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1:57 pm, Feb 08, 2008

Alameda County Environmental Health



February 6, 2008

Alameda County Environmental Health Services Mr. Jerry Wickham 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Subject: PCE Vertical Characterization Report

461 McGraw Avenue, Livermore, California 94550

EIS Project #717-3

Dear Mr. Wickham,

On behalf of Whitney Newland, Administrator of the Estate of the late Crandal Mackey, and Probate Court-authorized agent for Call Mac Transportation Company, Environmental Investigation Services Inc. (EIS) is submitting this report to document PCE vertical characterization at 461 McGraw Avenue, Livermore, California (the site).

The site is located northeast of the intersection of McGraw Avenue and Preston Road in Livermore, Alameda County, California. The nearest surface water is Arroyo Seco, located approximately ½ mile south of the site. Surface water in Arroyo Seco flows to the northwest. The site location is shown on Figure 1. Figure 2 depicts the site plan, including various features of concern. The site is currently vacant, but was formerly used by Call Mac Transportation Company as truck and trailer storage yard.

BACKGROUND

The site background has been discussed extensively in previous reports, so only background related to PCE groundwater characterization will be discussed.

On August 30, 2007, EIS submitted *Site Investigation and Remedial Action Workplan* to address ACEH's request for additional work.

ACEH's September 7, 2007, letter was issued in response to EIS' *Site Investigation and Remedial Action Workplan*. In this letter ACEH requested a historic review of the property, a well survey, and a workplan for a soil gas survey. The ACEH concurred with the proposed excavation and disposal of arsenic-impacted soil from the building pad, excavation and disposal of soil from excavation DO3, reuse plan of loading dock soil, decommissioning of water supply well in excavation T-4, and the plan to install and sample three groundwater monitoring wells as presented in the August 30, 2007 Workplan.

EIS conducted the historical review of the property and prepared a report describing the research sources and findings dated October 31, 2007. Based on the historic review of the property a EIS prepared *Soil Gas Survey Workplan* dated November 2, 2007.

ACEH's November 8, 2007, letter was issued in response to this *Soil Gas Survey Workplan*. In this letter ACEH accepted the Soil Gas Survey workplan, with slight modifications to boring locations. The ACEH letter requested two of the soil gas borings be placed in approximate locations of former waste oil and polymer resin drums. The ACEH letter concluded with a request for submittal of the Site Investigation and Remedial Action Report by January 29, 2008. On January 14, 2008, EIS submitted *Further Site Investigation and Remedial Action Report*, which is the first of two reports to be submitted by EIS in January 2008 to present investigation results.

On November 5, 2007 monitoring wells MW-1 through MW-3 were installed at the locations shown on Figure 2. The monitoring well will be used to verify the success of recent remedial action on improving groundwater quality, groundwater flow direction, and groundwater flow gradient in the vicinity of the site. The groundwater sample collected from monitoring well MW-1 contained 10 micrograms per liter (μ g/L) of tetrachloroethene (PCE). No TPH-g, TPH-d, BTEX compounds, or other VOCs were detected in the November 9, 2007 groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3. The California Department of Health Services (DHS) maximum contaminant level (MCL) for PCE in drinking water is 5 μ g/L. The monitoring wells were resampled on November 27, 2007, and results of the analysis revealed concentrations of PCE at 7.3 μ g/L at MW-1.

Thirty six temporary soil borings and twenty four soil gas points were installed and soil, soil gas, and groundwater was sampled to attempt to characterize the PCE groundwater plume. The results of the PCE Groundwater Characterization are presented in the EIS, Inc. January 18, 2008 report. To summarize, the results of the PCE groundwater characterization investigation revealed a plume of PCE contaminated groundwater above the ACEH target level of 50 μ g/L for PCE in groundwater. The highest concentrations detected were from boring sample B-30A at 1800 μ g/L, B-26 at 1500 μ g/L, B-36 at 600 μ g/L, and B-11 at 530 μ g/L. The vertical extent of PCE contamination was not defined at location B-26 as evidenced by discrete level sampling results. Three discrete-level samples were collected (B-30A, 30B and 30C). The deepest sample, B-30C, was collected at a depth of 25 feet bgs and contained 600 μ g/L PCE. The vertical extent was defined at location B-11 where a deep sample collected from 32 feet bgs contained no detectable PCE.

This report documents the PCE vertical characterization near the boring B-26 area conducted on January 25, 2008.

PCE Vertical Characterization near Boring B-26

Pre-Field Activities

Before commencing field activities, EIS used a Site-Specific Health and Safety Plan already prepared for the site, reflecting the work to be performed, the potential contaminants, appropriate safety precautions, and emergency response procedures.

Soil Boring Installation and Soil and Grab Groundwater Sampling Activities

To determine the vertical extent of PCE contamination in soil and groundwater near boring B-26 one 36-foot deep continuously-cored pilot boring was drilled to define stratigraphy followed by advancing four discrete-level groundwater sampling probes to 28, 33, 38, and 45 feet bgs.

