been purged for a minimum of 15 minutes, water samples were collected directly from the discharge tubing from the pump. The samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles that were preserved with hydrochloric acid and sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present. The VOA vials and bottles were then labeled and transferred to a cooler with ice, pending transport to the laboratory. Chain of custody procedures were observed for all sample handling. Records of the field parameters measured during well purging are attached with this report.

During purging operations effervescing was observed in the groundwater samples collected from wells that exhibited the lowest DO and ORP values. Based on a telephone call with Jerry Wickham

regarding evaluation of the gases that were causing the effervescing, it was agreed that analysis would be performed for all of the samples for dissolved gases.

GEOLOGY AND HYDROGEOLOGY

Review of Figure 1 shows that the site is located near the top of a northeasterly-trending interfluvial (ridge-like) structure. The topography in the area surrounding the site slopes to the east and south. Peralta Creek is located approximately 500 feet to the east and approximately 400 feet to the southeast of the subject site. The creek flows towards the southwest. Portions of the creek located directly to the east of the site are lined with concrete. Based on evaluation of the concrete channel for Peralta Creek that is located beneath Davis Street, the water that flows through Peralta Hacienda Historic Park is not the same water that flows in Peralta Creek on the north side of Davis Street.

The site geology and hydrogeology are complex, and a detailed discussion of the site geology and hydrogeology is provided in P&D's Subsurface Investigation Report dated August 19, 2009 (document 0298.R6). The interpreted groundwater flow direction in the vicinity of the site was developed using multiple lines of evidence (topography, lithology, soil discoloration, contaminant concentration distribution, and the measured depth to water in the different wells).

Groundwater is interpreted to generally move in an unconfined A-water-bearing zone in the immediate vicinity of the site northeastwards and eastwards in the vicinity of the former UST pit and then towards the southeast (towards Peralta Creek) to the north of the former UST pit, based on the elevations and slope of the surface of the fine-grained materials that are encountered beginning at a depth of approximately 25 feet below the ground surface (bgs) in the vicinity of the site. Based on the presence of coarse-grained materials at depths greater than 30 feet bgs that are located between borehole B6 and well MW3, groundwater is interpreted to move vertically in a southerly-trending paleo-channel from the unconfined A-water-bearing zone to a confined B-water-bearing zone in the area between the northeast side of well DP2 at the subject site and 34th Avenue, and then move horizontally in the B-water-bearing zone to the south towards Peralta Creek and Peralta Hacienda Historical Park.

Review of Table 1 and Figure 2 shows that historically there has been a difference in water table elevation of as much as approximately 4.5 to 5.0 feet between wells DP2 and DP1. The horizontal distance is approximately 18 feet between these two wells, and the location of this change in water table elevation corresponds with an increase in depth to fine-grained materials which are encountered at a depth of approximately 22 to 25 feet bgs between well DP2 and Davis Street to the southwest. Based on the depth of approximately 22 to 25 feet bgs to fine-grained materials between well DP2 and Davis Street to the southwest, the thickness of the water layer overlying the fine-grained materials to the southwest of DP2 ranges seasonally between approximately 1 and 4 feet. The depth to fine-grained materials and the saturated thickness of the water-bearing sediments to the northeast of DP2 is unknown. A discussion of geologic cross sections in P&D's Well Installation Report dated December 2, 2010 (document 0298.R11) identifies a east-northeasterly-trending channel in the surface of the fine-grained materials that drains the area beneath the former UST pit towards the northeast and towards the change in water table elevation of approximately 4.5 to 5.0 feet that has historically been located between wells DP2 and DP1.

Based on water level information available (see Table 1) the historically measured depth to water in the offsite groundwater monitoring wells MW1 through MW4 has ranged from 11.49 to 18.83 feet in well MW2; 16.95 to 22.97 feet in well MW3 (after September 19, 2008); 19.07 to 23.92 feet in well MW1; and 21.18 to 25.86 feet in well MW4. Review of historical groundwater monitoring well water levels shows that the water levels in wells MW2 and MW3 (screened in the A-water-bearing zone) have been consistently similar, and that the water levels in wells MW1 and MW4 (screened in the B-water-bearing zone) have been consistently similar, with a difference of approximately 6 to 7 feet in the elevations between the two sets of wells during dry season months and a difference of approximately 8 to 10 feet during wet season months. The water elevations in the wells that are screened in the A-water-bearing zone are higher than the water elevations in the wells that are screened in the B-water-bearing zone. Additionally, both the A-water-bearing zone and the B-water-bearing zone respond similarly to seasonal changes in water levels, with a seasonal vertical range of water elevations to date of approximately 7.0 feet in wells MW2 and MW3, and approximately 4.0 feet in wells MW1 and MW4. Historical well water levels are shown for August 2009 through June 2012 in Figure 3 to illustrate the relationships of water level changes for wells MW1 through MW4.

Figure 4 shows water level changes in all of the wells for October 2010 through June 2012 (wells DP1 through DP4 were not installed until September 2010). Review of Figure 4 shows the following.

- Water levels in wells MW2, DP2 and DP3 are similar.
- Water levels and changes in water levels in wells DP1 and DP4 are similar (the water level in well DP1 was depressed in June 2011 because of groundwater extraction in well DP1).
- Water levels and changes in water levels in wells MW1 and MW4 are similar.
- Changes in water levels in wells DP2 and DP3 are similar.

Water level monitoring was not performed in any of the wells between the beginning of December 2011 and the end of December 2012. For this reason elevated water levels historically measured in the wells during this time period were not recorded and are not shown on Figures 3 and 4.

LABORATORY RESULTS

All of the groundwater samples were analyzed at McCampbell Analytical, Inc. (McCampbell) of Pacheco, California. McCampbell is a State-accredited hazardous waste testing laboratory. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G) and for Total Petroleum Hydrocarbons as Stoddard solvent (TPH-SS) by EPA Methods 5030B in conjunction with modified EPA Method 8015B, and for Total Petroleum Hydrocarbons as Diesel (TPH-D) and for Total Petroleum Hydrocarbons as Bunker Oil (TPH-BO) by EPA Method 3510C in conjunction with EPA Method 8015B. In addition, all of the samples were analyzed for Volatile Organic Compounds (VOCs) including Methyl tert-Butyl Ether (MTBE); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and halogenated volatile organic compounds (HVOCs) by EPA Method 8260B, and for ethane, ethane, and methane by EPA Method RSK175. The groundwater sample results for TPH, MTBE, BTEX, and HVOCs are summarized in Table 2. The ORP, DO and dissolved gas results are summarized in Table 3. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

No analytes were detected in the groundwater sample collected from wells MW1, MW3, and MW4 with the exception of 0.97 micrograms per liter (ug/L) chloroform in well MW1, and 1.5 ug/L chloroform and 15 ug/L cis-1,2-Dichloroethene (cis-1,2-DCE) in well MW4.

In well DP4 no petroleum hydrocarbons were detected, and the only analytes detected were Tetrachloroethene (PCE), Trichloroethene (TCE), cis-1,2-DCE, and chloroform at concentrations of 20, 10, 3.6, and 0.60 ug/L, respectively.

In the remaining wells MW2, DP1, DP2, and DP3 TPH-G was detected at concentrations of 1,100, 4,500, 670, and 830 ug/L, respectively; TPH-SS was detected at concentrations of 1,200, 2,300, 640, and 900 ug/L, respectively; TPH-D was detected at concentrations of 2,300, 7,200, 1,500, and 5,200 ug/L, respectively; and TPH-BO was detected at concentrations of 2,500, 9,400, 1,700, and 5,500 ug/L, respectively. Review of the laboratory report shows that the laboratory described the TPH-G and TPH-SS results for wells MW2, DP2, DP3 as consisting of strongly aged gasoline or diesel-range compounds; the results for well DP1 as consisting of Stoddard solvent/mineral spirits-range compounds; and the samples from wells MW2, DP1, and DP2 as also having one to a few isolated peaks present in the TPH-G chromatogram.

The TPH-D and TPH-BO results for wells DP2 and DP3 are described by the laboratory as consisting of kerosene or jet fuel-range compounds. The TPH-D and TPH-BO results for well MW2 are described as consisting of both gasoline-range compounds and kerosene or jet fuel-range compounds, and the TPH-D and TPH-BO results for well DP1 are described as consisting of Stoddard solvent/mineral spirits-range compounds, diesel-range compounds with no recognizable pattern, and oil-range compounds.

PCE and associated decomposition products were detected as follows:

- PCE was detected in wells DP1 and DP4 at concentrations of 4,100 and 20 ug/L, respectively.
- Trichlorethene was detected in wells DP1 and DP4 at concentrations of 3,800 and 10 ug/L, respectively.
- Cis-1,2-DCE was detected in wells MW2, MW4, DP1, DP2, DP3, and DP4 at concentrations of 790, 15, 5,200, 17,000, 36, and 3.6 ug/L, respectively.
- Trans-1,2-dichloroethene was detected in well DP3 at a concentration of 3.1 ug/L.
- Vinyl chloride was detected in wells MW2, DP1, DP2, and DP3 at concentrations of 110, 290, 1,200, and 47 ug/L, respectively.

Additional petroleum-related volatile organic compounds and chloroform were also detected at various concentrations in different wells (see Table 2).

Ethane, ethene, and methane were not detected in well MW1, and ethane and ethane were also not detected in wells MW3, MW4, and DP4. Ethene was detected in wells DP2 and DP3 at concentrations of 1.0 and 1.4 ug/L, respectively, and ethane was detected in wells MW2, DP1, DP2, and DP3 at concentrations of 3.7, 5.4, 19, and 2.7 ug/L, respectively. Methane was detected in wells MW2, MW3, MW4, DP1, DP2, DP3, and DP4 at concentrations of 5,200, 2.2, 0.27, 150, 2,600, 7,400, and 3.1 ug/L, respectively.

REMEDIATION STATUS

Groundwater pumping from well DP1 was restarted on August 28, 2012. The most current reading prior to publication of this report was on March 21, 2013. Between August 28, 2012 and March 21, 2013 a total of 82,242 gallons were discharged to the sanitary sewer. A summary table of the volume of water discharged to date is provided as Table 4.

