**RECEIVED** 

Mr. Barney Chan Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

1:47 pm, May 06, 2008

Alameda County Environmental Health

Re:

**Groundwater Monitoring Report – First Quarter 2005** 

1137-1167 65<sup>th</sup> Street Oakland, California Case No. RO0000082



Dear Mr. Chan:

On behalf of Mr. John Nady, Cambria Environmental Technology, Inc. is submitting the *Groundwater Monitoring Report – First Quarter 2005*. Presented in this report is a summary of the field activities and a presentation of the results for the first quarter 2005 groundwater monitoring event. In addition, this report contains recommendations for second quarter 2005 activities.

If you have any questions, please feel free to call me at (510) 420-3307.

Sincerely,

Cambria Environmental Technology, Inc.

al Elle

Neal E. Siler, P.G., R.E.A.

Senior Project Geologist

Attachment:

Groundwater Monitoring Report - First Quarter 2005

cc:

Mr. Frederic Schrag, 6701 Shellmound Street, Emeryville, California 94608 (3 Copies)

Cambria Environmental Technology, Inc.

5900 Hollis Street Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

### **GROUNDWATER MONITORING REPORT – FIRST QUARTER 2005**

1137-1167 65<sup>th</sup> Street Oakland, California 94608 Case No.: RO0000082

April 25, 2005

9

Prepared for Submittal to:

Mr. Barney Chan

Alameda County Health Care Services Agency

Department of Environmental Health

1131 Harbor Bay Parkway, Suite 250

Alameda, California 94502

Prepared by:

Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, California 94608 No. 7004

Exp. 8/ecos \*

Orange OF CALIFORNIA

PER OF CALIFORNIA

No. 7004

Cambria Environmental Technology, Inc.

Matthew A. Meyers
Project Geologist

Neal E. Siler, P.G., R.E.A. Senior Project Geologist

5900 Hollis Street Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

#### **GROUNDWATER MONITORING REPORT – FIRST QUARTER 2005**

1137-1167 65<sup>th</sup> Street
Oakland, California 94608
Case No.: RO0000082

**April 25, 2005** 



#### INTRODUCTION

This report describes the first quarter 2005 groundwater monitoring activities performed at 1137-1167 65<sup>th</sup> Street, Oakland, California (Figure 1). This groundwater monitoring event was conducted at the direction of the Alameda County Health Care Services Agency, Environmental Health Division (ACHCSA). This report presents a summary of the monitoring activities and results for the first quarter 2005. In addition, this report contains recommendations for second quarter 2005 activities.

#### **MONITORING ACTIVITIES**

On March 14 and 15, 2005, Cambria coordinated with Muskan Environmental Sampling (MES) to perform quarterly groundwater monitoring activities at the site. MES measured groundwater levels and collected groundwater samples from monitoring wells MW-1A through MW-4A, MW-6A, MW-7A, MW-1B, MW-4B, MW-5B, MW-6B, MW-1C, MW-4C, and MW-6C (Figure 2). Copies of the field data sheets are included as Appendix A.

Water Level Measurements: Depth to groundwater measurements were recorded to the nearest 0.01-foot, relative to a previously established reference elevation. Measurements were collected using an electric, conductance-actuated well sounder. The groundwater level measurement data are summarized in Table 1.

*Groundwater Sampling:* MES collected groundwater samples from wells MW-1A through MW-4A, MW-6A, MW-7A, MW-1B, MW-4B, MW-5B, MW-6B, MW-1C, MW-4C, and MW-6C. Field activities associated with the sampling event included well purging, field water quality measurements, sample collection, and equipment decontamination.

Prior to sampling, the wells were purged to remove standing water in the well casings and promote the inflow of representative groundwater from the surrounding formation. The wells were purged by

repeated bailing using a new, pre-cleaned, disposable Teflon<sup>TM</sup> bailer. Field measurements of the pH, specific conductance, and temperature of the purged groundwater were measured initially and after the extraction of each successive casing volume or at regular volume intervals. Casing volumes were calculated based on the well diameter and the height of the water column in the well casing. Typically, well purging continued until consecutive pH, specific conductance, and temperature measurements were within 10 percent. Field water quality measurements, purge volumes and sample collection data were recorded on field sampling data forms (Appendix A).



Groundwater samples were collected from each of the wells using disposable bailers. The samples were decanted from the bailers into 40-ml glass volatile organic analysis (VOA) vials supplied by McCampbell Analytical, Inc. (McCampbell) of Pacheco, California. Immediately after collection, the sample containers were labeled and placed on water-based ice in a cooler. Chain-of-custody procedures were followed at all times from sample collection to transfer to McCampbell (Appendix B).

To minimize the potential for cross-contamination, the groundwater monitoring equipment was decontaminated prior to being deployed in the first monitoring well and between successive wells. The probe of the electric well sounder used for water level measurements was rinsed thoroughly with distilled water prior to first use and between subsequent water level measurements. The disposable bailers were discarded after use at each well.

Groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as motor oil (TPHmo), and total petroleum hydrocarbons as stoddard solvent (TPHss) by modified United States Environmental Protection Agency (EPA) Method SW8015C. Aromatic hydrocarbon compounds [benzene, toluene, ethylbenzene, total xylenes (BTEX)] and methyl tertiary-butyl ether (MTBE) were quantified by EPA Method SW8021B. Samples were also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method SW8260B, but only reported for the EPA Method SW8010 target list. Samples marked for TPHd and TPHmo analysis were subjected to silica gel cleanup prior to analysis. Laboratory analytical reports are included in Appendix B. Analytical results are summarized on Figures 2, 3, and 4 and in Tables 1 and 2.

#### **RESULTS**

Groundwater Flow Direction and Gradient: Depth-to-water measurements collected on March 14, 2005 ranged from 1.70 to 6.91 feet below top of casing. Groundwater elevations were calculated by subtracting the depth to water measurements from the surveyed top of casing elevations. The groundwater elevations for A, B, and C-zone aquifers were each plotted on a site plan and contoured. The groundwater in the A-zone flowed predominantly towards the west with a gradient of approximately 0.011 feet per foot (ft/ft) (Figure 2). The groundwater in the B-zone flowed towards the west-southwest with a gradient of approximately 0.022 ft/ft (Figure 3). The groundwater in the C-zone aquifer flowed towards the southwest with a gradient of approximately 0.009 ft/ft (Figure 4). The previously calculated groundwater flow direction and gradient for the A-zone aquifer trended to the southwest with gradients between of 0.034 and 0.038. The previously calculated groundwater flow direction and gradients for the B-zone aquifer trended to the southeast with gradient of 0.031. The groundwater flow direction and gradient for the C-zone aquifer are consistent with the previous quarter's results. Depth-to-water and groundwater elevation data for the site are summarized in Table 1.



Chemicals Detected in the A-Zone Aquifer: Petroleum hydrocarbons were detected in the A-zone aquifer monitoring wells MW-1A, MW-2A, MW-3A, MW-4A, MW-6A, and MW-7A. The maximum TPHd concentration was detected in well MW-3A at 37,000 micrograms per liter (µg/L). Maximum TPHg and TPHss concentrations were detected in well MW-1A at 4,800 µg/L and 6,000 µg/L, respectively. The maximum TPHmo concentration was detected in well MW-7A at 620 µg/L.

MTBE was not detected in the A-zone aquifer monitoring wells. Benzene was detected in monitoring wells MW-1A and MW-4A at concentrations of  $0.68\,\mu\text{g/L}$  and  $0.91\,\mu\text{g/L}$ , respectively. Toluene was detected in monitoring wells MW-2A and MW-4A at concentrations of  $2.5\,\mu\text{g/L}$  and  $1.7\,\mu\text{g/L}$ , respectively. Ethylbenzene was detected in monitoring well MW-1A at a concentration of  $2.0\,\mu\text{g/L}$ . Xylenes were detected in monitoring wells MW-1A and MW-4A at concentrations of  $6.8\,\mu\text{g/L}$  and  $1.9\,\mu\text{g/L}$ , respectively.

HVOCs were detected in the A-zone aquifer in monitoring wells MW-1A, MW-3A, MW-4A, MW-6A, and MW-7A. The HVOCs 1,1-dichloroethane (1,1-DCA), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride were detected in monitoring well MW-1A at concentrations of 2.4 μg/L, 12 μg/L, 32 μg/L, 2.2 μg/L, and 8.0 μg/L, respectively. Tetrachloroethene (PCE) was detected in monitoring wells MW-1A and MW-4A at concentrations of 42 μg/L and 1.1 μg/L, respectively. The chlorinated benzene compound 1,2-dichlorobenzene (1,2-DCB) was detected in monitoring wells MW-1A, MW-3A, and MW-7A at concentrations of 2.0 μg/L, 43 μg/L, and 2.6 μg/L, respectively. In addition, 1,3-dichlorobenzene and 1,4-dichlorobenzene were detected in well MW-3A at concentrations of 1.2 μg/L and 5.7 μg/L,

respectively. Chloroethane was detected in well MW-6A at a concentration of  $0.61 \,\mu\text{g/L}$ . No HVOCs were detected in well MW-2A. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 2.

Chemicals Detected in the B-Zone Aquifer: TPHd was only detected in B-zone aquifer monitoring wells MW-1B and MW-6B at concentrations of 52 μg/L and 5,200 μg/L, respectively. TPHg, TPHss, and TPHmo were only detected in well MW-6B at concentrations of 1,300 μg/L, 1,200 μg/L, and 340 μg/L, respectively. Benzene was detected in monitoring well MW-1B (0.60 μg/L) and was the only aromatic hydrocarbon compound detected in the B-zone aquifer.



HVOCs were detected in B-zone aquifer wells MW-1B and MW-6B. Chloroethane, chloroform, 1,1-DCA, 1,2-dichloroethane (1,2-DCA), and cis-1,2-DCE were also detected in well MW-1B at concentrations of 1.1  $\mu$ g/L, 1.9  $\mu$ g/L, 5.2  $\mu$ g/L, 12  $\mu$ g/L, and 3.8  $\mu$ g/L, respectively. The chlorinated benzene compound 1,2-DCB and vinyl chloride were detected in well MW-6B at concentrations of 1.1  $\mu$ g/L and 3.5  $\mu$ g/L, respectively. No HVOCs were detected in wells MW-4B or MW-5B. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 3.

Chemicals Detected in the C-Zone Aquifer: TPHd was only detected in monitoring well MW-6C (60 μg/L). No other petroleum hydrocarbons, BTEX, or MTBE were detected at or above laboratory reporting limits in any of the C-zone aquifer monitoring wells.

HVOCs were only detected in C-zone aquifer monitoring wells MW-6C. The HVOCs 1,1-DCA, cis-1,2-DCE, PCE, TCE, and vinyl chloride were detected in the C-zone aquifer well MW-6C at concentrations of 1.1  $\mu$ g/L, 12  $\mu$ g/L, 1.8  $\mu$ g/L, 1.9  $\mu$ g/L, and 2.3  $\mu$ g/L, respectively. Groundwater analytical data is summarized in Tables 1 and 2 and presented on Figure 4.

#### **RECOMMENDED SECOND QUARTER 2005 ACTIVITIES**

Cambria makes the following recommendations:

- Conduct a quarterly groundwater monitoring event during the second quarter 2005. A report
  detailing the activities and findings of the second quarter 2005 event should be submitted to
  ACHCSA by July 29, 2005.
- Pending State Water Resources Control Board approval, subsequent groundwater analytical and well gauging data should be uploaded to GeoTracker in compliance with California State Assembly Bill 592.

