# SNOW CLEANERS INC.

MAIN OFFICE & PLANT

38 WEST SONORA ST. STOCKTON, CA 95203 2934607-26542013





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 REMEDIATION 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.

& m Tenn

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

"SERVING THE CLEANING INDUSTRY FOR OVER 90 YEARS"

## **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 REMEDIATION 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, A detailed discussion of the site background and historical monitoring, sampling, and 2008. 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 dualphase extraction wells DP1 through DP4, and vapor extraction wells VE1 and VE2. A detailed discussion of well installation is provided in P&Ds 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&Ds 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 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&Ds 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.

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
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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	13270	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
1	6/1/2011		20.93	111.85	-0.52
	5/20/2011 4/15/2011		20.41 19.46	112.37 113.32	-0.95 -0.21
	3/18/2011		19.25	113.52	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 10/15/2010		23.85 23.92	108.93 108.86	0.07 -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 5/21/2010		21.06 20.26	111.72 112.52	-0.80 -1.02
	4/16/2010		19.24	112.52 113.54	-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 23.42	109.42 109.36	0.06
	11/30/2009 11/25/2009		car parked on well	could not measure	-0.32
	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 9/18/2008		23.00 23.02	109.78 109.76	0.02
	2/20/2003		23.02 20.65	112.13	-2.37 -0.59
	1/18/2003	132.78	20.06	112.72	
MW2	12/12/2012 6/28/2012	133.59	13.71	119.88	2.30
	6/28/2012 12/5/2011		16.01 18.10	117.58 115.49	2.09 -1.04
	9/2/2011		17.06	115.49	-1.04 -1.99
	6/1/2011		15.07	118.52	-1.04
	5/20/2011		14.03	119.56	-2.99
	4/15/2011 3/18/2011		11.04 11.61	122.55 121.98	0.57 2.09
	2/18/2011		11.61 13.70	121.98 119.89	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 11/19/2010		16.69 17.66	116.90 115.93	0.97 -0.07
	11/19/2010		17.59	115.93	-0.07 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 5/21/2010		15.41 14.04	118.18 119.55	-1.37 -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	1.07
	10/29/2009 9/24/2009		17.46 18.83	116.13 114.76	1.37 -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	133.59	11.55"	122.04	
MW3	12/12/2012	136.35	17.87	118.48	2.90
191 W 3	6/28/2012	130.33	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 5/20/2011		19.95 18.97	116.40 117.38	-0.98 -2.45
	4/15/2011		16.52	117.38	-2.45 0.67
	3/18/2011		17.19	119.85	1.40
	2/18/2011		18.59	117.76	-0.51
	1/21/2011		18.08	118.27	1.20
	12/10/2010 11/19/2010		19.28 21.15	117.07 115.20	1.87 1.82
	10/15/2010		22.97	113.20	-0.42
	9/22/2010		22.55	113.80	-0.93
	8/20/2010		21.62	114.73	-1.25
	7/16/2010 6/18/2010		20.37 19.32	115.98 117.03	-1.05 -0.59
	5/21/2010		19.32	117.62	-0.59
	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 11/30/2009		21.16 21.14	115.19 115.21	-0.02 -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 9/26/2008		21.08 20.91	115.27 115.44	-0.17 2.78
	9/20/2008 9/19/2008		23.69	115.44 112.66	4.37
	9/18/2008		28.06	108.29	5.25
	9/15/2008		33.31	103.04	-6.51
1	9/15/2008	136.35	26.80	109.55	
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TABLE 1
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#### 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 5/20/2011		22.98 22.46	111.11 111.63	-0.52 -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 12/10/2010		22.78 25.10	111.31 108.99	2.32 0.69
	11/19/2010		25.79	108.39	0.07
	10/15/2010		25.86	108.23	-0.39
	9/22/2010		25.47	108.62	-0.62
	8/20/2010 7/16/2010		24.85	109.24	-0.82
	6/18/2010		24.03 23.11	110.06 110.98	-0.92 -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 1/27/2010		22.59 23.11	111.50 110.98	0.52 2.20
	12/1/2010		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 8/20/2009		25.37 24.86	108.72 109.23	-0.51 0.14
	9/26/2009		24.80	109.23	0.00
	9/19/2008		25.00	109.09	0.00
	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
DF1	6/28/2012	131.22	34.72 20.93	102.50 116.29	-13.79 4.05
	12/5/2011		25.17 (0.25) ##	110.29	-2.73
	9/2/2011		22.25	114.97	1.44
	6/1/2011		23.69	113.53	
	5/20/2011			water level fluctuating.	1.44
	4/15/2011 3/18/2011		14.19 15.65	123.03 121.57	1.46 3.26
	2/18/2011		15.05	121.57	-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 11/19/2010		26.47 26.71	110.75 110.51	0.24 0.13
	11/19/2010	137.22	26.84	110.51 110.38	-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
DF2	6/28/2012	130.39	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 4/15/2011		Not Measured 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 11/23/2010		20.13 20.94	116.46 115.65	0.81 0.71
	11/25/2010		21.65	113.03	-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*	106.00	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 5/20/2011		17.09	118.66 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 12/10/2010		18.24 18.35	117.51 117.40	0.11 0.91
	11/23/2010		19.26	117.40 116.49	0.91
	11/19/2010		20.15	115.60	-0.09
	11/12/2010	135.75	20.06	115.69	0.47
			19.29	115.22	-0.15
	10/15/2010		19.14	115.37	0.28
	10/5/2010*	134 51		115.09	
	10/15/2010 10/5/2010* 9/28/2010*	134.51	19.42	115.09	
DP4	10/5/2010* 9/28/2010* 12/12/2012	134.51 137.60	19.42 19.57	118.03	0.09
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012		19.42 19.57 19.66	118.03 117.94	3.52
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011		19.42 19.57 19.66 23.18	118.03 117.94 114.42	3.52 -2.00
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011		19.42 19.57 19.66 23.18 21.18	118.03 117.94 114.42 116.42	3.52
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011 6/1/2011		19.42 19.57 19.66 23.18	118.03 117.94 114.42 116.42 118.29	3.52 -2.00
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011		19.42 19.57 19.66 23.18 21.18	118.03 117.94 114.42 116.42	3.52 -2.00
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011 5/20/2011 5/20/2011 4/15/2011 3/18/2011		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42	118.03 117.94 114.42 116.42 118.29 Not Measured 124.46 123.18	3.52 -2.00 -1.87 1.28 3.13
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011 6/1/2011 5/20/2011 4/15/2011 3/18/2011 2/18/2011		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55	118.03 117.94 114.42 116.42 118.29 Not Measured 124.46 123.18 120.05	3.52 -2.00 -1.87 1.28 3.13 -0.46
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 9/2/2011 6/1/2011 5/20/2011 4/15/2011 3/18/2011 2/18/2011 1/21/2011		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09	118.03 117.94 114.42 116.42 118.29 Not Measured 124.46 123.18 120.05 120.51	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76
DP4	10/5/2010* 9/28/2010* 6/28/2012 12/5/2011 9/2/2011 6/1/2011 5/20/2011 4/15/2011 3/18/2011 1/21/2011 1/21/2011		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85	118.03 117.94 114.42 118.29 Not Measured 124.46 123.18 120.05 120.51 113.75	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 6/12/2011 6/12/2011 4/15/2011 3/18/2011 2/18/2011 1/21/2011 12/13/2010 12/10/2010		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85 24.61	118.03 117.94 114.42 116.42 118.29 Not Measured 124.46 123.18 120.05 120.51 113.75 112.99	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76 1.63
DP4	10/5/2010* 9/28/2010* 6/28/2012 12/5/2011 9/2/2011 6/1/2011 5/20/2011 4/15/2011 3/18/2011 1/21/2011 1/21/2011		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85	118.03 117.94 114.42 118.29 Not Measured 124.46 123.18 120.05 120.51 113.75	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 6/12/2011 5/20/2011 4/15/2011 3/18/2011 12/18/2011 12/18/2011 12/13/2010 11/12/2010 11/19/2010		19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85 24.61 26.24 26.45 26.61	118.03 117.94 114.42 116.42 18.29 Not Measured 124.46 123.18 120.05 120.05 120.05 120.05 113.75 112.99 111.36 111.15 110.99	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76 1.63 0.21 0.16 -0.38
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 6/22/2011 6/12/2011 4/15/2011 1/21/2011 1/21/2011 1/21/3/2010 11/12/2010 11/12/2010 11/12/2010	137.60	19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85 24.61 26.24 26.45 26.61 25.40	118.03 117.94 114.42 116.42 118.29 Not Meaured 124.46 123.18 120.05 120.51 113.75 112.99 111.36 111.15 110.99 111.37	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76 0.76 1.63 0.21 0.16 0.16 -0.38 -0.37
DP4	10/5/2010* 9/28/2010* 12/12/2012 6/28/2012 12/5/2011 6/12/2011 5/20/2011 4/15/2011 3/18/2011 12/18/2011 12/18/2011 12/13/2010 11/12/2010 11/19/2010	137.60	19.42 19.57 19.66 23.18 21.18 19.31 13.14 14.42 17.55 17.09 23.85 24.61 26.24 26.45 26.61	118.03 117.94 114.42 116.42 18.29 Not Measured 124.46 123.18 120.05 120.05 120.05 120.05 113.75 112.99 111.36 111.15 110.99	3.52 -2.00 -1.87 1.28 3.13 -0.46 6.76 0.76 1.63 0.21 0.16 -0.38

 WOTES:

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

 + Prior to well development.

 \*\* = Weils 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

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

							AND DISSOLVED GAS RESULTS			
Well Number MW1	Sample Date	TPH-G	TPH-SS	TPH-D	TPH-MO	TPH-BO	VOCs by 8260B	Ethane ND<0.2	Ethene	Methane ND<0.1
NIW I	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Chloroform = 0.97		ND<0.2	
	6/29/2012	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Tetrachloroethene = 1.2, cis-1,2-Dichloroethene = 3.0,	NA	NA	NA
	12/6/2011			Well	Inaccessible; car p	arked on top of well.	Chloroform = 1.2			
	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:	NA	NA	NA
	12/1/2009	ND<50	ND<50	ND<50	NA	ND<100	Chloroform=0.80 ND, except:	NA	NA	NA
	9/18/2008	ND<50	ND<50	ND<50	NA		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:	NA	NA	NA
	2/20/2003	110 50	ND 50	NID 50	10.000		Chloroform=0.78			
	2/20/2003	ND<50	ND<50	ND<50	ND<250	NA	ND, except: Chloroform=1.2,	NA	NA	NA
	5/15/1995	ND<50	NA	NA	NA	NA	Xylenes = 0.61 ** ND	NA	NA	NA
	12/22/1994	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA
	9/14/1994 7/29/1994	ND, a ND<50	NA NA	NA NA	NA NA	NA NA	** ND ** ND	NA NA	NA NA	NA NA
	5/31/1994	ND<50	NA	NA	NA	NA	** ND	NA	NA	NA
MW2	1/24/1994 12/12/2012	ND<50 1,100, a,n	NA 1,200, a,n	ND 2,300, l,m	NA	NA 2,500, l,m	** ND ND, except:	NA 2.3	NA 3.7	NA 5,200
MW2	12/12/2012	1,100, a,n	1,200, a,n	2,300, 1,11	NA	2,500, 1,11	cis-1,2-Dichloroethene = <b>790</b> , 1,2,4-Trimethylbenzene = 59,	2.5	5.7	5,200
	6/29/2012	600, a,g	970, a,g	1,400, i,j,l	NA	1,600, i,j,l	Vinyl Chloride =110 ND, except:	NA	NA	NA
							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			
	12/5/2011	1,200, a,g	1,800, a,g	2,400, h,i	NA	2,700, h,i	ND, except: Toluene = 15,	NA	NA	NA
							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,			
	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	1,3,5-Trimethylbenzene = 35, ND, except:	NA	NA	NA
							cis-1,2-dichloroethene=1,500, Vinyl Chloride =160,			
							1,2,4-Trimethylbenzene = 100			
	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,	NA	NA	NA
							Vinyl Chloride =180,			
	12/1/2009	34,000, b,c	47,000, b,c	74,000, b,d,e,f	NA	91,000, b,d,e,f	1,2,4-Trimethylbenzene = 89 ND, except:	NA	NA	NA
							cis-1,2-dichloroethene=1,800,			
							Vinyl Chloride =73, 1,2,4-Trimethylbenzene = 140			
	9/18/2008	11,000, c,b	14,000	28,000, b,d,e	NA	33,000	ND, except:	NA	NA	NA
							cis-1,2-dichloroethene=880, Vinyl Chloride =44,			
							Xylenes = 46,			
							1,2,4-Trimethylbenzene = 140, 1,3,5-Trimethylbenzene = 41			
	10/27/2004	320,000, c	500,000	280,000 , b,d, f	ND<50,000	NA	*ND, except: cis-1,2-dichloroethene = <b>3,300</b>	NA	NA	NA
	2/20/2003	76,000, b,c	75,000	370,000, b,d,f	37,000	NA	ND, except:	NA	NA	NA
							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			
	5/15/1995	12,000, c	NA	NA	NA	NA	**Benzene = 17, **Toluene = 96,	NA	NA	NA
							**Ethylbenzene = 50,			
	12/22/1994	20,000, a,c	NA	NA	NA	NA	**Xylenes = 200 **Benzene = 22,	NA	NA	NA
							**Toluene = <b>170</b> , **Ethylbenzene = <b>89</b> ,			
							**Xylenes = 470			
	12/22/1994		-				ND, except: +Benzene = 21,	NA	NA	NA
							+Toluene = $170$ , +Ethylbenzene = $48$ ,			
							+Xylenes = 180,			
							+cis-1,2-Dichloroethene = 1,100, +trans-1,2-Dichloroethene = 15,			
							+1,1-Dichloroethane = 2.8,			
	9/14/1994	200,000, b,c	NA	NA	NA	NA	+Chloroethane = 6.7 **Benzene = ND < 15	NA	NA	NA
							**Toluene = <b>170</b> ,			
							**Ethylbenzene = 400,			
	9/14/1994						**Xylenes = <b>2,600</b> ND, except:	NA	NA	NA
							+Benzene = 24, +Toluene = 440,			
							+Ethylbenzene = 300,			
							+Xylenes = 830, +cis-1,2-dichloroethene = 720,			
							+Chloroform = 25,			
							+Acetone = 120			