Based on a communication with Ms. Flora Chan at the Bay Area Air Quality Management District (BAAQMD) Application No. 25084 was determined to be complete on March 13, 2013 for installation and operation of a soil vapor extraction system at the site. However, the BAAQMD must still complete a health risk screening analysis (HRSA) and a public notice prior to approval of the application. The dates for completion of the HRSA and the public notice are currently unknown.

DISCUSSION AND RECOMMENDATIONS

All of the groundwater monitoring wells and dual phase extraction wells were sampled on December 12, 2012. Petroleum hydrocarbon odors were detected on the purge water from wells MW2, DP1, DP2, DP3, and DP4. Petroleum hydrocarbon sheen was not observed on the purge water from any of the wells, with the exception of DP2. Groundwater extraction was occurring in well DP1 on the days that the wells were monitored and sampled, and it was not possible to measure free product thickness or the presence of sheen in well DP1.

The water level in well DP2 was 16.08 feet higher than the water level in well DP1, which is located 18 feet horizontally from well DP1. This difference in water levels is attributed to the on-going groundwater pumping in well DP1. A detailed discussion of the similarities and relationships of water level changes in the different wells is provided above in the geology and hydrogeology section of this report. Based on the geology identified in boreholes at and near these wells the groundwater drains from the vicinity of the former UST pit and the vicinity of wells DP2, DP3 and MW2 northeastwards towards well DP1. A detailed discussion of the extent of petroleum and HVOCs in groundwater with figures is provided in P&D's Well Installation Report dated December 2, 2010 (document 0298.R11). A detailed discussion of observations regarding the extent of petroleum hydrocarbons and HVOCs in groundwater is also provided in P&D's December 17, 2010 Groundwater Monitoring and Sampling Report (document 0298.R12).

Review of Table 2 shows that groundwater analyte concentrations increased or remained not detected in all of the wells with the following exceptions where analyte concentrations decreased.

- MW1: chloroform
- DP2: TPH-G and TPH-SS
- DP3: TPH-SS, ethylbenzene, xylenes, trans-1,2-DCE, and naphthalene
- DP4: TPH-G, TPH-SS, and chloroform.

During purging operations effervescing was observed in the groundwater samples collected from wells that exhibited the lowest DO and ORP values. Based on a telephone call with Jerry Wickham regarding evaluation of the gases that were causing the effervescing, it was agreed that analysis would be performed for all of the samples for dissolved gases. Review of Table 3 shows that the

lowest DO and ORP values correspond with the highest dissolved methane concentrations. The low values for DO and ORP and the elevated methane concentrations indicate that anaerobic decomposition is occurring in the area of these three wells.

Based on the sample results P&D recommends that semi-annual groundwater sampling of the wells be continued, that groundwater extraction be continued at well DP1, and that the soil vapor extraction system be started once approval is provided by the BAAQMD.

DISTRIBUTION

A copy of this report will be uploaded to the ACDEH website, in accordance with ACDEH requirements. In addition, a copy of this report will be uploaded to the GeoTracker database, and one copy of this report will be mailed to LeRoy Griffin of the City of Oakland Fire Department

LIMITATIONS

This report was prepared solely for the use of Snow Cleaners, Inc. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

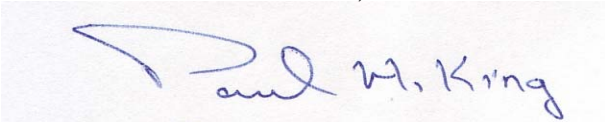
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

March 25, 2013
Report 0298.R16

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King
President
Professional Geologist #5901
Expires: 12/31/13



Attachments:

- Table 1 - Summary of Groundwater Elevation Data
- Table 2 - Summary of Groundwater Sample TPH, VOC and Dissolved Gas Results
- Table 3 - Summary of ORP, DO and Dissolved Gases Groundwater Sample Results
- Table 4 - Summary of Well DP1 Groundwater Totalizer Readings and Discharge Volumes

Figure 1 - Site Location Map

Figure 2 - Site Vicinity Map Detail Showing Well Locations

Figure 3 - Graph of Water Levels in Site Groundwater Monitoring Network Wells for August 2009 Through June 2012

Figure 4 - Graph of Water Levels in Site Groundwater Monitoring Network Wells for October 2010 Through June 2012

Groundwater Monitoring/Well Purging Data Sheets
Laboratory Reports and Chain of Custody Documentation

PHK/sjc
0298.R16

TABLES

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA

Well No	Date	Top Of Casing Elevation (ft)	Depth To Water (ft)	Water Table Elevation (ft)	Change in Water Table Elevation
MW1	12/12/2012	132.78	21.38	111.40	0.66
	6/28/2012		22.04	110.74	0.51
	12/5/2011		car parked on well	could not measure	
	9/2/2011		22.55	110.23	-1.62
	6/1/2011		20.93	111.85	-0.52
	5/20/2011		20.41	112.37	-0.95
	4/15/2011		19.46	113.32	-0.21
	3/18/2011		19.25	113.53	2.65
	2/18/2011		21.90	110.88	-1.14
	1/21/2011		20.76	112.02	2.39
	12/10/2010		23.15	109.63	0.70
	11/19/2010		23.85	108.93	0.07
	10/15/2010		23.92	108.86	-0.42
	9/22/2010		23.50	109.28	-0.63
	8/20/2010		22.87	109.91	-0.86
	7/16/2010		22.01	110.77	-0.95
	6/18/2010		21.06	111.72	-0.80
	5/21/2010		20.26	112.52	-1.02
	4/16/2010		19.24	113.54	-0.17
	3/19/2010		19.07	113.71	1.49
	2/19/2010		20.56	112.22	0.52
	1/27/2010		21.08	111.70	2.28
	12/1/2009		23.36	109.42	0.06
	11/30/2009		23.42	109.36	-0.32
	11/25/2009		car parked on well	could not measure	
	10/29/2009		23.10	109.68	0.30
	9/24/2009		23.40	109.38	-0.52
	8/20/2009		22.88	109.90	0.12
	9/26/2008		23.00	109.78	0.02
	9/18/2008		23.02	109.76	-2.37
	2/20/2003		20.65	112.13	-0.59
	1/18/2003		20.06	112.72	
	MW2		12/12/2012	133.59	13.71
6/28/2012		16.01	117.58		2.09
12/5/2011		18.10	115.49		-1.04
9/2/2011		17.06	116.53		-1.99
6/1/2011		15.07	118.52		-1.04
5/20/2011		14.03	119.56		-2.99
4/15/2011		11.04	122.55		0.57
3/18/2011		11.61	121.98		2.09
2/18/2011		13.70	119.89		0.20
1/21/2011		13.90	119.69		1.88
12/13/2010		15.78	117.81		-0.05
12/10/2010		15.73	117.86		0.96
11/23/2010		16.69	116.90		0.97
11/19/2010		17.66	115.93		-0.07
11/12/2010		17.59	116.00		0.47
10/15/2010		18.06	115.53		-0.34
9/22/2010		17.72	115.87		-0.37
8/20/2010		17.35	116.24		-0.60
7/16/2010		16.75	116.84		-1.34
6/18/2010		15.41	118.18		-1.37
5/21/2010		14.04	119.55		-2.25
4/16/2010		11.79	121.80		-0.30
3/19/2010		11.49	122.10		1.91
2/19/2010		13.40	120.19		-0.65
1/27/2010		12.75	120.84		5.71
12/1/2009		18.46	115.13		-1.00
11/30/2009		car parked on well	could not measure		
11/25/2009		car parked on well	could not measure		
10/29/2009		17.46	116.13		1.37
9/24/2009		18.83	114.76		-0.37
8/20/2009		18.46	115.13		0.04
9/18/2008		18.50	115.09		-5.41
2/20/2003		13.09	120.50		-1.54
1/18/2003	11.55*	122.04			
MW3	12/12/2012	136.35	17.87	118.48	2.90
	6/28/2012		20.77	115.58	-0.26
	12/5/2011		20.51	115.84	0.78
	9/2/2011		21.29	115.06	-1.34
	6/1/2011		19.95	116.40	-0.98
	5/20/2011		18.97	117.38	-2.45
	4/15/2011		16.52	119.83	0.67
	3/18/2011		17.19	119.16	1.40
	2/18/2011		18.59	117.76	-0.51
	1/21/2011		18.08	118.27	1.20
	12/10/2010		19.28	117.07	1.87
	11/19/2010		21.15	115.20	1.82
	10/15/2010		22.97	113.38	-0.42
	9/22/2010		22.55	113.80	-0.93
	8/20/2010		21.62	114.73	-1.25
	7/16/2010		20.37	115.98	-1.05
	6/18/2010		19.32	117.03	-0.59
	5/21/2010		18.73	117.62	-1.34
	4/16/2010		17.39	118.96	-0.44
	3/19/2010		16.95	119.40	1.01
	2/19/2010		17.96	118.39	-0.25
	1/27/2010		17.71	118.64	3.45
	12/1/2009		21.16	115.19	-0.02
	11/30/2009		21.14	115.21	-0.12
	11/25/2009		21.02	115.33	-1.07
	10/29/2009		19.95	116.40	1.72
	9/24/2009		21.67	114.68	-0.59
	8/20/2009		21.08	115.27	-0.17
	9/26/2008		20.91	115.44	2.78
	9/19/2008		23.69	112.66	4.37
	9/18/2008		28.06	108.29	5.25
	9/15/2008		33.31	103.04	-6.51
	9/15/2008		26.80	109.55	

