

September 30, 2008

881.060.03.004

Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Attention: Mr. Jerry Wickham

Transmittal
Second Quarter 2008
Groundwater Monitoring Report
Sparkle Cleaners
Eastmont Town Center
7000 Bancroft Avenue
Oakland, California
SLIC Case RO0002942

Dear Mr. Wickham:

On behalf of SKB-Eastmont Oakland Associates, LLC, attached please find our report documenting the results of the second quarter 2008 groundwater monitoring event at the Sparkle Cleaners facility. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

We trust that this is the information that you require at this time. Please contact us with any further questions.

Yours very truly,

PES ENVIRONMENTAL, INC.

William W. Mast, P.G. Associate Engineer

cc: Ms. Kathleen Schulz - SKB - Eastmont Oakland Associates, LLC

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1:56 pm, Oct 13, 2008

Alameda County Environmental Health

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A Report Prepared for:

Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Attention: Mr. Jerry Wickham

SECOND QUARTER 2008
GROUNDWATER MONITORING REPORT
SPARKLE CLEANERS
EASTMONT TOWN CENTER
7000 BANCROFT AVENUE
OAKLAND, CALIFORNIA

SEPTEMBER 29, 2008

By:

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Senior Geologist

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Associate Engineer

881.060.03.004

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1.0 INTRODUCTION

This report presents the results of groundwater monitoring activities conducted during the second quarter 2008 monitoring event at the Sparkle Cleaners facility (Site). The Site is located at 7000 Bancroft Avenue, Oakland, California and is situated in the northwest portion of Eastmont Town Center (Plates 1 and 2). Sparkle Cleaners is an active dry-cleaning facility that uses tetrachloroethene (PCE) as a dry-cleaning solvent. This report has been prepared for the Alameda County Environmental Health Department (ACEH) by PES Environmental, Inc. (PES) on behalf of SKB – Eastmont Oakland Associates, LLC (SKBEOA), the property owner.

2.0 BACKGROUND INFORMATION

The groundwater monitoring activities were conducted in accordance with PES' Remedial Action Workplan (RAW) that was approved by ACEH in a letter dated February 27, 2007 (PES, 2007a; ACEH, 2007a). The RAW's scope of work also included removing the source of PCE soil contamination beneath Sparkle Cleaners and installing four groundwater monitoring wells. Excavation activities to remove the source of PCE in soil were successfully completed in July 2007 and documented in the report titled *Post-Remediation Report*, *Voluntary Soil Remediation, Sparkle Cleaners, Eastmont Town Center, 7000 Bancroft Avenue, Oakland, California* (PES, 2007b) that was previously submitted to ACEH. The groundwater monitoring wells were installed in July 2007 and the baseline groundwater sampling event was conducted in August 2007. The details of the well installations and the results of the baseline sampling event are presented in the *Third Quarter 2007 Groundwater Monitoring Report* (PES, 2007c). In a letter dated October 4, 2007, ACEH provided comments on the *Post-Remediation Report* and requested additional analytical testing during two quarters of groundwater monitoring (ACEH, 2007b).

As described in the RAW, the purpose of the groundwater monitoring is to: (1) document the initial concentrations of volatile organic compounds (VOCs) in the newly installed wells at the Site; (2) monitor groundwater flow directions(s), gradient, and seasonal fluctuations; (3) evaluate the groundwater chemical response to the removal of the source of contamination; and (4) verify that groundwater quality down gradient of Sparkle Cleaners are not declining.

3.0 SITE DESCRIPTION

The Sparkle Cleaners tenant space (Suite 11) covers approximately 1,800 square feet in the northwest portion of Eastmont Town Center (Plate 2). The area in front (north) of Sparkle Cleaners includes storefront parking and a mall driveway. The rear (south) of the tenant space opens into a common hallway that traverses the width of the building from east to west. An alleyway is located approximately 20 feet to the east.

The ground surface elevation at Sparkle Cleaners is approximately 60 feet above mean seal level (MSL). The Site topography slopes gently to the southwest. To the east and northeast of the Site, the topography steepens and continues to rise to approximately 360 feet MSL (Plate 1).

4.0 GROUNDWATER MONITORING WELL SAMPLING ACTIVITIES

Second quarter 2008 groundwater monitoring activities consisted of: (1) collection of depth to groundwater measurements and calculation of groundwater elevations; (2) groundwater sample collection; and (3) laboratory analysis of the samples for halogenated VOCs, naphthalene, methyl-tert-butyl ether (MTBE), and gasoline oxygenates. Field activities were conducted by Blaine Tech Services (BTS) of San Jose, California on May 15, 2008. Construction details for the four monitoring wells are provided in Table 1.

4.1 Depth to Groundwater Measurements

Depth-to-groundwater measurements were obtained for the monitoring wells using an electronic water-level indicator and recorded to the nearest 0.01-foot. The portion of the water-level indicator that was submerged in the wells was cleaned with a solution of Alconox and deionized (DI) water, and then rinsed with DI water between measurements. Decontamination fluids were stored temporarily on-Site in a DOT-approved 55-gallon drum pending off-Site disposal. Depth-to-groundwater data were converted to groundwater elevations referenced to mean sea level and are presented in Table 2. Groundwater elevation contours are presented on Plate 2.

4.2 Monitoring Well Sampling

After collecting water-level data, BTS sampled the four monitoring wells. Three casing volumes of groundwater were purged from each well prior to collecting the samples. The wells were purged using a new disposable bailer for each well. Samples were collected using a disposable bailer and decanted into laboratory-provided sample containers. Groundwater temperature, pH, conductivity, and turbidity were monitored during purging. The BTS monitoring well sampling forms are presented in Appendix A.

The samples were transported to TestAmerica Laboratories, Inc. (TestAmerica) under chain-of-custody protocol and analyzed for halogenated VOCs (8010 list), MTBE, fuel oxygenates, and naphthalene by U.S. Environmental Protection Agency (EPA) Test Method 8260B.

5.0 GROUNDWATER MONITORING RESULTS

5.1 Groundwater Elevation Measurements

Groundwater elevations measured on May 15, 2008 ranged from 25.99 feet MSL in well MW-01 to 36.00 feet MSL in well MW-02 (see Table 2 and Plate 2). As indicated on Plate 2, the elevation data from well MW-02 is not used for contouring because the groundwater elevation in this well is significantly higher than the elevations in the other wells. As described in the previous monitoring reports, the cause of the higher water-level elevation at Well MW-02 appears to be from a screen interval that is at least 9 feet shallower (i.e., relative to the ground surface) than the other three wells. Well MW-2 was constructed in this manner because groundwater was detected at a shallower depth while drilling the borehole for this well.

Based on the groundwater elevation data from wells MW-01, MW-03, and MW-04, the hydraulic gradient during the second quarter 2008 monitoring event was approximately 0.015 foot per foot to the west (see Plate 2). In addition, the analytical results discussed below suggest a westerly to northwesterly direction for groundwater flow.

5.2 Groundwater Sample Analytical Results

The analytical results for the groundwater samples collected on May 15, 2008 are summarized below and presented in Table 3. The laboratory analytical report and chain-of-custody documentation are provided in Appendix B.

5.2.1 Volatile Organic Compounds

PCE was detected in three of the four monitoring wells at concentrations ranging from 1.5 μ g/L in well MW-03 to 130 μ g/L in well MW-01 (PCE was detected at 140 μ g/L in the duplicate sample from well MW-01). TCE was detected at concentrations of 5.5 and 0.91 μ g/L in wells MW-01 and MW-02, respectively, and cis-1,2-dichloroethene (DCE) was detected at concentrations of 0.53 and 0.50 μ g/L in wells MW-01 and MW-03. No other VOCs were detected at concentrations exceeding laboratory reporting limits in the samples from wells MW-01 through MW-03, and no VOCs were detected in well MW-04 (Table 3).

The distribution of PCE and TCE in groundwater is consistent with the observed westerly groundwater flow direction, and with prior monitoring data.