### **ATTACHMENTS**

Figure 1 – Vicinity Map

Figure 2 – Groundwater Flow and Chemical Concentrations – A Zone

Figure 3 – Groundwater Flow and Chemical Concentrations – B Zone

Figure 4 – Groundwater Flow and Chemical Concentrations – C Zone

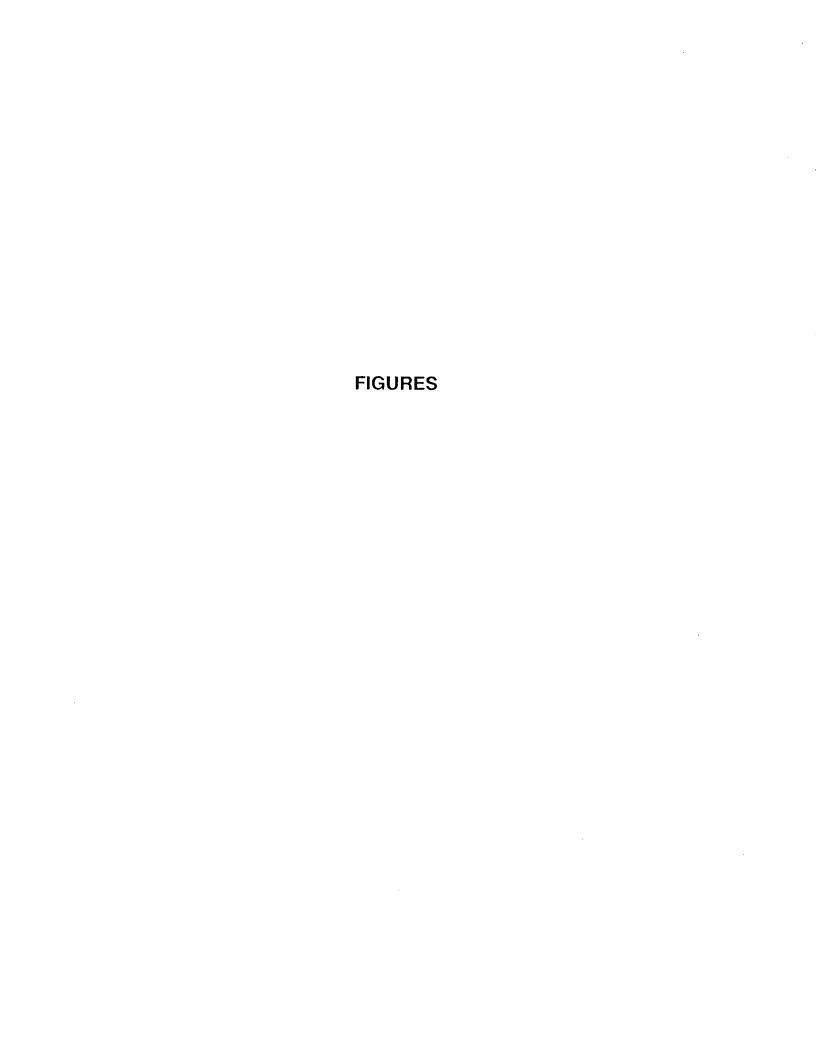
Table 1 – Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons

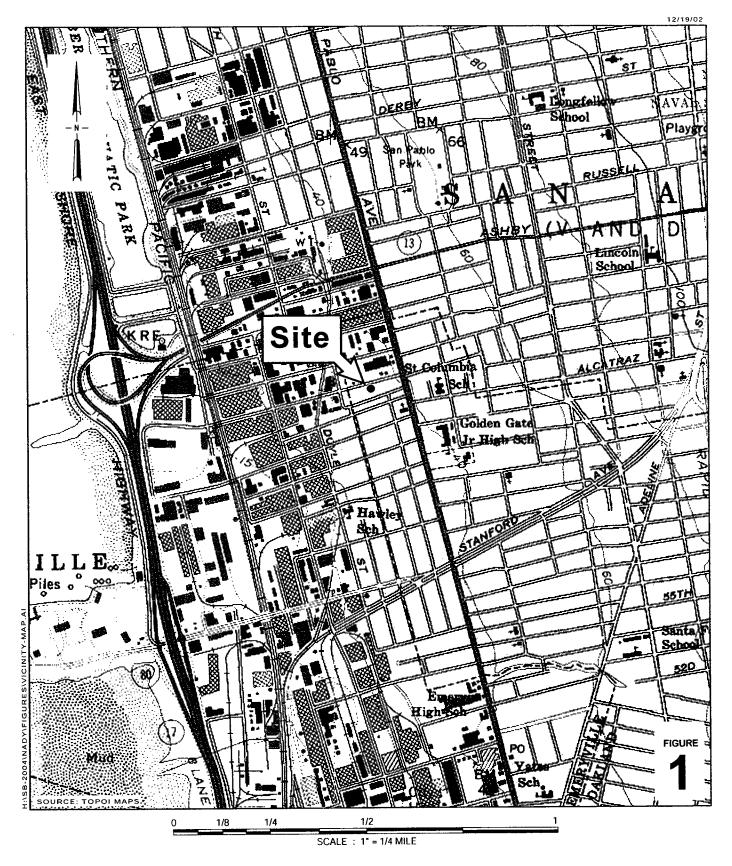
Table 2 – Groundwater Analytical and Elevation Data: Halogenated Volatile Organic Compounds



Appendix A - Field Data Sheets

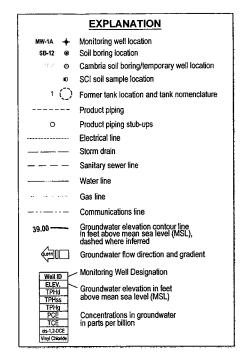
Appendix B - Laboratory Analytical Reports

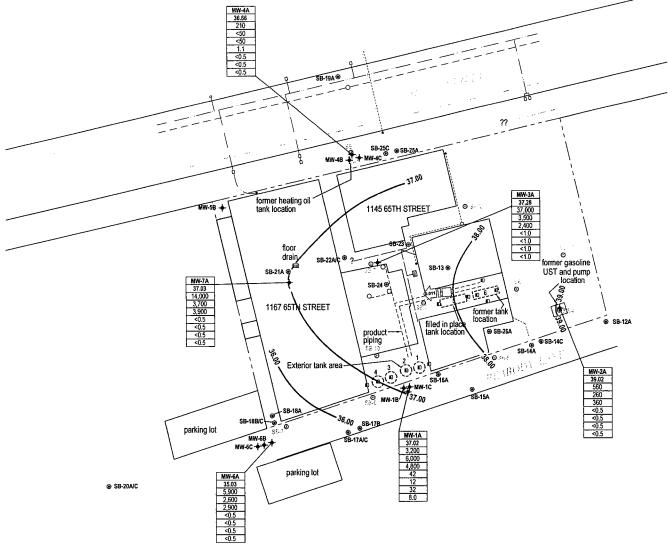


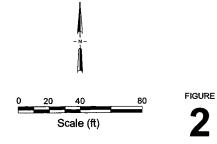




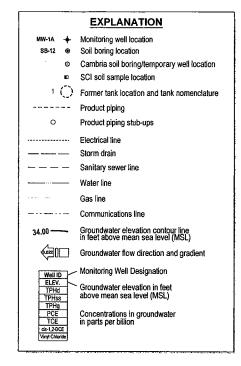
Vicinity Map

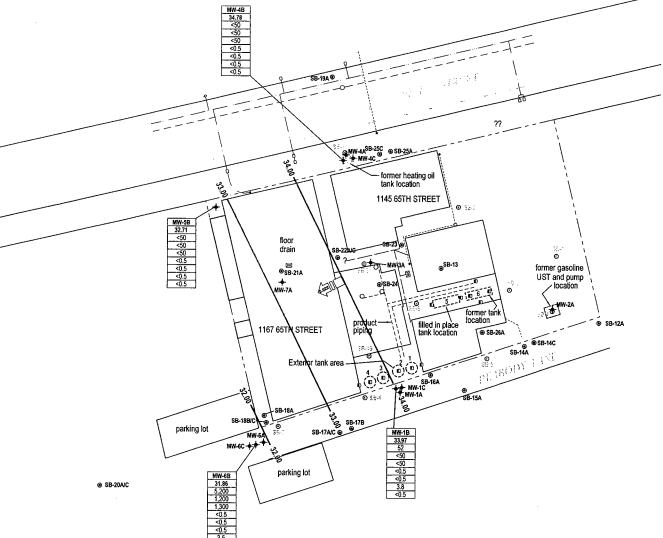


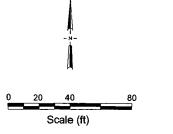




March 14-15, 2005

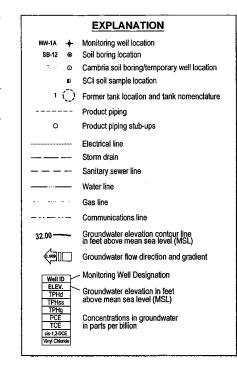






FIGURE

**FIGURE** 



former heating oil

1145 65TH STREET

96 11 **0** 

former gasoline UST and pump

W-2A

@ SB-14C

\$B-14A

former tank location

® 58-15A

MW-1C 32.58 <50 <50 <0.5 <0.5 <0.5 <0.5

® SB-26A

 $r_{\rm C} mon$ 

filled in place tank location

tank location

product-piping

4 3 (0) (0) (0) (0) (0) (0) (0) (0) (0)

floor

drain

⊞ ®SB-21A

1167 65TH STREET

MW-68 parking lot

Exterior tank area

SB-17B\_

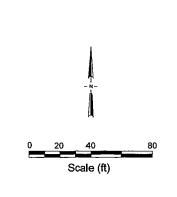
SB-17A/C

MW-7A

parking lot

⊕ SB-20A/C

MW-6C 31.79 60 <50 <50 1.8 1.9 12 2.3



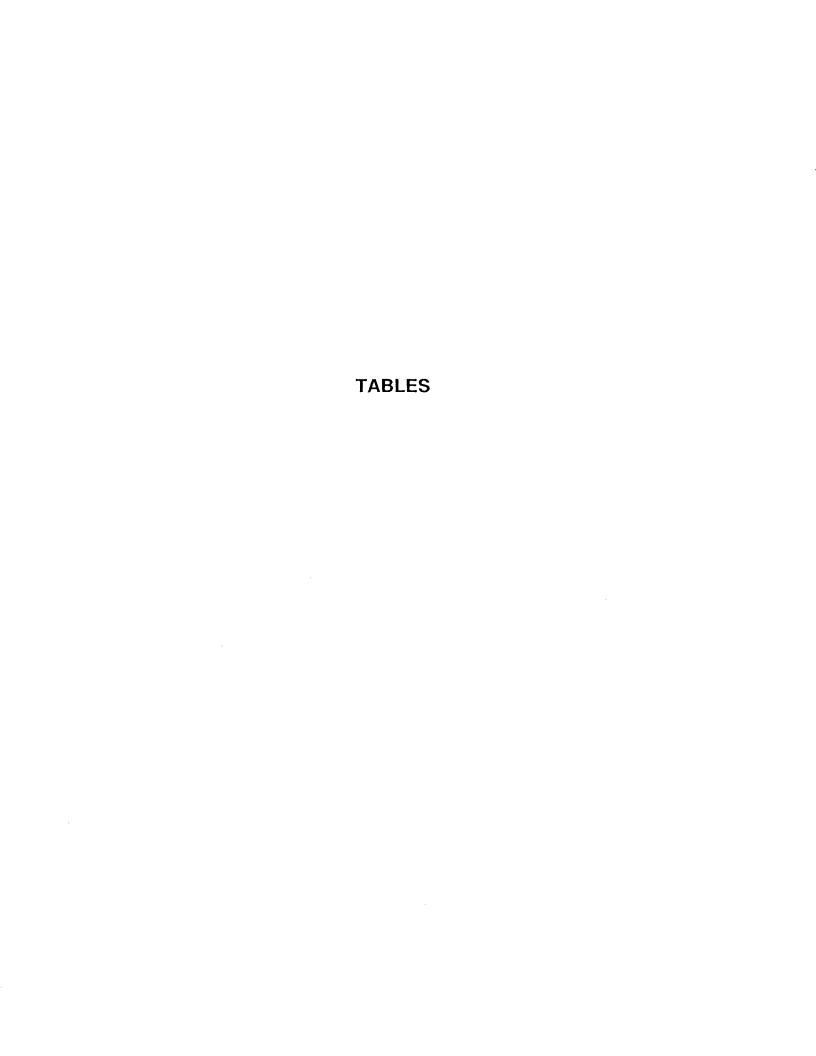


Table 1. Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons - 1137-1167 65th Street, Oakland, California