#### TABLE 2

SUMMARY OF GROUNDWATER SAMPLE TPH, VOC, AND DISS	OLVED GAS RESULTS
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Well Number	Sample Date	TPH-G	TPH-SS	TPH-D	TPH-MO	TPH-BO	VOCs by 8260B	Ethane	Ethene	Methane
MW2	7/29/1994	21,000, b, c	NA	NA	NA	NA	**Benzene = 21,	NA	NA	NA
Continued	5/31/1994	6,400, c	NA	NA	NA	NA	**Toluene = 150, **Enlylbenzene = 53, **Xylenes = 150 **Benzene = 15, **Toluene = 100, **Enlylbenzene = 43,	NA	NA	NA
	1/28/1994	2,800, c	NA	12,000, d	NA	NA	**Xylenes = 220 ND, except:	NA	NA	NA
	1/19/1994++	3,400, c	NA	20,000	NA	NA	**Xylencs = 43 **Benzene = 15, **Toluene = 180, **Ethylbenzene = 39, **Xylenes = 200	NA	NA	NA
MW3	12/12/2012 6/29/2012	ND<50 ND<50	ND<50 ND<50	ND<50 ND<50	NA NA	ND<100 ND<100	ND ND	ND<0.2 NA	ND<0.2 NA	2.2 NA
	12/5/2011 10/15/2010	ND<50 ND<50	ND<50 ND<50	ND<50 ND<50	NA	ND<100 ND<100	ND, except: Carbon disulfide = 1.9 ND	NA	NA NA	NA NA
	5/21/2010 12/1/2009	ND<50 ND<50	ND<50 ND<50	ND<50 63, e	NA NA	ND<100 120, e	ND ND	NA NA	NA NA	NA NA
	9/18/2008	ND<50	ND<50	ND<50	NA	ND<100	ND, except: Bromoform = 0.57,	NA	NA	NA
MW4	12/12/2012	ND<50	ND<50	ND<50	NA	ND<100	Chloroform = 1.3 ND, except:	ND<0.2	ND<0.2	0.27
	6/29/2012	ND<50	ND<50	ND<50	NA	ND<100	Cis-1,2-dichloroethene = 15, Chloroform = 1.5 ND, except:	NA	NA	NA
	12/5/2011	ND<50	ND<50	ND<50	NA	ND<100	Cis-1,2-dichloroethene = 12, Chloroform = 1.2 ND, except:	NA	NA	NA
	10/15/2010	ND<50	ND<50	ND<50	NA	ND<100	Cis-1,2-dichloroethene = 12, Chloroform = 1.2 ND, except:	NA	NA	NA
	5/21/2010	ND<50	ND<50	ND<50	NA	ND<100	Cis-1,2-dichloroethene = <b>8.4</b> , Trans-1,2-dichloroethene = 0.84, Chloroform = 1.3 ND, except:	NA	NA	NA
							Cis-1,2-dichloroethene = <b>8.7</b> , Chloroform = 1.3			
	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 = <b>4,100</b> , Trichloroethene = <b>3,800</b> , cis-1,2-Dichloroethene = <b>5,200</b> ,	ND<0.40	5.4	150
	6/29/2012	1,100, a	73, a	84, i	NA	190, i	Vinyl Chloride =290 ND, except: Tetrachloroethene = 2,400, Trichloroethene = 650,	NA	NA	NA
	12/6/2011	2,000, a,g	940, a,g	47,000, h,i,j	NA	59,000, h,i,j	cis-1,2-Dichloroethene = <b>110</b> ND, except: Tetrachloroethene = <b>2,800</b> , Trichloroethene = <b>850</b> ,	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	cis-1,2-Dichloroethene = 260 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 = <b>17,000</b> ,	1.0	19	2,600
	6/29/2012	1,500, a,g	990, a,g	1,000, h,m	NA	1,200, h,m	Vinyl Chloride =1,200 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 = <b>22,000</b>	NA	NA	NA
DP3	6/29/2012	830, n 770, g	900, n 1,300, g	5,200, m 1,400, i.j.i	NA	5,500, m 1,600, i.j.l	ND, except: Benzene = 2.1, Toluene = 1.8, Ethylbenzene = 1.2, Xylenes = 5.2, cisi-1.2-Dichlorotehne = 3.6, trans-1.2-Dichlorotehne = 3.1, Vinyl Chloride = 47, Naphthalene = 1.7, n-Butyl benzene = 1.6, sce-Buryl benzene = 2.8, 1.3.5-Trimethylbenzene = 2.8, isopropylbenzene = 3.6, 4-Isopropyl benzene = 3.6, 4-Isopropyl benzene = 3.6, ND, except: Benzene = 0.77, Toluene = 1.6,	1.4 NA	2.7 NA	7,400 NA
							Toluene = 1.6, Ethylbenzene = 1.7, Xylenes = 7.5, Trichforoethene = 0.70, cis-1,2-Dichforoethene = 3.7, Vinyl Chloride = 25, Naphthalene = 5.6, n-Butyl benzene = 3.8, 1,3,4-Trimethylbenzene = 38, 1,3,5-Trimethylbenzene = 3.8, sec-Butyl benzene = 3.2, Isopropylbenzene = 6.0, 4-Isopropyl benzene = 6.0, 4-Isopropyl benzene = 1.4, Carbo disulfde = 0.73			

#### 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
DP3 Continued	12/6/2011	480, g	630, g	3,600, m	NA	4,500, m	ND, except:	NA	NA	NA
	10/15/2010	5,700, g	8,000, g	10,000, h.i.j	NA	9,800, h.i.j	Benzene = 0.97, Toluene = 1.1, Ethylbenzene = 1.7, Xylenes = 3.1, cis1_2-Dichloroethene = 2.2, trans-1_2-Dichloroethene = 2.3, Vinyl Chloride = 17, Naphthalene = 2.2, n-Buyl benzene = 1.7, 1_2.4-Trimethylbenzene = 3.5, sec-Buyl benzene = 2.8, n-Propyl benzene = 2.8, n-Propyl benzene = 2.8, n-Propyl benzene = 2.8, Nylenes = 2.7, Ethylbenzene = 4.2, d-Isopryl toluene = 0.99 ND, except: Toluene = 2.7, Ethylbenzene = 4.0, Xylenes = 2.8, Naphthalene = 7.5, n-Buyl benzene = 6.0, 1_3.5-Trimethylbenzene = 6.0, 1_3.5-Trimethylbenzene = 1.6, Sopropylbenzene = 1.2, how the second se	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,	NA	NA	NA
	12/5/2011	ND<50	ND<50	ND<50	NA	ND<100	Chloroform = 0.62 ND, except:	NA	NA	NA
	10/15/2010	1,800, g,k	1,500, g,k	1,200, h,i	NA	920, h,i	Chloroform = 0.96 ND, except:	NA	NA	NA
							Tertachlorethene = 22, Trichlorethene = 40, cis-1,2-Dichloroethene = 80, trans-1,2-Dichloroethene = 33, Viny (Chloride = 2.9, tert-Butyl benzene = 3.8, 4-Isopropyl toluene = 4.5			
ESL		100	100	100	100	100	Benzene = 1.0,			
							Toluene = 40, Ethylhenzene = 30, Xylenes = 20, Terrachlorothene = 5.0, Ticishlorothene = 5.0, tisk-1,2-Dichlorothene = 6.0, trans-1,2-Dichlorothene = 10, 1,1-Dichlorothane = 5.0, Chlorothane = 12, Vinyl Chloride = 0.5, Naphthalene = 17, Chloroform = 70, Bromoform = 100, Acetone = 6.300, n-Butyl benzene = None, 1,2,4-Trimethylbenzene = None, tert-Butyl benzene = None, tert-Butyl benzene = None, tert-Butyl benzene = None, n-Propyl benzene = None, n-Propyl benzene = None, Carbon disulfide = None,			

 Abbreviations and Notes:

 TPH 4G = Total Petroleum Hydrocarbons as Gasoline

 TPH 3S. = Total Petroleum Hydrocarbons as Diosel

 TPH 3S. = Total Petroleum Hydrocarbons as Moor Oli

 TPH 3S. = Total Petroleum Hydrocarbons as Moor Oli

 TPH 3S. = Total Petroleum Hydrocarbons as Moor Oli

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 Total Petroleum Hydrocarbons as Moor Oli

 Tetroleum Mydrocarbone Hydrocarbons as Moor Oli

Report 0298.R16

 Table 3

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

·		Summary of ORP, DO, and Dissolved Gas		1		
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:

 $\overline{\text{ORP}} = \overline{\text{Oxidation-Reduction Potential.}}$ 

DO = Dissolved Oxygen.

ORP reported in millivolts (mV).

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

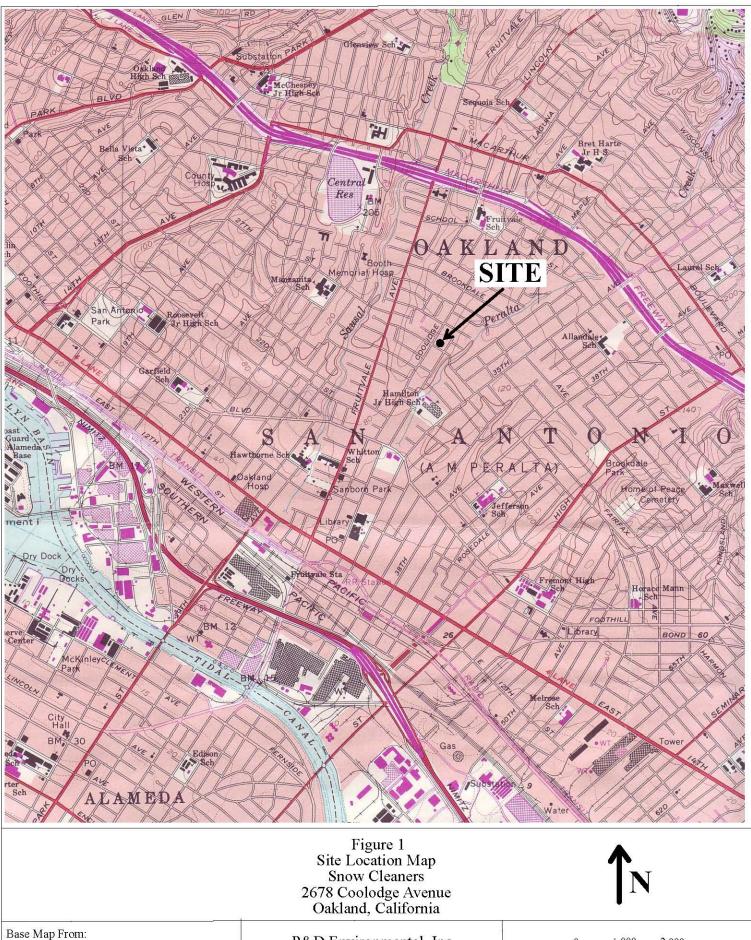
Dissolved gases reported in micrograms per Liter (ug/L).