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA

Well No	Date	Top Of Casing Elevation (ft)**	Depth To Water (ft)	Water Table Elevation (ft)	Change in Water Table Elevation	
MW4	12/12/2012	134.09	23.39	110.70	0.69	
	6/28/2012		24.08	110.01	1.12	
	12/5/2011		25.20	108.89	-0.65	
	9/2/2011		24.55	109.54	-1.57	
	6/1/2011		22.98	111.11	-0.52	
	5/20/2011		22.46	111.63	-1.87	
	4/15/2011		20.59	113.50	0.76	
	3/18/2011		21.35	112.74	1.59	
	2/18/2011		22.94	111.15	-0.16	
	1/21/2011		22.78	111.31	2.32	
	12/10/2010		25.10	108.99	0.69	
	11/19/2010		25.79	108.30	0.07	
	10/15/2010		25.86	108.23	-0.39	
	9/22/2010		25.47	108.62	-0.62	
	8/20/2010		24.85	109.24	-0.82	
	7/16/2010		24.03	110.06	-0.92	
	6/18/2010		23.11	110.98	-0.78	
	5/21/2010		22.33	111.76	-0.97	
	4/16/2010		21.36	112.73	-0.18	
	3/19/2010		21.18	112.91	1.41	
	2/19/2010		22.59	111.50	0.52	
	1/27/2010		23.11	110.98	2.20	
	12/1/2009		25.31	108.78	0.06	
	11/30/2009		25.37	108.72	-0.11	
	11/25/2009		25.26	108.83	-0.20	
	10/29/2009		25.06	109.03	0.31	
	9/24/2009		25.37	108.72	-0.51	
	8/20/2009		24.86	109.23	0.14	
	9/26/2008		25.00	109.09	0.00	
	9/19/2008		25.00	109.09	0.02	
	9/18/2008		25.02	109.07	0.09	
	9/15/2008		25.11	108.98	-0.08	
9/15/2008	134.09	25.03	109.06			
DP1	12/12/2012	137.22	34.72	102.50	-13.79	
	6/28/2012		20.93	116.29	4.05	
	12/5/2011		25.17 (0.25) ##	112.24	-2.73	
	9/2/2011		22.25	114.97	1.44	
	6/1/2011		23.69	113.53		
	5/20/2011		Adjusting pump rates - water level fluctuating.			
	4/15/2011		14.19	123.03	1.46	
	3/18/2011		15.65	121.57	3.26	
	2/18/2011		18.91	118.31	-1.08	
	1/21/2011		17.83	119.39	7.08	
	12/13/2010		24.91	112.31	0.50	
	12/10/2010		25.41	111.81	1.06	
	11/23/2010		26.47	110.75	0.24	
	11/19/2010		26.71	110.51	0.13	
	11/12/2010	137.22	26.84	110.38	-0.33	
	10/15/2010		25.68	110.71	-0.26	
	10/5/2010*		25.42	110.97	0.33	
	9/28/2010*	136.39	25.75	110.64		
	DP2	12/12/2012	136.59	18.01	118.58	1.14
		6/28/2012		19.15	117.44	2.01
		12/5/2011		21.16	115.43	-0.79
9/2/2011			20.37	116.22	-1.89	
6/1/2011			18.48	118.11		
5/20/2011			Not Measured			
4/15/2011			13.12	123.47	1.06	
3/18/2011			14.18	122.41	2.73	
2/18/2011			16.91	119.68	-0.17	
1/21/2011			16.74	119.85	3.40	
12/13/2010			20.14	116.45	-0.01	
12/10/2010			20.13	116.46	0.81	
11/23/2010			20.94	115.65	0.71	
11/19/2010			21.65	114.94	-0.07	
11/12/2010		136.59	21.58	115.01	0.35	
10/15/2010			21.11	114.66	-0.15	
10/5/2010*			20.96	114.81	-1.39	
9/28/2010*		135.77	19.57	116.20		
DP3		12/12/2012	135.75	16.06	119.69	1.92
	6/28/2012		17.98	117.77	2.22	
	12/5/2011		20.20	115.55	0.33	
	9/2/2011		19.07	116.68	1.31	
	6/1/2011		17.09	118.66		
	5/20/2011		Not Measured			
	4/15/2011		12.35	123.40	0.95	
	3/18/2011		13.30	122.45	2.60	
	2/18/2011		15.90	119.85	-0.27	
	1/21/2011		15.63	120.12	2.61	
	12/13/2010		18.24	117.51	0.11	
	12/10/2010		18.35	117.40	0.91	
	11/23/2010		19.26	116.49	0.89	
	11/19/2010		20.15	115.60	-0.09	
	11/12/2010	135.75	20.06	115.69	0.47	
	10/15/2010		19.29	115.22	-0.15	
	10/5/2010*		19.14	115.37	0.28	
9/28/2010*	134.51	19.42	115.09			
DP4	12/12/2012	137.60	19.57	118.03	0.09	
	6/28/2012		19.66	117.94	3.52	
	12/5/2011		23.18	114.42	-2.00	
	9/2/2011		21.18	116.42	-1.87	
	6/1/2011		19.31	118.29		
	5/20/2011		Not Measured			
	4/15/2011		13.14	124.46	1.28	
	3/18/2011		14.42	123.18	3.13	
	2/18/2011		17.55	120.05	-0.46	
	1/21/2011		17.09	120.51	6.76	
	12/13/2010		23.85	113.75	0.76	
	12/10/2010		24.61	112.99	1.63	
	11/23/2010		26.24	111.36	0.21	
	11/19/2010		26.45	111.15	0.16	
	11/12/2010	137.60	26.61	110.99	-0.38	
	10/15/2010		25.40	111.37	-0.37	
	10/5/2010*		25.03	111.74	0.79	
9/28/2010*	136.77	25.82	110.95			

NOTES:

Top of well casing amended on 11/12/2010 in preparation for vapor extraction pilot test

* = Prior to well development.

** = Wells MW3 and MW4 surveyed on September 22-23, 2008; wells DP1 through DP4 surveyed on October 5, 2010

= Depth to water not corrected for free product thickness; free product with thickness of 0.02 feet encountered.

= Indicates free product thickness in feet. The water table elevation has been corrected for the presence of free product by assuming a specific gravity of 0.75

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE TPH, VOC, AND DISSOLVED GAS RESULTS

Well Number	Sample Date	TPH-G	TPH-SS	TPH-D	TPH-MO	TPH-BO	VOCs by 8260B	Ethane	Ethene	Methane	
MW1	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform = 0.97	ND<0.2	ND<0.2	ND<0.1	
	6/29/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Tetrachloroethene = 1.2, cis-1,2-Dichloroethene = 3.0, Chloroform = 1.2	NA	NA	NA	
	12/6/2011	Well Inaccessible; car parked on top of well.									
	10/15/2010	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform=0.85	NA	NA	NA	
	5/21/2010	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform=0.80	NA	NA	NA	
	12/1/2009	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform=0.71	NA	NA	NA	
	9/18/2008	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform=0.74	NA	NA	NA	
	10/27/2004	ND<50	ND<50	ND<50	ND<250	NA	ND, except: Chloroform=0.78	NA	NA	NA	
	2/20/2003	ND<50	ND<50	ND<50	ND<250	NA	ND, except: Chloroform=1.2, Xylenes = 0.61	NA	NA	NA	
	5/15/1995	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA	
	12/22/1994	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA	
	9/14/1994	ND, a	NA	NA	NA	NA	** ND	NA	NA	NA	
7/29/1994	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA		
5/31/1994	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA		
1/24/1994	ND<50	NA	ND	NA	NA	** ND	NA	NA	NA		
MW2	12/12/2012	1,100, a,n	1,200, a,n	2,300, l,m	NA	2,500, L,m	ND, except: cis-1,2-Dichloroethene = 790 , 1,2,4-Trimethylbenzene = 59, Vinyl Chloride = 110	2.3	3.7	5,200	
	6/29/2012	600, a,g	970, a,g	1,400, i,j,l	NA	1,600, i,j,l	ND, except: Toluene = 7.6, Xylenes = 12, cis-1,2-Dichloroethene = 190 , trans-1,2-Dichloroethene = 18 , Vinyl Chloride = 82 , Carbon disulfide = 5.1, 1,2,4-Trimethylbenzene = 38, 1,3,5-Trimethylbenzene = 9.1	NA	NA	NA	
	12/5/2011	1,200, a,g	1,800, a,g	2,400, h,i	NA	2,700, h,i	ND, except: Toluene = 15, Ethylbenzene = 18, Xylenes = 57 , cis-1,2-Dichloroethene = 310 , trans-1,2-Dichloroethene = 12 , Naphthalene = 9.8, Vinyl Chloride = 50 , n-Butyl benzene = 5.3, Isopropylbenzene = 12, sec-Butyl benzene = 8.4, n-Propyl benzene = 17, 1,2,4-Trimethylbenzene = 120, 1,3,5-Trimethylbenzene = 35,	NA	NA	NA	
	10/15/2010	3,600, a,b,g	3,900, a,b,g	25,000, b,h,i,j	NA	22,000, b,h,i,j	ND, except: cis-1,2-dichloroethene = 1,500 , Vinyl Chloride = 160 , 1,2,4-Trimethylbenzene = 100	NA	NA	NA	
	5/21/2010	2,400, g	2,500, g	3,900, h,i,j	NA	4,700, h,i,j	ND, except: cis-1,2-dichloroethene = 1,700 , Vinyl Chloride = 180 , 1,2,4-Trimethylbenzene = 89	NA	NA	NA	
	12/1/2009	34,000, b,c	47,000, b,c	74,000, b,d,e,f	NA	91,000, b,d,e,f	ND, except: cis-1,2-dichloroethene = 1,800 , Vinyl Chloride = 73 , 1,2,4-Trimethylbenzene = 140	NA	NA	NA	
	9/18/2008	11,000, c,b	14,000	28,000, b,d,e	NA	33,000	ND, except: cis-1,2-dichloroethene = 880 , Vinyl Chloride = 44 , Xylenes = 46 , 1,2,4-Trimethylbenzene = 140, 1,3,5-Trimethylbenzene = 41	NA	NA	NA	
	10/27/2004	320,000, c	500,000	280,000, b,d, f	ND<50,000	NA	ND, except: cis-1,2-dichloroethene = 3,300	NA	NA	NA	
	2/20/2003	76,000, b,c	75,000	370,000, b,d,f	37,000	NA	ND, except: Toluene = 47 , Ethylbenzene = 43 , Xylenes = 160 , cis-1,2-Dichloroethene = 360 , trans-1,2-Dichloroethene = 22 , n-Butyl benzene = 43, Isopropylbenzene = 35, sec-Butyl benzene = 48, n-Propyl benzene = 86, 4-Isopropyl toluene = 25, 1,3,5-Trimethylbenzene = 160, Naphthalene = 32, Vinyl Chloride = 24	NA	NA	NA	
	5/15/1995	12,000, c	NA	NA	NA	NA	**Benzene = 17 , **Toluene = 96 , **Ethylbenzene = 50 , **Xylenes = 200	NA	NA	NA	
	12/22/1994	20,000, a,c	NA	NA	NA	NA	**Benzene = 22 , **Toluene = 170 , **Ethylbenzene = 89 , **Xylenes = 470	NA	NA	NA	
	12/22/1994	--	--	--	--	--	ND, except: +Benzene = 21 , +Toluene = 170 , +Ethylbenzene = 48 , +Xylenes = 180 , +cis-1,2-Dichloroethene = 1,100 , +trans-1,2-Dichloroethene = 15 , +1,1-Dichloroethane = 2.8, +Chloroethane = 6.7 **Benzene = ND < 15	NA	NA	NA	
	9/14/1994	200,000, b,c	NA	NA	NA	NA	**Toluene = 170 , **Ethylbenzene = 400 , **Xylenes = 2,600	NA	NA	NA	
	9/14/1994	--	--	--	--	--	ND, except: +Benzene = 24 , +Toluene = 440 , +Ethylbenzene = 300 , +Xylenes = 830 , +cis-1,2-dichloroethene = 720 , +Chloroform = 25, +Acetone = 120	NA	NA	NA	

