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CAMBRIA

To:	Ms. Juliet Shin
Organization:	Alameda County Dept. of Environmental Health
Address:	UST Local Oversight Program 1131 Bay Harbor Parkway, 2nd Floor Alameda, California 94502
From:	Cathy Bell
Phone:	(510) 420-3319
Date:	July 28, 2000
Re:	Second Quarter 2000 Monitoring Report

Transmittal

Dear Ms. Shin:

Enclosed please find Cambria's *Second Quarter 2000 Monitoring Report* for Hooshi's Auto Service, located at 1499 MacArthur Boulevard, Oakland, California. Please contact me at (510) 420-3319 if you have any questions concerning this report.

Sincerely,

Catherine M. Bell

Cathy Bell
Staff Geologist

cc: Ms. Naomi Gatzke, 1545 Scenic View Drive, San Leandro, CA 94577

CAMBRIA

June 19, 2000

Ms. Juliet Shin
Alameda County Department of
Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: **Second Quarter 2000 Monitoring Report**
Hooshi's Auto Service
1499 MacArthur Blvd.
Oakland, California 94602

Dear Ms. Shin:

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this report presenting the second quarter 2000 groundwater monitoring results for the above-referenced site. Presented below are the second quarter 2000 activities, the current groundwater flow direction, the current hydrocarbon distribution in groundwater, and the anticipated third quarter 2000 activities.

SECOND QUARTER 2000 ACTIVITIES

Quarterly Groundwater Sampling: On May 9, 2000, Cambria gauged and sampled all onsite groundwater monitoring wells. The thickness of separate-phase hydrocarbons (SPH), when detected, was measured. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8020. When MTBE was detected by EPA Method 8020, the result was confirmed by EPA Method 8260.

Remediation System: During the second quarter 2000, Cambria started the remediation system. A system start up report and periodic remedial update reports will be presented under separate cover.

Oakland, CA
San Ramon, CA
Sonoma, CA
Portland, OR

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

GROUNDWATER FLOW DIRECTION

Based on the May 9, 2000 depth-to-water measurements, the groundwater mounded near monitoring well MW-2. This is consistent with the historical groundwater flow direction (Figure 1). Groundwater elevation data is summarized in Table 1.

HYDROCARBON DISTRIBUTION IN GROUNDWATER

Up to 0.29 feet of SPHs were measured in wells MW-2 and MW-5. The maximum TPHg and benzene concentrations of 2,700 micrograms per liter (μg/L) and 55 μg/L, respectively, were reported in well MW-1. Benzene was not detected in any other sampled well. Table 1 summarizes the groundwater analytical results. The analytical laboratory reports are included as Attachment A. The water sampling field notes are included as Attachment B.

ANTICIPATED THIRD QUARTER 2000 ACTIVITIES

Quarterly Groundwater Sampling: As requested by the Alameda County Department of Environmental Health, Cambria will gauge and collect groundwater samples from each monitoring well and measure the thickness of any detected SPH. Wells not containing SPH will be sampled, and samples will be analyzed for TPHg, BTEX, and MTBE. All MTBE concentrations reported will be confirmed using EPA Method 8260. Cambria will tabulate the data, contour groundwater elevations, and prepare a quarterly monitoring report.

***Remediation System*:** Cambria will maintain the remediation system during the third quarter of 2000. As mentioned above, a system start up report and periodic remedial update reports will be presented under separate cover.

CLOSING

Cambria appreciates the opportunity to provide environmental services to Ms. Naomi Gatzke. If you have any questions or comments regarding this report, please call David Elias at (510) 420-3307.

Sincerely,
Cambria Environmental Technology, Inc.