 Table 4

 Summary of Well DP1 Groundwater Totalizer Readings and Discharge Volumes

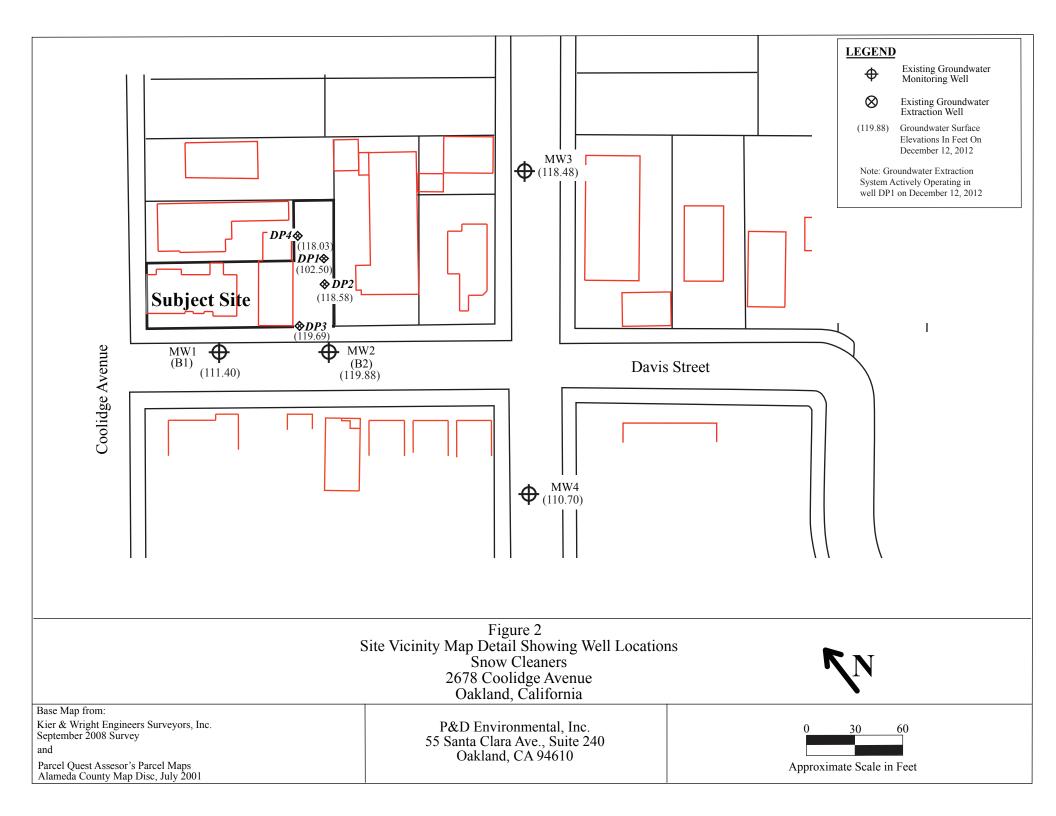
		Total	Incremental		
	Totalizer				
Time	Ŭ	Ŭ	U		Calculated
<u>1 mie</u>	<u>(Ourions)</u>	<u>(Ourions)</u>	<u>(Ganons)</u>	comments	Flow Rate
10.26.00 414	015 766	0		1	110w Kale
			~~		2.5
					2.5 gpm
					1.7 gpm
					1.1 gpm
			,		1.3gpm
					6.2 gpm
	,	,	,		1.0 gpm
12:24:00 PM	227,750	11,984	5,380		0.7 gpm
				• •	
11:20:00 AM	228,558	12,792	808	<u> </u>	0.6 gpm
		22,273	9,481		0.47 gpm
12:01:17 PM	238,039			totalizer not spinning;	0.29 gpm
					0.25 gpm
					0.25 gpm
14:02:00 PM			363.00	<b>U</b> 1	0.13 gpm
14:38:00 PM	,	,		<b>U</b> 1	0.08 gpm
11:27:00 AM		1,357.94		<u> </u>	0.002 gpm
11:30:00 AM	3,000.07	2,808.47	1,450.53	1,450.53 gallons per 21,632 minutes	0.07 gpm
12:02:00 PM	5,135.23	4,943.63	2,135.16	2,135.16 gallons per 21,632 minutes	0.10 gpm
		68,771.42	63,827.80	63,827.80 gallons per 87,783 minutes	0.73 gpm
10:05:00 AM	79,763.62	79,572.02	10,800.60	10,800.60 gallons per 28,740 minutes	0.38 gpm
11:04:00 AM	82,434.11	82,242.51	2,670.49	2,670.49 gallons per 43,264 minutes	0.06 gpm
	10:58:12 AM 2:56:15 PM 3:36:00 PM 7:57:00 AM 8:17:00 AM 1:53:00 PM 12:24:00 PM 11:20:00 AM 11:35:00 AM 12:01:17 PM 11:201:17 PM 11:24:00 AM 14:43:00 PM 14:02:00 PM 14:38:00 PM 11:27:00 AM 11:202:00 PM 11:05:00 AM 10:05:00 AM	I0:36:00 AM         215,766           10:58:12 AM         215,821           2:56:15 PM         216,221           3:36:00 PM         216,265           7:57:00 AM         217,564           8:17:00 AM         217,687           1:53:00 PM         222,370           12:24:00 PM         227,750           11:20:00 AM         238,039           12:01:17 PM         238,039           12:01:17 PM         238,039           11:24:00 AM         191.60           14:43:00 PM         513.00           14:02:00 PM         876.00           14:38:00 PM         1,445.64           11:27:00 AM         3,000.07	Reading         Discharged           Time         (Gallons)         (Gallons)           10:36:00 AM         215,766         0           10:58:12 AM         215,821         55           2:56:15 PM         216,221         455           3:36:00 PM         216,265         499           7:57:00 AM         217,564         1,798           8:17:00 AM         217,687         1,921           1:53:00 PM         222,370         6,604           12:24:00 PM         227,750         11,984           11:20:00 AM         228,558         12,792           11:35:00 AM         238,039         22,273           12:01:17 PM         238,039         22,273           12:01:17 PM         238,039         1.40           14:23:00 PM         513.00         321.40           14:22:00 PM         876.00         684.40           14:38:00 PM         1,445.64         1,254.04           11:27:00 AM         1,549.54         1,357.94           11:30:00 AM         3,000.07         2,808.47           12:02:00 PM         5,135.23         4,943.63           11:05:00 AM         68,963.02         68,771.42           10:05:00 AM	Totalizer         Volume         Volume           Reading         Discharged         Discharged           Time         (Gallons)         (Gallons)         (Gallons)           10:36:00 AM         215,766         0         10           10:58:12 AM         215,821         55         55           2:56:15 PM         216,221         455         400           3:36:00 PM         216,265         499         44           7:57:00 AM         217,564         1,798         1,299           8:17:00 AM         217,687         1,921         123           1:53:00 PM         222,370         6,604         4,683           12:24:00 PM         228,558         12,792         808           11:20:00 AM         238,039         22,273         9,481           12:01:17 PM         238,039         22,273         9,481           12:01:17 PM         238,039         21.40         321.40           14:43:00 PM         513.00         321.40         321.40           14:20:00 AM         191.60         0.00         0.00           14:38:00 PM         1,445.64         1,254.04         569.64           11:27:00 AM         1,549.54         1,357.94 </td <td>Totalizer         Volume         Volume           Reading         Discharged         Discharged           Time         (Gallons)         (Gallons)         (Gallons)           10:36:00 AM         215,766         0         system turned on           10:58:12 AM         215,821         55         55         55 gal per 22 min           2:56:15 PM         216,221         455         400         400 gal per 238 min           3:36:00 PM         216,255         499         44         44 gal per 40 min           7:57:00 AM         217,564         1,798         1,299         1,299 gal per 981 min           8:17:00 AM         217,687         1,921         123         123 gal per 20 min           12:24:00 PM         222,370         6,604         4,683         4,683 gal per 1,376 min. Pump turned off after           recording meter reading            pump turned on           11:20:00 AM         238,039         22,273         9,481         calculated with stop watch &amp; bucket           12:01:17 PM         238,039         22,273         9,481         calculated with stop watch &amp; bucket           12:01:17 PM         238,039         22,273         9,481         calculated with stop watch &amp; bucket     </td>	Totalizer         Volume         Volume           Reading         Discharged         Discharged           Time         (Gallons)         (Gallons)         (Gallons)           10:36:00 AM         215,766         0         system turned on           10:58:12 AM         215,821         55         55         55 gal per 22 min           2:56:15 PM         216,221         455         400         400 gal per 238 min           3:36:00 PM         216,255         499         44         44 gal per 40 min           7:57:00 AM         217,564         1,798         1,299         1,299 gal per 981 min           8:17:00 AM         217,687         1,921         123         123 gal per 20 min           12:24:00 PM         222,370         6,604         4,683         4,683 gal per 1,376 min. Pump turned off after           recording meter reading            pump turned on           11:20:00 AM         238,039         22,273         9,481         calculated with stop watch & bucket           12:01:17 PM         238,039         22,273         9,481         calculated with stop watch & bucket           12:01:17 PM         238,039         22,273         9,481         calculated with stop watch & bucket

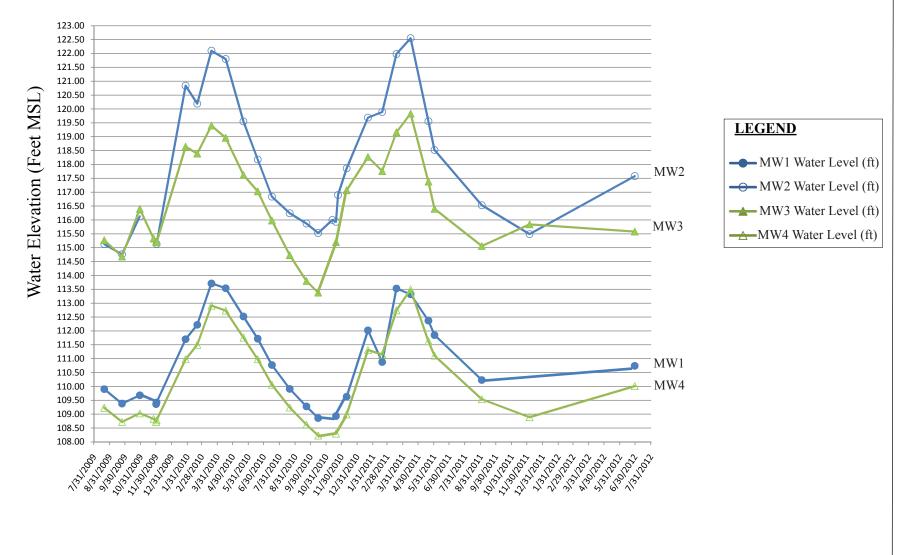
**FIGURES** 



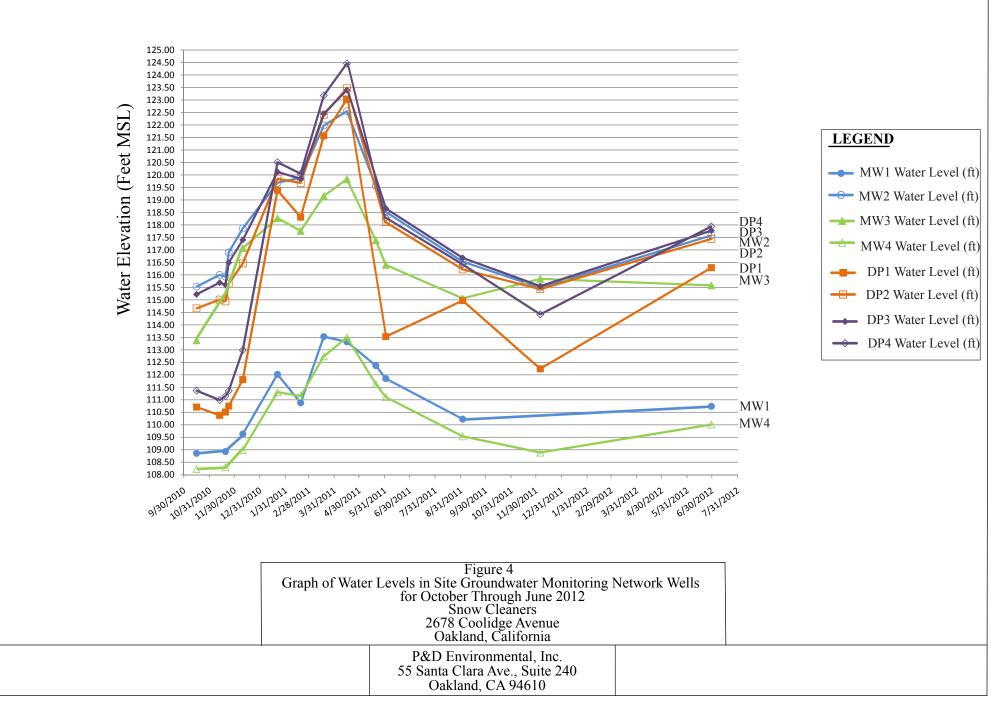
U.S. Geological Survey Oakland East, California 7.5-Minute Quadrangle Photorevised 1980 P&D Environmental, Inc. 55 Santa Clara Ave., Suite 240 Oakland, CA 94610 1,000 2,000 Scale In Feet