Well ID	Date	Groundwater	Depth										
TOC	Sampled	Elevation	to Water	TPHd	TPHg	TPHmo	TPHss	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
(ft*)		(ft)	(ft)	<u> </u>				——— μg/L —				<del></del>	
California MCLs				••				1.0	150	300	1,750	13	
ESL - Not a Poter	ntial Drinking Wat	r Source		640	500	640	500	46	130	290	13	1,800	
MW-1A	6/3/2004	35.14	4.50	1,300	1,400	260	2,500	<0.5	<0.5	2.0	11	<5.0	
39.64	11/23/2004	36.54	3.10	1,400	2,300	<250	2,800	0.64	<0.5	2.5	9.7	6.8	a,b,c
	3/14/2005	37.02	2.62	3,200	4,800	<250	6,000	0.68	<0.5	2.0	6.8	<5.0	d,e
MW-1B	6/3/2004	25.10	14.40	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
39.50	11/23/2004	26.24	13.26	<50 <50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
39.30						<250	< <b>5</b> 0	0.60	<0.5	<0.5	<0.5	< <b>5.0</b>	4:
	3/14/2005	33.97	5.53	52	<50	<230	<30	0.00	<0.5	<0.5	<0.5	<5.0	d,i
MW-1C	6/3/2004	30.07	9,42	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
39.49	11/23/2004	31.30	8.19	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	32.58	6.91	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	f
MW-2A	6/3/2004	36.48	4.24	2,900	1,700	<250	3,500	<0.5	3.5	4.9	5.1	<5.0	
40.72	11/23/2004	37.83	2.89	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	39.02	1.70		••								
	3/15/2005			560	360	450	260	<0.5	2.5	<0.5	<0.5	<5.0	e,d,g,i
MW-3A	6/3/2004	36,56	4,32	90,000	4,800	6,000	12,000	<5.0	<5.0	<5.0	<5.0	<50	
40.88	11/23/2004	37.89	2.99	22,000	3,800	<2,500	5,700	<5.0	<5.0	<5.0	<5.0	<50	a,c,d
	3/14/2005	37.28	3.60										
	3/15/2005			37,000	2,400	<2,500	3,500	<1.7	<1.7	<1.7	<1.7	<17	e,d,i
MW-4A	6/3/2004	36.26	2.45	270	<50	440	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
38.71	11/23/2004	37.13	1.58	73	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	d.
	3/14/2005	36.66	2.05										
	3/15/2005	<b></b>	**	210	<50	300	<50	0.91	1.7	<0.5	1.9	<5.0	g,d,f,i

Table 1. Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons - 1137-1167 65th Street, Oakland, California

Well ID	Date	Groundwater	Depth										
TOC	Sampled	Elevation	to Water	TPHd	TPHg	TPHmo	TPHss	Benzene	Toluene	Ethylbenzene	Xylenes	мтве	Notes
(ft*)		(ft)	(ft)					μg/L			4.550	<u> </u>	<del></del>
California MCLs						<del></del>	<del></del>	1.0	150	300	1,750	13	
SL - Not a Poter	ntial Drinking Wate	r Source		640	500	640	500	46	130	290	13	1,800	
MW-4B	6/3/2004	33.52	5.02	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
38.54	11/23/2004	34.65	3.89	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	34.78	3.76	-									
	3/15/2005		-	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	i
MW-4C	6/3/2004	30.10	8.40	<50	<50	<250	<50	<0.5	<0,5	<0.5	<0.5	<5.0	
38.50	11/23/2004	31.31	7.19	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	33.15	5.35									-	
	3/15/2005			<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	i
MW-5B	6/3/2004	30,16	8.82	<50	<50	<250	<50	<0,5	<0.5	<0.5	<0.5	<5.0	
38.98	11/23/2004	31.32	7.66	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	32.71	6.27										
	3/15/2005		**	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	i
MW-6A	6/3/2004	31.98	6.00	3,500	970	340	2,400	<0.5	<0.5	<0.5	2.1	<5.0	
37.98	11/23/2004	33.13	4.85	1,400	1,900	<250	3,000	<0.5	<0.5	<0.5	3.0	<5.0	a,c
	3/14/2005	35.03	2.95	5,900	2,900	<250	2,600	<5.0	<5.0	<5.0	<5.0	<50	e,d,i
MW-6B	6/3/2004	29.36	8.30	2,300	1,100	<250	2,900	<0.5	<0.5	<0.5	1.4	<5.0	
37.66	11/23/2004	30.53	7.13	280	500	<250	700	<0.5	<0.5	<0.5	1.6	<5.0	a,c
	3/14/2005	31.86	5.80	5,200	1,300	340	1,200	<0.5	<0.5	<0.5	<0.5	<5.0	e,d,i
MW-6C	6/3/2004	27.89	9.70	240	160	<250	340.	<0.5	<0.5	<0.5	1.1	<5.0	
37.59	11/23/2004	29.21	8.38	<50	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/14/2005	31.79	5.80	60	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0	d
MW-7A	6/3/2004	36.08	4.50	••	3,900		9,900	<5.0	<5.0	<5.0	6.6	<50	
40.58	11/23/2004												
	3/14/2005	37.03	3.55	14,000	3,900	620	3,700	<5.0	<5.0	<5.0	<5.0	<50	c,d,

2 of 3

Table 1. Groundwater Analytical and Elevation Data: Petroleum Hydrocarbons - 1137-1167 65th Street, Oakland, California

Well ID TOC	Date Sampled	Groundwater Elevation	Depth to Water	ТРНа	TPHg	TPHmo	TPHss	Benzene	Toluene	Ethylbenzene	Xylenes	мтве	Notes
(ft*) California MCLs	<del></del>	(ft)	(ft)					μg/L 1.0	150	300	1,750	13	
	al Drinking Wat			640	500	640	500	46	130	290	12	1,800	

#### Abbreviations:

TOC (ft\*) = Top of casing elevation in feet above mean sea level

μg/L = micrograms per liter - approximately equal to parts per billion = ppb

TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method SW8015C with silica gel cleanup.

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C.

TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method SW8015C with silica gel cleanup.

 $TPHss = Total\ petroleum\ hydrocarbons\ as\ stoddard\ solvent\ by\ modified\ EPA\ Method\ SW8015C.$ 

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B.

MTBE = Methyl tertiary-butyl ether by EPA Method SW8021B (EPA Method SW8260).

-- = Not available

California MCLs = California Department of Health Services Maximum Contaminant Levels; Drinking water standards established by the Department of Health Services. Title 22, California Code of Regulations, Section 64444, Table 64444-A.

ESL = Not A Potential Drinking Water Source IV, Table B. [Screening for Environments Concerns at Site With Contaminated Soil and Groundwater, Volumes 1 and 2. Interim Final. California Regional Water Quality Control Board - San Francisco Bay Region.] July 2001.

#### Notes

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

b = No recognizable pattern.

c = Stoddard solvent/mineral spirit.

d = Diesel range compounds are significant; no recognizable pattern.

e = Gasoline range compounds are significant.

f = One to a few isolated peaks present

g = Oil range compounds are significant.

h = Lighter than water immiscible sheen/product is present.

i = Liquid sample contains greater than ~1 vol. % sediment.

Table 2. Groundwater Analytical and Elevation Data: Halogenated Volatile Organic Compounds - 1137-1167 65th Street, Oakland, California

Well ID TOC (fr*)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	Chloroethane	Chloroform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Trichloroethene	1,2-Dichlorobenzene						Notes
alifornia MCI	s				100 (a)	1	5	5	600	6	10		0.5	0.5	
SL - Not a Po	tential Drinking	Water Source		12	330	190	120	360	14	590	590	47	200	3.8	
MW-1A	6/3/2004	35.14	4.50	<2.5	<2.5	<2.5	55	16	<2.5	36	<2.5	<2.5	<2.5	6.3	
39.64	11/23/2004	36.54	3.10	<1.0	<1.0	<1.0	38	11	<1.0	51	2.4	2.8	<1.0	9.5	
37.04	3/14/2005	37.02	2.62	<1.0	<1.0	<1.0	42	12	2.0	32	2.2	2.4	<1.0	8.0	
MW-1B	6/3/2004	25.10	14.40	<0.5	8.3	<0.5	<0.5	<0.5	<0.5	3.9	<0.5	8.1	7.9	<0.5	
39.50	11/23/2004	26.24	13.26	<0.5	6.2	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	8.4	8.8	<0.5	
35.50	3/14/2005	33.97	5,53	1.1	1.9	<0.5	<0.5	<0.5	<0.5	3.8	<0.5	5.2	12	<0.5	i
MW-1C	6/3/2004	30.07	9.42	<0.5	0.57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
39.49	11/23/2004	31.30	8.19	<0.5	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
39.49	3/14/2005	32.58	6.91	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
101101	6/3/2004	36.48	4.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-2A 40.72	11/23/2004	37.83	2.89	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
40.72	3/14/2005	39.02	1.70				••				**				
	3/15/2005			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
MW-3A	6/3/2004	36.56	4.32	⋖0	⋖0	<50	<50	⋖0	<b>⊲</b> 0	⋖0	<50	<50	ර0	<50	a
40.88	11/23/2004	37.89	2.99	<b>₫.</b> 0	⋖5.0	⋖.0	⋖5.0	<5.0	<5.0	⋖5.0	<5.0	<5.0	<5.0	<5.0	
40.00	3/14/2005	37.28	3.60			-	-	-					-	-	/ 1 / 2 distantant // 2
	3/15/2005	-		<1.0	<1.0	<1.0	<1.0	<1.0	43	<1.0	<1.0	<1.0	<1.0	<1.0	j, i, 1,3-dichlorobenzene (1.2 1,4-dichlorobenzene (5.7)
MW-4A	6/3/2004	36.26	2.45	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
38.71	11/23/2004	37.13	1.58	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
30.71	3/14/2005	36.66	2.05			••				••					
	3/15/2005		-	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
MW-4B	6/3/2004	33.52	5.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
38.54	11/23/2004	34.65	3.89	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
J6.J#	3/14/2005	34.78	3.76			**	••	••		••		••	••	•-	
	3/15/2005			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
MW-4C	6/3/2004	30.10	8.40	<0.5	0.84	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
38.50	11/23/2004	31.31	7.19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
J0.JU	3/14/2005	33.15	5.35			••	•-		••	••	••	••	**		
	3/15/2005		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
MW-5B	68/2004	20.16	8.82	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	6/3/2004 11/23/2004	30.16 31.32	7.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
38.98	3/14/2005	31.32 32.71	6.27	<0.3	<0.3 										
	3/15/2005	<i>32.1</i> 1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0,5	<0.5	<0.5	i
201164	(2200)	21.00	6.00	47	05	<b>70.5</b>	<0.5	<0.5	<0.5	<0.5	1.8	2.1	<0.5	6.7	
MW-6A	6/3/2004	31.98	6.00	4.7	0,5	<0.5	<0.5	<0.5	<b>CO.</b> 5	<b>VO.3</b>	<0.5	<0.5	<0.5	<0.5	

Table 2. Groundwater Analytical and Elevation Data: Halogenated Volatile Organic Compounds - 1137-1167 65th Street, Oakland, California

Well ID TOC (fr*)	Date Sampled	Groundwater Elevation (ft)	Depth to Water (ft)	Chloroethane	Chloroform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Trichloroethene	1,2-Dichlorobenzene		trans-1,2-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	Vinyl Chloride →	Notes
California MC	T e	(2.5)			100 (a)	1	5	5	600	6	10	5	0.5	0.5	
		g Water Source		12	330	190	120	360	14	590	590	47	200	3.8	
DD-100-UT	3/14/2005	35.03	2.95	0.61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	i
MW-6B	6/3/2004	29.36	8.30	0.65	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
37.66	11/23/2004	30.53	7.13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.89	<0.5	<0.5	
37.00	3/14/2005	31.86	5.80	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	3.5	i
MW-6C	6/3/2004	27.89	9.70	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.8	<0.5	0.61	<0.5	<0.5	
37.59	11/23/2004	29.21	8.38	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
37.39	3/14/2005	31.79	5.80	<0.5	<0.5	<0.5	1.8	1.9	<0.5	12	<0,5	1.1	<0.5	2.3	
MW-7A	6/3/2004	36.08	4.50	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	
40.58	11/23/2004								••						
*0.30	3/14/2005	37.03	3.55	<0.5	<0.5	<0.5	<0.5	<0.5	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	h

#### Abbreviations:

TOC (fr\*) = Top of casing elevation in feet above mean sea level

 $\mu g/L = micrograms per liter - approximately equal to parts per billion = ppb$ 

Halogenated Volatile Organic Compounds analyzed by BPA Method SW8260B.