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE TPH, VOC, AND DISSOLVED GAS RESULTS

Well Number	Sample Date	TPH-G	TPH-SS	TPH-D	TPH-MO	TPH-BO	VOCs by 8260B	Ethane	Ethene	Methane
MW2 Continued	7/29/1994	21,000, b, c	NA	NA	NA	NA	**Benzene = 21, **Toluene = 150, **Ethylbenzene = 53, **Xylenes = 150	NA	NA	NA
	5/31/1994	6,400, c	NA	NA	NA	NA	**Benzene = 15, **Toluene = 100, **Ethylbenzene = 43, **Xylenes = 220	NA	NA	NA
	1/28/1994	2,800, c	NA	12,000, d	NA	NA	ND, except: **Xylenes = 43	NA	NA	NA
	1/19/1994++	3,400, c	NA	20,000	NA	NA	**Benzene = 15, **Toluene = 180, **Ethylbenzene = 39, **Xylenes = 200	NA	NA	NA
MW3	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	ND	ND<0.2	ND<0.2	2.2
	6/29/2012	ND<50	ND<50	ND<50	NA	ND<100	ND	NA	NA	NA
	12/5/2011	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Carbon disulfide = 1.9	NA	NA	NA
	10/15/2010	ND<50	ND<50	ND<50	NA	ND<100	ND	NA	NA	NA
	5/21/2010	ND<50	ND<50	ND<50	NA	ND<100	ND	NA	NA	NA
	12/1/2009	ND<50	ND<50	63, e	NA	120, e	ND	NA	NA	NA
	9/18/2008	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Bromoform = 0.57, Chloroform = 1.3	NA	NA	NA
MW4	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 15, Chloroform = 1.5	ND<0.2	ND<0.2	0.27
	6/29/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 12, Chloroform = 1.2	NA	NA	NA
	12/5/2011	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 12, Chloroform = 1.2	NA	NA	NA
	10/15/2010	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 8.4, Trans-1,2-dichloroethene = 0.84, Chloroform = 1.3	NA	NA	NA
	5/21/2010	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 8.7, Chloroform = 1.3	NA	NA	NA
	12/1/2009	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 5.8, Chloroform = 0.97	NA	NA	NA
	9/18/2008	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Cis-1,2-dichloroethene = 4.8, Chloroform = 0.96	NA	NA	NA
	DP1	12/12/2012	4,500, a,g	2,300, a,g	7,200, h,i,j	NA	9,400, h,i,j	ND, except: Tetrachloroethene = 4,100, Trichloroethene = 3,800, cis-1,2-Dichloroethene = 5,200, Vinyl Chloride = 290	ND<0.40	5.4
6/29/2012		1,100, a	73, a	84, i	NA	190, i	ND, except: Tetrachloroethene = 2,400, Trichloroethene = 650, cis-1,2-Dichloroethene = 110	NA	NA	NA
12/6/2011		2,000, a,g	940, a,g	47,000, h,i,j	NA	59,000, h,i,j	ND, except: Tetrachloroethene = 2,800, Trichloroethene = 850, cis-1,2-Dichloroethene = 260	NA	NA	NA
10/15/2010		10,000, b,g,k	5,100, b,g	9,000, b,h,j	NA	9,800, b,h,j	ND, except: Cis-1,2-dichloroethene = 17,000, Vinyl Chloride = 2,600	NA	NA	NA
DP2	12/12/2012	670, a,n	640, a,n	1,500, m	NA	1,700, m	ND, except: Cis-1,2-dichloroethene = 17,000, Vinyl Chloride = 1,200	1.0	19	2,600
	6/29/2012	1,500, a,g	990, a,g	1,000, h,m	NA	1,200, h,m	ND, except: Cis-1,2-dichloroethene = 14,000	NA	NA	NA
	12/6/2011	1,300, a,g	480, a,g	670, i,l	NA	1,000, i,l	ND, except: Cis-1,2-dichloroethene = 14,000	NA	NA	NA
	10/15/2010	4,800, a,g	2,900, a,g	3,900, h,i	NA	2,900, h,i	ND, except: Cis-1,2-dichloroethene = 22,000	NA	NA	NA
DP3	12/12/2012	830, n	900, n	5,200, m	NA	5,500, m	ND, except: Benzene = 2.1, Toluene = 1.8, Ethylbenzene = 1.2, Xylenes = 5.2, cis-1,2-Dichloroethene = 36, trans-1,2-Dichloroethene = 3.1, Vinyl Chloride = 47, Naphthalene = 1.7, n-Butyl benzene = 1.5, 1,2,4-Trimethylbenzene = 208, 1,3,5-Trimethylbenzene = 4.6, sec-Butyl benzene = 2.3, Isopropylbenzene = 2.4, n-Propyl benzene = 3.6, 4-Isopropyl toluene = 1.2	1.4	2.7	7,400
	6/29/2012	770, g	1,300, g	1,400, i,j,l	NA	1,600, i,j,l	ND, except: Benzene = 0.77, Toluene = 1.6, Ethylbenzene = 1.7, Xylenes = 7.5, Trichloroethene = 0.70, cis-1,2-Dichloroethene = 27, trans-1,2-Dichloroethene = 3.3, Vinyl Chloride = 25, Naphthalene = 5.6, n-Butyl benzene = 2.4, 1,2,4-Trimethylbenzene = 38, 1,3,5-Trimethylbenzene = 9.4, sec-Butyl benzene = 3.2, Isopropylbenzene = 4.2, n-Propyl benzene = 6.0, 4-Isopropyl toluene = 1.4, Carbon disulfide = 0.73	NA	NA	NA

SUMMARY OF GROUNDWATER SAMPLE TPH, VOC, AND DISSOLVED GAS RESULTS

Well Number	Sample Date	TPH-G	TPH-SS	TPH-D	TPH-MO	TPH-BO	VOCs by 8260B	Ethane	Ethene	Methane
DP3	Continued	480, g	630, g	3,600, m	NA	4,500, m	ND, except: Benzene = 0.97, Toluene = 1.1, Ethylbenzene = 1.7, Xylenes = 3.1, cis-1,2-Dichloroethene = 22, trans-1,2-Dichloroethene = 2.3, Vinyl Chloride = 17, Naphthalene = 2.2, n-Butyl benzene = 1.7, 1,2,4-Trimethylbenzene = 24, 1,3,5-Trimethylbenzene = 3.5, sec-Butyl benzene = 2.5, Isopropylbenzene = 2.8, n-Propyl benzene = 4.2, 4-Isopropyl toluene = 0.99	NA	NA	NA
	10/15/2010	5,700, g	8,000, g	10,000, h,i,j	NA	9,800, h,i,j	ND, except: Toluene = 2.7, Ethylbenzene = 4.0, Xylenes = 23, cis-1,2-Dichloroethene = 44, trans-1,2-Dichloroethene = 4.5, Vinyl Chloride = 28, Naphthalene = 7.5, n-Butyl benzene = 4.4, 1,2,4-Trimethylbenzene = 69, 1,3,5-Trimethylbenzene = 24, sec-Butyl benzene = 6.0, Isopropylbenzene = 7.2, n-Propyl benzene = 10,	NA	NA	NA
DP4	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Tetrachloroethene = 20, Trichloroethene = 10, cis-1,2-Dichloroethene = 3.6, Chloroform = 0.60	ND<0.2	ND<0.2	3.1
	6/29/2012	53, g	68, g	ND<50	NA	ND<100	ND, except: Tetrachloroethene = 2.1, Trichloroethene = 1.3, cis-1,2-Dichloroethene = 0.66, Chloroform = 0.62	NA	NA	NA
	12/5/2011	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform = 0.96	NA	NA	NA
	10/15/2010	1,800, g,k	1,500, g,k	1,200, h,j	NA	920, h,j	ND, except: Tetrachloroethene = 22, Trichloroethene = 40, cis-1,2-Dichloroethene = 80, trans-1,2-Dichloroethene = 33, Vinyl Chloride = 2.9, tert-Butyl benzene = 3.8, 4-Isopropyl toluene = 4.5	NA	NA	NA
ESL	100	100	100	100	100	Benzene = 1.0, Toluene = 40, Ethylbenzene = 30, Xylenes = 20, Tetrachloroethene = 5.0, Trichloroethene = 5.0, cis-1,2-Dichloroethene = 6.0, trans-1,2-Dichloroethene = 10, 1,1-Dichloroethane = 5.0, Chloroethane = 12, Vinyl Chloride = 0.5, Naphthalene = 17, Chloroform = 70, Bromoform = 100, Acetone = 6,300, n-Butyl benzene = None, 1,2,4-Trimethylbenzene = None, 1,3,5-Trimethylbenzene = None, sec-Butyl benzene = None, Isopropylbenzene = None, tert-Butyl benzene = None, n-Propyl benzene = None, Carbon disulfide = None.				