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Graph of Water	Figure 3 • Levels in Site Groundwater Monitoring N for August 2009 Through June 2012 Snow Cleaners 2678 Coolidge Avenue Oakland, California		
	P&D Environmental, Inc. 55 Santa Clara Ave., Suite 240 Oakland, CA 94610		



## GROUNDWATER MONITORING/WELL PURGING DATA SHEETS

Site Name Snew Cleaners	P&D Environmental, Inc. Groundwater Monitoring/Well Purging D j O:. Kland
Job Number 0398	,
TOC to Water (ft.) 21.38	
Well Depth (ft.) 44.5	
Well Diameter	
Flow Rate (mL/minute) <u>300</u>	
Start Purge Time	

Purging Data Sheet MW-1 Well No. 12/13/12 Date None Sheen X Free Product Thickness\_ Sample Collection Method Perstal Lipung PEtubins + new unnsed

Oxidation/

Time 1141 1144 1147 1150 1150 1153 1156	<u>Vol</u> <u>Purged</u> (mL) <u>300</u> <u>1,200</u> <u>2,100</u> <u>3,000</u> <u>3,900</u> <u>4,800</u>	$\frac{Depth to}{Water (ft.)}$ $\frac{21.46}{21.48}$ $\frac{31.48}{31.49}$ $\frac{31.49}{21.49}$ $\frac{21.49}{21.49}$	<sup>№</sup> <u>5.84</u> <u>5.84</u> <u>5.97</u> <u>5.97</u>	Electrical <u>Conductivity</u> ( <u>uS/cm</u> ) 741 786 788 789 787 787	<u>Temperature</u> (C°) 18.6 18.7 18.9 18.9 18.9 18.8 18.9	Dissolved Oxygen (mg/L) 2.25 2.19 1.57 1.30 1.00 0.88	$\frac{\text{Reduction}}{\text{(mV)}}$ $\frac{51.2}{100.1}$ $\frac{93.5}{92.1}$ $\frac{92.1}{90.0}$ $\frac{98.0}{88.0}$	Turbidity (NTU) 6.11 5.04 2.83 3.28 3.28 2.99 0.03
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#### <u>NOTES</u>

<u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10%

MW-1 collecter @ 1205hrs No sheen on no odg.

P&D Environmental, Inc. ndwater Monitoring/Well Purging Data Sheet

Site Name Snew Cleumers	Groundwater Monito
Job Number 0398	•
TOC to Water (ft.) 13.71	
Well Depth (ft.)	
Well Diameter 41	
Flow Rate (mL/minute) <u>300</u>	
Start Purge Time	

t	Well No. MW-A
	Well No.
	Date 17/17/17
	Sheen None
	Free Product Thickness
	Sample Collection Method Poristal Hic pany +
	Men housed disp. PE tubing
	· _ /

Oxidation/

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	<u>Vol.</u>			Electrical			Reduction	
	Purged	Depth to		Conductivity	Temperature	Dissolved	Potential	<b>Turbidity</b>
Time	(mL)	Water (ft.)	<u>рН</u>	(µS/cm)	<u>(C°)</u>	Oxygen (mg/L)	<u>(mV)</u>	(NTU)
1415	300	13.80	6.17	772	19.3	1.35	-513	0.00
1418	1,200	13.81	6.00	778	19.8	0.51	- <u>111,4</u>	0.00
1421	2,100	13.85	5.97	777	19.8	0.42	-123.8	0.00
1424	3,000	13.86	6.055.97	776	19.7	0,37	-128.0	0.00
1427	3,900	13.87	6.03	775	19.9	0.34	-130.4	0.00
1430	4,800	13.87	6.03	775	19.8	0.37	-131.2	0.00
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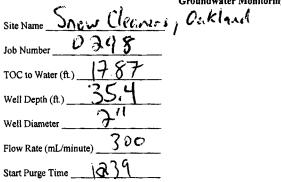
### <u>NOTES</u>

Mod. Studdh-d Solvent (mineral-spinits) uda-; Nosheen

<u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10%

MW-2 collecter @ 1475 hrs

P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet



MW-3 Well No. 3 Date None Sheen Ø Free Product Thickness Sample Collection Method Perist/Hc pumpt dedicated tu

s,

Time 1240 1243 1246 1249 1252 1255	Vol. Pureed (mL) <u>300</u> 1,200 2,100 2,000 3,900 4,800	Depth to Water (ft.) 18,66 19,94 20.78 22.10 22.69 23,71	H 704 6.74 6.80 7.05 7.05 7.24 7.34 7.34	Electrical <u>Conductivity</u> $(\mu S/cm)$ 467.3 421.8 387.7 300.8 240.1 239.6	Temperature (C°) 18.4 18.8 18.7 18.6 18.7 18.7	Dissolved Oxygen (mg/L) 1.41 0.53 0.45 0.55 1.17 1.39	$\frac{\text{Oxidation/}}{\text{Reduction}}$ $\frac{\text{Reduction}}{\text{Potential}}$ $\frac{1179}{757}$ $\frac{43.1}{51.7}$ $\frac{46.2}{42.8}$	<u>Turbidity</u> (NTU) <u>0.11</u> <u>448</u> 0.43 <u>0.58</u> <u>0.58</u> <u>0.58</u> <u>0.80</u> <u>1.02</u>
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NOTES								
Stability Parameters p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10% MW-3 Collected C. [302 No sheer + no odor								

Site Name Snew Cleaners	P&D Environmental, Inc. Groundwater Monitoring/Well Purging D C: Klash
Job Number 0345	
TOC to Water (ft.) 73,39	
Well Depth (ft.) 37.}	
Well Diameter	
Flow Rate (mL/minute) <u>30 ð</u>	
Start Purge Time 1323	

Well Purging Data Sheet MW-4 Well No. £ 2 Date None Sheen Ø Free Product Thickness Sample Collection Method Perista (ne pump + dedicated Pt tubing

Oxidation/

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	Vol.			Electrical			Reduction	
Time	<u>Purged</u> (mL)	Depth to Water (ft.)	р <u>Н</u>	<u>Conductivity</u> (µS/cm)	<u>Temperature</u> (C°)	Dissolved Oxygen (mg/L)	Potential (mV)	<u>Turbidity</u> (NTU)
1224	300	23.47	6.33	477.6	18.8	2.61	169.0	5.00
1317	1,200	23.49	5.90	520.7	18.7	1.19	108.8	0,00
1330	2,100	23.49	5.98	521.3	18.7	1.18	108.2	0.00
1333	3,000	23.49	6.06	521.7	18.6	1.11	104.0	0.00
1336	3,900	23.49	5.81	523.0	18.7	1.05	100.2	0.00
1339	4,800	23.49	6.06	524.0	18.7	1.04	98.1	0,00
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#### <u>NOTES</u>

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<u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10%

MW-4 collecter @ 1345 hrs No Sheen the odor

Site Name Snew Cleuner,	P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet C:Kland
Job Number 0398	
TOC to Water (fl.) 34,72	
Well Depth (ft.) 37.0	
Well Diameter <u> </u>	
Flow Rate (mL/minute) $300$	
Start Purge Time NA ConSider.	d fourged

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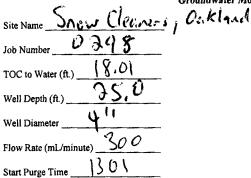
op-1
Well No.
Date 17/17/17
Sheen <u>e S</u>
Free Product Thickness Contd not Measure
Sample Collection Method Peristaltic pump +
New unused PE tubing

Oxidation/

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	Vol.			Electrical	_		Reduction	Turkiditer
-	Purged	Depth to		<u>Conductivity</u> (µS/cm)	<u>Temperature</u> (C°)	Dissolved Oxygen (mg/L)	Potential (mV)	<u>Turbidity</u> (NTU)
<u>Time</u>	<u>(mL)</u>	Water (ft.)	pH	595		[.]5	-35.2	<u>,</u>
1523	$\sim$		6.29	<u> </u>	17.8	1.17	33.0	<u> </u>
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<u>NOTES</u>		<1	. c . 1	- Chan		sha I		
		) nern	on sample	2 2110n	5 Xoloand	L Solvertodi	)/	
$\frac{\text{Stability Paulous}}{\text{p.H.} = +/-0.}$								
Sp. Conduc	tivity = $+/-3\%$	-P-L	Ilistor	e Iszsh	<u>ر</u>			
Turbidity = D.O. = +/- 1	· +/- 10% 0%	- <del>\</del>	UNCON	<u>e e son</u>				

P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet



- 2 10/13/12 × Sampled Well N tored Mar Dat 00 Sheen Ø Free Product Thickness Peristathe pumps Sample Collection Method New unused PF tub.

8

Time 1302 1305 1308 1311 1314 1314	Vol. Purged (mL) 300 1,700 3,100 3,100 3,100 3,100 3,100 1,700	Depth to Water (ft.) 18.75 18.33 18.33 18.37 18.37 18.41 18.41	6.08 6.04 5.96 5.93 5.93 5.93 5.93	$     Electrical     Conductivity     (\muS/cm)754750749749749749749749749749749749$	$\frac{1}{(C^{\circ})}$ $\frac{17.6}{18.6}$ $18.7$ $18.7$ $18.7$ $18.7$ $18.7$ $18.7$	Dissolved Oxygen (mg/L) 1.51 0.43 0.37 0.32 0.30 0.28	$\frac{\text{Oxidation}}{\text{Reduction}}$ $\frac{\text{Potential}}{(mV)}$ $-38.8$ $-93.1$ $-112.2$ $-118.3$ $-723.0$ $-125.0$	Turbidity (NTU) 5.64 5.67 1.73 1.91 1.91 1.93 2.77
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NOTES <u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/-10% UP-F (ellected @ 1375h-s-								
Turbidity = $D O = \pm (-1)$			Coliccien 1	- 1702.00				

Sp. Conductivity = +/-3%Turbidity = +/-10%D.O. = +/- 10%

	P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet		
Site Name Snew Cleaners	Groundwater Monitoring/Well Purging Data Sheet C: Kland Mell No. Date DF-3 ()/)/2 ()/)/2 ()/)/2 ()/)/2	Cickland Well No. DF-3	eЛ
Job Number 0348	Date 17/13/13 12/13/12	Date	
TOC to Water (ft.) 16.06	Sheen Nore	Sheen None	
Well Depth (ft.)	Free Product Thickness		
Well Diameter 41	Sample Collection Method for stalkie pung a	Sample Collection Method ferstallic pure a	
Flow Rate (mL/minute) 300	New housed PEtubing		
Start Purge Time			

\*

Ime 1224 1224 1227 1227 1227 1229 1229	Vol. Purged (mL) 300 1,200 2,100 3,000 3,000 3,900 4,800	Depth to Water (fl.) 16.31 16.31 16.36 16.39 16.40 16.43	5.90 5.89 5.89 5.89 5.89 5.89 5.85 5.90	Electrical Conductivity (uS/cm) 898 898 897 897 897 893 888 883	$     \begin{array}{r} \underline{\text{Temperature}} \\ \underline{(C^{\circ})} \\ \underline{(9,7)} \\ \underline{(9,0)} \\ \underline{(9,1)} \\$	Dissolved Oxygen (mg/L) [.73] [.87] 0.94 0.60 0.51 0.45	<u>Oxidation/</u> <u>Reduction</u> (mV) -105.7 -119.4 -119.7 -130.7 -121-0 -122.6	Turbidity (NTU) 4.46 4.60 4.64 5.93 4.46 5.73
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## <u>NOTES</u>

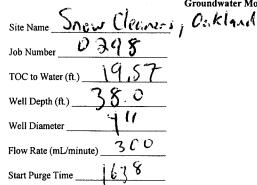
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Light-mod. Studdard solvent do- No shun

DP-3 collected C 1240

<u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10% P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet



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Well No. Э. Date <u>ne</u> Sheen Free Product Thickness Sample Collection Method New mased PE tubin f perist the

澎

Time 1639 1642 1642 1645 1648 1651 1654	Vol. Purged (mL) 300 1,200 2,100 3,000 3,900 4,800	Depth to Water (ft.) 19.69 19.71 19.72 19.73 19.73	6.00 <u>6.01</u> <u>6.00</u>	Electrical <u>Conductivity</u> <u>5058</u> <u>516.6</u> <u>516.6</u> <u>516.6</u> <u>516.8</u> <u>517.8</u> <u>512.8</u>	Temperature (C°) 16.7 17.4 17.3 17.5 17.3 17.5 17.5	Dissolved Oxygen (mg/L) 1.16 4.93 4.99 5.03 5.03 5.03 5.11	<u>Oxidation/</u> <u>Reduction</u> (mV) [ 94.0 97.0 91.4 83 78.( 78.( 75.5	$   \begin{array}{c}     \underline{\text{Turbidity}}\\     (\text{NTU}) \\     \underline{0.00} \\   \end{array} $
6-21-21-21-21-2-2-2-		<u></u>		<del></del>				
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<u>NOTES</u> Stability Par p.H. = +/- 0.	1	, 			ent odor.	No sheen		
Sp. Conduct	tivity = +/-3%	io.	0 1 - 11	1.012.				