California MCLs = California Department of Health Services Maximum Contaminant Levels; Drinking water standards established by the

Department of Health Services. Title 22 California, Code of Regulations, Section 64444, Table 64444-A

ESL = Not A Potential Drinking Water Sourve IV, Table B. Screening for Environments Concerns at Site With Contaminated Soil

and Groundwater, Volumes 1 and 2. Interim Final. California Regional Water Quality Control Board - San Francisco Bay Region. February 2005. -- = Not available

#### Notes;

a = Total Trihalomethanes

b = Sample diluted due to high organic content

h = lighter than water immiscible sheen/product is present

i = liquid sample that contains greater than ~1 vol. % sediment

j = sample diluted due to high organic content/matrix interference

### **APPENDIX A**

**Field Data Sheets** 



### DAILY REPORT

Client:	Cambria Environmental Technology									
Project:	Nady Systems									
Site Address:	1137 - 1167 65th Street Oakland, CA									
Date:	3/14/2005 - 3/15/05									
Time	Activity									
8:00 AM	Arrived onsite									
8:30 AM	Opened all well boxes									
9:30 AM	Began gauging wells									
12:00 PM	Began sampling									
1	Sampled wells MW-1A, MW-1B, MW-1C, MW-6A, MW-6B, MW-6C,									
	and MW-7A									
	Generated one drum of purgewater.									
3:00 PM	Left Site									
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
	3/15/2005									
7:30 AM	Arrived onsite									
7:55 AM	Began sampling									
	Sampled wells MW-2A, MW-3A, MW-4A, MW-4B, MW-4C, and MW-5B									
10:15 AM	Finished sampling									
	All well boxes in good condition									
10:45 AM	Left site									
\$ 										



# WELL GAUGING SHEET

Client.	Cambria	Environmental	Technology
Cheut.	Cambina	LIIVIIVIIIIIIUIIIIIII	1 CCILIOIOEY

Site

Address: 1137-1167 65th Street Oakland, CA

**Date:** 3/14/2005

Signature:

Date.	3/14/2003			Signature.	0	<i>K</i>
Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1A	10:15		2.62		14.35	
MW-1B	9:30		5.53		19.70	
MW-1C	9:35		6.91		34.55	
MW-2A	9:40		1.70		11.15	
MW-3A	10:30		3.60		13.98	
MW-4A	9:45		2.05		12.61	
MW-4B	9:50		3.76		20.80	
MW-4C	9:55		5,35		32.00	
MW-5B	10:00		6.27		23.00	
MW-6A	10:25		2.95		14.43	
MW-6B	10:10		5.80		21.95	



# WELL GAUGING SHEET

Client:	Cambria En	vironmental	Technology			
Site		55th Street O				
Date:	3/14/2005			Signature:		
					<i>v</i>	,
Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-6C	10:05		5.80		33.85	
MW-7A	10:20		3.55		10.02	
						·



Date:		3/14/2005	<del></del>				<del></del>		
Client:		Cambria E	nvironmen	tal Technol	logy				
Site Addr	ess:	1137-1167				<del> </del>		_	
Well ID:		MW-1A		<u>.</u>	·				
Well Dian	neter:	2"	•						
Purging D	evice:	Disposable	Bailer	-					
Sampling	Method:	Disposable	Bailer	_					
Total Wel	l Depth:	-		14.35	Fe=	mg	/L		
Depth to \	Water:			2.62	ORP=	mV	,		
Water Col	lumn Heigh	t:		11.73	DO=	mg	/L		
Volume/ft				0.16					
	Volume (ga	 D:		1.88	СОММЕ	ENTS:			
	Volumes (ga			5.63	Turbid				
TIME:	CASING VOLUME (gal)		рН	COND.					
1:15		24.8	6.99	540	1				
1:20	3.8	24.9	7.06	578					
1:25	5.6	24.9	7.03	592					
Sample									
ID:	Date:		Time	Containe	r Type	Preservative	Anal TPHg/ss		Method
MW-1A	3/14	/2005	1:30	Amber, V	oa	НСІ	BTEX, MTBE, TPHd/m HVOCs		8015, 8020, 8010
						Sig	nature:		



				***					
Date:		3/14/2005							
Client:		Cambria E	nvironment	tal Technol	ogy				
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA				
Well ID:		MW-1B							
Well Dian	eter:	2"							
Purging D	evice:	Disposable	Bailer						
Sampling	Method:	Disposable	Bailer						
Total Well	Depth:			19.70	Fe=		mg/L		
Depth to V	Vater:			5.53	ORP=		mV		
Water Col	umn Heigh	t:		14.17	DO=		mg/L		
Volume/ft	:			0.16					
1 Casing	Volume (ga	l):		2.27	СОММЕ	ENTS:			
3 Casing \	/olumes (ga	al):		6.80	Turbid				
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	рН	COND.					
1:40	2.3	24.6	7.14	690	1				
1:45	4.5	24.8	7.07	643	]				
1:50	6.8	24.8	7.09	628					
Sample ID:	Date:		Time	Containe	er Type	Preservat	tive	Analytes	Method
MW-1B		/2005	1:55	Amber, V		нсі		TPHg/ss, BTEX, MTBE, TPHd/mo,	8015, 8020, 8010
							·	HVOCs	
							Signatur	e: 1	



Date:	· · · · · · · · · · · · · · · · · ·	3/14/2005		. <u>.</u>				
Client:		Cambria E	nvironmen	tal Technol	ogy			
Site Addr	ess:	1137-1167	7 65th Stree	et Oakland,	CA			
Well ID:		MW-1C						
Well Dian	neter:	2"						
Purging D	evice:	Disposable	e Bailer	· · · · · · · · · · · · · · · · · · ·				
Sampling	Method:	Disposable	e Bailer			· · · · · · · · · · · · · · · · · · ·	<u>.</u>	
Total Wel	l Depth:			34.55	Fe=	mg/L		· · · · · · · · · · · · · · · · · · ·
Depth to V	Water:			6.91	ORP=	mV		
Water Col	umn Height	::		27.64	DO=	mg/L		
Volume/ft				0.16			···	
1 Casing	Volume (gal	):		4.42	СОММІ	ENTS:		
3 Casing	Volumes (ga	al):		13.27	Turbid			
тіме:	CASING	TEMP (Celsius)	рН	COND. (microns)				
2:05	4.4	24.1	7.04	610				
2:10	8.8	24.4	7.02	629	]			
2:15	13.3	24.6	7.03	641				
Sample ID:	Date:		Time	Containe	r Type	Preservative	Analytes	Method
MW-1C		/2005	2:20	Amber, V	, - <del>2-</del>	нсі	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010
						Signatur	e:	



2		2/14/2005			··	<del></del>								
Date:		3/14/2005				<del></del>								
Client:		Cambria E	nvironmen	tal Technol	ogy									
Site Addr	ess:	1137-1167	7 65th Stree	et Oakland,	CA									
Well ID:	<del></del>	MW-2A												
Well Dian	neter:	4"												
Purging D	evice:	4" Disposa												
Sampling	Method:	Disposable	e Bailer			<del> </del>		<del> </del>						
Total Wel	l Depth:	11.15 <b>Fe= mg/L</b>												
Depth to V	Water:			1.70	ORP=	mV	· · · · · · · · · · · · · · · · · · ·							
Water Col	umn Heigh	<b>t</b> :	<del></del>	9.45	DO=	mg/L		·						
Volume/ft	:			0.65										
1 Casing	Volume (ga	l):		6.14	СОММ	ENTS:								
3 Casing '	Volumes (ga	al):		18.43	Turbid									
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	рН	COND. (microns)										
10:05	6.1	24.2	7.19	825										
10:10	12.3	24.5	7.14	819	1									
10:10	18.4	24.6	7.11	814										
Sample					1									
ID:	Date:		Time	Containe	г Туре	Preservative	Analytes TPHg/ss,	Method						
MW-2A	3/15.	5/2005 10:15 Amber, Vo		oa	нсі	BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010							
						Signa	ature:	2						



		····							
Date:		3/14/2005							
Client:		Cambria Eı	vironment	tal Technol	ogy				
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA				
Well ID:		MW-3A							
Well Dian	neter:	2"							
Purging D	evice:	Disposable	Bailer						
Sampling	Method:	Disposable	Bailer				.,		
Total Wel	l Depth:								
Depth to \	Water:			3.60	ORP=	mV			
Water Col	umn Height	i:		10.38	DO=	mg/L			
Volume/ft				0.16					
1 Casing	Volume (gal	l):		1.66	СОММЕ				
3 Casing	Volumes (ga	al):		4.98	Black, Turbid, Odor, No SPH				
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	рН	COND.					
9:35	1.7	23.5	7.12	518	1				
9:40		23.6	7.10	526	1				
9:45		23.8	7.08	533					
Sample ID:	Date:		Time	Containe	r Type	Preservative	Analytes	Method	
MW-3A		3/15/2005 9:50		Amber, V	'oa	нСі	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010	
·						Signatur	e: <u></u>	2	



Date:		3/14/2005			_					
Client:		Cambria E	nvironmen	tal Technol	ogy					
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA					
Well ID:		MW-4A								
Well Dian	neter:	2"								
Purging D	evice:	Disposable	Bailer			·				
Sampling	Method:	Disposable	e Bailer			·				
Total Wel	l Depth:	<u>-</u> -		12.61	Fe=	mg/L				
Depth to \	Water:			2.05	ORP=	mV				
Water Co	lumn Height	t:		10.56	DO=	mg/L	· ·			
Volume/ft	:			0.16						
1 Casing	Volume (gal	 l):		1.69	COMME	ENTS:				
3 Casing Volumes (gal):					Very Turid					
TIME:	CASING VOLUME	TEMP (Celsius)	рН	COND.						
8:20		23.6	6.92	692	1					
8:25	3.4	23.3	6.94	640						
8:30	5.1	23.5	6.97	629	-					
Sample ID:	Date		Time	Containe	or Tyne	Preservative	Analytes	Method		
MW-4A	<b>Date:</b> Time  3/15/2005 8:35			Amber, V		HCI	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010		
						Signati	are:	12		