5.2.2 Petroleum Hydrocarbons

BTEX compounds, fuel oxygenates, and naphthalene were not detected in the water samples.

5.3 Quality Assurance/Quality Control Assessment of Chemical Data

The quality of the chemical data reported by TestAmerica was assessed from the results of internal laboratory spike and method blank. The data are within acceptable recovery limits. The results for the duplicate sample collected at MW-01 indicate good reproducibility with PCE, TCE, and cis-1,2-DCE detected in both the regular and duplicate sample. The relative percent differences for the PCE, TCE, and cis-1,2-DCE concentrations detected in this sample are 3,7, 0.92, and 0.93 percent, respectively. The water samples were analyzed within acceptable EPA holding times. The data from TestAmerica are considered to be representative and of good quality.

6.0 HYDROGEOLOGIC EVALUATION

Groundwater monitoring data collected since removal of the vadose zone source area in 2007 indicate that VOC concentrations are fairly stable in downgradient monitoring wells MW-01 and MW-02. Assuming complete removal of the vadose zone source area, the time required to observe a reduction in VOC concentrations in downgradient groundwater is dependent on several factors including groundwater flow velocities, sorption, biodegradation, and natural attenuation of the chemicals.

The groundwater flow velocity indicates the rate at which groundwater is moving beneath the site, but likely does not represent the rate at which the dissolved-phase VOCs are migrating within the groundwater. Because of retardation factors, the estimated groundwater velocity may be significantly greater than the dissolved-phase VOC velocity, and resulting groundwater travel times will be faster than the VOC travel times. However, estimations of groundwater travel times are useful in providing a timeframe for the minimum amount of time required for groundwater to travel from a removed source area to a downgradient area.

An estimation of the time required for groundwater to travel from the former source area to approximately 190 feet in the downgradient direction is presented herein. A distance of 190 feet was selected because it represents the approximate distance (perpendicular to groundwater contour lines) between the former source area and the vicinity of well MW-02 (the most downgradient well).

The following equation was utilized for this estimation:

Velocity = $K/n_e * i$

Where:

K = Hydraulic conductivity (feet/day)

n_e= Effective porosity, or specific yield (percent)

i = Horizontal hydraulic gradient (feet/feet)

Because site-specific hydraulic conductivities are not available, lithologic logs for wells within the plume area (MW-01 and MW-02) were reviewed to identify the predominant water-bearing zones in the screened portions of wells. The predominant water-bearing zones in the screened intervals are poorly- and well-graded sands (SP and SW, respectively) at MW-01, and clayey sand (SC) at MW-02. Finer-grained sediments (silty clay and clay [CL]) are observed in the screened intervals at both wells; however, these units most likely have significantly lower permeabilities than the coarser-grained sediments and therefore were not evaluated.

6.1 Equation Variables

Hydraulic conductivities calculated at an environmental site in Oakland with similar lithologies to the site (primarily clayey sand) range from approximately 0.00136 centimeters per second (cm/s) (3.9 feet/day) to 0.00779 cm/s (22.1 feet/d) (Chemical Processors, Inc. 1990). These values are not inconsistent with the average hydraulic conductivity (2.5 meters per day [m/d] [8.2 feet/day]) described for a fine sand by Morris and Johnson (Morris and Johnson, 1967). The average effective porosity, or specific yield, for a fine sand is 21 percent (Johnson, 1967). The site-specific horizontal hydraulic gradient based on the May 2008 groundwater elevation data is approximately 0.0146 feet/feet.

6.2 Estimated Groundwater Velocity

Based on the data presented above, the estimated groundwater velocity ranges from approximately 0.3 to 1.5 feet per day. Using this range, a constituent in groundwater undergoing no retardation could theoretically travel the 190 feet between the former source area and well MW-02 in approximately 0.3 to 1.9 years. As discussed previously, retardation factors for chemicals such as PCE and TCE could increase the travel time from the source area to well MW-02. Additionally, the presence of fine-grained silty clay and clay sediments in the present in the saturated and not accounted for in the velocity calculations may further retard travel times of dissolved constituents in groundwater.

6.3 Discussion

The lack of a decreasing trend in VOC concentrations in downgradient groundwater one year following source removal is not inconsistent with the estimated minimum groundwater travel times (approximately 0.3 to 1.9 years) for the site. When retardation of the plume is considered, VOC travel times may be longer than the estimated groundwater travel times.

7.0 SUMMARY

The second quarter 2008 groundwater monitoring event has been conducted in accordance with the RAW. Groundwater flow at the Site continues to be westerly. The only VOC constituents detected above laboratory reporting limits in groundwater during this monitoring event were PCE, TCE, and cis-1,2-DCE. Concentrations of these chemicals are generally consistent with

those observed over the past two quarters of monitoring, but slightly higher than those observed during the third quarter 2007 monitoring.

Because the VOC plume is stable and a significant decrease in VOC concentrations may not occur for at least one more year, PES recommends a reduction of the current quarterly monitoring program to semi-annual monitoring. Semi-annual monitoring should provide sufficient data to evaluate concentration trends over time, and monitoring of plume stability. In addition, because naphthalene and fuel oxygenates have not been detected during the four quarters of groundwater monitoring, PES recommends eliminating these analyses from future groundwater monitoring. The next monitoring event will be conducted during fourth quarter 2008 and samples will be analyzed for halogenated VOCs (8010 list) using U.S. Environmental Protection Agency (EPA) Test Method 8260B.

8.0 REFERENCES

- Alameda County Environmental Health (ACEH), 2007a. SLIC Case RO0002942 and Geotracker Global ID SLT19735483, Sparkle Cleaners, 7000 Bancroft Avenue, Oakland, CA 94605 Work Plan Approval. February 27.
- ACEH, 2007b. SLIC Case RO0002942 and Geotracker Global ID SLT19735483, Sparkle Cleaners, 7000 Bancroft Avenue, Oakland, CA 94605 Post-Remediation Report Review. October 4.
- Chemical Processors, Inc. 1990. Remedial Investigation Report. Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California. November 7.
- Johnson, A.I. 1967. Specific Yield compilation of specific yields for various materials. U.S. Geological Survey Water Supply Paper 1662-D. 74p.
- Morris, D.A. and A.I. Johnson. 1967. Summary of hydrologic and physical properties of rock and soil materials as analyzed by the Hydrologic Laboratory of the U.S. Geological Survey 1948-1960. U.S. Geological Survey Water Supply Paper 1839-D. 42p.
- PES Environmental, Inc. (PES), 2007a. Remedial Action Workplan, Voluntary Soil Remediation, Sparkle Cleaner, Eastmont Town Center, 7000 Bancroft Avenue, Oakland, California. January 5.
- PES, 2007b. Post-Remediation Report, Voluntary Soil Remediation, Sparkle Cleaners, Eastmont Town Center, 7000 Bancroft Avenue, Oakland, California. September 9.
- PES, 2007c. Third Quarter 2007 Groundwater Monitoring Report, Sparkle Cleaners, Eastmont Town Center, 7000 Bancroft Avenue, Oakland, California. October 8.