EIS contracted Environmental Control Associates of Aptos, California, a C-57 licensed drilling company, to install borings on January 25, 2008. All the borings were drilled using truck-mounted Geoprobe™ direct push drilling equipment. The four discrete-level borings B-26@28, B-26@33, B-26@38 and B-26@45 were advanced around B-26 area where highest concentration of PCE in groundwater was detected.

The boring locations are shown on Figure 3. Boring B-37 was drilled to depth of 36 feet bgs. The soil encountered in borehole B-37 was logged using the Unified Soil Classification System (USCS) as a guide, and for relative moisture content, odor, and other observable characteristics. Soils encountered were typically dark grayish-brown lean clays underlain by yellowish-brown lean clays and some silts. Significant quantities of caliche were noted in deeper soils, generally below 4 feet. In addition, soils were field screened for the presence of VOCs using a photoionization detector; these values were also recorded on the field logs. No elevated PID readings were found in soil samples from the boring B-36. The boring log is included in Attachment A of this report.

Boring B-37 was located three feet northwest of B-26 location (Figures 2 and 3). It was advanced to a depth of 36 feet bgs, with soil samples preserved for laboratory analysis from 15.5-16.0 feet bgs, and 19.5-20.0 feet bgs. All soil samples were cut from the acetate tube, capped at both ends, labeled, placed in Ziploc plastic bag, logged onto a chain-of-custody document, and transported on ice to the laboratory. The soil cores were obtained using a 4-foot long Macro-Core sampler to a depth of 30 feet bgs and large bore 2-foot-long dual-tube sampler fitted with acetate liners from 30 to 36 feet. Groundwater was first encountered approximately 20 feet bgs.

Groundwater samples were collected from four discrete locations using a Hydropunch method. The Hydropunch borings (B-26@28, B-26@33, B-26@38 and B-26@45) were drilled adjacent to boring B-26 where the highest PCE concentrations in groundwater were detected. The sampling method involved using a Geoprobe direct push sampling rig with approximately 1.5 inch diameter hollow steel drive rods to push the Hydropunch sampler to the target depth. Once the sampler was pushed to the target depth the drive rods were pulled back approximately two feet. By design this action causes the Hydropunch sampler to open which exposes a 2-foot long section of stainless steel screen to the formation thereby allowing groundwater to flow into the sampler and up the Geoprobe drive rods. A groundwater grab sample was collected by inserting a polyethylene tube with a stainless steel check ball attached to the end. Using a quick up and down motion on the poly tubing groundwater is drawn to the surface through the tubing and can be directed into the sampling bottles. In most cases recharge to the temporary wells was very slow and field personnel had to wait for one hour to collect the grab groundwater samples. Each sample was transferred into EPAapproved containers. The groundwater samples were sealed, labeled, logged onto chain-of-custody forms, and transported on ice to the laboratory. The borings were abandoned by backfilling via with neat cement grout.

Soil and Grab Groundwater Sample Analyses

The soil and grab groundwater samples were submitted to McCampbell Analytical, Inc., California, for analysis. McCampbell Analytical, Inc. is California-certified for hazardous waste analyses.

The soil and grab groundwater samples collected from the soil borings were analyzed by:

• United States Environmental Protection Agency (EPA) Method 8260B for VOCs.

Soil Sample Analytical Results

Soil analytical data from the soil borings are summarized in Table 1. The analytical reports and chain-of-custody documents for the soil samples are included in Attachments B of this report.

The two soil samples collected for laboratory analysis from boring B-37 at 15.5 and 19.5 feet bgs, B-37@15.5 and B-37@19.5, respectively, contained low concentrations of PCE. The soil sample B-37@15.5 contained 0.083 mg/kg PCE and the deeper soil sample B-37@19.5 contained 0.13 mg/kg PCE. These detected PCE concentrations were below the RWQCB ESL and EPA preliminary remediation goal (PRG) for residential properties.

Samples B-37@15.5 and B-37@19.5 contained no MTBE, BTEX or other VOCs.

Grab Groundwater Sample Analytical Results

Grab groundwater analytical data are summarized in Table 2. The analytical reports and chain-of-custody documents for the samples are included in Attachments B of this report.

The grab groundwater samples B-26@33 and B-26@45 contained no PCE or other VOCs. Low concentrations of PCE were detected in grab groundwater samples analyzed from borings B-26@28 and B26@38 with concentrations of 1.2 μ g/L and 0.68 μ g/L, respectively (Table 2). The DHS MCL for PCE in drinking water is 5 μ g/L.

The grab groundwater sample from boring B26@38 contained 37 μ g/L acetone, which is below the RWQCB ESL. No other VOCs were detected in any of the grab groundwater samples from the borings.