Abbreviations and Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
 TPH-SS = Total Petroleum Hydrocarbons as Stoddard solvent
 TPH-D = Total Petroleum Hydrocarbons as Diesel
 TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
 TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil
 VOCs = Volatile Organic Compounds
 ND = Not Detected.
 NA = Not Analyzed.
 -- = See TPH-G results in the line above.
 a = Laboratory Note: one to a few isolated peaks present.
 b = Laboratory Note: lighter than water immiscible sheen/product present.
 c = Laboratory Note: results reported as gasoline consist of Stoddard Solvent/mineral spirit.
 d = Laboratory Note: results reported as diesel consist of Stoddard Solvent/mineral spirit.
 e = results reported as diesel consist of diesel range compounds; no recognizable pattern.
 f = results reported as diesel consist of oil range compounds.
 g = Laboratory Note: results reported as gasoline and Stoddard solvent consist of Stoddard Solvent/mineral spirit.
 h = Laboratory Note: results reported as diesel and bunker oil consist of Stoddard Solvent/mineral spirit.
 i = Laboratory Note: results reported as diesel and bunker oil consist of diesel range compounds; no recognizable pattern.
 j = Laboratory Note: results reported as diesel and bunker oil consist of oil range compounds.
 k = Laboratory Note: no recognizable pattern.
 l = Laboratory Note: results reported as diesel and bunker oil consist of gasoline range compounds.
 m = Laboratory Note: results reported as diesel and bunker oil consist of kerosene or jet fuel range compounds.
 n = Laboratory Note: results reported as gasoline and Stoddard solvent consist of strongly aged gasoline or diesel range compounds.
 * = MW2 VOC detection limits are all increased because of a sample dilution factor of 500.
 ** = Analysis by EPA Method 8020.
 + = Samples subcontracted to different lab for VOC analysis by EPA Method 8260.
 ++ = Well Development Water stored at site in drum; submitted to lab on January 28, 1994.
 ESL = Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water.
Values in bold indicate concentrations that exceed their respective ESL values.
 Results are in micrograms per liter (µg/L), unless otherwise noted.

Table 3
Summary of ORP, DO, and Dissolved Gases Groundwater Sample Results

Well Number	Sample Date	ORP	DO	Ethane	Ethene	Methane
MW1	12/12/2012	88.0	0.88	ND<0.2	ND<0.2	ND<0.1
MW2	12/12/2012	-131.2	0.32	2.3	3.7	5,200
MW3	12/12/2012	42.8	1.39	ND<0.2	ND<0.2	2.2
MW4	12/12/2012	98.1	1.04	ND<0.2	ND<0.2	0.27
DP1	12/12/2012	-35.2	1.15	ND<0.40	5.4	150
DP2	12/13/2012	-125.0	0.3	1.0	19	2,600
DP3	12/13/2012	-122.6	0.45	1.4	2.7	7,400
DP4	12/12/2012	75.5	5.11	ND<0.2	ND<0.2	3.1

NOTES:

ORP = Oxidation-Reduction Potential.

DO = Dissolved Oxygen.

ORP reported in millivolts (mV).

DO reported in milligrams per Liter (mg/L).

Dissolved gases reported in micrograms per Liter (ug/L).

Table 4
Summary of Well DPI Groundwater Totalizer Readings and Discharge Volumes

		Totalizer	Total	Incremental		
		Reading	Volume	Volume		
		(Gallons)	Discharged	Discharged		
<u>Date</u>	<u>Time</u>	<u>(Gallons)</u>	<u>(Gallons)</u>	<u>(Gallons)</u>	<u>Comments</u>	<u>Calculated</u> <u>Flow Rate</u>
5/23/2011	10:36:00 AM	215,766	0		system turned on	
5/23/2011	10:58:12 AM	215,821	55	55	55 gal per 22 min	2.5 gpm
5/23/2011	2:56:15 PM	216,221	455	400	400 gal per 238 min	1.7 gpm
5/23/2011	3:36:00 PM	216,265	499	44	44 gal per 40 min	1.1 gpm
5/24/2011	7:57:00 AM	217,564	1,798	1,299	1,299 gal per 981 min	1.3gpm
5/24/2011	8:17:00 AM	217,687	1,921	123	123 gal per 20 min	6.2 gpm
5/27/2011	1:53:00 PM	222,370	6,604	4,683	4,683 gal per 4,656 min	1.0 gpm
6/1/2011	12:24:00 PM	227,750	11,984	5,380	5,380 gal per minutes 7,289 min	0.7 gpm
6/2/2011	11:20:00 AM	228,558	12,792	808	808 gal per 1,376 min. Pump turned off after recording meter reading	0.6 gpm
6/8/2011					pump turned on	
6/17/2011	11:35:00 AM	238,039	22,273	9,481	calculated with stop watch & bucket	0.47 gpm
6/24/2011	12:01:17 PM	238,039			totalizer not spinning;	0.29 gpm
6/30/2011					totalizer not spinning, system shut down (5 gal per 20 min pump rate measured prior to shutting off pump)	0.25 gpm
8/28/2012	11:24:00 AM	191.60	0.00	0.00	New totalizer installed;system restarted	
8/29/2012	14:43:00 PM	513.00	321.40	321.40	321.40 gallons per 1,279 minutes	0.25 gpm
8/31/2012	14:02:00 PM	876.00	684.40	363.00	363.00 gallons per 2,839 minutes	0.13 gpm
9/5/2012	14:38:00 PM	1,445.64	1,254.04	569.64	569.64 gallons per 7,236 minutes	0.08 gpm
9/26/2012	11:27:00 AM	1,549.54	1,357.94	103.90	103.90 gallons per 44,449 minutes	0.002 gpm
10/11/2012	11:30:00 AM	3,000.07	2,808.47	1,450.53	1,450.53 gallons per 21,632 minutes	0.07 gpm
11/30/2012	12:02:00 PM	5,135.23	4,943.63	2,135.16	2,135.16 gallons per 21,632 minutes	0.10 gpm
1/30/2013	11:05:00 AM	68,963.02	68,771.42	63,827.80	63,827.80 gallons per 87,783 minutes	0.73 gpm
2/19/2013	10:05:00 AM	79,763.62	79,572.02	10,800.60	10,800.60 gallons per 28,740 minutes	0.38 gpm
3/21/2013	11:04:00 AM	82,434.11	82,242.51	2,670.49	2,670.49 gallons per 43,264 minutes	0.06 gpm

FIGURES

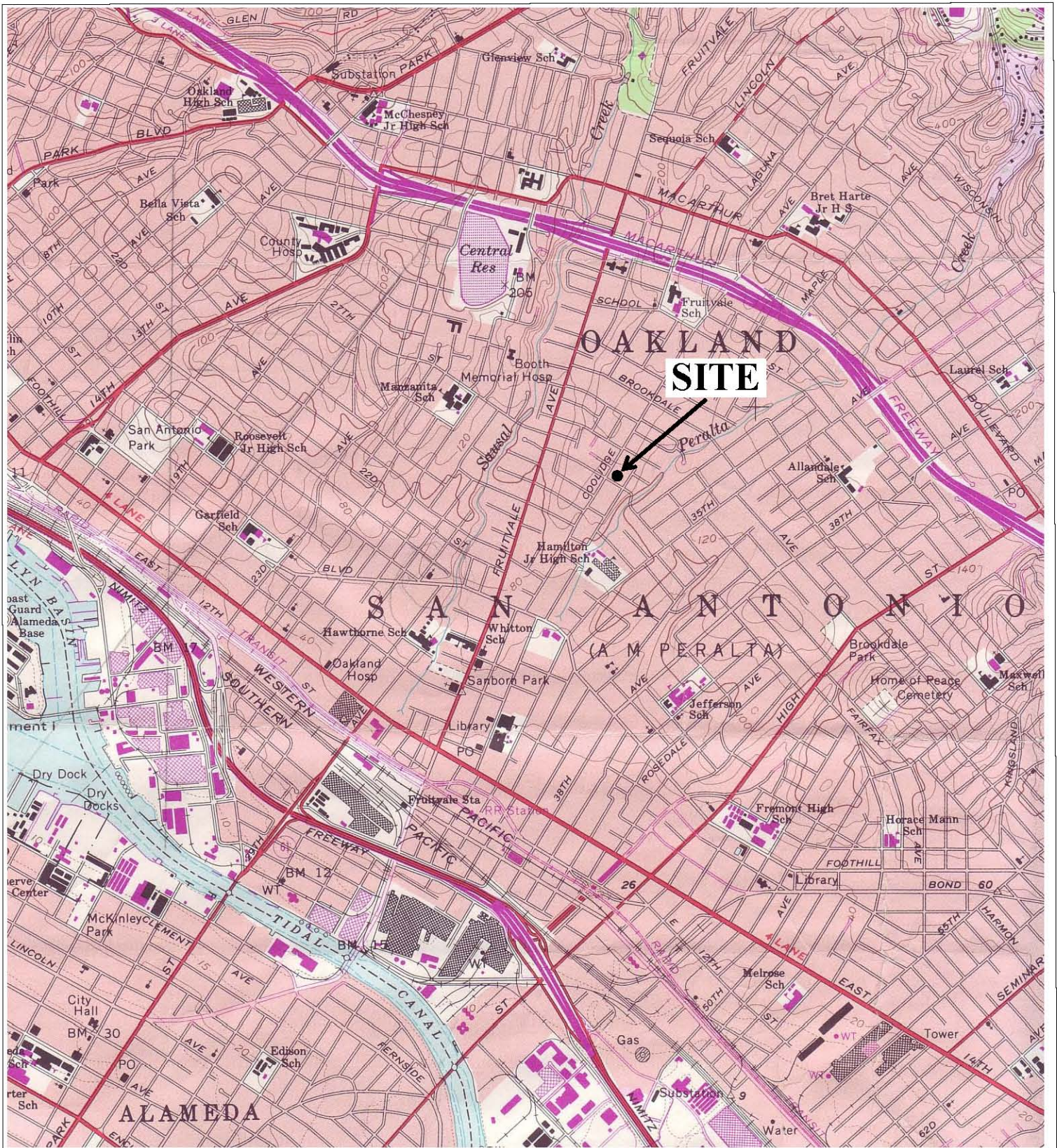
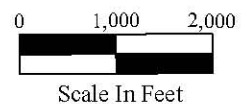


Figure 1
 Site Location Map
 Snow Cleaners
 2678 Coolidge Avenue
 Oakland, California



Base Map From:
 U.S. Geological Survey
 Oakland East, California
 7.5-Minute Quadrangle
 Photorevised 1980