TABLES

Table 1 Groundwater Monitoring Well Construction Details Sparkle Cleaners Eastmont Town Center 7000 Bancroft Avenue Oakland, California

Well ID	Date Completed	Top of Casing Elevation (feet MSL)	Borehole Diameter (inches)	Borehole Depth (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Screen Interval (feet bgs)	Sand Filter Interval (feet bgs)	Screen Slot Size (inches)
MW-01	7/23/2007	49.51	8	47	47	2	31.5 to 46.5	29.5 to 47	0.020
MW-02	7/24/2007	49.07	8	36.5	35	2	19.5 to 34.5	17.5 to 36.5	0.020
MW-03	7/24/2007	50.43	8	44	44	2	28.5 to 43.5	26.5 to 44	0.020
MW-04	7/23/2007	49.81	8	48.5	48.5	2	33 to 48	31 to 48.5	0.020

Note:

bgs - Below ground surface

MSL - Mean sea level

88106003R004.xlsx - Table 1 9/29/2008

Table 2
Groundwater Elevation Data
Sparkle Cleaners
Eastmont Town Center
7000 Bancroft Avenue
Oakland, California

Well ID	Date Measured	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet MSL)
MW-01	8/7/2007	49.51	23.62	25.89
MW-01	11/19/2007	49.51	24.85	24.66
MW-01	2/6/2008	49.51	22.93	26.58
MW-01	5/15/2008	49.51	23.52	25.99
MW-02	8/7/2007	49.07	14.30	34.77
MW-02	11/19/2007	49.07	14.83	34.24
MW-02	2/6/2008	49.07	14.11	34.96
MW-02	5/15/2008	49.07	13.07	36.00
MW-03	8/7/2007	50.43	17.82	32.61
MW-03	11/19/2007	50.43	24.70	25.73
MW-03	2/6/2008	50.43	22.86	27.57
MW-03	5/15/2008	50.43	22.27	28.16
MW-04	8/7/2007	49.81	22.43	27.38
MW-04	11/19/2007	49.81	23.81	26.00
MW-04	2/6/2008	49.81	22.80	27.01
MW-04	5/15/2008	49.81	22.32	27.49

Note:

MSL - Mean sea level BTOC - Below top of casing

88106003R004.xlsx - Table 2 9/29/2008

Table 3 Summary of Analytical Results for Groundwater Monitoring Well Samples Sparkle Cleaners Eastmont Town Center 7000 Bancroft Avenue Oakland, California

		Petroleum H	ydrocarbons				\	/olatile Organ	ic Compound	s			
Sample	Sample	TPHg	TPHd	PCE	TCE	cis-1,2-DCE	Naphthalene	MTBE	TAME	TBA	DIPE	ETBE	Other VOCs
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
MW-01 MW-01 (D) MW-01 MW-01 (D) MW-01	8/7/2007 8/7/2007 11/19/2007 11/19/2007 2/6/2008	NA NA 110 ⁽¹⁾ 110 ⁽¹⁾ 140 ⁽¹⁾ 140 ⁽¹⁾	NA NA 52 79 57	60 71 110 100 130 130	3.1 3.1 5.2 5.0 5.8 5.7	ND (0.50) ND (0.50) ND (1.0) ND (1.0) 0.58 0.60	NA NA ND (2.0) ND (2.0) ND (1.0) ND (1.0)	NA NA ND (0.50) ND (0.50) ND (0.50)	NA NA ND (0.50) ND (0.50) ND (0.50) ND (0.50)	NA NA ND (5.0) ND (5.0) ND (5.0)	NA NA ND (1.0) ND (1.0) ND (1.0)	NA NA ND (0.50) ND (0.50) ND (0.50)	ND ND ND ND ND
MW-01 ^(D) MW-01 MW-01 ^(D)	2/6/2008 5/15/2008 5/15/2008	NA NA	65 NA NA	130 130 140	5.7 5.5 5.4	0.50 0.53 0.54	ND (1.0) ND (1.0) ND (1.0)	ND (0.50) ND (0.50) ND (0.50)	ND (0.50) ND (0.50) ND (0.50)	ND (5.0) ND (5.0) ND (5.0)	ND (1.0) ND (1.0) ND (1.0)	ND (0.50) ND (0.50) ND (0.50)	ND ND ND
MW-02	8/7/2007	NA	NA	25	1.2	ND (0.50)	NA	NA	NA	NA	NA	NA	ND
MW-02	11/19/2007	ND (50)	120	26	0.93	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-02	2/6/2008	ND (50)	200	25	0.90	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-02	5/15/2008	NA	NA	20	0.91	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-03	8/7/2007	NA	NA	1.6	ND (0.50)	ND (0.50)	NA	NA	NA	NA	NA	NA	ND
MW-03	11/19/2007	ND (50)	79	2.1	ND (0.50)	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-03	2/6/2008	ND (50)	70	2.0	ND (0.50)	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-03	5/15/2008	NA	NA	1.5	ND (0.50)	0.50	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-04	8/7/2007	NA	NA	ND (0.50)	ND (0.50)	ND (0.50)	NA	NA	NA	NA	NA	NA	ND
MW-04	11/19/2007	ND (50)	69	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-04	2/6/2008	ND (50)	ND (50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND
MW-04	5/15/2008	NA	NA	ND (0.50)	ND (0.50)	ND (0.50)	ND (1.0)	ND (0.50)	ND (0.50)	ND (5.0)	ND (1.0)	ND (0.50)	ND

Notes:

TPHg - Gasoline range organics (C5-C12)

TPHd - Diesel range organics (C10-C28)

DCE - Dichloroethene
PCE - Tetrachloroethene

TCE - Trichloroethene

μg/L - Micrograms per liter

NA - Not Analyzed

ND (0.5) - Not detected at or above indicated laboratory reporting limit

ND - Not detected at or above the laboratory reporting limit (varies by analyte)

88106003R004.xlsx - Table 3

MTBE - Methyl tert-butyl ether

TAME - Tert-amyl methyl ether

ETBE - Ethyl tert-butyl ether

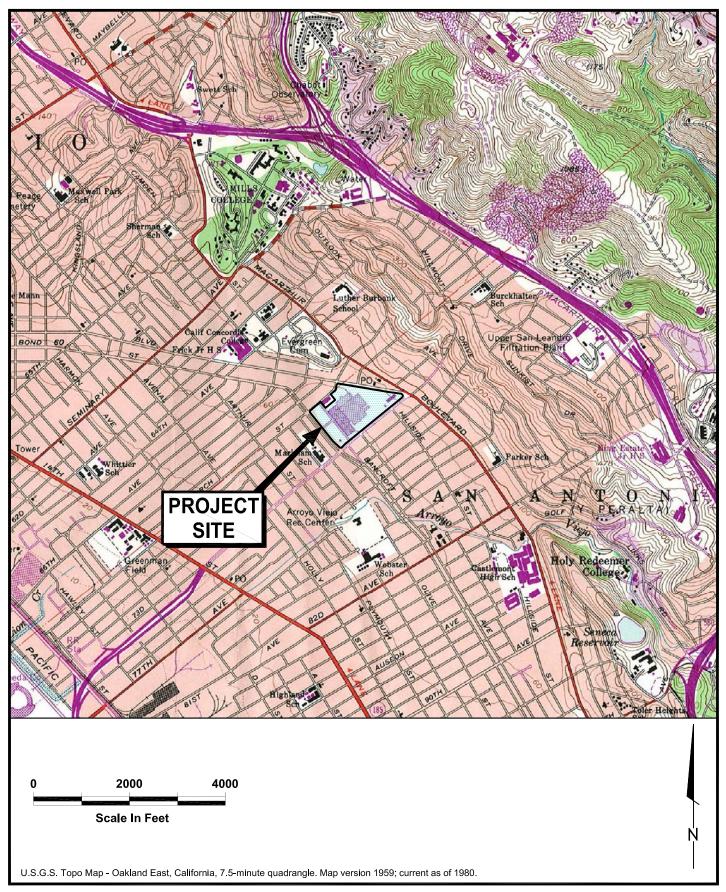
TBA - Tert-butyl alcohol DIPE - Diisopropyl ether

⁽D) - Field duplicate sample

^{(1) -} The analytical laboratory narrative states that the reported gasoline range organics concentration is due to the presence of PCE.

PES Environmental, Inc.