CONCLUSIONS

Based on the site activities, analytical data, and documentation presented in this report, EIS has reached the following conclusions:

- Soil samples collected from 15.5 feet and 19.5 feet bgs from boring B-37 contained low concentrations of PCE which are below RWQCB ESL and EPA PRG for residential properties. These samples were collected below the top of the water table.
- Four grab groundwater samples were collected at discrete level from borings B-26@28, B-26@33, B-26@38 and B-26@45. Low PCE concentrations were detected from B-26@28

and B26@38 at 1.2 μ g/L and 0.68 μ g/L respectively. No other constituents were detected in any of the samples.

• The vertical extent of PCE contamination in groundwater above the MCL of 5 μ g/L on the western side of the plume appears to be approximately 28 feet bgs. The vertical extent of PCE on the eastern side of the plume had already been defined to a similar depth in a previous phase of work.

LIMITATIONS

All reports and findings are based on the conditions and practices observed and information made available to Environmental Investigation Services, Inc.

Please contact Peter Littman of EIS at (408) 871-1470 if you have any questions regarding the proposed work plan and schedule.

Sincerely,

Environmental Investigation Services, Inc.

U. Pail Da

Panindhar R. Krishnamraju, Ph.D.

Hydrogeologist

Allen J. Waldman, PG#6323

A. Walden

Project Geologist

Attachments:

Table 1- Summary of Soil Sample Analytical Results

Table 2 – Summary of Grab Groundwater Sample Analytical Results

Figure 1 – Site Map

Figure 2 – Site Plan

Figure 3 – B-26 Area Detail

Attachment A – Boring Log

Attachment B – Laboratory Analytical Data

Table 1 - Summary of Soil Sample Analytical Results 461 McGraw Avenue, Livermore, California

Boring	Depth (feet)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	PCE	Other VOCs	Other Oxygenates
B-37@15.5'	15.5	1/25/2008	<0.005	< 0.005	<0.005	< 0.005	< 0.005	0.083	ND	ND
B-37@19.5'	19.5	1/25/2008	<0.005	<0.005	< 0.005	<0.005	<0.005	0.13	ND	ND
RWQCB ESL			0.044	2.9	3.3	2.3	0.023	0.34		
USEPA PRG			0.64	520	400	270	32	0.48		

Notes: Data are reported in micrograms per liter ($\mu g/L$)

VOCs = Volatile Organic CompoundsMethod 8260B for VOCsMTBE = Methyl tert-Butyl Ether-- = Not EstablishedPCE = TetrachloroetheneND = Not Detected

RWQCB ESL = Regional Water Quality Control Board's Shallow Soil Environmental Screening Level for Residential Property where groundwater is currently or potentially a drinking water resource. (Nov 2007)

USEPA PRG = United States Environmental Protection Agency's Preliminary Remediation Goal for residential soil. (2004)

Table 2 - Summary of Grab Groundwater Sample Analytical Results 461 McGraw Avenue, Livermore, California

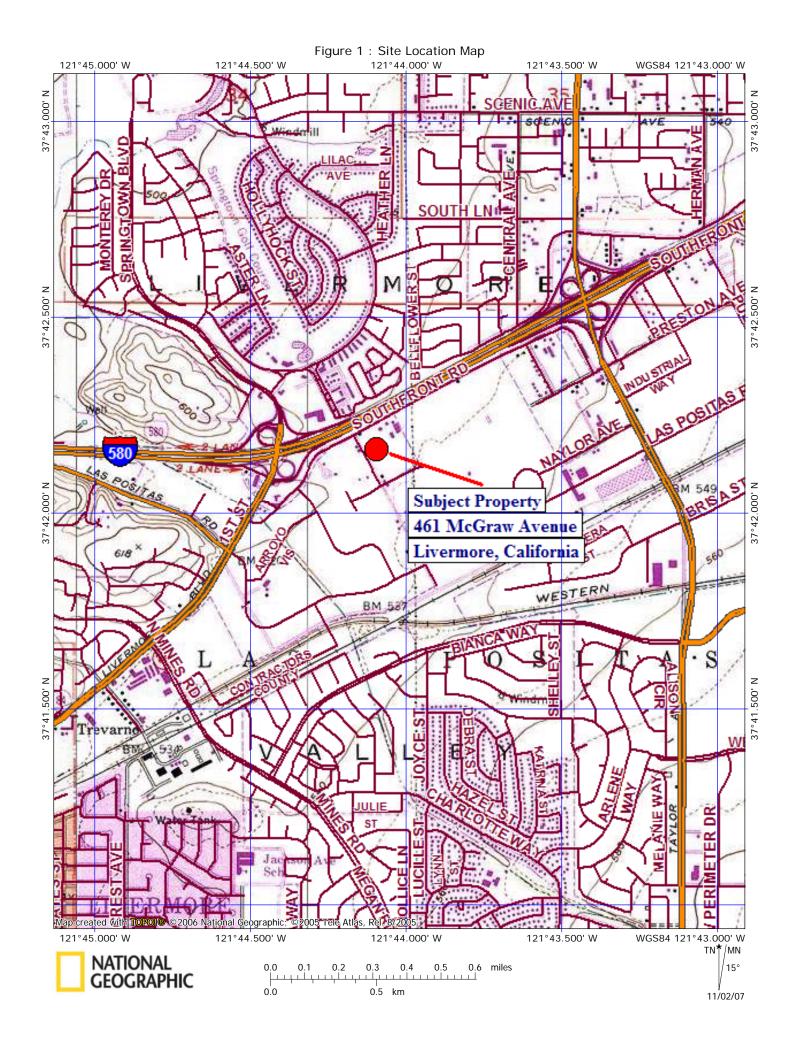
Boring	Total Depth	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	PCE	Acetone	Other VOCs	Other Oxygenates
B-26@28	28'	1/25/2008	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<10	ND	ND
B-26@33	33'	1/25/2008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	ND	ND
B-26@38	38'	1/25/2008	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	37	ND	ND
B-26@45	45'	1/25/2008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	ND	ND
CDHS MCL			1	150	300	1,750	5 ^(a)	5			
Drinking Water	ESLs		1.0	150	300	1,800	13	5	6300		