<u>Stability Parameters</u> p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10%

DP-4 collecture 1700

P&D Environmental, Inc. dwater Monitoring/Well Purging Data Shee

Groundwater Monitorin
site Name Snow (luner), Oakland
Job Number 0298
TOC to Water (ft.) No water encountined
Well Depth (ft.)
Well Diameter
Flow Rate (mL/minute) N(A
Start Purge Time N/A

et	Well No.	VE-1
	Date	17/12/12
	Sheen	MA
	Free Produ	ict Thickness

Sample Collection Method

N/A Monitoridonly: No sample collected

Time	<u>Vol.</u> <u>Purged</u> (mL)	<u>Depth to</u> Water (ft.)	<u>pH</u>	<u>Electrical</u> <u>Conductivity</u> ( <u>µS/cm)</u>	<u>Temperature</u> ( <u>C°</u> )	<u>Dissolved</u> Oxygen (mg/L)	Oxidation/ Reduction Potential (mV)	<u>Turbidity</u> (NTU)
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<u>NOTES</u>		M	nitorel'	only; no	Sample	Collorton		$\backslash$
Stability Par. p.H. = $+/- 0$ .	<u>ameters</u> 1		<u> </u>	<u> </u>	·· (			

p.H. = +/- 0.1 Sp. Conductivity = +/-3% Turbidity = +/- 10% D.O. = +/- 10%

P&D Environmental, Inc. Groundwater Monitoring/Well Purging Data Sheet	
Site Name Show Cleaners, Oakland	Well N
Job Number U798	Date
TOC to Water (ft.) No water excuratered	Sheen _
Well Depth (ft.) 17.03	Free Pr
Well Diameter	Sample
Flow Rate (mL/minute) NA	Mo
Start Purge Time N/A	

t	$\mathcal{A}$
	Well No. VE-X
	Date 13/13/13
	Sheen
	Free Product Thickness
	Sample Collection Method
	Monitorul only no sample collected

Time	<u>Vol.</u> Purged (mL)	Depth to Water (ft.)	рН	<u>Electrical</u> Conductivity (µS/cm)	<u>Temperature</u> ( <u>C°)</u>	Dissolved Oxygen (mg/L)	Oxidation/ Reduction Potential 	<u>Turbidity</u> ( <u>NTU</u> )
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NOTES Stability Para p.H. = +/- 0.1 Sp. Conducti Turbidity = -	l ivity = +/-3%		Mont	torul only;	, no Samp	le callected		

D.O. = +/- 10%

## LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION



McCampbell Analytical, Inc. "When Quality Counts"

## **Analytical Report**

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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

	C	HA	IN C	<b>FC</b>	USTODY	RE	CO	R	D	2	23	6.	5	, ,	PAGE		OF L
P&D	ENVII 55 Santa Oa	RON Clara kland, 0 510) 65	MEN Ave., Su CA 9461 58-6916	NTAI nite 240 10	L, INC.				(eg)			/	//		/		
PROJECT NUMBER:		-	ROJECT	NAME:		NUMBER OF CONTAINERS	ANALYSIC	ALL C	Mart	Joges			//	VE /	/		
SAMPLED BY: (PRIN Steve Comme		GNATU	Bel		0	MBER OF	A. W.		1 <u>55 60</u>	t			1	TOERVAIIVE			
SAMPLE NUMBER	DATE	TIME	TYPE	SAN	MPLE LOCATION	NUN	E	/ /	12	/	/ /	1	PRI	/	REM	ARKS	
MW-1	12/12/13		H20			7	X		X			-	ICE	Norma	1 Turr	word	Time
MW-2 MW-3		1435				77	X		< K								-
MW-4	Y	1345				7	×	7	<								
PP-1	V	1535		_		4	x	7	K								
<u> 26-3</u>	12/12/12	1325				7	X	-	X _	-		-					-
VP-3		1240				7	X	-	×	-		-					
DP-4	13/2/12	1700	$\checkmark$			7	X		×					Y	Y		v
								-	-	-		-					
									C	CE /	01.2				1		
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24		11	3/12	1540	ALA	N	n	4	TA	Inde	la Ryck	lins	(87	7)25	2-92	462	
RELINQUISHED BY: (SIGNAT	URE)	17	DATE	TIME	RECEIVED FOR LA (SIGNATURE)	BORAT	ORY	3Y:	SAM		ANALYSIS		UEST S		00		
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com					REMARKS:		411	bo	Hles	fr	eservad	w	HCL	-			

Page 2 of 17

# McCampbell Analytical, Inc.

**CHAIN-OF-CUSTODY RECORD** 

Page 1 of 1

Pittsburg, CA (925) 252-92	A 94565-1701 262				W	orkO	rder: 1	121236	5	Clie	entCod	le: PDE	EO				
		WaterTrax	w WriteOn	EDF	E	cel		EQuIS	<b>√</b>	Email		]HardCo	ру	ThirdPa	rty	J-fla	ıg
Report to:						Bi	ll to:					F	Reque	sted TAT:		5 c	days
Steve Carmack P & D Environm 55 Santa Clara, Oakland, CA 94 (510) 658-6916	ental Ste.240	Email: cc: PO: ProjectNo:	lab@pdenviro. #0298; Snow C Ave. Oakland	com Cleaners 2678 Coo	lidge		P & E 55 Sa	anta Cla	iyable onmenta ara, Ste 94610	240				Received: Printed:		12/13/2 12/13/2	
					F				Rec	uested	Tests (	See lege	nd be	low)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1212365-001	MW-1		Water	12/12/2012 12:05		В	A										
1212365-002	MW-2		Water	12/12/2012 14:35		В	Α										
1212365-003	MW-3		Water	12/12/2012 13:00		В	А										
1212365-004	MW-4		Water	12/12/2012 13:45		В	А										1

В

В

В

В

А

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А

12/12/2012 15:35

12/13/2012 13:25

12/13/2012 12:40

12/12/2012 17:00

Water

Water

Water

Water

#### Test Legend:

1212365-005

1212365-006

1212365-007

1212365-008

1	8260B_W
6	
11	

2	G-MBTEX_W	
7		
12		



5	
10	

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

DP-1

DP-2

DP-3

DP-4

#### 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 Environm	ental			Date an	d Time Received:	12/13/2012	2 4:06:38 PM
Project Name:	#0298; Snow Cl	eaners 2678 Coolidge Av	ve. Oakla	and	LogIn R	eviewed by:		Jena Alfaro
WorkOrder N°:	1212365	Matrix: Water			Carrier:	<u>Rob Pringle (M</u>	<u>AI Courier)</u>	
		Cha	ain of Cu	<u>istody (C</u>	OC) Informatio	on		
Chain of custody	y present?		Yes	✓	No			
Chain of custody	y signed when relin	equished and received?	Yes	✓	No			
Chain of custody	y agrees with samp	ble labels?	Yes		No 🖌			
Sample IDs note	ed by Client on CO	C?	Yes	✓	No			
Date and Time of	of collection noted l	by Client on COC?	Yes	✓	No 🗌			
Sampler's name	noted on COC?		Yes	✓	No 🗌			
			Sample	Receipt	Information			
Custody seals in	ntact on shipping co	ontainer/cooler?	Yes		No 🗌		NA 🗹	
Shipping contair	ner/cooler in good o	condition?	Yes	✓	No			
Samples in prop	er containers/bottle	es?	Yes	✓	No			
Sample containe	ers intact?		Yes	✓	No 🗌			
Sufficient sample	e volume for indica	ated test?	Yes	✓	No 🗌			
		Sample Pres	servatio	n and Ho	old Time (HT) Ir	nformation		
All samples rece	eived within holding	-	Yes	✓	No 🗌			
Container/Temp	Blank temperature	e	Coole	r Temp:	1.2°C		NA	
Water - VOA via	Ils have zero heads	space / no bubbles?	Yes	✓	No 🗌 N	lo VOA vials submi	tted	
Sample labels cl	hecked for correct	preservation?	Yes	✓	No			
Metal - pH accer	ptable upon receipt	t (pH<2)?	Yes		No 🗌		NA 🗹	
Samples Receiv	red on Ice?		Yes	✓	No 🗌			
		(Ice Typ	be: WE	TICE	)			
* NOTE: If the "I	No" box is checked	l, see comments below.						

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

\_\_\_\_\_

\_\_\_\_

	ll Analytical Quality Counts''	, Inc	• •	Toll Free Teleph	Pass Road, Pittsburg, C one: (877) 252-9262 / Fa npbell.com / E-mail: mai	x: (925) 252-9269		
P & D Environmental				298; Snow	Date Sampled:	12/12/12		
55 G / GL G/ 040	Cleaners	s 2678	Coolidg	ge Ave. Oakland	Date Received	: 12/13/12		
55 Santa Clara, Ste.240	Client C	ontact:	Steve	Carmack	Date Extracted	: 12/14/12		
Oakland, CA 94610	Client P		Bleve	Curmuen				
Surfaile, Cri 94010					Date Analyzed	: 12/14/12		
Extraction Method: SW5030B	Volatile Organi	•		d GC/MS (Basic ' od: SW8260B	Farget List)*	Work Order: 12123	365	
Lab ID				121236	5-001B			
Client ID				MV				
Matrix			Domontino	Wa	ter	1		Deperting
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl eth	er (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichlorometha	ine	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA	.)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform		0.97	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane		ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB) 1,2-Dichlorobenzene		ND	1.0 1.0	0.5
Dibromomethane	ND		0.5	1,2-Dichlorobenzene		ND		0.5
1,3-Dichlorobenzene Dichlorodifluoromethane	ND ND	1.0 1.0	0.5	1,4-Dichloroethane		ND ND	1.0 1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroeth	iene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane		ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene		ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropro		ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	spene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether	(MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanon		ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroet	hane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenze	ne	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethan	e	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropa		ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenze	ene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total		ND	1.0	0.5
			rogate R	ecoveries (%)				
%SS1:	102 %SS2: 100							
%SS3:	99			1				

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.