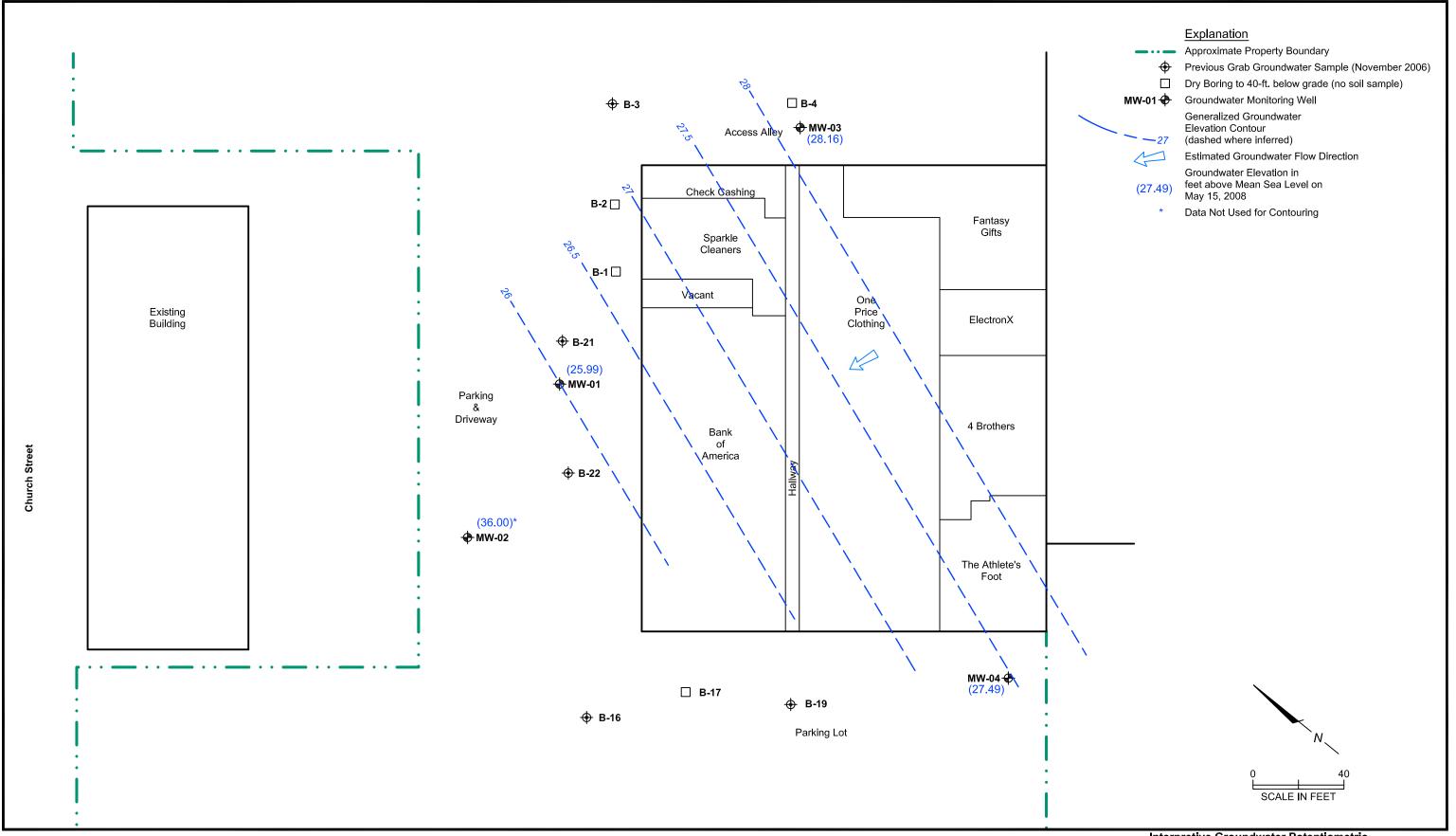
ILLUSTRATIONS





Site Location MapSparkle Cleaners
Eastmont Town Center
Oakland, California

PLATE



PES Environmental, Inc. Engineering & Environmental Services Interpretive Groundwater Potentiometric Surface Map - May 15, 2008 Sparkle Cleaners Eastmont Town Center Oakland, California

PLATE

WWM

REVIEWED BY

APPENDIX A

MONITORING WELL SAMPLING FORMS

SPH or Purge Water Drum Log

Client: PES
Site Address: 7200 Bancroft Ave Oakland

STATUS OF DRUM(S) UPON/	ARRIVAL					
Date	8-1-07	81762	11/19/07	02/06/08	05/5/08	
Number of drum(s) empty:	3		2	2	CVIII 1	
Number of drum(s) 1/4 full:					1-50:1	
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:		1				
Number of drum(s) full:	2	<i>1</i> 3.rd	5	0		
Total drum(s) on site:	6	6	1	2	3	
Are the drum(s) properly labeled?		٧	Υ,	MN	\mathcal{N}	
Drum ID & Contents:		Purgerated Soil Cuffing	fluge to		purgetho	
If any drum(s) are partially or totally filled, what is the first use date:	_				NA	

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.
- -If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.
- -All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON	DEPARTU	JRE				
Date	8-1-07	8/7/07	11/14/07	102/10/08	25 (15/18	
Number of drums empty:		2	2	2	1 Bout	top
Number of drum(s) 1/4 full:					1-50il	
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:			(D)		$ \mathcal{U}_{}$	
Number of drum(s) full:	5	Ч	\$ 6	8		
Total drum(s) on site:	6	7	8	3	2_	
Are the drum(s) properly labeled?	6	Ч	Y	[]	Yes	
Drum ID & Contents:	Soillouralw	iter	Pune while	A POPPOP	progettro	

LOCATION OF DRUM(S)

Describe location of drum(s): In Storage area next to cleaners / Rm # 15

FINAL STATUS			34			
Number of new drum(s) left on site this event	0		l		0	
Date of inspection:	8-1-07	8/7/07	11/19/07	gripping	05/15/06	
Drum(s) labelled properly:	Y	V	Ż	V	Y	
Logged by BTS Field Tech:	PW	PC	WAR	100	WW _	
Office reviewed by:	μ	N	9	R	C	

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 7200 BANCEOFT AVE, CAKLAND, CA PROJECT NUMBER 1805/5-WWI									
PROJECT NAM	1E 7200 BANZ	ROFT AVE, OAKE	and , ca	PROJECT NUMBER 180515-WWI					
EQUIPMENT NAME _{MSRON} (EQUIPMENT NUMBER	DATE/TIME OF TEST	USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	C° TEMP.	INITIALS		
ULTRAMETER 2	609559	0930	ptl: 4,7,10 cond: 3900	PH: 7.00, 4.00 10.05 Cond: 3900	Yes	20.96 NA	WW		
ZIOP TURBID IMETER	08030CZ8731	05/15/08	Cond: 3900 NTU: CO.1 20,100,800	200, 100	4.00	NA	.ww		
		·							
				e ^r .					
							·		

WELLHEAD INSPECTION CHECKLIST

	1	/
Page	` of _	1

	5-08							
Site Address 7	200 BANCA	OFT A	UE, DA	KLANI	, CA			
Job Number <u>(</u>	780515-V	W 1		Tec	hnician	uw		
Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	1 1	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-01	X							
pm-02	-X (M)	ANNI	ILAR	SEAL	HOL	E		-11
10-03	\times							
MW-04	\sim							
	,							
		:						
			,					
NOTES:		<u></u>	I			**************************************	***************************************	-
	<u></u>		<u> </u>				***************************************	

SAN DIEGO

WELL GAUGING DATA

Project #	805/5-WWI	_ Date 05-(3	5-08 Clien	t P€S
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Site 7200 BANCROFT. AVE, OAKLAND, 94

Well ID	Time	Well Size (in.)	Sheen / Odor	l .	Thickness of Immiscible Liquid (ft.)		Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or	Notes
Mw-01	OH	2	oder			*	33.52	46 26	<u> </u>	·
pw-02	0915	2	oder		·		3 3.52	34.73		%
MW-01 MW-02 MW-03 MW-04	0921	2	odor odur				22.27	44.00	1000	
Mw-04	0931	2	s dur				22,32	48.44		
									-	
					-					
			:							
,										
		·								
									·	