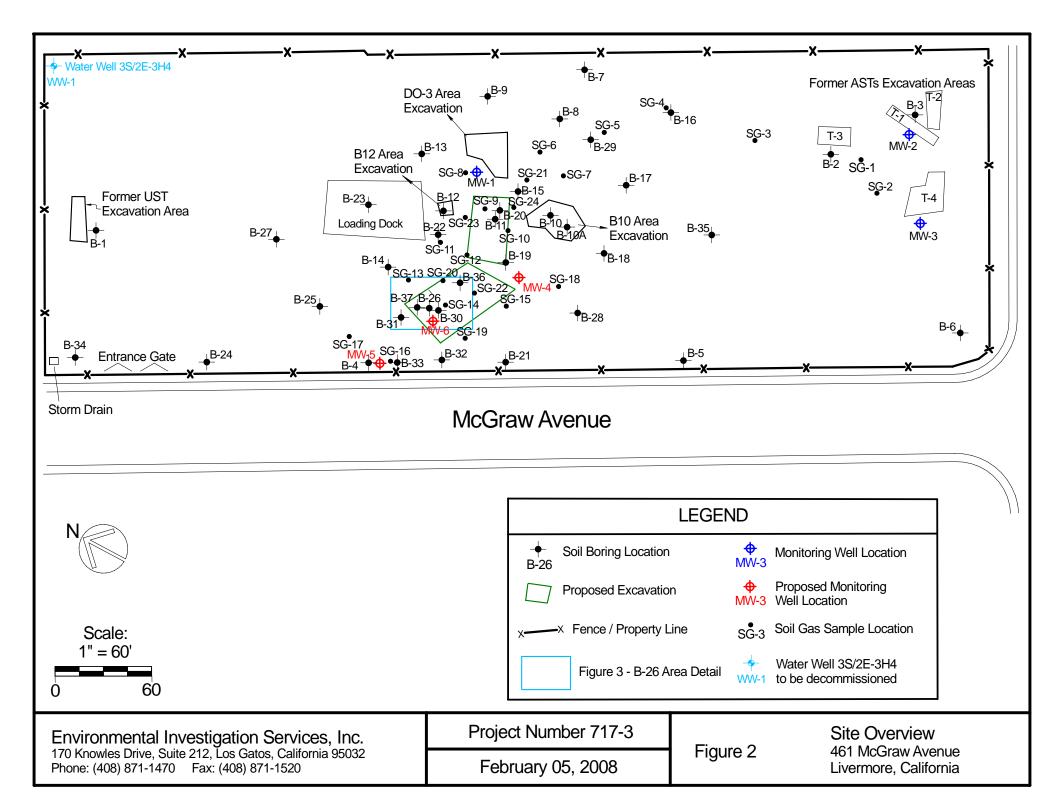
Notes: Data are reported in micrograms per liter (µg/L)