Date:		3/14/2005	<del> </del>			<del></del>	. "					
Client:		Cambria E		tal Technol	logy							
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA							
Well ID:		MW-4B		·								
Well Dian	neter:	2"										
Purging D	evice:	Disposable	Bailer									
Sampling	Method:	Disposable Bailer										
Total Well	Depth:			20.80	Fe=	1	mg/L					
Depth to V	Water:			3.76	ORP=	<u> </u>	mV					
Water Col	umn Height	t:		17.04	DO=	J	mg/L					
Volume/ft	:	_		0.16								
1 Casing \	Volume (gal	l):		2.73	COMMI	ENTS:						
3 Casing \	Volumes (ga	al):		8.18	Turbid							
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	На	COND.								
8:45	2.7	23.9	6.95	520								
8:50	5.5	23.8	6.99	527								
8:55	8.2	23.7	7.01	540								
Sample												
ID:	Date:		Time	Containe	er Type	Preservati	ive	Analytes TPHg/ss,	Method			
MW-4B	3/15	/2005	9:00	Amber, V	oa .	НСІ		BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010			
								1	97			
							Signature	: <u>A</u>	- []			



Date:		3/14/2005								
Client:		Cambria E	nvironmen	tal Technol	logy					
Site Addı	ess:	1137-116	7 65th Stre	et Oakland,	.CA					
Well ID:		MW-4C								
Well Dian	neter:	2"								
Purging D	evice:	Disposabl	e Bailer		<del> </del>					
Sampling	Method: Disposable Bailer									
Total Wel	l Depth:			32.00	Fe=	mg/L		<u> </u>		
Depth to \	Water:			5.35	ORP=	mV				
Water Col	lumn Heigh	t:		26.65	DO=	mg/L				
Volume/ft	:			0.16						
1 Casing	Volume (ga	l):		4.26	COMME	ENTS:				
3 Casing Volumes (gal):					Turbid					
TIME:	CASING	TEMP (Celsius)	рН	COND.						
9:10	4.3	24.6	6.98	610						
9:15	8.5	24.4	7.01	635						
9:20	12.8	24.4	7.00	629						
Sample ID:	Date:		Time	Containe	r Type	Preservative	Analytes	Method		
MW-4C	<b>Date:</b> Time  3/15/2005 9:25			Amber, V		HC1	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010		
						Signatur	e:	2		



Date:		3/14/2005									
Client:		Cambria E	nvironment	tal Technol	ogy						
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA						
Well ID:		MW-5B									
Well Diam	neter:	2"									
Purging D	evice:	Disposable	Bailer								
Sampling	Method:	Disposable	Bailer								
Total Well	Depth:			23.00	Fe=		ng/L				
Depth to V	Vater:			6.27	ORP=	1	mV				
Water Col	umn Height	:		16.73	DO=	]	mg/L				
Volume/ft				0.16							
1 Casing V	Volume (gal	):		2.68	СОММЕ	ENTS:					
3 Casing V	/olumes (ga	nl):		8.03	Turbid						
TIME:	CASING VOLUME	TEMP (Celsius)	pН	COND.							
7:55	2.7	24.0	7.08	621							
8:00	5.4	23.9	7.13	695							
8:05	8.0	23.9	7.15	720							
Sample ID:	Date:		Time	Containe	r Type	Preservati	ve	Analytes	Method		
MW-5B					Container Type  Amber, Voa			TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010		
									Jy		
			<u> </u>	]		<u> </u>	Signature				



			1122	<u> </u>				
Date:		3/14/2005			<del></del>			
Client:		Cambria E	nvironment	tal Technol	ogy			
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	CA			
Well ID:		MW-6A						
Well Dian	neter:	2"			<u></u>			
Purging D	evice:	Disposable	Bailer	·				
Sampling	Method:	Disposable	Bailer					
Total Wel	l Depth:			14.43	Fe=	mg/L		
Depth to \	Water:			2.95	ORP=	mV		
Water Col	umn Height	t <u>:</u>		11.48	DO=	mg/L		
Volume/ft	:			0.16				
1 Casing '	Volume (gal	l):		1.84	COMMI	ENTS:		
	Volumes (ga			5.51	Turbid			
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	рН	COND.				
11:45		24.7	6.92	440	1			
11:50		24.9	6.98	470				
11:55	5.5	24.9	7.01	495				
Sample								
ID:	Date:		Time	Containe	r Type	Preservative	Analytes TPHg/ss,	Method
MW-6A	3/14/2005		12:00	Amber, V	oa	нсі	BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010
						Signat	ure:	



			***		ITTO I OIG						
	3/14/2005			<u> </u>							
	Cambria E	nvironmen	tal Technol	ogy							
ess:	1137-1167	65th Stree	et Oakland,	CA							
	MW-6B										
eter:	2"										
evice:	Disposable	Bailer									
mpling Method: Disposable Bailer											
Depth:			21.95	Fe=	mg/L						
Vater:			5.80	ORP=	mV						
umn Height	i:		16.15	DO=	mg/L						
			0.16				· · · · · · · · · · · · · · · · · · ·				
/olume (gal	):		2.58	COMME	ENTS:						
/olumes (ga	nl):	-	7.75	Turbid							
	TEMP (Celsius)	рН	COND.				!				
	24.9	1	528	1			•				
		<del>                                     </del>	470	1			'				
7.8	24.9	6.93	488								
					T**	<del></del>	y				
Date:		Time	Containe	r Type	Preservative	Analytes	Method				
6B 3/14/2005		12:25			HCI	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010				
					·	1					
					Signatur	re: //					
	ess:  meter: evice: Method: Depth: Vater: umn Height Volume (gal) 2.6 5.2 7.8  Date:	Cambria E ess: 1137-1167 MW-6B neter: 2" evice: Disposable Method: Disposable Depth: Vater: umn Height:  //olume (gal): CASING VOLUME (gal) (Celsius) 2.6 24.9 5.2 24.9 7.8 24.9  Date:	ess: 1137-1167 65th Streed MW-6B  neter: 2"  evice: Disposable Bailer  Method: Disposable Bailer  Depth:  Vater:  umn Height:  Volume (gal):  CASING VOLUME (gal) (Celsius) pH  2.6 24.9 6.90  5.2 24.9 6.95  7.8 24.9 6.93  Date: Time	Cambria Environmental Technol	Cambria Environmental Technology	Cambria Environmental Technology	Cambria Environmental Technology				



Date:		3/14/2005				<del>-</del> · · · · · · · · · · · · · · · · · · ·		
Client:				tal Technol	ogy			
Site Addr	ess:	1137-1167	7 65th Stree	et Oakland,	CA			
Well ID:		MW-6C						
Well Dian	neter:	2"						
Purging D	evice:	Disposable	e Bailer					
Sampling		Disposable	e Bailer					
Total Wel	Depth:			33.85	Fe=	mg/L		
Depth to \	Vater:			5.80	ORP=	mV		,
Water Col	umn Height	t:		28.05	DO=	mg/L		
Volume/ft	-			0.16				
	Volume (gal	D-		4.49	COMME	NTS:		
	Volumes (ga			13.46	Turbid			
TIME:	CASING	TEMP	рН	COND. (microns)				
12:40	4.5	24.9	6.99	430	1	•		
12:45	9.0	24.6	7.03	423				
12:50	13.5	24.7	7.02	449	1			
Sample ID:	Date:		Time	Containe	r Type	Preservative	Analytes	Method
MW-6C			12:55	Amber, V		нсі	TPHg/ss, BTEX, MTBE, TPHd/mo, HVOCs	8015, 8020, 8010
						Signatur	re: /	



Date:		3/14/2005								
Client:		Cambria E	nvironmen	tal Technol	ogy					
Site Addr	ess:	1137-1167	65th Stree	et Oakland,	, CA					
Well ID:		MW-7A								
Well Dian	neter:	1"								
Purging D	evice:	Disposable	Bailer				<u>-</u> ,			
Sampling	Method:	Disposable	Bailer				<del></del>			
Total Wel	l Depth:			10.02	Fe=	mg/L				
Depth to V	Water:			3.35	ORP=	mV		<del>-</del>		
Water Col	umn Heigh	t:		6.67	DO=	mg/L				
Volume/ft	:			0.04						
1 Casing	Volume (ga	 l):		0.27	СОММЕ	ENTS:				
3 Casing	al):		0.80	Turbid	Гшbid					
TIME:	CASING VOLUME	TEMP (Celsius)	рН	COND.						
11:10		23.9	7.12	527						
11:20	0.5	24.1	7.10	533	]					
11:30	0.8	24.1	7.09	541						
Sample ID:	Date:		Time	Containe	r Type	Preservative	Analytes	Method		
MW-7A	3/14/	/2005	11:35	Amber, V		HCI	TPHg/ss, BTEX, MTBE, TPHd/mo,	8015, 8020, 8010		
							HVOCs			
								9		
	- 	·		<u> </u>	<u></u>	Signatur	e: //			

### **APPENDIX B**

Laboratory Analytical Report



110 2ud Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
Emeryville, CA 94608	Client Contact: Neal Siler	Date Reported: 03/22/05
	Client P.O.:	Date Completed: 03/22/05

WorkOrder: 0503275

March 22, 2005

Dear Neal:

Enclosed are:

- 1). the results of 13 analyzed samples from your #522-1000; Nady project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Angela Rydelius, Lab Manager



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
·	Client Contact: Neal Siler	Date Extracted: 03/18/05-03/19/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/18/05-03/19/05

Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE\*

Extraction Method: SW5030B	Analytical Method: SW8021B/8015Cm						Work Order: 0503275	
	Lab ID	0503275-001B	0503275-002B	0503275-003B	0503275-004B			
	Client ID	MW-1A	MW-1B	MW-1C	MW-2A	Reporting Limit for DF =1		
	Matrix	W	W	W	W	DF	=1	
<del></del>	DF	1	1	1	1	S	w	
Compound			Conc	entration		ug/kg	μg/L	
ТРН(g)		4800	ND	ND	360	NA	50	
TPH(ss)		6000	ND	ND	260	NA	50	
МТВЕ		ND	ND	ND	ND	NA	5.0	
Benzene		0.68	0.60	ND	ND	NA	0.5	
Toluene		ND	ND	ND	2.5	NA	0.5	
Ethylbenzene		2.0	ND	ND	ND	NA	0.5	
Xylenes		6.8	ND	ND	ND	NA	0.5	
Surrogate Recoveries (%)								
%SS:		96	109	116	108			
Comments	<del></del>	g,m	i	i	m,i			

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

Angela Rydelius, Lab Manager

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; 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 MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
T	Client Contact: Neal Siler	Date Extracted: 03/18/05-03/19/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/18/05-03/19/05

### Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE\*

Extraction Method: SW5030B		Ana	alytical Method: SW802	B/8015Cm		Work Ord	er: 0503275
	Lab ID	0503275-005B	0503275-006B	0503275-007B	0503275-008B		
	Client ID	MW-3A	MW-4A	MW-4B	MW-4C	Reporting Limit for	
	Matrix	W	W	W	W	DF	= <b>]</b>
	DF	3.3	1	1	1	S	w
Compound			Conc	entration		ug/kg	μg/L
ТРН(g)		2400	ND	ND	ND	NA	50
TPH(ss)		3500	ND	ND	ND	NA	50
МТВЕ		ND<17	ND	ND	ND	NA	5.0
Benzene		ND<1.7	0.91	ND	ND	NA	0.5
Toluene		ND<1.7	1.7	ND	ND	NA	0.5
Ethylbenzene		ND<1.7	ND	ND	ND	NA	0.5
Xylenes	. ,	ND<1.7	1.9	ND	ND	NA	0.5
		Surre	ogate Recoveries	s (%)			
%SS:		84	109	110	111		
Comments		g,h,i	i	i	i	<del>}</del>	