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610



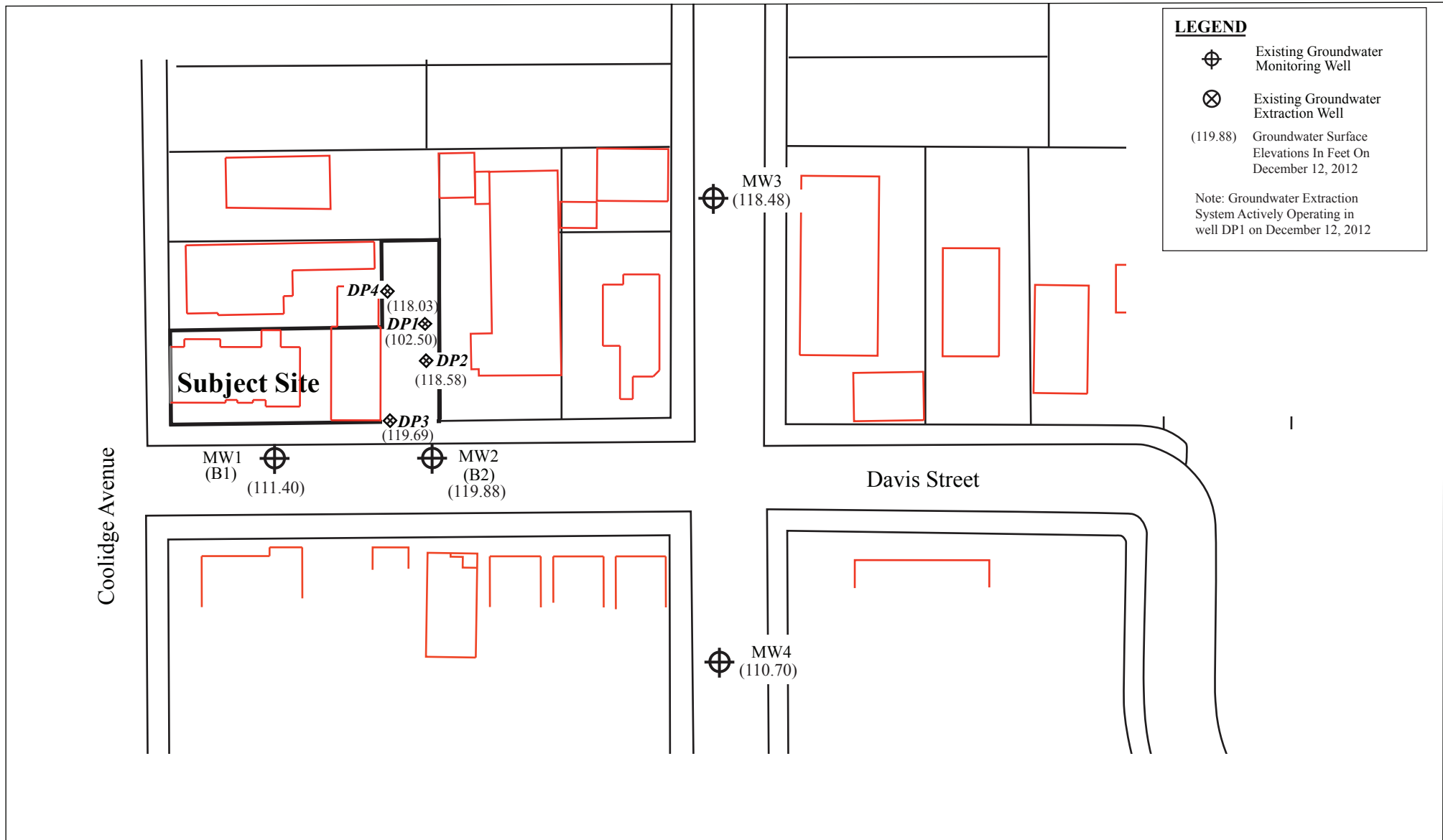
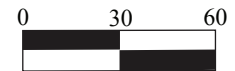


Figure 2
Site Vicinity Map Detail Showing Well Locations
Snow Cleaners
2678 Coolidge Avenue
Oakland, California



Base Map from:
 Kier & Wright Engineers Surveyors, Inc.
 September 2008 Survey
 and
 Parcel Quest Assessor's Parcel Maps
 Alameda County Map Disc, July 2001

P&D Environmental, Inc.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610



Approximate Scale in Feet

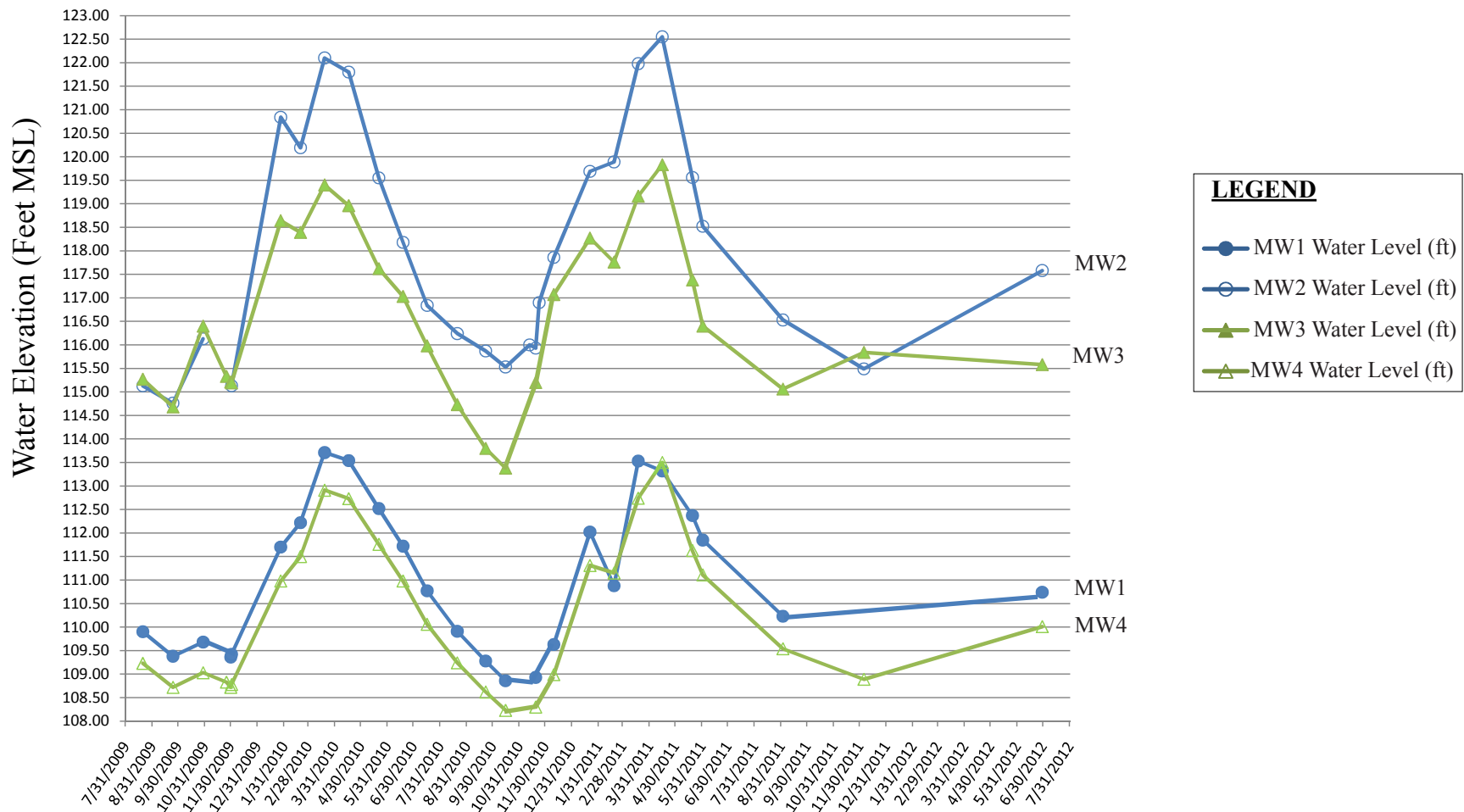


Figure 3
 Graph of Water Levels in Site Groundwater Monitoring Network Wells
 for August 2009 Through June 2012
 Snow Cleaners
 2678 Coolidge Avenue
 Oakland, California