	ll Analytica Quality Counts''	l, Inc	<u>.</u>	Toll Free Teleph		g, CA 94565-1701 / Fax: (925) 252-9269 main@mccampbell.com					
P & D Environmental	Client I	Project I	D: #0	298; Snow	Date Sample	ed: 12/12/12					
	Cleaner	rs 2678	Coolidg	ge Ave. Oakland	Date Receiv	ed: 12/13/12					
55 Santa Clara, Ste.240	Client (	Contact.	Steve	Carmack	Date Extract	ed: 12/14/12					
Oakland, CA 94610			bieve	Carmaex							
Oakland, CA 94010	Client I				-	red: 12/14/12					
Extraction Method: SW5030B	Volatile Organ	•		d GC/MS (Basic ' od: SW8260B	Target List)*	Work Order: 1212	365				
Lab ID				121236	5-002B						
Client ID				MV	V-2						
Matrix				Wa	ater			D			
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit			
Acetone	ND<1000	100	10	tert-Amyl methyl eth	er (TAME)	ND<50	100	0.5			
Benzene	ND<50	100	0.5	Bromobenzene		ND<50	100	0.5			
Bromochloromethane	ND<50	100	0.5	Bromodichlorometha	ine	ND<50	100	0.5			
Bromoform	ND<50	100	0.5	Bromomethane		ND<50	100	0.5			
2-Butanone (MEK)	ND<200	100	2.0	t-Butyl alcohol (TBA)		ND<200	100	2.0			
n-Butyl benzene	ND<50	100	0.5	sec-Butyl benzene		ND<50	100	0.5			
tert-Butyl benzene	ND<50	100	0.5	Carbon Disulfide		ND<50	100	0.5			
Carbon Tetrachloride	ND<50	100	0.5	Chlorobenzene		ND<50	100	0.5			
Chloroethane	ND<50	100	0.5	Chloroform		ND<50	100	0.5			
Chloromethane	ND<50	100	0.5	2-Chlorotoluene		ND<50	100	0.5			
4-Chlorotoluene	ND<50	100	0.5	Dibromochloromethane		ND<50	100	0.5			
1,2-Dibromo-3-chloropropane	ND<20	100	0.2	1,2-Dibromoethane (EDB)		ND<50	100	0.5			
Dibromomethane	ND<50	100	0.5	1,2-Dichlorobenzene		ND<50	100	0.5			
1,3-Dichlorobenzene	ND<50	100	0.5	1,4-Dichlorobenzene		ND<50	100	0.5			
Dichlorodifluoromethane	ND<50	100	0.5	1,1-Dichloroethane		ND<50	100	0.5			
1,2-Dichloroethane (1,2-DCA)	ND<50	100	0.5	1,1-Dichloroethene		ND<50	100	0.5			
cis-1,2-Dichloroethene	790	100	0.5	trans-1,2-Dichloroeth	nene	ND<50	100	0.5			
1,2-Dichloropropane	ND<50	100	0.5	1,3-Dichloropropane		ND<50	100	0.5			
2,2-Dichloropropane	ND<50	100	0.5	1,1-Dichloropropene		ND<50	100	0.5			
cis-1,3-Dichloropropene	ND<50	100	0.5	trans-1,3-Dichloropro	opene	ND<50	100	0.5			
Diisopropyl ether (DIPE)	ND<50	100	0.5	Ethylbenzene		ND<50	100	0.5			
Ethyl tert-butyl ether (ETBE)	ND<50	100	0.5	Freon 113		ND<1000	100	10			
Hexachlorobutadiene	ND<50	100	0.5	Hexachloroethane		ND<50	100	0.5			
2-Hexanone	ND<50	100	0.5	Isopropylbenzene		ND<50	100	0.5			
4-Isopropyl toluene	ND<50	100	0.5	Methyl-t-butyl ether	````	ND<50	100	0.5			
Methylene chloride	ND<50	100	0.5	4-Methyl-2-pentanon	e (MIBK)	ND<50	100	0.5			
Naphthalene	ND<50	100	0.5	n-Propyl benzene		ND<50	100	0.5			
Styrene	ND<50	100	0.5	1,1,1,2-Tetrachloroet	hane	ND<50	100	0.5			
1,1,2,2-Tetrachloroethane	ND<50	100	0.5	Tetrachloroethene		ND<50	100	0.5			
Toluene	ND<50	100	0.5	1,2,3-Trichlorobenze		ND<50	100	0.5			
1,2,4-Trichlorobenzene	ND<50	100	0.5	1,1,1-Trichloroethan	e	ND<50	100	0.5			
1,1,2-Trichloroethane	ND<50	100	0.5	Trichloroethene		ND<50	100	0.5			
Trichlorofluoromethane	ND<50	100	0.5	1,2,3-Trichloropropa		ND<50	100	0.5			
1,2,4-Trimethylbenzene	59	100	0.5	1,3,5-Trimethylbenze	ene	ND<50	100	0.5			
Vinyl Chloride	110	100	0.5	Xylenes, Total		ND<50	100	0.5			
			rogate R	ecoveries (%)							
%SS1:	10			%SS2:		10	1				
%SS3:	10	00		J							
Comments:											

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.

	II Analytical Quality Counts''	<u>, Inc</u>	<u>.</u>	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				298; Snow	Date Sampled	12/12/12				
	Cleaners	s 2678	Coolidg	ge Ave. Oakland	Date Received	: 12/13/12				
55 Santa Clara, Ste.240	Client C	ontact.	Steve	Carmack	Date Extracted	· 12/14/12				
Oakland, CA 94610			Sieve	Carmack						
Oakland, CA 94010	Client P	.0.:			Date Analyzed	: 12/14/12				
Extraction Method: SW5030B	Volatile Organi	-		d GC/MS (Basic ' od: SW8260B	Farget List)*	Work Order: 1212	365			
Lab ID				121236	5-003B					
Client ID				MV						
Matrix			Demonting	Wa	ter	1		Deporting		
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit		
Acetone	ND	1.0	10	tert-Amyl methyl eth	er (TAME)	ND	1.0	0.5		
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5		
Bromochloromethane	ND	1.0	0.5	Bromodichlorometha	ne	ND	1.0	0.5		
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5		
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA	.)	ND	1.0	2.0		
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5		
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5		
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5		
Chloroethane	ND	1.0	0.5	Chloroform		ND	1.0	0.5		
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5		
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane		ND	1.0	0.5		
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB) 1,2-Dichlorobenzene		ND	1.0	0.5		
Dibromomethane	ND		0.5	1,2-Dichlorobenzene		ND ND		0.5		
1,3-Dichlorobenzene Dichlorodifluoromethane	ND ND	1.0 1.0	0.5	1,4-Dichloroethane		ND	<u>1.0</u> 1.0	0.5		
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5		
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroeth	iene	ND	1.0	0.5		
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane		ND	1.0	0.5		
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene		ND	1.0	0.5		
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropro		ND	1.0	0.5		
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	spene	ND	1.0	0.5		
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10		
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5		
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5		
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether	(MTBE)	ND	1.0	0.5		
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanon		ND	1.0	0.5		
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5		
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroet	hane	ND	1.0	0.5		
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5		
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenze	ne	ND	1.0	0.5		
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethan	e	ND	1.0	0.5		
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		ND	1.0	0.5		
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropa		ND	1.0	0.5		
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenze	ene	ND	1.0	0.5		
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total		ND	1.0	0.5		
			rogate R	ecoveries (%)						
%SS1:	104 %SS2: 101									
%SS3:	99			I						

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.

	ll Analytical Quality Counts''	, Inc	2	Toll Free Teleph	Pass Road, Pittsburg, Ca one: (877) 252-9262 / Fa npbell.com / E-mail: main	x: (925) 252-9269		
P & D Environmental				298; Snow	Date Sampled:	12/12/12		
	Cleaner	s 2678 <b>(</b>	Coolidg	ge Ave. Oakland	Date Received:	12/13/12		
55 Santa Clara, Ste.240	Client C	ontact.	Steve	Carmack	Date Extracted	12/14/12		
Oakland, CA 94610			Sieve	Carmack				
Oakland, CA 94010	Client P	2.0.:			Date Analyzed	: 12/14/12		
Extraction Method: SW5030B	Volatile Organi	-		d GC/MS (Basic 7 od: SW8260B	Farget List)*	Work Order: 12123	365	
Lab ID				121236	5-004B			
Client ID				MV				
Matrix			Donortino	Wa	ter			Deperting
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl eth	er (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichlorometha	ne	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA	.)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform		1.5	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane		ND	1.0	0.5
1,2-Dibromo-3-chloropropane Dibromomethane	ND ND	1.0	0.2	1,2-Dibromoethane (EDB)		ND ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,2-Dichlorobenzene		ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5
cis-1,2-Dichloroethene	15	1.0	0.5	trans-1,2-Dichloroeth	iene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane		ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene		ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropro		ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	•	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113		ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane		ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether	(MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanon	e (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroet	hane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene		ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenze		ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	9	ND	1.0	0.5
1,1,2-Trichloroethane Trichlorofluoromethane	ND	1.0	0.5	Trichloroethene		ND ND	1.0	0.5
1,2,4-Trimethylbenzene	ND ND	1.0 1.0	0.5	1,2,3-Trichloropropa 1,3,5-Trimethylbenze		ND	1.0 1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total	che	ND	1.0	0.5
v myr Chioriae	ND			• •		nD	1.0	0.5
0/ \$\$1.	100		ogate R	ecoveries (%)		10	0	
%SS1:	107			%SS2:		100	U	
%SS3: Comments:	100	J		J				

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.

	ll Analytica Quality Counts''	l, Inc	<u>.</u>	Toll Free Teleph		, CA 94565-1701 / Fax: (925) 252-9269 nain@mccampbell.com		
P & D Environmental	Client I	Project I	D: #0	298; Snow	Date Sample	ed: 12/12/12		
	Cleaner	s 2678	Coolidg	ge Ave. Oakland	Date Receive	ed: 12/13/12		
55 Santa Clara, Ste.240	Client (	ontact.	Steve	Carmack	Date Extract	ed: 12/15/12		
Oakland, CA 94610	Client		Steve	Curnick		ed: 12/15/12		
					-	eu. 12/13/12		
Extraction Method: SW5030B	Volatile Organ	•		d GC/MS (Basic '	Farget List)*	Work Order: 1212	365	
Lab ID				121236	5-005B			
Client ID				DF				
Matrix			Descriptions	Wa	ter			Describer
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit
Acetone	ND<2000	200	10	tert-Amyl methyl eth	er (TAME)	ND<100	200	0.5
Benzene	ND<100	200	0.5	Bromobenzene		ND<100	200	0.5
Bromochloromethane	ND<100	200	0.5	Bromodichlorometha	ne	ND<100	200	0.5
Bromoform	ND<100	200	0.5	Bromomethane	ND<100	200	0.5	
2-Butanone (MEK)	ND<400	200	2.0	t-Butyl alcohol (TBA)		ND<400	200	2.0
n-Butyl benzene	ND<100	200	0.5	sec-Butyl benzene		ND<100	200	0.5
tert-Butyl benzene	ND<100	200	0.5	Carbon Disulfide		ND<100	200	0.5
Carbon Tetrachloride	ND<100	200	0.5	Chlorobenzene		ND<100	200	0.5
Chloroethane	ND<100	200	0.5	Chloroform		ND<100	200	0.5
Chloromethane	ND<100	200	0.5	2-Chlorotoluene		ND<100	200	0.5
4-Chlorotoluene	ND<100	200	0.5	Dibromochloromethane		ND<100	200	0.5
1,2-Dibromo-3-chloropropane	ND<40	200	0.2	1,2-Dibromoethane (EDB)		ND<100	200	0.5
Dibromomethane	ND<100	200	0.5	1,2-Dichlorobenzene		ND<100	200	0.5
1,3-Dichlorobenzene	ND<100	200	0.5	1,4-Dichlorobenzene		ND<100	200	0.5
Dichlorodifluoromethane	ND<100	200	0.5	1,1-Dichloroethane		ND<100	200	0.5
1,2-Dichloroethane (1,2-DCA)	ND<100	200	0.5	1,1-Dichloroethene		ND<100	200	0.5
cis-1,2-Dichloroethene	5200	200	0.5	trans-1,2-Dichloroeth	iene	ND<100	200	0.5
1,2-Dichloropropane	ND<100	200	0.5	1,3-Dichloropropane	lene	ND<100	200	0.5
2,2-Dichloropropane	ND<100	200	0.5	1,1-Dichloropropene		ND<100	200	0.5
cis-1,3-Dichloropropene	ND<100	200	0.5	trans-1,3-Dichloropro		ND<100	200	0.5
Diisopropyl ether (DIPE)	ND<100	200	0.5	Ethylbenzene	opene	ND<100	200	0.5
Ethyl tert-butyl ether (ETBE)	ND<100	200	0.5	Freon 113		ND<100	200	10
Hexachlorobutadiene	ND<100	200	0.5	Hexachloroethane		ND<100	200	0.5
2-Hexanone	ND<100	200	0.5			ND<100	200	0.5
				Isopropylbenzene				
4-Isopropyl toluene	ND<100	200	0.5	Methyl-t-butyl ether	````	ND<100	200	0.5
Methylene chloride	ND<100	200	0.5	4-Methyl-2-pentanon	c (MIDK)	ND<100	200	0.5
Naphthalene Structure	ND<100	200	0.5	n-Propyl benzene	hana	ND<100	200	0.5
Styrene	ND<100	200	0.5	1,1,1,2-Tetrachloroet	nane	ND<100	200	0.5
1,1,2,2-Tetrachloroethane	ND<100	200	0.5	Tetrachloroethene		4100	200	0.5
Toluene	ND<100	200	0.5	1,2,3-Trichlorobenze		ND<100	200	0.5
1,2,4-Trichlorobenzene	ND<100	200	0.5	1,1,1-Trichloroethane	•	ND<100	200	0.5
1,1,2-Trichloroethane	ND<100	200	0.5	Trichloroethene		3800	200	0.5
Trichlorofluoromethane	ND<100	200	0.5	1,2,3-Trichloropropa		ND<100	200	0.5
1,2,4-Trimethylbenzene	ND<100	200	0.5	1,3,5-Trimethylbenze	ene	ND<100	200	0.5
Vinyl Chloride	290	200	0.5	Xylenes, Total		ND<100	200	0.5
			rogate R	ecoveries (%)				
%SS1:	10			%SS2:		99	)	
%SS3:	9	9						
Comments: b6								