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



<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; 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 MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
- 31 01 04600	Client Contact: Neal Siler	Date Extracted: 03/18/05-03/19/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/18/05-03/19/05

### Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE\*

Extraction Method: SW5030B		Ana	alytical Method: SW8021	B/8015Cm		Work Orde	r: 0503275	
	Lab ID	0503275-009B	0503275-010B	0503275-011B	0503275-012B			
	Client ID	MW-5B	MW-6A	MW-6B	MW-6C	Reporting Limit for		
	Matrix	W	W	W	W	DF	DF = 1	
	DF	1	10	1	. 1	S	W	
Compound			Conc	entration		ug/kg	μg/L	
ТРН(g)		ND	2900	1300	ND	NA	50	
TPH(ss)		ND	2600	1200	ND	NA	50	
МТВЕ		ND	ND<50	ND	ND	NA	5.0	
Benzene		ND	ND<5.0	ND	ND	NA	0.5	
Toluene		ND	ND<5.0	ND	ND	NA	0.5	
Ethylbenzene		ND	ND<5.0	ND	ND	NA	0.5	
Xylenes		ND	ND<5.0	ND	ND	NA	0.5	
		Surr	ogate Recoverie	s (%)				
%SS:		100	100	93	109			
Comments		i	g,i	g,i				

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



<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; 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 MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



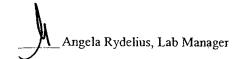
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
E	Client Contact: Neal Siler	Date Extracted: 03/18/05-03/19/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/18/05-03/19/05

### Gasoline Range (C6-C12), Stoddard Solvent Range (C9-C12) Volatile Hydrocarbons with BTEX & MTBE\*

Extraction Method: SW5030B	Analytical	Method: SW8021B/8015Cm	Work Orde	r: 0503275
Lab ID	0503275-013B	w		
Client ID	MW-7A		Reporting 1	
Matrix	W		DF =	= ]
DF	10		S	w
Compound		Concentration	ug/kg	μg/L
ТРН(g)	3900		NA	50
TPH(ss)	3700		NA	50
МТВЕ	ND<50		NA	5.0
Benzene	ND<5.0		NA	0.5
Toluene	ND<5.0		NA	0.5
Ethylbenzene	ND<5.0		NA	0.5
Xylenes	ND<5.0		NA	0.5
	Surrogat	e Recoveries (%)		
%SS:	103			
Comments	g,h			

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



<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; 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 MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology Client Project ID: #522-1000; Nady		Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
Jyoo Honis St, Saite M	Client Contact: Neal Siler	Date Extracted: 03/16/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/17/05-03/19/05

# Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil\*

extraction method: SW3		) and Oil (C187	Analytical methods: SW8015C	tarbons as Dieser and Traves		Work Order: 0503275	
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS	
0503275-001A	MW-1A	w	3200,d,b	ND	1	119	
0503275-002A	MW-1B	w	52,b,i	ND	1	101	
0503275-003A	MW-IC	w	ND,i	ND	I	96	
0503275-004A	MW-2A	w	560,d,b,g,i	450	1	106	
0503275-005A	MW-3A	w	37,000,d,b,i	ND<2500	10	97	
0503275-006A	MW-4A	w	210,g,b,f,i	300	1	103	
0503275-007A	MW-4B	W	ND,i	ND	1	92	
0503275-008A	MW-4C	w	ND,i	ND	1	89	
0503275-009A	MW-5B	w	ND,i	ND	1	95	
0503275-010A	MW-6A	w	5900,d,b,i	ND	ı	87	
0503275-011A	MW-6B	w	5200,b,d,i	340	1	93	
0503275-012A	MW-6C	w	60,b	ND	1	98	
0503275-013A	MW-7A	w	14,000,n,b,h	620	1	112	
	Limit for DF =1;	w	50	250		μg/L	
	ot detected at or reporting limit	S	NA	NA	n	ng/Kg	

Reporting Limit for DF =1;	w	50	250	μg/L
ND means not detected at or above the reporting limit	S	NA	NA	mg/Kg
	<u> </u>			1

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

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

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
T CA 04/00	Client Contact: Neal Siler	Date Extracted: 03/19/05-03/21/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/19/05-03/21/05

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)\* Work Order: 0503275 Extraction Method: SW5030B Analytical Method: SW8260B 0503275-004C 0503275-003C Lab ID 0503275-001C 0503275-002C Reporting Limit for MW-1A MW-1B MW-1C MW-2A Client ID DF = 1W W W W Matrix w 1 ı 1 S DF 2 μg/kg  $\mu$ g/L Concentration Compound Bromodichloromethane ND<1.0 ND ND NA 0.5 ND NA 0.5 ND<1.0 ND ND Bromoform ND 0.5 ND<1.0 ND ND NA Bromomethane ND ND NA 0.5 ND<1.0 ND Carbon Tetrachloride ND NA 0.5 ND<1.0 ND ND Chlorobenzene ND NA 0.5 ND Chloroethane ND<1.0 1.1 NA 1.0 2-Chloroethyl Vinyl Ether ND<2.0 ND ND ND 1.9 ND ND NA 0.5 Chloroform ND<1.0 ND<1.0 ND ND ND NA 0.5 Chloromethane ND 0.5 Dibromochloromethane ND<1.0 ND ND NA ND ND ND NA 0.5 1,2-Dichlorobenzene 2.0 ND ND NA 0.5 ND<1.0 ND 1,3-Dichlorobenzene ND<1.0 ND ND NA 0.5 ND 1,4-Dichlorobenzene ND 0.5 ND ND NΑ ND<1.0 Dichlorodifluoromethane ND ND NA 0.51.1-Dichloroethane 2.4 5.2 ND ND NA 0.5 1,2-Dichloroethane (1,2-DCA) ND<1.0 12 ND<1.0 ND ND ND NA 0.5 1,1-Dichloroethene ND 0.5 cis-1,2-Dichloroethene 3.8 ND NΑ 2.2 ND ND ND NA 0.5 trans-1,2-Dichloroethene ND<1.0 ND ND NA 0.5 1,2-Dichloropropane ND 0.5 ND<1.0 ND ND ND NA cis-1,3-Dichloropropene ND<1.0 ND ND ND NA 0.5 trans-1,3-Dichloropropene ND<1.0 ND ND NA 0.5 ND Methylene chloride ND ND NA 0.5ND<1.0 ND 1,1,2,2-Tetrachloroethane ND ND ND NA 0.5 Tetrachloroethene 1,1,1-Trichloroethane ND<1.0 ND ND ND NA 0.5 ND 0.5 1,1,2-Trichloroethane ND<1.0 ND ND NA ND ND ND NA 0.5 Trichloroethene ND<1.0 NĐ ND NA 0.5 Trichlorofluoromethane ND Vinyl Chloride ND ND ND NA Surrogate Recoveries (%) 100 98 106 109 %SS1: 111 110 107 %SS2: 104 101 %SS3: 106 99 99 Comments

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

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

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted 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.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
, in the second	Client Contact: Neal Siler	Date Extracted: 03/19/05-03/21/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/19/05-03/21/05

## Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)\*

Analytical Method: SW8260B Work Order: 0503275 Extraction Method: SW5030B

Extraction /-remod. D.// Judgo		-,					
Lab ID	0503275-005C	0503275-006C	0503275-007C	0503275-008C	D	T 1 12 C	
Client ID	MW-3A	MW-4A	MW-4B	MW-4C	Reporting DF		
Matrix	W	W	W	W			
DF	2	2 1 1 1		1	S	W	
Compound		Conce	entration		μg/kg	μg/L	
Bromodichloromethane	ND<1.0	ND	ND	ND	NA	0.5	
Bromoform	ND<1.0	ND	ND	. ND	NA	0.5	
Bromomethane	ND<1.0	ND	ND	ND	NA	0.5	
Carbon Tetrachloride	ND<1.0	ND	ND	ND	NA	0.5	
Chlorobenzene	ND<1.0	ND	ND	ND_	NA	0.5	
Chloroethane	ND<1.0	ND	ND	ND	NA	0.5	
2-Chloroethyl Vinyl Ether	ND<2.0	ND	ND	ND	NA	1.0	
Chloroform	ND<1.0	ND	ND	ND	NA	0.5	
Chloromethane	ND<1.0	ND	ND	ND	NA	0.5	
Dibromochloromethane	ND<1.0	ND	ND	ND	NA	0.5	
1,2-Dichlorobenzene	43	ND	ND	ND	NA	0.5	
1,3-Dichlorobenzene	1.2	ND	ND	ND	NA	0.5	
1,4-Dichlorobenzene	5.7	ND	ND	ND	NA	0.5	
Dichlorodifluoromethane	ND<1.0	ND	ND	ND	NA	0.5	
1.1-Dichloroethane	ND<1.0	ND	ND	ND	NA	0.5	
1,2-Dichloroethane (1,2-DCA)	ND<1.0	ND	ND	ND	NA	0.5	
1,1-Dichloroethene	ND<1.0	ND	ND	ND	NA	0.5	
cis-1,2-Dichloroethene	ND<1.0	ND	ND	ND	NA	0.5	
trans-1,2-Dichloroethene	ND<1.0	ND	ND	ND	NA	0.5	
1,2-Dichloropropane	ND<1.0	ND	ND	ND	NA	0.5	
cis-1,3-Dichloropropene	ND<1.0	ND	ND	ND	NA	0.5	
trans-1,3-Dichloropropene	ND<1.0	ND	ND	ND	NA	0.5	
Methylene chloride	ND<1.0	ND	ND	ND	NA	0.5	
1,1,2,2-Tetrachloroethane	ND<1.0	ND	ND	ND	NA	0.5	
Tetrachloroethene	ND<1.0	1.1	ND	ND	NA	0.5	
1,1,1-Trichloroethane	ND<1.0	ND	ND	ND	NA	0.5	
1,1,2-Trichloroethane	ND<1.0	ND	ND	ND	NA	0.5	
Trichloroethene	ND<1.0	ND	ND	ND	NA	0.5	
Trichlorofluoromethane	ND<1.0	ND	ND	ND	NA	0.5	
Vinyl Chloride	ND<1.0	ND	ND	ND	NA	0.5	
·	Sı	irrogate Recoveri	es (%)	*	<u> </u>	<del></del>	
%SS1:	96	102	106	105			
%SS2:	107	113	111	110			
%SS3:	111	97	98	99			
Comments	;;	<del> </del>	;	i	1		

l	Su	Hogate Ketuverie	3 ( /0)		
%SS1:	96	102	106	105	
%SS2:	107	113	111	110	
%SS3:	111	97	98	99	
Comments	j,i	i	i	i	

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted 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.