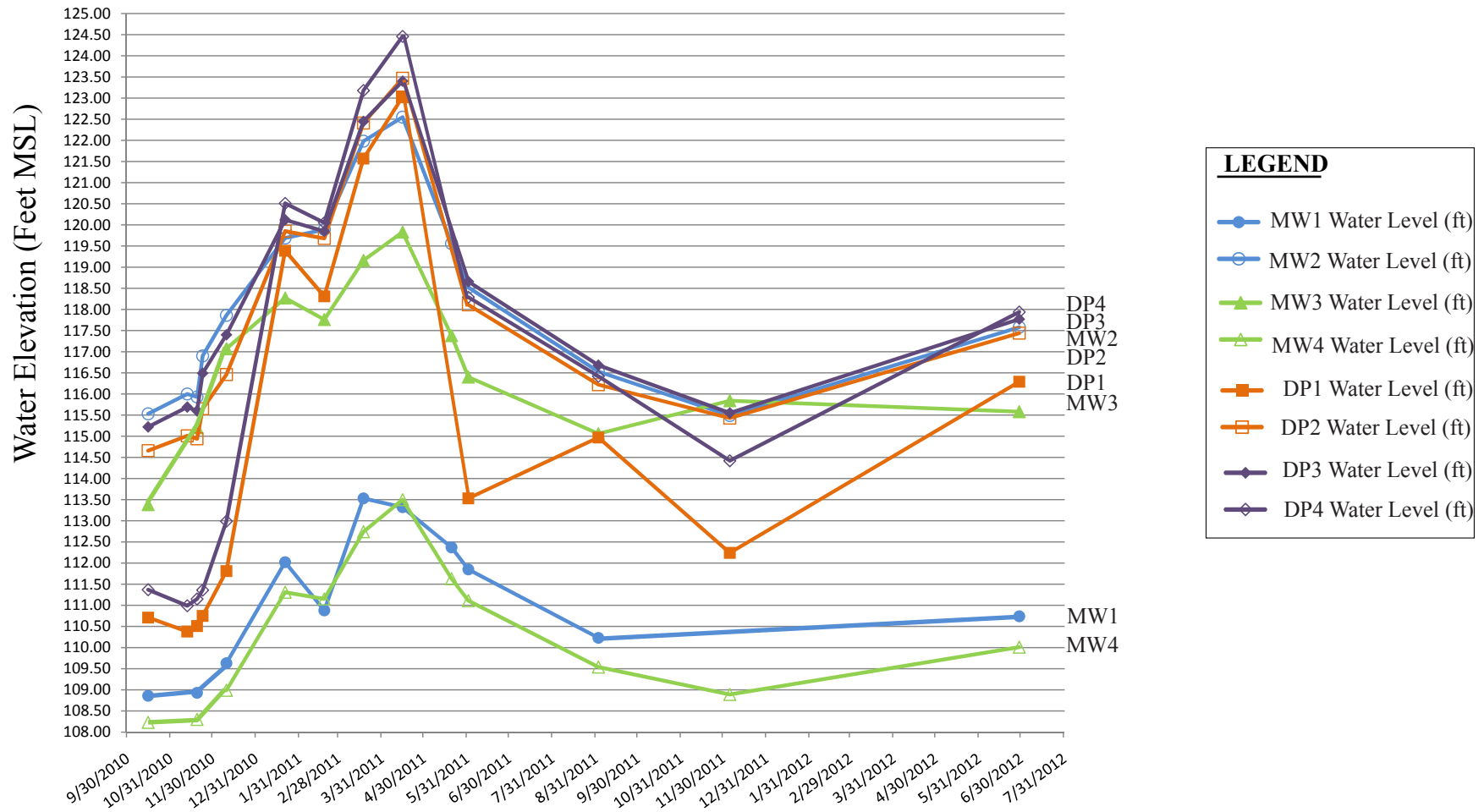


Figure 4
 Graph of Water Levels in Site Groundwater Monitoring Network Wells
 for October Through June 2012
 Snow Cleaners
 2678 Coolidge Avenue
 Oakland, California

**GROUNDWATER MONITORING/WELL
PURGING DATA SHEETS**

**LABORATORY REPORTS AND CHAIN OF
CUSTODY DOCUMENTATION**



Analytical Report

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland	Date Sampled: 12/12/12-12/13/12
		Date Received: 12/13/12
	Client Contact: Steve Carmack	Date Reported: 12/19/12
	Client P.O.:	Date Completed: 12/19/12

WorkOrder: 1212365

December 19, 2012

Dear Steve:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **#0298; Snow Cleaners 2678 Coolidge Ave. Oakland**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

CHAIN OF CUSTODY RECORD

P&D ENVIRONMENTAL, INC.
 55 Santa Clara Ave., Suite 240
 Oakland, CA 94610
 (510) 658-6916

PROJECT NUMBER:
0298

PROJECT NAME:
**Snow Cleaners
 2678 Coolidge Ave
 Oakland**

SAMPLED BY: (PRINTED & SIGNATURE)
Steve Carmack *[Signature]*

NUMBER OF CONTAINERS

ANALYSIS(ES):

TAH-Multi-range (6,P,SS,Bo)

VOCs by 82608

PRESERVATIVE

REMARKS

+
+
+
+
+
+
+
+

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES)	PRESERVATIVE	REMARKS
MW-1	12/12/12	1205	H ₂ O		7	X	X	ICE Normal Turnaround Time
MW-2		1435			7	X	X	
MW-3		1300			7	X	X	
MW-4		1345			7	X	X	
DP-1		1535			4	X	X	
DP-2	12/13/12	1325			7	X	X	
DP-3		1240			7	X	X	
DP-4	12/12/12	1700			7	X	X	

ICE 1.2
 GOOD CONDITION HEAD SPACE ABSENT APPROPRIATE CONTAINERS
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION GAS D&G METALS OTHER

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 12/13/12	TIME 1435	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	Total No. of Samples (This Shipment) 8	LABORATORY: McCampbell Analytical, Inc.
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 12/13/12	TIME 1540	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	Total No. of Containers (This Shipment) 53	LABORATORY CONTACT: Angela Rycklin (877) 252-9262
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO	

Results and billing to:
 P&D Environmental, Inc.
 lab@pdenviro.com

REMARKS:
All bottles preserved w/ HCL



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1212365

ClientCode: PDEO

- WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Steve Carmack
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610
 (510) 658-6916 FAX: 510-834-0152

Email: lab@pdenviro.com
 cc:
 PO:
 ProjectNo: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland

Bill to:

Accounts Payable
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610

Requested TAT:

5 days

Date Received: 12/13/2012

Date Printed: 12/13/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1212365-001	MW-1	Water	12/12/2012 12:05	<input type="checkbox"/>	B	A											
1212365-002	MW-2	Water	12/12/2012 14:35	<input type="checkbox"/>	B	A											
1212365-003	MW-3	Water	12/12/2012 13:00	<input type="checkbox"/>	B	A											
1212365-004	MW-4	Water	12/12/2012 13:45	<input type="checkbox"/>	B	A											
1212365-005	DP-1	Water	12/12/2012 15:35	<input type="checkbox"/>	B	A											
1212365-006	DP-2	Water	12/13/2012 13:25	<input type="checkbox"/>	B	A											
1212365-007	DP-3	Water	12/13/2012 12:40	<input type="checkbox"/>	B	A											
1212365-008	DP-4	Water	12/12/2012 17:00	<input type="checkbox"/>	B	A											

Test Legend:

1	8260B_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A contain testgroup.

Prepared by: Jena Alfaro

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **P & D Environmental** Date and Time Received: **12/13/2012 4:06:38 PM**
 Project Name: **#0298; Snow Cleaners 2678 Coolidge Ave. Oakland** Login Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1212365** Matrix: Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 1.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments: Both Liters for DP-4 were not labeled.



Table with 4 columns: Client Project ID, Date Sampled, Client Contact, Date Analyzed. Includes address: P & D Environmental, 55 Santa Clara, Ste.240, Oakland, CA 94610.

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Table with 2 columns: Lab ID (1212365-001B), Client ID (MW-1), Matrix (Water).

Main data table with 8 columns: Compound, Concentration, DF, Reporting Limit, Compound, Concentration, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 102, %SS2: 100, %SS3: 99.

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Client Project ID: #0298; Snow
Cleaners 2678 Coolidge Ave. Oakland
Client Contact: Steve Carmack
Client P.O.:

Date Sampled: 12/12/12
Date Received: 12/13/12
Date Extracted: 12/14/12
Date Analyzed: 12/14/12

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Table with 2 columns: Lab ID (1212365-002B), Client ID (MW-2), Matrix (Water)

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 103, %SS2: 101, %SS3: 100

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



Table with 4 columns: Client Project ID, Date Sampled, Client Contact, Date Analyzed. Includes address: P & D Environmental, 55 Santa Clara, Ste.240, Oakland, CA 94610.

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1212365

Summary table with 2 columns: Lab ID (1212365-003B), Client ID (MW-3), Matrix (Water).

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 104, %SS2: 101, %SS3: 99.

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Client Project ID: #0298; Snow
Cleaners 2678 Coolidge Ave. Oakland
Client Contact: Steve Carmack
Client P.O.:

Date Sampled: 12/12/12
Date Received: 12/13/12
Date Extracted: 12/14/12
Date Analyzed: 12/14/12

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Table with 2 columns: Lab ID (1212365-004B), Client ID (MW-4), Matrix (Water)

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 107, %SS2: 100, %SS3: 106

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



Table with client information: P & D Environmental, Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland, Date Sampled: 12/12/12, Date Received: 12/13/12, Client Contact: Steve Carmack, Date Extracted: 12/15/12, Client P.O., Date Analyzed: 12/15/12

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Table with Lab ID: 1212365-005B, Client ID: DP-1, Matrix: Water

Main table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 103, %SS2: 99, %SS3: 99

Comments: b6

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b6) lighter than water immiscible sheen/product is present



Table with 3 columns: Client Information (P & D Environmental, 55 Santa Clara, Ste.240, Oakland, CA 94610), Project ID (Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland), and Sampling Dates (Date Sampled: 12/13/12, Date Received: 12/13/12, Date Extracted: 12/15/12, Date Analyzed: 12/15/12).

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Summary table with 2 columns: Lab ID (1212365-006B), Client ID (DP-2), and Matrix (Water).

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 104, %SS2: 99, %SS3: 100.

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b6) lighter than water immiscible sheen/product is present



Table with 4 columns: Client Project ID, Date Sampled, Client Contact, Date Analyzed. Includes address: P & D Environmental, 55 Santa Clara, Ste.240, Oakland, CA 94610.

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 1212365

Table with 2 columns: Lab ID (1212365-007B), Client ID (DP-3), Matrix (Water)

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table with 2 columns: %SS1 (108), %SS2 (99), %SS3 (96)

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Client Project ID: #0298; Snow
Cleaners 2678 Coolidge Ave. Oakland
Client Contact: Steve Carmack
Client P.O.:

Date Sampled: 12/12/12
Date Received: 12/13/12
Date Extracted: 12/14/12
Date Analyzed: 12/14/12

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1212365

Table with 2 columns: Lab ID (1212365-008B), Client ID (DP-4), Matrix (Water)

Main data table with 8 columns: Compound, Concentration *, DF, Reporting Limit, Compound, Concentration *, DF, Reporting Limit. Lists various organic compounds and their detection results.

Surrogate Recoveries (%)

Table showing surrogate recoveries: %SS1: 101, %SS2: 100, %SS3: 102

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor
surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
b6) lighter than water immiscible sheen/product is present



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland	Date Sampled: 12/12/12-12/13/12
	Client Contact: Steve Carmack	Date Received: 12/13/12
	Client P.O.:	Date Extracted: 12/13/12
		Date Analyzed: 12/15/12-12/18/12

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 1212365

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Bunker Oil (C10-C36)	DF	% SS	Comments
1212365-001A	MW-1	W	ND	ND	1	91	
1212365-002A	MW-2	W	2300	2500	1	105	e8,e4
1212365-003A	MW-3	W	ND	ND	1	95	
1212365-004A	MW-4	W	ND	ND	1	87	
1212365-005A	DP-1	W	7200	9400	10	93	e11,e7,e2
1212365-006A	DP-2	W	1500	1700	1	92	e8
1212365-007A	DP-3	W	5200	5500	1	93	e8
1212365-008A	DP-4	W	ND	ND	1	93	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	100	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in ug/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant
e8) kerosene/kerosene range/jet fuel range
e11) stoddard solvent/mineral spirit (?)