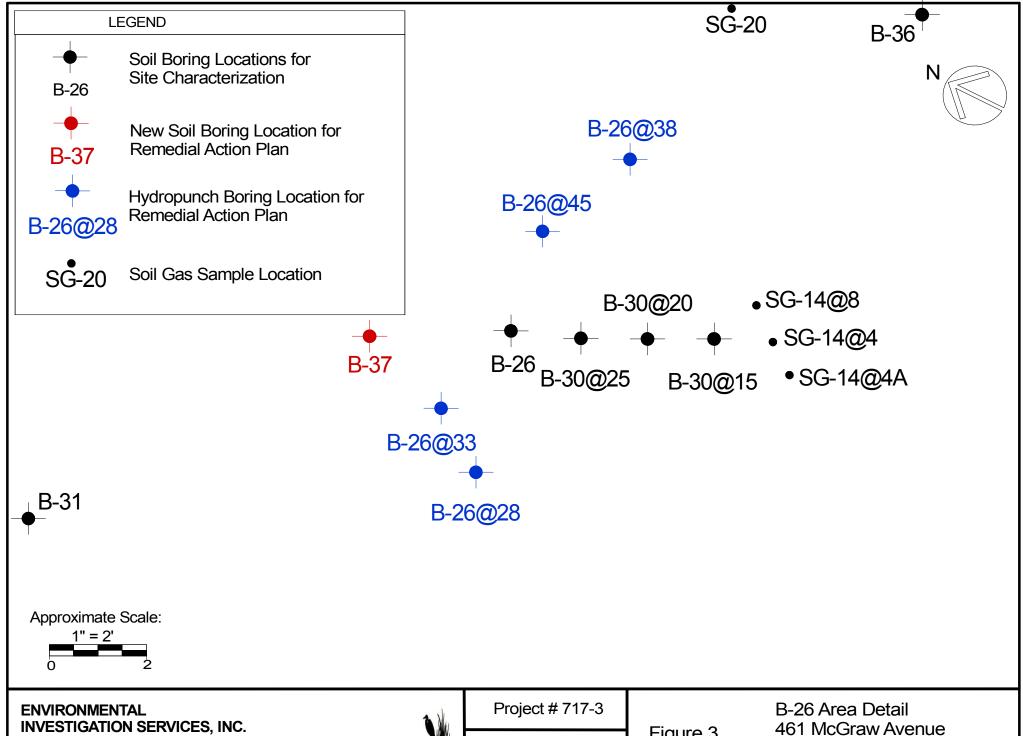
VOCs = Volatile Organic CompoundsMethod 8260B for VOCsMTBE = Methyl tert-Butyl Ether-- = Not EstablishedPCE = TetrachloroetheneND = Not Detected

(a) = This is the secondary MCL for MTBE, which is based on qualitative factors such as taste and odor. The primary MCL for MTBE, the value that has been determined to be protective of human health, is 13 micrograms per liter.

Drinking Water ESLs = Regional Water Quality Control Board's Environmental Screening Levels for drinking water. (Nov 2007) CDHS MCL = California Department of Health Services' Maximum Contaminant Level for Drinking Water, CCR, Title 22, 2005







170 Knowles Drive Suite 212 Los Gatos, CA 95032 (408) 871-1470 Fax: (408) 871-1520



February 05, 2008

Figure 3

Livermore, California

EIS



BOREHOLE LOG

BOREHOLE NUMBER: B-37

PROJECT NUMBER: 717-3

BORING DIAMETER: 2 INCH

PROJECT NAME: CALL MAC

TOTAL DEPTH: 36 FEET

LOCATION: 461 McGRAW AVE, LIVERMORE, CA

STATIC WATER LEVEL (BGS): $_{NM}$

DRILLING COMPANY: ECA

FIRST GROUNDWATER ENCOUNTER: 20 FEET

DRILLING METHOD: GEOPROBE DIRECT PUSH

SAMPLING EQUIPMENT: AC/SS

LOGGED BY: PANINDHAR R. KRISHNAMRAJU, Ph.D.

DATE: 01/25/2008

рертн	SAMPLES	SAMPLE NUMBER	Time	PID READING (ppm)	RECOVERY (FT/FT)	GROUNDWATER	SOIL TYPE	LITHOLOGY	DESCRIPTION
0.0			11:02						CLAY; dark grey, medium plasticity, moist, no odor
1.0 -					4.0/4.0				
2.0 -				0.4	4.0/4.0				
-				0.1					
3.0 -									@3 feet; yellowish grey, caliche rich, hard
4.0 -									
5.0 -									
6.0 -					4.0/4.0				
-				0.2					
7.0 -									
8.0 -									
9.0 -							0.		@9 feet; soft, dry
-					3.9/4.0		CL		
10.0 -				0.2					@10 feet; hard, moist
11.0 -									
12.0 -									
- 13.0 –									@12 feet; caliche rich, soft, moist
-					4.0/4.0				
14.0 -				0.4					@14 feet; hard, dry
15.0 -									
16.0 -		B-37@	11:16						
-		15.5-16							
17.0 -					4.0/4.0				
18.0 -				0.9					CLAYEY SILT; brown, low plasticity, soft, moist, no odor
19.0 -		B-37@					ML	====	
20.0		19.5-20	11:23				IVIL	<u> </u>	@20 feet; wet
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BOREHOLE LOG

BOREHOLE NUMBER: B-37

PROJECT NUMBER: 717-3

BORING DIAMETER: 2 INCH

PROJECT NAME: CALL MAC

TOTAL DEPTH: 36 FEET

LOCATION: 461 McGRAW AVE, LIVERMORE, CA

STATIC WATER LEVEL (BGS): $_{f NM}$

DRILLING COMPANY: ECA

FIRST GROUNDWATER ENCOUNTER: 20 FEET

DRILLING METHOD: GEOPROBE DIRECT PUSH

SAMPLING EQUIPMENT: AC/SS

LOGGED BY: PANINDHAR R. KRISHNAMRAJU, Ph.D.