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

<sup>#</sup> surrogate diluted out of range or surrogate coelutes with another peak.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05
5900 Hollis St, Suite A		Date Received: 03/16/05
,	Client Contact: Neal Siler	Date Extracted: 03/19/05-03/21/05
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/19/05-03/21/05

## Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)\*

Analytical Method: SW8260B Work Order: 0503275 Extraction Method: SW5030B

Lab ID	0503275-009C	0503275-010C	0503275-011C	0503275-012C	n .:	
Client ID	MW-5B	MW-6A	MW-6B	MW-6C	Reporting DF	
Matrix	W	W	]			
DF	1	1	1	1	S	W
Compound		Conc	entration		μg/kg	μg/L
Bromodichloromethane	ND	ND	ND	ND	NA	0.5
Bromoform	ND	ND	ND	ND	NA	0.5
Bromomethane	ND	ND	ND	ND	NA	0.5
Carbon Tetrachloride	ND	ND	ND	ND	NA	0.5
Chlorobenzene	ND	ND	ND	ND	NA	0.5
Chloroethane	ND	0.61	ND	ND	NA	0.5
2-Chloroethyl Vinyl Ether	ND	ND	ND	ND	NA	1.0
Chloroform	ND	ND	ND	ND	NA	0.5
Chloromethane	ND	ND	ND	ND	NA	0.5
Dibromochloromethane	ND	ND	ND	ND	NA	0.5
1,2-Dichlorobenzene	ND	ND	1.1	ND	NA	0.5
1,3-Dichlorobenzene	ND	ND	ND	ND	NA	0.5
1,4-Dichlorobenzene	ND	ND	ND	ND	NA	0.5
Dichlorodifluoromethane	ND	ND	ND	ND	NA	0.5
1,1-Dichloroethane	ND	ND	ND	1.1	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
1,1-Dichloroethene	ND	ND	ND	ND	NA	0.5
cis-1,2-Dichloroethene	ND	ND	ND	12	NA	0.5
trans-1,2-Dichloroethene	ND	ND	ND	ND	NA	0.5
1,2-Dichloropropane	ND	ND	ND	ND	NA	0.5
cis-1,3-Dichloropropene	ND	ND	ND	ND	NA	0.5
trans-1,3-Dichloropropene	ND	ND	ND	ND	NA	0.5
Methylene chloride	ND	ND	ND	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	NA	0.5
Tetrachloroethene	ND	ND	ND	1.8	NA	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	NA	0.5
1,1,2-Trichloroethane	ND	ND	ND	ND	NA	0.5
Trichloroethene	ND	ND	ND	1.9	NA	0.5
Trichlorofluoromethane	ND	ND	ND	ND	NA	0.5
Vinyl Chloride	ND	ND	3.5	2.3	NA	0.5
	Sı	urrogate Recoveri	es (%)			
%SS1:	108	96	97	104		
%SS2:	109	101	108	112		
0/002	00	105	1,,,	100		

	Su	rrogate Recoveri	es (%)		
%SS1:	108	96	97	104	
%SS2:	109	101	108	112	
%SS3:	99	105	111	100	
Comments	i	i	i		

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

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

<sup>#</sup> surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted 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.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone : 925-798-1620 Fax : 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #522-1000; Nady	Date Sampled: 03/14/05				
5900 Hollis St, Suite A		Date Received: 03/16/05				
E	Client Contact: Neal Siler	Date Extracted: 03/19/05-03/21/05				
Emeryville, CA 94608	Client P.O.:	Date Analyzed: 03/19/05-03/21/05				

Lab ID 0503275-013C Reporting	g Limit for = 1  W  μg/L  0.5
Client ID         MW-7A         Reporting DF           Matrix         W         DF           DF         I         S           Compound         Concentration         μg/kg           Bromodichloromethane         ND         NA           Bromoform         ND         NA	W μg/L 0.5
Client ID   MW-7A   DF     Matrix   W     S     DF   1   S     Compound   Concentration   µg/kg     Bromodichloromethane   ND   NA     Bromoform   ND   NA	W μg/L 0.5
Matrix         W         S           DF         1         S           Compound         Concentration         μg/kg           Bromodichloromethane         ND         NA           Bromoform         ND         NA	W μg/L 0.5
DF         1         S           Compound         Concentration         μg/kg           Bromodichloromethane         ND         NA           Bromoform         ND         NA	μg/L 0.5
Compound         Concentration         μg/kg           Bromodichloromethane         ND         NA           Bromoform         ND         NA	0.5
Bromodichloromethane         ND         NA           Bromoform         ND         NA	0.5
Bromoform ND NA	<del>                                       </del>
Recommendation ND	0.5
	0.5
Carbon Tetrachloride ND NA	0.5
Chlorobenzene ND NA	0.5
Chloroethane ND NA	0.5
2-Chloroethyl Vinyl Ether ND NA	1.0
Chloroform ND NA	0.5
Chloromethane ND NA	0.5
Dibromochloromethane ND NA	0.5
1,2-Dichlorobenzene 2.6 NA	0.5
1,3-Dichlorobenzene ND NA	0.5
I,4-Dichlorobenzene ND NA	0.5
Dichlorodifluoromethane ND NA	0.5
1,1-Dichloroethane ND NA	0.5
1,2-Dichloroethane (1,2-DCA) ND NA	0.5
1,1-Dichloroethene ND NA	0.5
cis-1,2-Dichloroethene ND NA	0.5
trans-1,2-Dichloroethene ND NA	0.5
1,2-Dichloropropane ND NA	0.5
cis-1,3-Dichloropropene ND NA	0.5
trans-1,3-Dichloropropene ND NA	0.5
Methylene chloride ND NA	0.5
1,1,2,2-Tetrachloroethane ND NA	0.5
Tetrachloroethene ND NA	0.5
1,1,1-Trichloroethane ND NA	0.5
1,1,2-Trichloroethane ND NA	0.5
Trichloroethene ND NA	0.5
Trichlorofluoromethane ND NA	0.5
Vinyl Chloride ND NA	0.5
Surrogate Recoveries (%)	<del></del>
%SS1: 99	
%SS2: 108	
%SS3: 118	
Comments h	

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

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

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted 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) sequattached narrative.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

### OC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503275

EPA Method: SW8021B	Extraction: SW5030B			BatchID: 15385			Spiked Sample ID: 0503274-003A			
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
Analyte	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS/LCSD
TPH(btex) <sup>£</sup>	ND	60	96.8	95.3	1.52	98.6	98.7	0.0836	70 - 130	70 - 130
MTBE	ND	10	102	99	3.30	93.1	96.4	3.47	70 - 130	70 - 130
Benzene	ND	10	103	99.6	3.64	108	109	1.01	70 - 130	70 - 130
Toluene	ND	10	106	102	4.54	103	103	0	70 - 130	70 - 130
Ethylbenzene	ND	10	103	98.5	4.22	107	106	1.04	70 - 130	70 - 130
Xylenes	ND	30	90	86	4.55	95	91.3	3.94	70 - 130	70 - 130
%SS:	109	10	113	111	1.53	110	112	1.05	70 - 130	70 - 130

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

NONE

#### BATCH 15385 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0503275-001B	3/14/05 1:30 PM	3/18/05 4:40 AM	3/18/05 4:40 AM	0503275-002B	3/14/05 1:55 PM	3/18/05 9:06 AM	3/18/05 9:06 AM
0503275-003B	3/14/05 2:20 PM	3/18/05 9:36 AM	3/18/05 9:36 AM	0503275-004B	3/14/05 10:15 AM	3/18/05 10:06 AM	3/18/05 10:06 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.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

\_\_\_\_\_QA/QC Officer

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

# QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503275

EPA Method: SW8021B	Extraction: SW5030B			BatchID: 15402			Spiked Sample ID: 0503276-006A			
Analida	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)
Analyte	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(blex) <sup>£</sup>	ND	60	98.7	93.6	5.34	95.8	89	7.41	70 - 130	70 - 130
мтве	ND	10	109	103	5.84	87.2	94.3	7.76	70 - 130	70 - 130
Benzene	ND	10	112	107	4.36	94.9	97.6	2.79	70 - 130	70 - 130
Toluene	ND	10	111	106	4.31	97.8	97	0.765	70 - 130	70 - 130
Ethylbenzene	ND	10	108	103	5.26	95.9	100	4.30	70 - 130	70 - 130
Xylenes	ND	30	95.3	90	5.76	96	100	4.08	70 - 130	70 - 130
%SS:	106	10	112	115	2.33	101	98	3.04	70 - 130	70 - 130

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

NONE

#### BATCH 15402 SUMMARY

	Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
	0503275-005B	3/14/05 9:50 AM	3/19/05 9:08 AM	3/19/05 9:08 AM	0503275-006B	3/14/05 8:35 AM	3/19/05 8:09 AM	3/19/05 8:09 AM
1	0503275-007B	3/14/05 9:00 AM	3/18/05 10:36 AM	3/18/05 10:36 AM	0503275-008B	3/14/05 9:25 AM	3/18/05 11:06 AM	3/18/05 11:06 AM
	0503275-009B	3/14/05 8:10 AM	3/18/05 10:02 AM	3/18/05 10:02 AM	0503275-010B	3/14/05 12:00 PM	3/18/05 7:51 AM	3/18/05 7:51 AM
	0503275-011B	3/14/05 12:25 PM	3/18/05 10:34 AM	3/18/05 10:34 AM	0503275-012B	3/14/05 12:55 PM	3/18/05 11:07 AM	3/18/05 11:07 AM
	0503275-013B	3/14/05 11:35 AM	3/18/05 9:29 AM	3/18/05 9:29 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.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer



110 2nd Avenue South, #D7, Pacheco. CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-nail: main@mccampbell.com

### **QC SUMMARY REPORT FOR SW8015C**

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503275

EPA Method: SW8015C		Extractio	n: SW3510	С	Bat	chID: 153	93	Spiked Sample ID: N/A			
Amabita	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)	
Analyte	µg/L µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD	
TPH(d)	N/A	1000	N/A	N/A	N/A	104	103	1.04	N/A	70 - 130	
%SS:	N/A	2500	N/A	N/A	N/A	97	97	0	N/A	70 - 130	

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

NONE

#### BATCH 15393 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0503275-001A	3/14/05 1:30 PM	3/16/05 8:00 PM	3/17/05 3:37 PM	0503275-002A	3/14/05 1:55 PM	3/16/05 8:00 PM	3/18/05 5:06 PM
0503275-003A	3/14/05 2:20 PM	3/16/05 8:00 PM	3/17/05 10:37 PM	0503275-004A	3/14/05 10:15 AM	3/16/05 8:00 PM	3/18/05 3:41 PM
0503275-005A	3/14/05 9:50 AM	3/16/05 8:00 PM	3/18/05 9:44 PM	0503275-006A	3/14/05 8:35 AM	3/16/05 8:00 PM	3/19/05 12:59 AM
0503275-007A	3/14/05 9:00 AM	3/16/05 8:00 PM	3/17/05 7:10 PM	0503275-008A	3/14/05 9:25 AM	3/16/05 8:00 PM	3/17/05 3:39 PM
: 0503275-009A	3/14/05 8:10 AM	3/16/05 8:00 PM	3/17/05 8:19 PM	0503275-010A	3/14/05 12:00 PM	3/16/05 8:00 PM	3/17/05 1:14 PM
0503275-011A	3/14/05 12:25 PM	3/16/05 8:00 PM	3/17/05 4:35 PM	0503275-012A	3/14/05 12:55 PM	3/16/05 8:00 PM	3/18/05 7:46 AM
0503275-013A	3/14/05 11:35 AM	3/16/05 8:00 PM	3/17/05 3:37 PM				

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

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

\* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

LL QA/QC Officer



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

### **QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503275

EPA Method: SW8260B	Extraction: SW5030B				BatchID: 15391			Spiked Sample ID: 0503275-009C			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
Analyte	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD	
Chlorobenzene	ND	10	117	118	1.49	117	115	1.86	70 - 130	70 - 130	
1,2-Dichloroethane (1,2-DCA)	ND	10	90.2	90.3	0.163	95.2	92.7	2.75	70 - 130	70 - 130	
1,1-Dichloroethene	ND	10	89.4	88.8	0.587	92.9	85.1	8.77	70 - 130	70 - 130	
Trichloroethene	ND	10	93.6	93.1	0.528	94	90	4.41	70 - 130	70 - 130	
%SS1:	108	10	98	98	0	98	97	0.297	70 - 130	70 - 130	
%SS2:	109	10	99	99	0	97	98	0.591	70 - 130	70 - 130	
%SS3:	99	10	107	105	1.42	107	108	0.830	70 - 130	70 - 130	