Cathy Bell
Staff Geologist

David C. Elias, R.G.
Senior Geologist

ATTACHMENTS

Attachment A - Analytical Results for Groundwater Sampling
Attachment B - Water Sampling Field Notes

cc: Ms. Naomi Gatzke, 1545 Scenic View Dr., San Leandro, CA 94577

H:\Sb-2004 (UST Fund)\Oakl - Hooshi's\QM\2Q00.wpd

H:\SB-2004\OAK-HOOSHI\FIGURES\2QM00-MP.DWG

Hooshi's Auto Service

1499 MacAurthur Boulevard

Oakland, California

CAMBRIA

Groundwater Elevation Contour Map

May 9, 2000

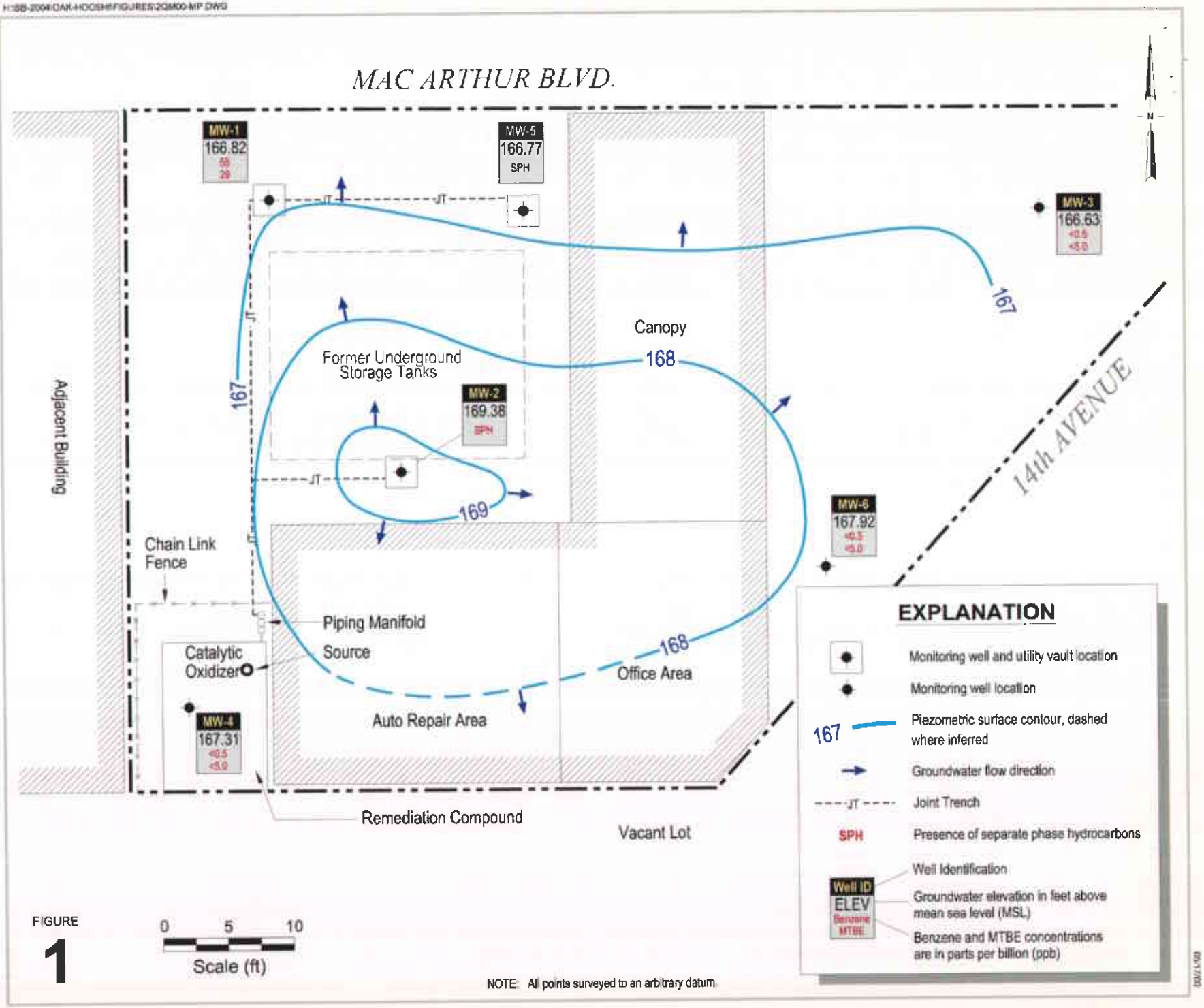

FIGURE **1**

NOTE: All points surveyed to an arbitrary datum.