W_LL MONITORING DATA SHELT

Project #: 08 0515 - WW 1					Client: PES				
Sampler: WW					Date: 05-15-08				
Well I.D.:	pw-	ÒI		Well D	iameter	:(2) 3	4	6 8	
Total Well	Depth (TI): 46	,96	Depth 1	to Water	r (DTW):	23	52	
Depth to Fr	ee Produc	t:		Thickn	ess of F	ree Produc	t (fee	et):	
Referenced	to:	PVC	Grade	D.O. M	leter (if	req'd):		YSI HACH	
DTW with	80% Rech	arge [(H	leight of Water	Column	1 x 0.20)) + DTW]:	-	28,21	
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme	ent Extrac Other	Waterra Peristaltic tion Pump	Well Diamete		Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing Multiplier	
3.8 (C) 1 Case Volume	Gals.) X	5 fied Volun	$\frac{1}{\text{calculated Vo}} = \frac{1}{\text{Calculated Vo}}$	_ Gals. blume	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47 radius ² * 0.163	
Time	Temp (°F or 🚫	pН	Cond (mS or aS)	1	oidity TUs)	Gals. Remo	oved	Observations	
1050	23.1	665	956	10	2	3.8		•	
1053	221	6.64	944	29	4	7.6	,		
1055	21.2	6.69	933	47	3	11.4			
Did well dev	water?	Yes /	Ñ 6)	Gallons	actuall	y evacuate	d:	11.4	
Sampling D	ate: 05/1	5/08	Sampling Time	e: [[0	Constitution of the last of th	Depth to V	Vateı	:23,88	
Sample I.D.	: MW	-01		Laborat	tory:	Kiff CalSo	cience	Other TA - SF	
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygena	ites (5)	Other: S	ll	Coc	
EB I.D. (if a	pplicable));	@ Time	Duplica	nte I.D. ((if applicat	ole):	DUP @110b	
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygena	ites (5)	Other:			
D.O. (if req'	d): Pı	e-purge:		$^{ m mg}/_{ m L}$	P	ost-purge:		$^{mg}/_{L}$	
O.R.P. (if re	a'd): Pi	e-purge:		mV		ost-purge:		mV	

W	T	MONITORING DATA	A SHE.
VV 1	بالا		

	(سمة:	₩₩		OIUIIO	DALA	LOLLEGIALE		
Project #:-	AT-08	0212	+ hrul	Client:	PES	•		
Sampler:	UW			Date: [)5 -	15-08		
Well I.D.:	Mu -o.	2		Well Dia	ameter	: ② 3	4 (5 8
Total Well	Depth (TD): 34	.73	Depth to	Water	r (DTW):	13.	07
Depth to Fre	ee Product	-		Thickne	ss of F	ree Product (feet):	
Referenced	to:	PVC	Grade	D.O. Me	eter (if	req'd):	YS	I HACH
DTW with 8	80% Rech	arge [(H	eight of Water	I			17	.40
Purge Method:		ailer Displaceme		Waterra Peristaltic tion Pump		Sampling Meth	nod:	Bailer Disposable Bailer Extraction Port Dedicated Tubing
3.5 (C) 1 Case Volume	Gals.) X Speci	3 fied Volum	$\frac{1}{10000000000000000000000000000000000$	Gals.	fell Diamete 1" 2" 3"	0.04 4 0.16 6		eter <u>Multiplier</u> 0.65 1.47 radius ² * 0.163
Time	Temp (°F or (C)	_{рН}	Cond. (mS or pS)	Turbi (NTI	Js)	Gals. Remov	ed	Observations
1121	24.7	6.63	1203	>10	200	7		
1124	24.(656	1125	>/0	200	10.5		
Did well der	water?	Yes /	No	Gallons	actuall	y evacuated:	10	5
Sampling D	ate: 05/1	5/3	Sampling Time	e:	29	Depth to Wa	ater:	14.03
Sample I.D.	: MW -0	2		Laborato	ory:	Kiff CalScie	nce	Other TA - SF
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenat	es (5)	Other: 50	20	WC
EB I.D. (if a	npplicable)	:	@ Time	Duplicat	e I.D.	(if applicable	e):	
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenat	es (5)	Other:		
D.O. (if req'	'd): Pı	e-purge:		$^{ m mg}/_{ m L}$	Р	ost-purge:		mg/
O.R.P. (if re	eq'd): Pi	e-purge:		mV	P	ost-purge:		mV

W. LL MONITORING DATA SHE. T

Project #: 80515 - WWI	Client: PES				
Sampler: WW	Date: 05-15-08	Date: 1)5-15-08			
Well I.D.: MW-03	Well Diameter: (2) 3 4	6 8			
Total Well Depth (TD): 44.00	Depth to Water (DTW): 2	2.27			
Depth to Free Product:	Thickness of Free Product (fee				
Referenced to: PVC Grade	D.O. Meter (if req'd):	YSI HACH			
DTW with 80% Recharge [(Height of Wat	er Column x 0.20) + DTW]: 2	6.62			
Purge Method: 'Bailer Disposable Bailer	Waterra Sampling Method: Peristaltic raction Pump Other:	Bisposable Bailer Extraction Port Dedicated Tubing			
$\frac{3.5}{1 \text{ Case Volume}} \text{(Gals.) X } \frac{3}{\text{Specified Volumes}} = \frac{10.5}{\text{Calculated}}$	Gals. 1" 0.04 4" 2" 0.16 6" 3" 0.37 Other	Diameter Multiplier 0.65 1.47 radius ² * 0.163			
Time For pH (mS or as)	Turbidity (NTUs) Gals. Removed	Observations			
1017 010.3 7.04 529	60 3.3				
1020 7/3 689 542	7000 7				
1023 226 681 583	2,000 10.5				
Did well dewater? Yes No	Gallons actually evacuated:	10.5			
Sampling Date: 05/15/08 Sampling Ti	me: 1033 Depth to Wate	r: 26-50			
Sample I.D.: WW-03	Laboratory: Kiff CalScience	Other TA -SF			
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other: Sec	wc			
EB I.D. (if applicable):	Duplicate I.D. (if applicable):				
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other:				
D.O. (if req'd): Pre-purge:	^{mg} /L Post-purge:	^{mg} /L			
ORP (if reald): Pre-nurge:	mV Post-purge:	· mV			

W_LL MONITORING DATA SHEL 1

		•	, ZZZZZ IVROTVAR	OIGH, OL				
Project #:	080515	- WW	(Client: PES				
Sampler: WW				Date: 05	Date: 05/15/8			
Well I.D.:	Mut	4		Well Dia	meter	: 2 3 4	6 8	
Total Well	Depth (TD)): 4ª	8.44	Depth to	Wate	r (DTW): 27	2.32	
Depth to Fr	ee Product	t:	•	Thickness	s of F	ree Product (fe	et):	
Referenced	to:	PVC	Grade	D.O. Met	ter (if	req'd):	YSI HACH	
DTW with	80% Rech	arge [(E	Height of Water	Column x	(0.20)) + DTW]:	27.54	
Purge Method:	ailer Displaceme nersible				Sampling Method: Other:	Disposable Bailer Extraction Port Dedicated Tubing		
4.2 ₍₁₎	Gals.) XSpeci	3 fied Volum	$\frac{1}{1000} = \frac{12}{1000} = \frac{1}{1000} = $	_ Gals.	II Diamete 1" 2" 3"	n Multiplier Well I 0.04 4" 0.16 6" 0.37 Other	Diameter Multiplier 0.65 1.47 radius ² * 0.163	
Time	Temp (°F or C)	pН	Cond. (mS or uss)	Turbidi (NTUs	-	Gals. Removed	Observations	
0945	72.5	7.11	620	789	8	4.2		
0948	22,2	6.95	621	71000)	3.4		
0951	22.2	6.80	669	7100	0	12.6		
			W. W.					
Did well de	water?	Yes (No)	Gallons a	ctuall	y evacuated:	12.6	
Sampling D	ate: 05/19	5/08	Sampling Time	e: 095	6	Depth to Water	r: 22.32	
Sample I.D.	: MW-	04		Laborator	y:	Kiff CalScience	Other TA-JF	
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenates	s (5)	Other: See	wc	
EB I.D. (if a	ipplicable)	:	@ Time	Duplicate	I.D. ((if applicable):		
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenates	s (5)	Other:		
D.O. (if req'	d): Pr	e-purge:		mg/L	P	ost-purge:	^{mg} /L	
ODD Gfra	(ald): D.,			mV/	D	out mina	mV	

APPENDIX B

LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION



ANALYTICAL REPORT

Job Number: 720-14376-1

Job Description: Eastmont Town Center

For:

PES Environmental, Inc. 1682 Novato Boulevard Suite 100 Novato, CA 94947-7021

Attention: Mr. Miguel Rizo

Akaref Sal

Afsaneh Salimpour Project Manager I afsaneh.salimpour@testamericainc.com 05/27/2008

Job Narrative 720-J14376-1

Comments

No additional comments.