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

NONE

#### BATCH 15391 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0503275-001C	3/14/05 1:30 PM	3/19/05 1:36 AM	3/19/05 1:36 AM	0503275-002C	3/14/05 1:55 PM	3/19/05 2:19 AM	3/19/05 2:19 AM
0503275-003C	3/14/05 2:20 PM	3/19/05 3:02 AM	3/19/05 3:02 AM	0503275-004C	3/14/05 10:15 AM	3/19/05 3:45 AM	3/19/05 3:45 AM
0503275-005C	3/14/05 9:50 AM	3/19/05 4:28 AM	3/19/05 4:28 AM	0503275-006C	3/14/05 8:35 AM	3/19/05 5:11 AM	3/19/05 5:11 AM
0503275-007C	3/14/05 9:00 AM	3/19/05 5:54 AM	3/19/05 5:54 AM	0503275-008C	3/14/05 9:25 AM	3/19/05 6:38 AM	3/19/05 6:38 AM
0503275-009C	3/14/05 8:10 AM	3/19/05 7:21 AM	3/19/05 7:21 AM	0503275-010C	3/14/05 12:00 PM	3/21/05 6:06 PM	3/21/05 6:06 PM
0503275-011C	3/14/05 12:25 PM	3/19/05 8:48 AM	3/19/05 8:48 AM				i

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.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

LR QA/QC Officer



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0503275

EPA Method: SW8260B		Extractio	n: SW5030	0B	Bat	chID: 154	03	Spiked Sample ID: 0503276-006C			
Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)		
Analyte	hg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS/LCSD	
Chlorobenzene	ND	10	107	109	2.21	106	105	1.34	70 - 130	70 - 130	
1,2-Dichloroethane (1,2-DCA)	ND	10	104	93.6	10.4	107	91.1	16.3	70 - 130	70 - 130	
1,1-Dichloroethene	ND	10	81	83.6	3.25	80.1	84.5	5.35	70 - 130	70 - 130	
Trichloroethene	ND	10	94	98	4.15	94.4	95.9	1.61	70 - 130	70 - 130	
%SS1:	98	10	102	95	7.27	104	97	7.02	70 - 130	70 - 130	
%SS2:	101	10	94	100	6.06	93	98	5.24	70 - 130	70 - 130	
%SS3:	101	10	102	105	3.34	101	106	5.23	70 - 130	70 - 130	

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

NONE

#### BATCH 15403 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0503275-012C	3/14/05 12:55 PM	3/19/05 9:31 AM	3/19/05 9:31 AM	0503275-013C	3/14/05 11:35 AM	3/19/05 10:14 AM	3/19/05 10:14 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.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

\_\_\_\_\_QA/QC Officer

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

110 Second Avenue South, #D7 Pacheco, CA 94553-5560 (925) 798-1620

WorkOrder: 0503275

ClientID: CETE

Report to:

Neal Siler

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608

(510) 420-0700 TEL:

FAX: (510) 420-9170 ProjectNo: #522-1000; Nady

PO:

Bill to:

Accounts Payable

Cambria Env. Technology

5900 Hollis St, Ste. A

Emeryville, CA 94608

Requested TAT:

5 days

Date Received: 03/16/2005

Date Printed: 03/16/2005

				Г						Reques	ted Test	s (See l	egend b	elow)					
Sample ID	CilentSampID	Matrix	Collection Date Ho	old	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		T	10/44/05 4:20:00 DM	<del></del>		В	1	Т		<del></del>	<del></del>	Т	<del></del>					Τ	<u> </u>
0503275-001	MW-1A	Water	3/14/05 1:30:00 PM		С		A	ļ <u> </u>		ļ			<del> </del>	<del> </del>				<del></del>	+
0503275-002	MW-1B	Water	3/14/05 1:55:00 PM		С	В	A			<u> </u>								<del> </del>	
0503275-003	MW-1C	Water	3/14/05 2:20:00 PM	$\beth$ $oxdot$	C	В	A			<u> </u>								<u> </u>	
0503275-004	MW-2A	Water	3/14/05 10:15:00		С	В	Α						ļ			ļ		<u> </u>	
0503275-005	MW-3A	Water	3/14/05 9:50:00 AM		С	В	Α						ļ					-	<del>↓</del>
0503275-006	MW-4A	Water	3/14/05 8:35:00 AM		С	В	Α							ļ		ļ		ļ	
0503275-007	MW-4B	Water	3/14/05 9:00:00 AM		С	В	Α				<u></u>			ļ		ļ		<del></del>	<del></del>
0503275-008	MW-4C	Water	3/14/05 9:25:00 AM		С	В	Α							<u> </u>				<u> </u>	
0503275-009	MW-5B	Water	3/14/05 8:10:00 AM		С	В	A									<u> </u>	ļ <u>.                                </u>	ļ	.
0503275-010	MW-6A	Water	3/14/05 12:00:00		С	В	Α							<u> </u>	·	ļ		ļ	<del> </del>
0503275-011	MW-6B	Water	3/14/05 12:25:00		С	В	Α							<u> </u>		ļ	ļ	<del></del>	-
0503275-012	MW-6C	Water	3/14/05 12:55:00		С	В	Α							ļ		<u> </u>	<u> </u>		
0503275-013	MW-7A	Water	3/14/05 11:35:00		С	В	Α						İ						1

#### Test Legend:

1	8010BMS_W	
6		
11		1

2	G-MBTEX_W
7	
12	

3	TPH(DMO)_W
8	
13	

4	
9	
14	ſ <u>.</u>

5	 	 	 	 
[10]	 	 	 	 
15	 	 	 	 

Prepared by: Rosa Venegas

#### 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.

	McCAMPBELL ANALYTICAL, INC.								CHAIN OF CUSTODY RECORD																								
	110 2 <sup>nd</sup> AVENUE SOUTH, #D7 PACHECO, CA 94 <b>55</b> 3-5560										TURN AROUND TIME												<u> </u>			$\boxtimes$							
	Website: www.inccampbell.com Email: main@mccampbell.com											RUSH 24 HR 48 HR EDF Required? (Yes) No											7	2 HR	5 D.4								
	Telephone: (925) 798-1620 Fax: (925) 798-1622																								Comi	nont.							
	Report To: Veo		ec Bill To: Cambria Env. Tech Environmental Tech															A	nary		Rec	nes	1		<del></del> -			S Other			1		
	Company: Cambric Environmental Tech 5900 Hollis St.													8015)			(F.3)		}		ener				BA,							Filter Samp	
	tme	cyville,	Ca E-Mail: 05/18/8 combring env. co										<b>1</b> +		ļ	10 E/I				Cong				3				2015			Meta		
•	Tele: 510-420-	<b>\$</b> 307	Fax: 510-420-9170										8021	21)		[otal Petroleum Oil & Grease (1664 / 5520 E/B&F)	<u> </u>	ઉ		EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners		es)	ļ.	1E, D			(020)	35			analy		
	Project #: 525	2-1000	Project Name: Nachy										6027	2 / 80	6	1664	3 (418	HVO	(sep	Aroc		bicid		by 8		. 6	(5/8	MIBE		Ì	Yes /	No	
	Project Location: Sampler Signatur	e: 37-11	7 65	111 S	<u> </u>	<u> </u>	K1	anc	λ, <u>,</u>	<del>/ 1</del>	<u>5</u>	мр	Vinc	Cas (	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Mator Oil (8015)	ease.	Tota! Petroleuni Hydrocarbons (418.1)	EPA 5022 / 601 / 8010 / 8021 (HVOCs)	EPA 505/608 / 8081 (Cl Pesticides)	«LY;	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	OCs)	IBE,		VOCs and fuel additives by 8260	TPHg / BTEX & MTBE by (8015 / 8020)	<b>₹</b>				
	Sampler Signatur	7. 7.		us Kan LING		برم						THO		H 35	Y (E)	Or	& C	Iroca	8/01	(CI P	's O.	Pesti	dic C	S (S	B. eth		ives	.BE b	BIEX	(3)			
	SAMPLE ID (Field Point Name)	SAME	E   MATRIA   D					PRESERVED			k TP	ONE	Moto	i Oil	Hyd (	/ 801	1808	PCB	(NP	(Aci	/82(	ED.	3 3	addit	E MT	5	SOV						
		Date	Time	Containers	litai	1							rex.	EX (	esel /	oleun	oleun	/ 601	7 809	8082	8141	8151	EPA 524.2 / 624 / 8266 (VOCs) Fuel Additives (MTBE, ETBE, TAME, DIPE, TBA, 1,2 - DCA, 1,2 - EDB, ethanol) by 8260B	ives (	TPHg by 8015 M	lael	EX ?	इड	•	Ì			
					ပ္သ	le le	'	lge	L L		ع اح	c.	MTBE/BTEX	E / BJ	as Di	Petr	Реф	502.2	505/	/ 809	5077	515/		Adun DCA		s and	g / BT	- i	1 2				
					# C	Type	Water	Soil	Sludge	Other	ICE	HOLL	Other	МТВ	MTB	ТРН	Total	Total	EP.A	EPA	EPA	EPA	EPA	EPA	Fuel 1.2	TPH	VOC	тРН	IPHe.	HVOCS			
4			7 11 -		24	AM	1					$\frac{1}{\lambda}$	+		-	X						<u> </u>							$\frac{\Gamma}{X}$	#	-	<del> </del>	
مز	MN-1A	<u></u>	3-14-05		1	VOG.	1		+-		7	7-	+		<del>  </del>	$\mathcal{H}$													什	7		-	
+433 +33	MW-1B			7:20	<del>                                     </del>	<del>                                     </del>	+++			-	+	₩-				+			<del></del>								<del>  </del>						
1-7	WM-1C	<u> </u>	<del> </del>	<del> </del>	-	<del>  -                                   </del>	<del>                                     </del>	+		$\vdash$	+-																		11				
47	MW-2A		3-15-05		-	+	H		<del></del>		+-	<del>                                     </del>	┼		<del> </del>	- -											<del>  </del>		++			<del> </del>	
70	MW-3A			9:50		++	+++	+			+	$\left\{ - \right\}$	-																1	++			
700	MW-4A			8:35	$\vdash \vdash$	1-1	H	+		-	-{-	<del> </del>	+-								<u>-</u>						<del>  </del>		+	-		-	
700	MN-4B			9:00		+-+	H					+-	+-			-  -											<del>-</del>		-}				
730	MN-4C		<del> </del>	<del> </del>	-	-	H				+	+	-	l		-/-									-,		<del> </del>		1			-	
10	MW-5B		3-15-05		-	++	H	+		-	+		+-	<del> </del>	-	-													++	-+		-	
72	MW-6A			12:00		1-1-	H	+	+	+	+		+	<del> </del> -	-							<del> </del>						·  	1	++			
222342	MW-6B			17:55		1		$\dashv$			-		+	<del> </del> -			,	ļ			ļ								- -	1			
~_/			3-14-03	16.53	4	Voc.	+															<u></u> -							末			-	
·	MN-7A TB		3-19-02	i1:3 <i>5</i>	2	Am)				<del>                                     </del>	دللا	+	+-															 				- 1-10	Lali
	113				-	1000	1					<del>'   -</del>	<del></del>	-	-		·	-				<del> </del>	_			<del></del> .		لــــا	$\vdash$	-+		1	144
	Relingaished Ry		Date:	Time:	Rec	elved F	<u> </u>							<del> </del>	<u>L</u>	]]		L		l_ <sub>/</sub> _	1_	l	<u> </u>	L	LJ								
	Remarks and a second	)		1515	1		ا	Le	-									ICE/	<u>ر</u> کاک در	✓ OND	<u> </u>	N \	/	,	ďĄ	DB (J.	PRIA	TR					
	Reinquished By:	<u></u>	Date:	Time:	Rec	eived f	ly:							1				HEA	D SI	PACE	ABS	SENT	AB	<b>-</b>	CO	NTA	INE	RS.		, L			
																						VOA	3	O&O			LB						
																		PRE	SEF	(VAI	ION		تك		سلت				آلىــ				