CAMBRIA

Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, Calfornia

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					←			(µg/L)		→	
MW-1	01/04/93	--	--	--	539	130	12	22	13	--	
181.00	04/22/93	--	--	--	1,130	75	8.0	38	11	--	
	12/27/94	--	--	--	770	22	6.6	14	21	--	
	06/27/96	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/96	13.71	167.29	--	1,500	84	11	22	32	34	
	05/08/98	13.85	167.15	--	3,200	300	12	62	36	<120	a
	08/17/98	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/04/98	14.28	166.72	--	1,100	11	4.3	3.6	6.5	<50	a
	02/17/99	13.41	167.59	--	320	200	47	72	75	57	a
	05/27/99	14.16	166.84	--	2,500	81	12	29	41	<80	a
	08/19/99	14.18	166.82	--	780	19	<0.5	5.7	4.5	28	a
180.83	11/23/99	14.43	166.40	--	1,300	24	0.64	1.8	3.3	<100	a
	02/17/00	13.85	166.98	--	1,300	60	9.1	22	19	22 (16)	a,b
	05/09/00	**14.01**	**166.82**	**--**	**2,700**	**55**	**13**	**19**	**25**	**34 (29)**	**a**
MW-2	01/04/93	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	04/22/93	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/94	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	06/27/96	12.61	168.64	1.00	--	--	--	--	--	--	
	12/10/99	11.10	169.55	0.25	--	--	--	--	--	--	
	05/08/98	10.81	169.66	0.03	--	--	--	--	--	--	
	08/17/98	12.16	168.31	0.02	--	--	--	--	--	--	
	11/04/98	12.61	167.86	0.02	--	--	--	--	--	--	
	02/17/99	9.82	170.66	0.04	--	--	--	--	--	--	
	05/27/99	11.07	169.48	0.13	--	--	--	--	--	--	
	08/19/99	12.79	167.68	0.02	--	--	--	--	--	--	
180.24	11/23/99	12.14	168.20	0.12	--	--	--	--	--	--	
	02/17/00	10.01	170.37	0.18	--	--	--	--	--	--	
	05/09/00	**10.88**	**169.38**	**0.03**	**--**	**--**	**--**	**--**	**--**	**--**	

CAMBRIA

Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, Calfornia

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-3	01/04/93	--	--	--	1,610	772	14	11	ND	--	
179.94	04/22/93	--	--	--	3,040	980	34	19	16		
	12/27/94	--	--	--	2,600	180	9.0	7.2	13		
	06/27/96	13.20	166.74	--	2,000	22	2.9	11	7.4	56	
	12/10/96	13.13	166.81	--	970	<0.5	<0.5	<0.5	<0.5	24	
	05/08/98	13.03	166.91	--	780	3.7	2.1	1.1	2.4	<32	a
	08/17/98	13.22	166.72	--	870	2.8	<0.5	<0.5	3.7	<5.0	b,c
	11/04/98	13.31	166.63	--	770	1.6	4.4	2.0	6.9	<30	c
	02/17/99	12.89	167.05	--	650	6.2	3.4	1.5	2.6	<5.0	b,c
	05/27/99	12.32	167.62	--	570	1.5	1.2	0.72	1.1	<20	a
	08/19/99	13.19	166.75	--	830	<0.5	1.9	<0.5	1.3	<20	c,d
179.55	11/23/99	13.26	166.29	--	900	<0.5	1.8	0.56	1.4	<20	c,d
	02/17/00	12.78	166.77	--	250	<0.5	1.5	<0.5	0.62	<5.0	d
	05/09/00	**12.92**	**166.63**	**--**	**690**	**<0.5**	**2.1**	**0.85**	**1.6**	**<5.0**	**a**
MW-4	06/27/96	17.03	163.51	--	720	2	0.5	2.5	23	3.2	
180.54	12/10/96	8.50	172.04	--	80	2.4	<0.5	<0.5	6.6	<2.0	
	05/08/98	11.46	169.08	--	<50	0.60	<0.5	<0.5	<0.5	<5.0	
	08/17/98	13.98	166.56	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	11/04/98	14.36	166.18	--	96	9.7	8.1	4.8	18	<5.0	a
	02/17/99	8.39	172.15	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	05/27/99	12.80	167.74	--	<50	<0.5	1.0	<0.5	2.9	<5.0	
	08/19/99	14.42	166.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
180.12	11/23/99	14.63	165.49	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	02/17/00	8.15	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	05/09/00	**12.81**	**167.31**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	
MW-5	06/27/96	13.62	166.74	0.16	--	--	--	--	--	--	
180.23	12/10/96	13.26	167.77	1.00	--	--	--	--	--	--	
	05/08/98	13.15	167.11	0.04	--	--	--	--	--	--	