Receipt

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): RECEIVED SAMPLE ID DUP 6 VOAS SAMPLED AT 11:06 5-15-2008, SAMPLE NOT LISTED ON COC. SAMPLE LOGGED IN AND PUT ON HOLD.

All other samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The Gasoline Range Organics (GRO) concentration reported for the following sample is due to the presence of discrete peaks: MW-01 (720-14376-1).

Method(s) 8260B: The Gasoline Range Organics (GRO) concentration reported for the following sample is due to the presence of discrete peaks: DUP (720-14376-6).

No other analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-14376-1	MW-01				
cis-1,2-Dichloroethe	ene	0.53	0.50	ug/L	8260B
Tetrachloroethene		5.5 130	0.50 1.0	ug/L ug/L	8260B 8260B
720-14376-2	MW-02				
Trichloroethene Tetrachloroethene		0.91 20	0.50 0.50	ug/L ug/L	8260B 8260B
720-14376-3	MW-03				
cis-1,2-Dichloroethe Tetrachloroethene	ene	0.50 1.5	0.50 0.50	ug/L ug/L	8260B 8260B
720-14376-6	DUP				
cis-1,2-Dichloroethe Trichloroethene	ene	0.54 5.4	0.50 0.50	ug/L ug/L	8260B 8260B
Tetrachloroethene		140	1.0	ug/L	8260B

METHOD SUMMARY

Client: PES Environmental, Inc. Job Number: 720-14376-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B	
Volatile Organic Compounds by GC/MS (Low Level) Purge-and-Trap Purge-and-Trap	TAL SF TAL SF TAL SF	SW846 8260B	SW846 5030B SW846 5030B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: PES Environmental, Inc. Job Number: 720-14376-1

Method	Analyst	Analyst ID
SW846 8260B	Ali, Badri	ВА
SW846 8260B	Chen, Amy	AC

SAMPLE SUMMARY

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-14376-1	MW-01	Water	05/15/2008 1101	05/16/2008 1520
720-14376-2	MW-02	Water	05/15/2008 1129	05/16/2008 1520
720-14376-3	MW-03	Water	05/15/2008 1033	05/16/2008 1520
720-14376-4	MW-04	Water	05/15/2008 0956	05/16/2008 1520
720-14376-5TB	TB-1	Water	05/15/2008 0712	05/16/2008 1520
720-14376-6	DUP	Water	05/15/2008 1106	05/16/2008 1520

Analytical Data

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-01

 Lab Sample ID:
 720-14376-1
 Date Sampled:
 05/15/2008 1101

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1222 Final Weight/Volume: 40 mL

Date Prepared: 05/25/2008 1222

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	0.53		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	5.5		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	%Rec	Acceptance	Limits
Toluene-d8 (Surr)	97	73 - 117	
4-Bromofluorobenzene	106	71 - 139	
1,2-Dichloroethane-d4 (Surr)	101	62 - 118	

Analytical Data

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-01

 Lab Sample ID:
 720-14376-1
 Date Sampled:
 05/15/2008 1101

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-36035 Instrument ID: Varian 3900F

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 2.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/27/2008 1229 Final Weight/Volume: 40 mL

Date Prepared: 05/27/2008 1229

Analyte	Result (ug/L)	Qualifier	RL
Tetrachloroethene	130		1.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	99		73 - 117
4-Bromofluorobenzene	106		71 - 139
1,2-Dichloroethane-d4 (Surr)	97		62 - 118

Analytical Data

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-01

 Lab Sample ID:
 720-14376-1
 Date Sampled:
 05/15/2008 1101

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2232 Final Weight/Volume: 10 mL

Date Prepared: 05/20/2008 2232

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	99		77 - 121
1.2-Dichloroethane-d4 (Surr)	107		73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-02

 Lab Sample ID:
 720-14376-2
 Date Sampled:
 05/15/2008 1129

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1904 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	0.91		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	20		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
•			
Surrogate	%Rec	Acceptance	Limits
Toluene-d8 (Surr)	93	73 - 117	
4-Bromofluorobenzene	105	71 - 139	
1,2-Dichloroethane-d4 (Surr)	97	62 - 118	

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-02

 Lab Sample ID:
 720-14376-2
 Date Sampled:
 05/15/2008 1129

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2255 Final Weight/Volume: 10 mL

Date Analyzed: 05/20/2008 2255 Date Prepared: 05/20/2008 2255

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	100		77 - 121
1,2-Dichloroethane-d4 (Surr)	100		73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-03

 Lab Sample ID:
 720-14376-3
 Date Sampled:
 05/15/2008 1033

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1937 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	0.50		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	1.5		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
·			
Surrogate	%Rec	Acceptance	Limits
Toluene-d8 (Surr)	95	73 - 117	
4-Bromofluorobenzene	107	71 - 139	
1,2-Dichloroethane-d4 (Surr)	99	62 - 118	

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-03

 Lab Sample ID:
 720-14376-3
 Date Sampled:
 05/15/2008 1033

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2318 Final Weight/Volume: 10 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	99		77 - 121
1,2-Dichloroethane-d4 (Surr)	111		73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-04

 Lab Sample ID:
 720-14376-4
 Date Sampled:
 05/15/2008 0956

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 2011 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	94		73 - 117
4-Bromofluorobenzene	103		71 - 139
1,2-Dichloroethane-d4 (Surr)	100		62 - 118
.,			

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: MW-04

 Lab Sample ID:
 720-14376-4
 Date Sampled:
 05/15/2008 0956

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2341 Final Weight/Volume: 10 mL

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	102		77 - 121
1 2-Dichloroethane-d4 (Surr)	98		73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: TB-1

 Lab Sample ID:
 720-14376-5TB
 Date Sampled:
 05/15/2008 0712

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1256 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	97		73 - 117
4-Bromofluorobenzene	106		71 - 139
1,2-Dichloroethane-d4 (Surr)	103		62 - 118

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: TB-1

 Lab Sample ID:
 720-14376-5TB
 Date Sampled:
 05/15/2008 0712

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2208 Final Weight/Volume: 10 mL

Date Analyzed: 05/20/2008 2208 Date Prepared: 05/20/2008 2208

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	110		77 - 121
1,2-Dichloroethane-d4 (Surr)	108		73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: DUP

 Lab Sample ID:
 720-14376-6
 Date Sampled:
 05/15/2008 1106

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 2118 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	0.54		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	5.4		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	96		73 - 117
4-Bromofluorobenzene	101		71 - 139
1,2-Dichloroethane-d4 (Surr)	100		62 - 118

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: DUP

 Lab Sample ID:
 720-14376-6
 Date Sampled:
 05/15/2008 1106

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS (Low Level)

Method: 8260B Analysis Batch: 720-36035 Instrument ID: Varian 3900F

Preparation: 5030B Lab File ID: c:\saturnws\data\200805\05

Dilution: 2.0 Initial Weight/Volume: 40 mL

Date Analyzed: 05/27/2008 1302 Final Weight/Volume: 40 mL

Analyte	Result (ug/L)	Qualifier	RL
Tetrachloroethene	140		1.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	95		73 - 117
4-Bromofluorobenzene	106		71 - 139
1,2-Dichloroethane-d4 (Surr)	99		62 - 118