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.

	ll Analyticc Quality Counts''	ıl, Inc	<u>.</u>	Toll Free Teleph		, CA 94565-1701 Fax: (925) 252-9269 nain@mccampbell.com					
P & D Environmental				298; Snow	Date Sample	d: 12/13/12					
	Cleane	ers 2678	Coolidg	ge Ave. Oakland	Date Receive	ed: 12/13/12					
55 Santa Clara, Ste.240	Client	Contact.	Steve	Carmack	Date Extracte	ed: 12/15/12					
Oakland, CA 94610			Bleve	Curnicex							
Oakland, CA 94010	Client				-	ed: 12/15/12					
Extraction Method: SW5030B	Volatile Organ	•		d GC/MS (Basic '	Farget List)*	Work Order: 1212	365				
Lab ID				121236							
Client ID				DF							
Matrix			Reporting	Wa				Reporting			
Compound	Concentration *	DF	Limit	Compou		Concentration *	DF	Ĺimit			
Acetone	ND<10,000	1000	10	tert-Amyl methyl eth	er (TAME)	ND<500	1000	0.5			
Benzene	ND<500	1000	0.5	Bromobenzene		ND<500	1000	0.5			
Bromochloromethane	ND<500	1000	0.5	Bromodichlorometha	ND<500	1000	0.5				
Bromoform	ND<500	1000	0.5	Bromomethane		ND<500	1000	0.5			
2-Butanone (MEK)	ND<2000	1000	2.0	t-Butyl alcohol (TBA	.)	ND<2000	1000	2.0			
n-Butyl benzene	ND<500	1000	0.5	sec-Butyl benzene		ND<500	1000	0.5			
tert-Butyl benzene	ND<500	1000	0.5	Carbon Disulfide Chlorobenzene		ND<500	1000	0.5			
Carbon Tetrachloride Chloroethane	ND<500	1000 1000	0.5	Chloroform		ND<500	1000 1000	0.5			
Chloromethane	ND<500 ND<500	1000	0.5			ND<500 ND<500	1000	0.5			
4-Chlorotoluene		1000	0.5	2-Chlorotoluene		ND<500	1000	0.5			
	ND<500 ND<200	1000	0.3	Dibromochloromethane		ND<500	1000	0.5			
1,2-Dibromo-3-chloropropane Dibromomethane	ND<200	1000	0.2	1,2-Dibromoethane (EDB) 1,2-Dichlorobenzene		ND<500	1000	0.5			
1,3-Dichlorobenzene	ND<500	1000	0.5	1,4-Dichlorobenzene		ND<500	1000	0.5			
Dichlorodifluoromethane	ND<500	1000	0.5	1,1-Dichloroethane		ND<500	1000	0.5			
1,2-Dichloroethane (1,2-DCA)	ND<500	1000	0.5	1,1-Dichloroethene		ND<500	1000	0.5			
cis-1,2-Dichloroethene	17,000	1000	0.5	trans-1,2-Dichloroeth	ene	ND<500	1000	0.5			
1,2-Dichloropropane	ND<500	1000	0.5	1,3-Dichloropropane		ND<500	1000	0.5			
2,2-Dichloropropane	ND<500	1000	0.5	1,1-Dichloropropene		ND<500	1000	0.5			
cis-1,3-Dichloropropene	ND<500	1000	0.5	trans-1,3-Dichloropro		ND<500	1000	0.5			
Diisopropyl ether (DIPE)	ND<500	1000	0.5	Ethylbenzene	spene	ND<500	1000	0.5			
Ethyl tert-butyl ether (ETBE)	ND<500	1000	0.5	Freon 113		ND<10,000	1000	10			
Hexachlorobutadiene	ND<500	1000	0.5	Hexachloroethane		ND<500	1000	0.5			
2-Hexanone	ND<500	1000	0.5	Isopropylbenzene		ND<500	1000	0.5			
4-Isopropyl toluene	ND<500	1000	0.5	Methyl-t-butyl ether	(MTBE)	ND<500	1000	0.5			
Methylene chloride	ND<500	1000	0.5	4-Methyl-2-pentanon	`	ND<500	1000	0.5			
Naphthalene	ND<500	1000	0.5	n-Propyl benzene		ND<500	1000	0.5			
Styrene	ND<500	1000	0.5	1,1,1,2-Tetrachloroet	hane	ND<500	1000	0.5			
1,1,2,2-Tetrachloroethane	ND<500	1000	0.5	Tetrachloroethene		ND<500	1000	0.5			
Toluene	ND<500	1000	0.5	1,2,3-Trichlorobenze	ne	ND<500	1000	0.5			
1,2,4-Trichlorobenzene	ND<500	1000	0.5	1,1,1-Trichloroethane	e	ND<500	1000	0.5			
1,1,2-Trichloroethane	ND<500	1000	0.5	Trichloroethene		ND<500	1000	0.5			
Trichlorofluoromethane	ND<500	1000	0.5	1,2,3-Trichloropropa	ne	ND<500	1000	0.5			
1,2,4-Trimethylbenzene	ND<500	1000	0.5	1,3,5-Trimethylbenze	ene	ND<500	1000	0.5			
Vinyl Chloride	1200	1000	0.5	Xylenes, Total		ND<500	1000	0.5			
		Sur	rogate R	ecoveries (%)							
%SS1:	1	04		%SS2:		99	)				
%SS3:	1	00									
Comments:											

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.

	ll Analytica Quality Counts''	l, Inc.		Toll Free Telepho	Pass Road, Pittsburg, C. one: (877) 252-9262 / Fa apbell.com / E-mail: main	x: (925) 252-9269			
P & D Environmental	Client l	Project II	D: #02	#0298; Snow Date Sampled: 12/1					
	Cleaner	rs 2678 C	Coolidg	ge Ave. Oakland	Date Received	1: 12/13/12			
55 Santa Clara, Ste.240	Client	Client Contact: Steve Carmack Date Extracted							
			Steve	Carmack					
Oakland, CA 94610	Client l	P.O.:			Date Analyzed	: 12/15/12			
Extraction Method: SW5030B	Volatile Organ	•		d GC/MS (Basic 7	Farget List)*	Work Order: 12123	865		
Lab ID				1212365					
Client ID				DP	-				
Matrix			Reporting	Wa				Reporting	
Compound	Concentration *	DF	Limit	Compou		Concentration *	DF	Limit	
Acetone	ND<20	2.0	10	tert-Amyl methyl ethe	er (TAME)	ND<1.0	2.0	0.5	
Benzene	2.1	2.0	0.5	Bromobenzene		ND<1.0	2.0	0.5	
Bromochloromethane	ND<1.0	2.0	0.5	Bromodichlorometha	ne	ND<1.0	2.0	0.5	
Bromoform	ND<1.0	2.0	0.5	Bromomethane	\ \	ND<1.0	2.0	0.5	
2-Butanone (MEK)	ND<4.0	2.0	2.0	t-Butyl alcohol (TBA	)	ND<4.0	2.0	2.0	
n-Butyl benzene tert-Butyl benzene	1.5 ND<1.0	2.0 2.0	0.5	sec-Butyl benzene Carbon Disulfide		2.3 ND<1.0	2.0	0.5	
Carbon Tetrachloride	ND<1.0	2.0	0.5	Carbon Disulfide Chlorobenzene		ND<1.0	2.0	0.5	
Chloroethane	ND<1.0	2.0	0.5	Chloroform		ND<1.0	2.0	0.5	
Chloromethane	ND<1.0	2.0	0.5	2-Chlorotoluene		ND<1.0	2.0	0.5	
4-Chlorotoluene	ND<1.0	2.0	0.5	Dibromochloromethane		ND<1.0	2.0	0.5	
1,2-Dibromo-3-chloropropane	ND<0.40	2.0	0.2	1,2-Dibromoethane (EDB)		ND<1.0	2.0	0.5	
Dibromomethane	ND<1.0	2.0	0.5	1,2-Dichlorobenzene		ND<1.0	2.0	0.5	
1,3-Dichlorobenzene	ND<1.0	2.0	0.5	1,4-Dichlorobenzene		ND<1.0	2.0	0.5	
Dichlorodifluoromethane	ND<1.0	2.0	0.5	1,1-Dichloroethane		ND<1.0	2.0	0.5	
1,2-Dichloroethane (1,2-DCA)	ND<1.0	2.0	0.5	1,1-Dichloroethene		ND<1.0	2.0	0.5	
cis-1,2-Dichloroethene	36	2.0	0.5	trans-1,2-Dichloroeth	ene	3.1	2.0	0.5	
1,2-Dichloropropane	ND<1.0	2.0	0.5	1,3-Dichloropropane		ND<1.0	2.0	0.5	
2,2-Dichloropropane	ND<1.0	2.0	0.5	1,1-Dichloropropene		ND<1.0	2.0	0.5	
cis-1,3-Dichloropropene	ND<1.0	2.0	0.5	trans-1,3-Dichloropro	opene	ND<1.0	2.0	0.5	
Diisopropyl ether (DIPE)	ND<1.0	2.0	0.5	Ethylbenzene		1.2	2.0	0.5	
Ethyl tert-butyl ether (ETBE) Hexachlorobutadiene	ND<1.0 ND<1.0	2.0 2.0	0.5	Freon 113 Hexachloroethane		ND<20 ND<1.0	2.0	10	
2-Hexanone	ND<1.0	2.0	0.5	Isopropylbenzene		2.4	2.0	0.5	
4-Isopropyl toluene	1.2	2.0	0.5	Methyl-t-butyl ether (	MTRF)	ND<1.0	2.0	0.5	
Methylene chloride	ND<1.0	2.0	0.5	4-Methyl-2-pentanon		ND<1.0	2.0	0.5	
Naphthalene	1.7	2.0	0.5	n-Propyl benzene		3.6	2.0	0.5	
Styrene	ND<1.0	2.0	0.5	1,1,1,2-Tetrachloroet	hane	ND<1.0	2.0	0.5	
1,1,2,2-Tetrachloroethane	ND<1.0	2.0	0.5	Tetrachloroethene		ND<1.0	2.0	0.5	
Toluene	1.8	2.0	0.5	1,2,3-Trichlorobenzer	ne	ND<1.0	2.0	0.5	
1,2,4-Trichlorobenzene	ND<1.0	2.0	0.5	1,1,1-Trichloroethane	ND<1.0	2.0	0.5		
1,1,2-Trichloroethane	ND<1.0	2.0	0.5	Trichloroethene	ND<1.0	2.0	0.5		
Trichlorofluoromethane	ND<1.0	2.0	0.5	1,2,3-Trichloropropa		ND<1.0	2.0	0.5	
1,2,4-Trimethylbenzene	20	2.0	0.5	1,3,5-Trimethylbenze	ne	4.6	2.0	0.5	
Vinyl Chloride	47	2.0	0.5	Xylenes, Total		5.2	2.0	0.5	
			ogate R	ecoveries (%)					
%SS1:	10			%SS2:		99			
%SS3: Comments:	9	6							

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.

	ll Analytical Quality Counts''	<u>, Inc</u>	<u>.</u>	Toll Free Telepho	Pass Road, Pittsburg, CA one: (877) 252-9262 / Fa npbell.com / E-mail: mair	x: (925) 252-9269			
P & D Environmental				298; Snow	Date Sampled:	12/12/12			
	Cleaner	s 2678 (	Coolidg	ge Ave. Oakland	Date Received:	12/13/12			
55 Santa Clara, Ste.240	Client C	ontact.	Steve	Carmack	Date Extracted:				
Oakland, CA 94610			bleve .	Carmack					
Oakland, CA 94010	Client P	2.0.:			Date Analyzed	: 12/14/12			
Extraction Method: SW5030B	Volatile Organi	-		d GC/MS (Basic 7 od: SW8260B	Farget List)*	Work Order: 12123	365		
Lab ID				121236	5-008B				
Client ID				DF					
Matrix			Demonting	Wa	ter			Demontine	
Compound	Concentration *	DF	Reporting Limit	Compou	nd	Concentration *	DF	Reporting Limit	
Acetone	ND	1.0	10	tert-Amyl methyl etho	er (TAME)	ND	1.0	0.5	
Benzene	ND	1.0	0.5	Bromobenzene		ND	1.0	0.5	
Bromochloromethane	ND	1.0	0.5	Bromodichlorometha	ne	ND	1.0	0.5	
Bromoform	ND	1.0	0.5	Bromomethane		ND	1.0	0.5	
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA	.)	ND	1.0	2.0	
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene		ND	1.0	0.5	
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide		ND	1.0	0.5	
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene		ND	1.0	0.5	
Chloroethane	ND	1.0	0.5	Chloroform		0.60	1.0	0.5	
Chloromethane	ND	1.0	0.5	2-Chlorotoluene		ND	1.0	0.5	
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane		ND	1.0	0.5	
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)		ND	1.0	0.5	
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene		ND	1.0	0.5	
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene		ND	1.0	0.5	
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane		ND	1.0	0.5	
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene		ND	1.0	0.5	
cis-1,2-Dichloroethene	3.6	1.0	0.5	trans-1,2-Dichloroeth		ND	1.0	0.5	
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane		ND	1.0	0.5	
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene		ND	1.0	0.5	
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropro	opene	ND	1.0	0.5	
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene		ND ND	1.0	0.5	
Ethyl tert-butyl ether (ETBE) Hexachlorobutadiene	ND ND	1.0 1.0	0.5	Freon 113 Hexachloroethane		ND	1.0 1.0	0.5	
2-Hexanone	ND	1.0	0.5	Isopropylbenzene		ND	1.0	0.5	
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether	(MTRE)	ND	1.0	0.5	
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanon		ND	1.0	0.5	
Naphthalene	ND	1.0	0.5	n-Propyl benzene		ND	1.0	0.5	
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroet	hane	ND	1.0	0.5	
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	nane	20	1.0	0.5	
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenze	ne	ND	1.0	0.5	
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane		ND	1.0	0.5	
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene		10	1.0	0.5	
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropa	ne	ND	1.0	0.5	
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenze		ND	1.0	0.5	
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total		ND	1.0	0.5	
		Sur	rogate R	ecoveries (%)					
%SS1:	101		Sare R	%SS2:		10	)		
%SS3:	102					10	-		
Comments:	101								

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.