DATE: 01/25/2008

DEРТН	SAMPLES	SAMPLE NUMBER	Time	PID READING (ppm)	RECOVERY (FT/FT)	GROUNDWATER	SOIL TYPE	LITHOLOGY	DESCRIPTION
20.0				0.2	4.0/4.0		ML CL ML		CLAY; brown, caliche rich, medium plasticity, hard, moist, no odor CLAYEY SILT; brown, low plasticity, soft, moist, no odor CLAY; brown, caliche rich, hard, moist, no odor @30 feet; soft, wet
39.0									

Enviro	nmental	Inv	vestigat	ion	Sei	rvices,	Inc.
	4 = 0 = 7	-		~			

170 Knowles Drive, Suite 212 Los Gatos, California 95032 **Notes:**

McCampbell Analytical, Inc.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

Environmental Investigation Servi	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
Los Gatos, CA 95032	Client Contact: Peter Littman	Date Reported: 01/30/08
255 64105, 611 75552	Client P.O.:	Date Completed: 01/31/08

WorkOrder: 0801650

January 31, 2008

Dear	Peter:
Dear	reter.

Enclosed within are:

- 6 analyzed samples from your project: #717-3; Call Mac Transport, 1) The results of the
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

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.

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McCampbell Analytical, Inc.



1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

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0801650-004	B-26@45		Water	1/25/2008 2:30:00	ΙĒ	Α											
0801650-005	B-37@155		Soil	1/25/2008	ΙĒ	Α											
0801650-006	B-37@19.5		Soil	1/25/2008	ΙĒ	Α											
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6	7			8				9)					10			

Prepared by: Samantha Arbuckle

Jennifer Morris no longer with EISI- PL 12/11/07 **Comments:**

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

Sample Receipt Checklist

Client Name:	Environmental Inve	stigation Servi	ices,	Inc.	Date a	and Time Received:	1/25/2008 6:01:48 PM				
Project Name:	#717-3; Call Mac Tra	ansport			Check	dist completed and re	eviewed by:	Samantha Arbuckle			
WorkOrder N°:	0801650 Ma	atrix <u>Soil/Water</u>			Carrie	r: Client Drop-In					
		Chain	of Cu	stody (C	OC) Informa	<u>ıtion</u>					
Chain of custody	present?		Yes	V	No 🗆						
Chain of custody	signed when relinquishe	d and received?	Yes	V	No 🗆						
Chain of custody	agrees with sample labe	ls?	Yes	✓	No 🗌						
Sample IDs noted	I by Client on COC?		Yes	V	No 🗆						
Date and Time of	collection noted by Client	on COC?	Yes	✓	No 🗆						
Sampler's name r	noted on COC?		Yes	✓	No 🗆						
		<u>S</u>	ample	Receipt	Information	!					
Custody seals int	tact on shipping container	/cooler?	Yes		No 🗆		NA 🗹				
Shipping containe	er/cooler in good conditior	1?	Yes	V	No 🗆						
Samples in prope	er containers/bottles?		Yes	~	No 🗆						
Sample containe	rs intact?		Yes	✓	No 🗆						
Sufficient sample	volume for indicated test	?	Yes	✓	No 🗌						
		Sample Prese	rvatio	n and Ho	old Time (HT)) Information					
All samples recei	ved within holding time?		Yes	✓	No 🗌						
Container/Temp E	Blank temperature		Coole	er Temp:	15.9°C		NA \square				
Water - VOA vial	ls have zero headspace /	no bubbles?	Yes	✓	No 🗆	No VOA vials subm	itted \square				
Sample labels ch	necked for correct preserv	ation?	Yes	~	No 🗌						
TTLC Metal - pH	acceptable upon receipt (oH<2)?	Yes		No 🔽		NA \square				
=====	======	=====		===	====	======	====	======			
Client contacted:		Date contact	ted:			Contacted	by:				
Comments:											

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
170 Knowies Drive, Suite 212	Client Contact: Peter Littman	Date Extracted: 01/28/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/28/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID	0801650-001A					
Client ID	B-26@28					
Matrix	Water					
	Penorting		D			

Matrix				Water			
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	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 Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
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)	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	ND	1.0	0.5
trans-1.2-Dichloroethene	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-Dichloropropene	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-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1.1.2.2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	1.2	1.0	0.5
Toluene	ND ND	1.0	0.5	1.2.3-Trichlorobenzene	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	ND	1.0	0.5
Trichlorofluoromethane	ND ND	1.0	0.5	1.2.3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND ND	1.0	0.5	Xvlenes	ND	1.0	0.5
THIT CHOILE	ΠD		UID	ecoveries (%)	ΠD	1.0	V.J
		Bull	ogait Kt				

Surrogate Recoveries (%)								
%SS1:	103	%SS2:	101					
%SS3:	101							

Comments

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/wipe$.