Client: PES Environmental, Inc. Job Number: 720-14376-1

Client Sample ID: DUP

 Lab Sample ID:
 720-14376-6
 Date Sampled:
 05/15/2008 1106

 Client Matrix:
 Water
 Date Received:
 05/16/2008 1520

8260B Volatile Organic Compounds by GC/MS

Method: 8260B Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Preparation: 5030B Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/21/2008 0004 Final Weight/Volume: 10 mL

Date Analyzed: 05/21/2008 0004 Date Prepared: 05/21/2008 0004

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8 (Surr)	99		77 - 121
1,2-Dichloroethane-d4 (Surr)	110		73 - 130

DATA REPORTING QUALIFIERS

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Section	Qualifier	Description
GC/MS VOA		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Client: PES Environmental, Inc. Job Number: 720-14376-1

QC Association Summary

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-35	848				
LCS 720-35848/2	Lab Control Spike	T	Water	8260B	
LCSD 720-35848/1	Lab Control Spike Duplicate	T	Water	8260B	
MB 720-35848/3	Method Blank	T	Water	8260B	
720-14373-A-12 MS	Matrix Spike	T	Water	8260B	
720-14373-A-12 MSD	Matrix Spike Duplicate	T	Water	8260B	
720-14376-1	MW-01	Т	Water	8260B	
720-14376-2	MW-02	Т	Water	8260B	
720-14376-3	MW-03	T	Water	8260B	
720-14376-4	MW-04	T	Water	8260B	
720-14376-5TB	TB-1	T	Water	8260B	
720-14376-6	DUP	Т	Water	8260B	
Analysis Batch:720-359	994				
LCS 720-35994/2	Lab Control Spike	Т	Water	8260B	
LCSD 720-35994/1	Lab Control Spike Duplicate	Т	Water	8260B	
MB 720-35994/3	Method Blank	Т	Water	8260B	
720-14376-1	MW-01	T	Water	8260B	
720-14376-1MS	Matrix Spike	Т	Water	8260B	
720-14376-1MSD	Matrix Spike Duplicate	Т	Water	8260B	
720-14376-2	MW-02	Т	Water	8260B	
720-14376-3	MW-03	Ť	Water	8260B	
720-14376-4	MW-04	Ť	Water	8260B	
720-14376-5TB	TB-1	Ť	Water	8260B	
720-14376-6	DUP	Т	Water	8260B	
Analysis Batch:720-36	035				
LCS 720-36035/2	Lab Control Spike	Т	Water	8260B	
LCSD 720-36035/1	Lab Control Spike Duplicate	Ť	Water	8260B	
MB 720-36035/3	Method Blank	T	Water	8260B	
720-14376-1	MW-01	T.	Water	8260B	
720-14376-6	DUP	T	Water	8260B	

Report Basis T = Total

Client: PES Environmental, Inc. Job Number: 720-14376-1

Method Blank - Batch: 720-35848 Method: 8260B Preparation: 5030B

Lab Sample ID: MB 720-35848/3 Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL

Date Analyzed: 05/20/2008 2018 Final Weight/Volume: 10 mL Date Prepared: 05/20/2008 2018

Analyte	Result	Qual	RL
Benzene	ND		0.50
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
Ethyl tert-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8 (Surr)	97	77 - 121	
1,2-Dichloroethane-d4 (Surr)	94	73 - 130	

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Control Spike/ Method: 8260B
Lab Control Spike Duplicate Recovery Report - Batch: 720-35848 Preparation: 5030B

LCS Lab Sample ID: LCS 720-35848/2 Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\varianws\data\200805\0\cdot\

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL Date Analyzed: 05/20/2008 2049 Final Weight/Volume: 10 mL

Date Analyzed: 05/20/2008 2049 Final Weight/Volume: 10 mL Date Prepared: 05/20/2008 2049

LCSD Lab Sample ID: LCSD 720-35848/1 Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\varianws\data\200805\052

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 10 mL
Date Analyzed: 05/20/2008 2112 Final Weight/Volume: 10 mL
Date Prepared: 05/20/2008 2112

% Rec. LCS **LCSD RPD** RPD Limit LCS Qual LCSD Qual Analyte Limit 64 - 140 Benzene 83 83 0 20 MTBE 108 97 44 - 134 20 11 Toluene 89 100 52 - 120 20 12 Surrogate LCS % Rec LCSD % Rec Acceptance Limits Toluene-d8 (Surr) 102 98 77 - 121 1,2-Dichloroethane-d4 (Surr) 89 98 73 - 130

Client: PES Environmental, Inc. Job Number: 720-14376-1

Matrix Spike/ Method: 8260B
Matrix Spike Duplicate Recovery Report - Batch: 720-35848 Preparation: 5030B

MS Lab Sample ID: 720-14373-A-12 MS Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\varianws\data\200805\(

Dilution: 1.0 Initial Weight/Volume: 10 mL Date Analyzed: 05/21/2008 0249 Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-14373-A-12 MSD Analysis Batch: 720-35848 Instrument ID: Varian 3900E

Date Prepared:

05/21/2008 0249

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\varianws\data\200805\05

Dilution: 1.0 Initial Weight/Volume: 10 mL

Date Analyzed: 05/21/2008 0312 Final Weight/Volume: 10 mL

Date Analyzed: 05/21/2008 0312 Final Weight/Volume: 10 mL Date Prepared: 05/21/2008 0312

	<u>%</u>	Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	94	90	64 - 140	5	20		
MTBE	184	238	44 - 134	3	20	4	4
Toluene	108	108	52 - 120	0	20		
Surrogate		MS % Rec	MSD 9	% Rec	Acce	ptance Limi	ts
Toluene-d8 (Surr)		115	5 113		77 - 121		
1,2-Dichloroethane-d4 (Surr) 99		98					

Client: PES Environmental, Inc. Job Number: 720-14376-1

Method Blank - Batch: 720-35994 Method: 8260B Preparation: 5030B

Lab Sample ID: MB 720-35994/3 Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\0{

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL

Final Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1149 Date Prepared: 05/25/2008 1149

Analyte	Result	Qual	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	% Rec	Acceptance Limits	·
Toluene-d8 (Surr)	95	73 - 117	
4-Bromofluorobenzene	105	71 - 139	
1,2-Dichloroethane-d4 (Surr)	100	62 - 118	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Control Spike/ Method: 8260B
Lab Control Spike Duplicate Recovery Report - Batch: 720-35994 Preparation: 5030B

LCS Lab Sample ID: LCS 720-35994/2 Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\0\text{\colored}

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1042 Final Weight/Volume: 40 mL

Date Analyzed: 05/25/2008 1042 Final Weight/Volume: 40 mL Date Prepared: 05/25/2008 1042

LCSD Lab Sample ID: LCSD 720-35994/1 Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\052

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL Date Analyzed: 05/25/2008 1115 Final Weight/Volume: 40 mL

Date Prepared:

05/25/2008 1115

% Rec. LCS **LCSD RPD** RPD Limit LCS Qual LCSD Qual Analyte Limit 1,1-Dichloroethene 90 88 65 - 125 2 20 Trichloroethene 74 - 134 2 20 81 80 Chlorobenzene 98 97 61 - 121 20 1 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 90 96 73 - 117 Toluene-d8 (Surr) 4-Bromofluorobenzene 99 104 71 - 139 1,2-Dichloroethane-d4 (Surr) 95 100 62 - 118

Job Number: 720-14376-1 Client: PES Environmental, Inc.