<b>.</b>	McCampbell Ana "When Quality Con	<u>ytical, Inc.</u> unts''	Toll Free Telepho	Pass Road, Pittsburg, CA 94565-1701 one: (877) 252-9262 / Fax: (925) 252-92 ipbell.com / E-mail: main@mccampbell	269 .com			
P & D En	nvironmental	Client Project ID		Date Sampled: 12/12/1	2-12/1	3/12		
55 Santa	Clara, Ste.240	Cleaners 2678 Co	oolidge Ave. Oakland	Date Received: 12/13/12				
		Client Contact: S	Steve Carmack	Date Extracted: 12/14/1	2-12/1	7/12	/12	
Oakland,	CA 94610	Client P.O.:		Date Analyzed: 12/14/1	2-12/1	7/12		
	soline Range (C6-C12) Stoddar ethod: SW5030B	-	(C9-C12) Volatile Hydr nalytical methods: SW8015Bm	rocarbons as Gasoline & S		r <b>d Solv</b> Order: 1		
Lab ID	Client ID	Matrix	TPH(g)	TPH(ss)	DF	% SS	Comment	
001A	<b>MW-1</b>	W	ND	ND	1	104		
002A	MW-2	W	1100	1200	1	111	d7,d6	
003A	MW-3	W	ND	ND	1	105		
004A	MW-4	W	ND	ND	1	103		
005A	DP-1	W	4500	2300	10	#	d5,d6	
006A	DP-2	W	670	640	1	116	d7,d6	
007A	DP-3	W	830	900	1	114	d7	
008A	DP-4	W	ND	ND	1	#	c1	
1	Reporting Limit for DF =1; ND means not detected at or above	W	50	50		μg/I		
	the reporting limit	S	NA	NA		NA		

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

# cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

c1) surrogate recovery outside of the control limits due to dilution / matrix interference / coelution / presence of surrogate compound in the sample

d5) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?)

d6) one to a few isolated non-target peaks present in the TPH(g) chromatogram

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram

DHS ELAP Certification 1644



McC	ampbell And "When Quality C	alytical, Ind Counts''	C. Toll Free	Villow Pass Road, Pittsburg, CA Felephone: (877) 252-9262 / Fax: mccampbell.com / E-mail: main@	(925) 252-9	269	
P & D Environmen	tal		ID: #0298; Snow	Date Sampled:	12/12/12-12/13/12		
55 Santa Clara, Ste	240	Cleaners 2678	Coolidge Ave. Oaklan	d Date Received:	12/13	/12	
55 Santa Clara, Ste	Client Contact: Steve Carmack Date Extracted				12/13	/12	
Oakland, CA 94610	)	Client P.O.:		Date Analyzed:	12/15	/12-12/1	8/12
Extraction method: SW35	10C		table Petroleum Hydrod I methods: SW8015B	arbons*	W	/ork Order:	1212365
Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)				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 ND		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	W	50	100	μg/L
above the reporting limit	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 / 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 McCampbell Analytical is not responsible for their interpretation:

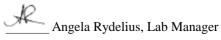
e2) diesel range compounds are significant; no recognizable pattern

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				
EPA Method: SW8260B	Extraction: SW5030B						Spiked Sam	ple ID:	1212365-003B
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acc	eptance	Criteria (%)
, inclusio	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

#### 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.

% 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.

# 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		WorkO	rder: 1212365
EPA Method: SW8021B/8015Bm Extraction: S	W5030B						Spiked Sam	ple ID:	1212373-002A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acc	eptance	Criteria (%)
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex) <sup>£</sup>	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 ba NONE	tch were ND	less than th	e method	RL with t	he following	g exceptio	ns:		

	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.

 $\pounds$  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.



\_QA/QC Officer



## 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									N/A
Analyte	Sample	Spiked	MS	MSD	MSD MS-MSD		Acc	eptance	Criteria (%)
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
PH-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
%SS: Il target compounds in the Method Blank of this								N/A	

#### 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

JK\_\_\_QA/QC Officer



McCampbell 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

## **Analytical Report**

P & D Environmental	& D Environmental Client Project ID: #0298; Snow Cleaners 2678 Coolidge Ave. Oakland		12/12/12-12/13/12
55 Santa Clara, Ste.240		Date Received:	12/13/12
55 Sunta Chata, 510.2 10	Client Contact: Steve Carmack	Date Reported:	12/19/12
Oakland, CA 94610	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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

	CI	HAI	IN O	<b>F</b> C	USTOD	Y RE	CO	RD		21	23	36	5		PAGE	OF	L.
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PROJECT NUMBER:			OJECT :		Cleaners Codidge Av	Z C CONTAINERS	ANALYSIS(Fe	"YELE.D.		Janos	112 Sclout ne			2	/		
SAMPLED BY: (PRIN Steve Comments SAMPLE NUMBER	ί Γ	TIME	<u>zel</u>		MPLE LOCATIO	Z UMBER OF	H.M.W	The second	Inc. by	methane, et			REGE	TOERVATIVE	REMAI	₹KS	
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Results and billing to: P&D Environmental, Inc. lab@pdenviro.com					REMARKS:	/	<i>t</i> 1(	bott	les	fre.	Servai	lw	HCL	e			

## McCampbell Analytical, Inc.



1534 Willow Pass Rd Pittsburg CA 94565-1701

## **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

(925) 252	2-9262				W	orkOr	der: 12	212365	Α	Clier	ntCode: I	PDEO				
		WaterTrax	WriteC	Dn 🗌 EDF		Excel		]Fax	🖌 Er	nail	Hard	Сору	ThirdPa	rty	_J-flag	g
Report to:						Bi	ill to:					Requ	lested TAT:		5	days
Steve Carma P & D Enviro 55 Santa Cla Oakland, CA (510) 658-691	onmental ara, Ste.240 A 94610	cc: PO: ProjectNo: #0	o@pdenviro. 298; Snow ( e. Oakland	com Cleaners 2678 Coc	Accounts PayableDate ReceivP & D EnvironmentalDate Add-O55 Santa Clara, Ste.240Date Add-OpoolidgeOakland, CA 94610Date Printed				e Add-On:		12/13/2012 12/14/2012 12/14/2012					
									Requ	ested Te	ests (See le	egend b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6 7	8	9	10	11	12
1212365-001	MW-1		Water	12/12/2012 12:05		С										
1212365-002	MW-2		Water	12/12/2012 14:35		С										
1212365-003	MW-3		Water	12/12/2012 13:00		С										

[]

12/12/2012 13:45

12/12/2012 15:35

12/13/2012 13:25

12/13/2012 12:40

12/12/2012 17:00

С

С

С

С

С

#### Test Legend:

1212365-004

1212365-005

1212365-006

1212365-007

1212365-008

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

**Prepared by: Jena Alfaro** 

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

MW-4

DP-1

DP-2

DP-3

DP-4

Water

Water

Water

Water

Water

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.

	Pass Road, Pittsburg, CA ne: (877) 252-9262 / Fax: pbell.com / E-mail: main@	(925) 252-9269									
P & D Environmental		roject ID: #0		Date Sampled: 12/12/12-12/13/12							
55 Santa Clara, Ste.240	Cleaners	2678 Coolid	ge Ave. Oakland	Date Received:	12/13/12						
	Client C	ontact: Steve	Carmack	Date Extracted:	12/19/12						
Oakland, CA 94610	Client P.	0.:		Date Analyzed:	12/19/12						
Extraction Method: RSK175	Work Order: 1212365										
Lab ID	1212365-001C	1212365-00	2C 1212365-003C	1212365-004C							
Client ID	MW-1	MW-2	MW-3	MW-4	Reporting Limit for DF =1						
Matrix	W	W	W	W							
DF	1	1	1	1	S	W					
Compound		С	oncentration		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					
	Surro	ogate Recove	eries (%)								
%SS:	N/A	N/A	N/A	N/A							
Comments											
* water samples are reported in µg/L.			I		4						
%SS = Percent Recovery of Surrogate Standard											
N/A = Not applicable to this analysis											
DF = Dilution Factor											

McCampbell Analytical, Inc. <i>When Quality Counts'</i> 1534 Willow Toll Free Telephonethy											
					Date Sampled: 12/12/12-12/13/12						
Cleaners	2678 Cooli	idge A	ve. Oakland	Date Received:	12/13/12						
Client Co	ontact: Stev	ve Car	mack	Date Extracted:	12/19/12						
Client P.	0.:			Date Analyzed:	12/19/12						
Light Gases* Extraction Method: RSK175 Analytical Method: RSK175 Work Order: 121											
2365-005C	1212365-0	)06C	1212365-007C	1212365-008C							
DP-1	DP-2		DP-3	DP-4	Reporting Limit for DF =1						
W	w w		W	W	1						
2	2 1 1			1	S	W					
Compound					ug/kg	µg/L					
ND<0.40			1.4	ND	NA	0.2					
5.4	19		2.7	ND	NA	0.2					
150	2600		7400	3.1	NA	0.1					
Surro	gate Recov	veries	(%)	÷							
N/A	N/A	N/A N/A		N/A							
				,							
N/A = Not applicable to this analysis											
DF = Dilution Factor											
	Cleaners Client Co Client P. Ana 2365-005C DP-1 W 2 ND<0.40 5.4 150 Surro	Cleaners 2678 Cool Client Contact: Ste Client P.O.: Light G Analytical Method: 2365-005C 1212365-0 DP-1 DP-2 W W 2 1 ND<0.40 1.0 5.4 19 150 2600 Surrogate Reco	Cleaners 2678 Coolidge A Client Contact: Steve Car Client P.O.: Light Gases* Analytical Method: RSK175 2365-005C 1212365-006C DP-1 DP-2 W W W 2 1 Conce ND<0.40 1.0 5.4 19 150 2600 Surrogate Recoveries	Cleaners 2678 Coolidge Ave. OaklandClient Contact: Steve CarmackClient P.O.:Light Gases* Analytical Method: RSK1752365-005C1212365-006C1212365-007CDP-1DP-2DP-3WWW211ConcentrationND<0.40	Cleaners 2678 Coolidge Ave. OaklandDate Received: Date Received:Client Contact: Steve CarmackDate Extracted: Date Analyzed:Client P.O.:Date Analyzed:Light Gases* Analytical Method: RSK1752365-005C1212365-006C1212365-007CDP-1DP-2DP-3DP-1DP-2DP-3WWW211ConcentrationND<0.40	Cleaners 2678 Coolidge Ave. Oakland         Date Received:         12/13/12           Client Contact:         Steve Carmack         Date Extracted:         12/19/12           Client P.O.:         Date Analyzed:         12/19/12           Light Gases*           Analytical Method:         RSK175         Work Order:           2365-005C         1212365-006C         1212365-007C         1212365-008C           DP-1         DP-2         DP-3         DP-4         Reporting DF           W         W         W         W         W         Vert W           2         1         1         S         10         S           ND<0.40					



### **OC 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.

% 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.

QA/QC Officer

DHS ELAP Certification 1644