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
	Client Contact: Peter Littman	Date Extracted: 01/26/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/26/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID	0801650-002A					
Client ID	B-26@33					
Matrix	Water					
	Reporting Report					

1,1401111			In :	1, 4,4,5	ı		In .:
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reportin Limit
Acetone	ND	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	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 Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
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)	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	ND	1.0	0.5
trans-1,2-Dichloroethene	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-Dichloropropene	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-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	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-Trichlorobenzene	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	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinvl Chloride	ND	1.0	0.5	Xvlenes	ND	1.0	0.5
		Surre	ogate Re	ecoveries (%)			

Surrogate Recoveries (%)							
%SS1:	99	%SS2:	101				
%SS3:	99						
%SS3:	99						

Comments

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/wipe$.

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
	Client Contact: Peter Littman	Date Extracted: 01/28/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/28/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID	0801650-003A
Client ID	B-26@38
Matrix	Water

Matrix		Water					
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	37	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	6.7	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 Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
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)	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	ND	1.0	0.5
trans-1,2-Dichloroethene	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-Dichloropropene	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-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	0.68	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	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	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinvl Chloride	ND	1.0	0.5	Xvlenes	ND	1.0	0.5
		Surr	ogate Re	coveries (%)			
1	1			1	1		

 %SS1:
 104
 %SS2:
 102

 %SS3:
 102

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/wipe$.

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
	Client Contact: Peter Littman	Date Extracted: 01/26/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/26/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID				0801650-004A			
Client ID				B-26@45			
Matrix				Water			
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit

Matrix							
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	Acrolein (Propenal)	ND	1.0	5.0
Acrylonitrile	ND	1.0	2.0	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	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 Tetrachloride	ND	1.0	0.5
Carbon Disulfide	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	2-Chloroethyl Vinyl Ether	ND	1.0	1.0
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)	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	ND	1.0	0.5
trans-1.2-Dichloroethene	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-Dichloropropene	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-pentanone (MIBK)	ND	1.0	0.5	Naphthalene	ND	1.0	0.5
Nitrobenzene	ND	1.0	10	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	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-Trichlorobenzene	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	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xvlenes	ND	1.0	0.5
		Surr	ogate Re	ecoveries (%)			

Surrogate Recoveries (%)								
%SS1:	101	%SS2:	101					
%SS3:	100							

Comments

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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



^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/\mu$.

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
	Client Contact: Peter Littman	Date Extracted: 01/25/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/29/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID	0801650-005A	
Client ID	B-37@15.5	
Matrix	Soil	

Mulix				DOII			
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromochloromethane	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.004
1,2-Dibromoethane (EDB)	ND	1.0	0.004	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004
1,1-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	0.083	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005		ND	1.0	0.005
Vinvl Chloride	ND	1.0		Xvlenes	ND	1.0	0.005
		Surre		ecoveries (%)			
			_	1			

%SS3: 109

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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

98

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

100

%SS1

^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/kg$.

Environmental Investigation Services, In	Client Project ID: #717-3; Call Mac	Date Sampled: 01/25/08
170 Knowles Drive, Suite 212	Transport	Date Received: 01/25/08
170 Knowies Difve, Suite 212	Client Contact: Peter Littman	Date Extracted: 01/25/08
Los Gatos, CA 95032	Client P.O.:	Date Analyzed 01/29/08