Matrix Spike/ Method: 8260B Matrix Spike Duplicate Recovery Report - Batch: 720-35994 Preparation: 5030B

MS Lab Sample ID: 720-14376-1 Analysis Batch: 720-35994 Instrument ID: Varian 3900G

Client Matrix: Prep Batch: N/A Water Lab File ID: c:\saturnws\data\200805\0

Initial Weight/Volume: 40 mL Dilution: 1.0

Date Analyzed: 05/25/2008 1436 Final Weight/Volume: 40 mL Date Prepared: 05/25/2008 1436

MSD Lab Sample ID: 720-14376-1 Instrument ID: Varian 3900G Analysis Batch: 720-35994

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\0{

Dilution: 1.0 Initial Weight/Volume: 40 mL

Date Analyzed: 05/25/2008 1510 Final Weight/Volume: 40 mL Date Prepared: 05/25/2008 1510

	<u>%</u>	Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual MSD Qual	
1,1-Dichloroethene	92	92	65 - 125	0	20		
Trichloroethene	83	83	74 - 134	1	20		
Chlorobenzene	102	99	61 - 121	3	20		
Surrogate		MS % Rec	MSD ^o	% Rec	Acce	eptance Limits	
Toluene-d8 (Surr)		95	93 73 - 117			3 - 117	
4-Bromofluorobenzene		104 104			71 - 139		
1,2-Dichloroethane-d4 (Surr)		98	97 62 - 1		2 - 118		

Client: PES Environmental, Inc. Job Number: 720-14376-1

Method Blank - Batch: 720-36035 Method: 8260B Preparation: 5030B

Lab Sample ID: MB 720-36035/3 Analysis Batch: 720-36035 Instrument ID: Varian 3900F

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\0{

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL

Date Analyzed: 05/27/2008 1049 Final Weight/Volume: 40 mL Date Prepared: 05/27/2008 1049

Analyte	Result	Qual	RL
1,1-Dichloroethene	ND		0.50
1,1-Dichloroethane	ND		0.50
Dichlorodifluoromethane	ND		0.50
Vinyl chloride	ND		0.50
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
Methylene Chloride	ND		5.0
trans-1,2-Dichloroethene	ND		0.50
cis-1,2-Dichloroethene	ND		0.50
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		0.50
Carbon tetrachloride	ND		0.50
1,2-Dichloroethane	ND		0.50
Trichloroethene	ND		0.50
1,2-Dichloropropane	ND		0.50
Dichlorobromomethane	ND		0.50
trans-1,3-Dichloropropene	ND		0.50
cis-1,3-Dichloropropene	ND		0.50
1,1,2-Trichloroethane	ND		0.50
Tetrachloroethene	ND		0.50
Chlorodibromomethane	ND		0.50
Chlorobenzene	ND		0.50
Bromoform	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,3-Dichlorobenzene	ND		0.50
1,4-Dichlorobenzene	ND		0.50
1,2-Dichlorobenzene	ND		0.50
Chloromethane	ND		1.0
Bromomethane	ND		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50
EDB	ND		0.50
1,2,4-Trichlorobenzene	ND		1.0
Naphthalene	ND		1.0
Surrogate	% Rec	Acceptance Limits	·
Toluene-d8 (Surr)	98	73 - 117	
4-Bromofluorobenzene	107	71 - 139	
1,2-Dichloroethane-d4 (Surr)	96	62 - 118	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: PES Environmental, Inc. Job Number: 720-14376-1

Lab Control Spike/ Method: 8260B
Lab Control Spike Duplicate Recovery Report - Batch: 720-36035 Preparation: 5030B

LCS Lab Sample ID: LCS 720-36035/2 Analysis Batch: 720-36035 Instrument ID: Varian 3900F

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\0\text{!}

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL Date Analyzed: 05/27/2008 0942 Final Weight/Volume: 40 ml

Date Analyzed: 05/27/2008 0942 Final Weight/Volume: 40 mL Date Prepared: 05/27/2008 0942

LCSD Lab Sample ID: LCSD 720-36035/1 Analysis Batch: 720-36035 Instrument ID: Varian 3900F

Client Matrix: Water Prep Batch: N/A Lab File ID: c:\saturnws\data\200805\052

Dilution: 1.0 Units: ug/L Initial Weight/Volume: 40 mL Date Analyzed: 05/27/2008 1015 Initial Weight/Volume: 40 mL

Date Prepared:

05/27/2008 1015

% Rec. LCS **LCSD RPD** RPD Limit LCS Qual LCSD Qual Analyte Limit 1,1-Dichloroethene 85 83 65 - 125 2 20 Trichloroethene 86 74 - 134 20 87 1 Chlorobenzene 102 96 61 - 121 20 6 Surrogate LCS % Rec LCSD % Rec Acceptance Limits 97 97 73 - 117 Toluene-d8 (Surr) 4-Bromofluorobenzene 107 71 - 139 103 1,2-Dichloroethane-d4 (Surr) 91 95 62 - 118

BLAII TECH SERV			N JOSE,	CALIFO FA	OGERS AVENI DRNIA 95112-11 AX (408) 573-77 NE (408) 573-05	05 71		CO	JUP.	(200%)	S TO D T	E	- 1	LIMITS SET BY CALIFO	ORNIA DHS AN	ICATIONS AND		8006/46
CHAIN OF CUST		BTS#	& C	515	5-WW1	KERS	Fuel Oxys,			(3)				LIA OTHER SPECIAL INSTRUCTION	DNS		10782	<u> </u>
SITE Eastmont Town Center				L CONTAINERS	TBE,			ed vo			1	Invoice and Repo						
	7200 Bar Oakland,		MATRIX	CC	ONTAINERS	COMPOSITE ALL	Napthalene (EPA 8260B)	TPH-0 (8015)	TPH D (8015)	Habyenat				Attn: Gary Thom	as	1 1		,
SAMPLE I.D.	DATE	TIME		TOTAL	HCI voas		Napti		Tai.	! 				ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
MW-01 MW-02 MW-03 MW-04	0 <u>5/15/18</u>		W	6		<u> </u>	1			X					, , , , , , , , , , , , , , , , , , ,			
MW-02	_	1129				-	X		-	*								,
MW-03		1033 0956	1			-	4			7			<u> </u>					4
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SAMPLING COMPLETED	DATE SISIA3	•	SAMPLI PERFOR	NG RMED B						<u> </u>	1 1	<u>l</u>		RESULTS NEEDED NO LATER THAN	STANDARD	TAT		
RELEASED BY	2					DAT	<u> </u>	cF	TIME	553	RECE		7	SAMPLE W5TOD/H		DATE 5/(5/		
RELEASED BY		SAM	nou	Cer-		DAT	E Slipt		TIME '1	480		VED BY				5/16/C	TIME 88	
RELEASED BY	X 12 /2	12					16/0		TIME US	70	7	VED BY	7	4 Bull		DATE ()	15 20	
SHIPPED VIA						DAT	E SEN	T	TIME	SENT	COOLE	ER#	٧	- 0	1,7	£ C		

Login Sample Receipt Check List

Client: PES Environmental, Inc. Job Number: 720-14376-1

List Source: TestAmerica San Francisco

Login Number: 14376 Creator: Bullock, Tracy

List Number: 1

Question T / F/ NA Comment Radioactivity either was not measured or, if measured, is at or below N/A background The cooler's custody seal, if present, is intact. N/A The cooler or samples do not appear to have been compromised or True tampered with. Samples were received on ice. True True Cooler Temperature is acceptable. Cooler Temperature is recorded. True COC is present. True COC is filled out in ink and legible. True COC is filled out with all pertinent information. True There are no discrepancies between the sample IDs on the containers and False SEE NCM the COC. Samples are received within Holding Time. True Sample containers have legible labels. True Containers are not broken or leaking. True Sample collection date/times are provided. True Appropriate sample containers are used. True Sample bottles are completely filled. True There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs VOA sample vials do not have headspace or bubble is <6mm (1/4") in True diameter. If necessary, staff have been informed of any short hold time or quick TAT True needs Multiphasic samples are not present. True Samples do not require splitting or compositing. True

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SEPTEMBER 29, 2008

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