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 73281

WorkOrder: 1212365

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	10	98.9	102	3.17	101	70 - 130	20	70 - 130
Benzene	ND	10	91.9	95.7	4.03	98.8	70 - 130	20	70 - 130
t-Butyl alcohol (TBA)	ND	40	101	105	4.39	111	70 - 130	20	70 - 130
Chlorobenzene	ND	10	82.1	85.6	4.16	87.8	70 - 130	20	70 - 130
1,2-Dibromoethane (EDB)	ND	10	94.1	97.3	3.28	94.9	70 - 130	20	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	96.3	100	4.00	102	70 - 130	20	70 - 130
1,1-Dichloroethene	ND	10	85.9	93.7	8.68	97.9	70 - 130	20	70 - 130
Diisopropyl ether (DIPE)	ND	10	109	111	2.07	116	70 - 130	20	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	104	105	0.983	105	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	98.6	101	2.35	101	70 - 130	20	70 - 130
Toluene	ND	10	81.2	83.4	2.64	86.8	70 - 130	20	70 - 130
Trichloroethene	ND	10	79.4	83	4.41	86.3	70 - 130	20	70 - 130
%SS1:	104	25	107	112	4.90	112	70 - 130	20	70 - 130
%SS2:	101	25	97	97	0	98	70 - 130	20	70 - 130
%SS3:	99	2.5	98	100	1.75	96	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 73281 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212365-001B	12/12/12 12:05 PM	12/14/12	12/14/12 9:06 PM	1212365-002B	12/12/12 2:35 PM	12/14/12	12/14/12 9:46 PM
1212365-003B	12/12/12 1:00 PM	12/14/12	12/14/12 10:27 PM	1212365-004B	12/12/12 1:45 PM	12/14/12	12/14/12 4:17 PM
1212365-005B	12/12/12 3:35 PM	12/15/12	12/15/12 12:32 PM	1212365-006B	12/13/12 1:25 PM	12/15/12	12/15/12 1:13 PM
1212365-007B	12/13/12 12:40 PM	12/15/12	12/15/12 1:55 PM	1212365-008B	12/12/12 5:00 PM	12/14/12	12/14/12 4:58 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.
 # surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 73335

WorkOrder: 1212365

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1212373-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) £	ND	60	112	97	14.5	109	70 - 130	20	80 - 120	
MTBE	ND	10	93.8	85.8	8.93	96.4	70 - 130	20	80 - 120	
Benzene	ND	10	108	95.8	12.3	108	70 - 130	20	80 - 120	
Toluene	ND	10	107	94.6	12.2	111	70 - 130	20	80 - 120	
Ethylbenzene	ND	10	108	96.4	11.2	108	70 - 130	20	80 - 120	
Xylenes	ND	30	108	96.5	10.9	109	70 - 130	20	80 - 120	
%SS:	106	10	109	101	8.11	106	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 73335 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212365-001A	12/12/12 12:05 PM	12/14/12	12/14/12 3:31 PM	1212365-002A	12/12/12 2:35 PM	12/14/12	12/14/12 4:01 PM
1212365-003A	12/12/12 1:00 PM	12/14/12	12/14/12 4:31 PM	1212365-004A	12/12/12 1:45 PM	12/14/12	12/14/12 5:00 PM
1212365-005A	12/12/12 3:35 PM	12/17/12	12/17/12 4:20 PM	1212365-006A	12/13/12 1:25 PM	12/14/12	12/14/12 7:59 PM
1212365-007A	12/13/12 12:40 PM	12/14/12	12/14/12 8:29 PM	1212365-008A	12/12/12 5:00 PM	12/14/12	12/14/12 8:59 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 73115

WorkOrder: 1212365

EPA Method: SW8015B		Extraction: SW3510C					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	127	N/A	N/A	70 - 130	
%SS:	N/A	625	N/A	N/A	N/A	77	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 73115 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212365-001A	12/12/12 12:05 PM	12/13/12	12/16/12 1:00 AM	1212365-002A	12/12/12 2:35 PM	12/13/12	12/18/12 7:13 AM
1212365-003A	12/12/12 1:00 PM	12/13/12	12/15/12 3:22 PM	1212365-004A	12/12/12 1:45 PM	12/13/12	12/16/12 2:12 AM
1212365-005A	12/12/12 3:35 PM	12/13/12	12/16/12 3:24 AM	1212365-006A	12/13/12 1:25 PM	12/13/12	12/15/12 6:59 PM
1212365-007A	12/13/12 12:40 PM	12/13/12	12/15/12 9:24 PM	1212365-008A	12/12/12 5:00 PM	12/13/12	12/15/12 8:12 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



Analytical Report

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland	Date Sampled: 12/12/12-12/13/12
		Date Received: 12/13/12
	Client Contact: Steve Carmack	Date Reported: 12/19/12
	Client P.O.:	Date Completed: 12/19/12

WorkOrder: 1212365 A

December 21, 2012

Dear Steve:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **#0298; Snow Cleaners 2678 Coolidge Ave. Oakland**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1212365 **A** ClientCode: PDEO

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Steve Carmack
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610
(510) 658-6916 FAX: 510-834-0152

Email: lab@pdenviro.com
cc:
PO:
ProjectNo: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland

Bill to:

Accounts Payable
P & D Environmental
55 Santa Clara, Ste.240
Oakland, CA 94610

Requested TAT:

5 days

Date Received: 12/13/2012
Date Add-On: 12/14/2012
Date Printed: 12/14/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1212365-001	MW-1	Water	12/12/2012 12:05	<input type="checkbox"/>	C													
1212365-002	MW-2	Water	12/12/2012 14:35	<input type="checkbox"/>	C													
1212365-003	MW-3	Water	12/12/2012 13:00	<input type="checkbox"/>	C													
1212365-004	MW-4	Water	12/12/2012 13:45	<input type="checkbox"/>	C													
1212365-005	DP-1	Water	12/12/2012 15:35	<input type="checkbox"/>	C													
1212365-006	DP-2	Water	12/13/2012 13:25	<input type="checkbox"/>	C													
1212365-007	DP-3	Water	12/13/2012 12:40	<input type="checkbox"/>	C													
1212365-008	DP-4	Water	12/12/2012 17:00	<input type="checkbox"/>	C													

Test Legend:

1	RSK174_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: RSK175 added per email 12/14/12 STD TAT.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland	Date Sampled: 12/12/12-12/13/12
	Client Contact: Steve Carmack	Date Received: 12/13/12
	Client P.O.:	Date Analyzed: 12/19/12
		Date Extracted: 12/19/12

Light Gases*

Extraction Method: RSK175

Analytical Method: RSK175

Work Order: 1212365

Lab ID	1212365-001C	1212365-002C	1212365-003C	1212365-004C	Reporting Limit for DF=1	
Client ID	MW-1	MW-2	MW-3	MW-4		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	Concentration				ug/kg	µg/L
Ethane	ND	2.3	ND	ND	NA	0.2
Ethene	ND	3.7	ND	ND	NA	0.2
Methane	ND	5200	2.2	0.27	NA	0.1

Surrogate Recoveries (%)

%SS:	N/A	N/A	N/A	N/A		
Comments						

* water samples are reported in µg/L.

%SS = Percent Recovery of Surrogate Standard

N/A = Not applicable to this analysis

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland	Date Sampled: 12/12/12-12/13/12
	Client Contact: Steve Carmack	Date Received: 12/13/12
	Client P.O.:	Date Analyzed: 12/19/12
		Date Extracted: 12/19/12

Light Gases*

Extraction Method: RSK175

Analytical Method: RSK175

Work Order: 1212365

Lab ID	1212365-005C	1212365-006C	1212365-007C	1212365-008C	Reporting Limit for DF=1	
Client ID	DP-1	DP-2	DP-3	DP-4		
Matrix	W	W	W	W		
DF	2	1	1	1		

Compound	Concentration				ug/kg	µg/L
Ethane	ND<0.40	1.0	1.4	ND	NA	0.2
Ethene	5.4	19	2.7	ND	NA	0.2
Methane	150	2600	7400	3.1	NA	0.1

Surrogate Recoveries (%)

%SS:	N/A	N/A	N/A	N/A	
------	-----	-----	-----	-----	--

Comments

* water samples are reported in µg/L.
 %SS = Percent Recovery of Surrogate Standard
 N/A = Not applicable to this analysis
 DF = Dilution Factor



QC SUMMARY REPORT FOR RSK175

W.O. Sample Matrix: Water

QC Matrix: Air

BatchID: 73440

WorkOrder: 1212365

EPA Method: RSK175		Extraction: RSK175					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µL/L	µL/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Ethane	N/A	10	N/A	N/A	N/A	104	N/A	N/A	80 - 120	
Ethene	N/A	10	N/A	N/A	N/A	104	N/A	N/A	80 - 120	
Methane	N/A	10	N/A	N/A	N/A	102	N/A	N/A	80 - 120	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 73440 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1212365-001C	12/12/12 12:05 PM	12/19/12	12/19/12 11:03 AM	1212365-002C	12/12/12 2:35 PM	12/19/12	12/19/12 11:16 AM
1212365-002C	12/12/12 2:35 PM	12/19/12	12/19/12 2:50 PM	1212365-003C	12/12/12 1:00 PM	12/19/12	12/19/12 2:01 PM
1212365-004C	12/12/12 1:45 PM	12/19/12	12/19/12 11:54 AM	1212365-005C	12/12/12 3:35 PM	12/19/12	12/19/12 3:46 PM
1212365-006C	12/13/12 1:25 PM	12/19/12	12/19/12 12:26 PM	1212365-006C	12/13/12 1:25 PM	12/19/12	12/19/12 3:01 PM
1212365-007C	12/13/12 12:40 PM	12/19/12	12/19/12 12:37 PM	1212365-007C	12/13/12 12:40 PM	12/19/12	12/19/12 3:13 PM
1212365-008C	12/12/12 5:00 PM	12/19/12	12/19/12 2:22 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.