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0801650

Lab ID	0801650-006A	
Client ID	B-37@19.5	
Matrix	Soil	
	70	

IVIALITA				3011			
Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	Acrolein (Propenal)	ND	1.0	0.05
Acrylonitrile	ND	1.0	0.02	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	2-Chloroethyl Vinyl Ether	ND	1.0	0.01
Chloroform	ND	1.0	0.005	Chloromethane	ND	1.0	0.005
2-Chlorotoluene	ND	1.0	0.005	4-Chlorotoluene	ND	1.0	0.005
Dibromochloromethane	ND	1.0	0.005	1,2-Dibromo-3-chloropropane	ND	1.0	0.004
1,2-Dibromoethane (EDB)	ND	1.0	0.004	Dibromomethane	ND	1.0	0.005
1,2-Dichlorobenzene	ND	1.0	0.005	1,3-Dichlorobenzene	ND	1.0	0.005
1,4-Dichlorobenzene	ND	1.0	0.005	Dichlorodifluoromethane	ND	1.0	0.005
1,1-Dichloroethane	ND	1.0	0.005	1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004
1,1-Dichloroethene	ND	1.0	0.005	cis-1,2-Dichloroethene	ND	1.0	0.005
trans-1,2-Dichloroethene	ND	1.0	0.005	1,2-Dichloropropane	ND	1.0	0.005
1,3-Dichloropropane	ND	1.0	0.005	2,2-Dichloropropane	ND	1.0	0.005
1,1-Dichloropropene	ND	1.0	0.005	cis-1,3-Dichloropropene	ND	1.0	0.005
trans-1,3-Dichloropropene	ND	1.0	0.005	Diisopropyl ether (DIPE)	ND	1.0	0.005
Ethylbenzene	ND	1.0	0.005	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005
Freon 113	ND	1.0	0.1	Hexachlorobutadiene	ND	1.0	0.005
Hexachloroethane	ND	1.0	0.005	2-Hexanone	ND	1.0	0.005
Isopropylbenzene	ND	1.0	0.005	4-Isopropyl toluene	ND	1.0	0.005
Methyl-t-butyl ether (MTBE)	ND	1.0	0.005	Methylene chloride	ND	1.0	0.005
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005	Naphthalene	ND	1.0	0.005
Nitrobenzene	ND	1.0	0.1	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	0.13	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinvl Chloride	ND	1.0	0.005	Xvlenes	ND	1.0	0.005
-		Surre	ogate Re	ecoveries (%)			

 %SS1:
 97
 %SS2:
 100

 %SS3:
 108

Comments

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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



^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in $\mu g/wipe$.

1534 Willow Pass Road, Pittsburg, CA 94565-1701

Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0801650

EPA Method SW8260B	Extraction SW5030B				BatchID: 33409			Sp	piked Sample ID: 0801632-011A			
Analyte	Sample	Sample Spiked MS MSD MS-MSD LCS LCSD				LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	١	
, analyto	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	92.3	90.7	1.69	83.2	84.9	2.01	70 - 130	30	70 - 130	30
Benzene	ND	0.050	113	109	2.78	108	105	2.28	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	103	98.2	5.14	77.5	80.6	3.94	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	104	103	0.764	102	98.9	3.36	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	99.2	99.6	0.360	93.3	92.7	0.595	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	118	117	1.10	110	110	0	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	120	116	3.32	113	110	2.57	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	117	115	2.19	111	111	0	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	82.9	82.2	0.875	76.1	77	1.13	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	108	107	0.592	98.9	99.3	0.391	70 - 130	30	70 - 130	30
Toluene	ND	0.050	94.8	93.4	1.43	93.6	90.9	2.93	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	90	88.1	2.19	87	84.9	2.45	70 - 130	30	70 - 130	30
%SS1:	108	0.050	108	106	1.68	106	105	1.05	70 - 130	30	70 - 130	30
%SS2:	99	0.050	99	99	0	100	99	0.499	70 - 130	30	70 - 130	30
%SS3:	107	0.050	106	106	0	106	104	1.93	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 33409 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0801650-005A	01/25/08 11:16 AM	01/25/08	01/29/08 6:20 AM	0801650-006A	01/25/08 11:23 AM	01/25/08	01/29/08 7:04 AM

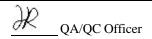
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0801650

EPA Method SW8260B	PA Method SW8260B Extraction SW5030B				BatchID: 33407 Spiked San				iked Samı	nple ID: 0801662-007A		
Analyte	Sample	ample Spiked MS			MSD MS-MSD LCS LCSD			LCS-LCSD Acceptance Criteria (%))
7	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	94.9	98.9	4.20	87.5	88.6	1.32	70 - 130	30	70 - 130	30
Benzene	ND	10	102	96.9	4.93	110	108	1.45	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	93.9	81.6	14.0	88.6	94.6	6.53	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	94.5	101	7.13	102	102	0	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	94.5	95.3	0.828	96.1	97.3	1.17	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	109	101	7.96	113	116	2.31	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	106	97.1	8.34	115	116	0.708	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	108	107	0.917	111	113	1.70	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	87.3	101	14.6	79	80.9	2.28	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	0.51	10	103	99.8	2.95	102	107	4.37	70 - 130	30	70 - 130	30
Toluene	ND	10	87.7	91.8	4.59	95.2	93.9	1.36	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	82	77.8	5.25	89	87.8	1.44	70 - 130	30	70 - 130	30
%SS1:	106	10	103	107	3.68	105	105	0	70 - 130	30	70 - 130	30
%SS2:	102	10	98	104	6.15	100	100	0	70 - 130	30	70 - 130	30
% SS3:	102	10	105	92	12.9	107	106	0.581	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

BATCH 33407 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0801650-001A	01/25/08 12:22 PM	01/28/08	01/28/08 1:45 PM	0801650-002A	01/25/08 12:25 PM	01/26/08	01/26/08 12:36 AM
0801650-003A	01/25/08 3:30 PM	01/28/08	01/28/08 2:32 PM	0801650-004A	01/25/08 2:30 PM	01/26/08	01/26/08 2:02 AM

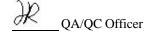
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.



NONE