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, Calfornia

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					←			(µg/L)		→	
	08/17/98	13.36	166.89	0.02	--	--	--	--	--	--	
	11/04/98	13.52	166.73	0.02	--	--	--	--	--	--	
	02/17/99	13.02	167.23	0.02	--	--	--	--	--	--	
	05/27/99	13.80	166.71	0.35	--	--	--	--	--	--	
	08/19/99	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/99	14.03	166.35	0.36	--	--	--	--	--	--	
	02/17/00	13.28	167.02	0.26	--	--	--	--	--	--	
	05/09/00	**13.55**	**166.77**	**0.29**	**--**	**--**	**--**	**--**	**--**	**--**	
MW-6	06/27/96	18.55	161.48	--	ND	ND	ND	ND	ND	--	
180.03	12/10/99	11.79	168.24	--	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	
	05/08/98	11.62	168.41	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	08/17/98	12.66	167.37	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/04/98	13.56	166.47	--	68	3.8	3.7	2.8	11	<5.0	a
	02/17/99	12.91	167.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	05/27/99	13.03	167.00	--	<50	1.0	1.7	0.82	4.9	<5.0	
	08/19/99	13.10	166.93	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
179.63	11/23/99	13.58	166.05	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	02/17/00	10.72	168.91	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	05/09/00	**11.71**	**167.92**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	
Trip Blank	05/08/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/04/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	05/27/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/23/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MCLs	--	--	--	--	NE	1	150	700	1,750	NE	

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, Calfornia

Well ID	Date	Depth to Groundwater	Groundwater Elevation	Separate Phase Hydrocarbons	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)*		(ft)	(ft**)	(ft)	←			(µg/L)		→	

Abbreviations and Methods:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020

MTBE = Methyl tertiary butyl ether by EPA Method 8020

(concentration in parentheses confirmed by EPA Method 8260)

µg/L = Micrograms per liter

TOC = Top of casing elevation

* = wells surveyed to an arbitrary datum

** = Calculated groundwater elevation corrected for SPH by the relation:

Groundwater Elevation = Well Elevation - Depth to Water +(0.8xSPH thickness (ft))

Abbreviations and Methods (Cont'd):

MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)

NE = MCLs not established

ND = Compound not detected, detection limit unknown

Notes:

a - The analytical laboratory noted that unmodified or weakly modified gasoline is significant.

b - The analytical laboratory noted that lighter than water immiscible sheen is present.

c - The analytical laboratory noted no recognizable pattern.

d - The analytical laboratory noted heavier gasoline range compounds are significant (aged gasoline?).

ATTACHMENT A

Analytical Results for Groundwater Sampling

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

Cambria Environmental Technology	Client Project ID: #129-0741; Naomi English Hoosies	Date Sampled: 05/09/2000
1144 65th Street, Suite C		Date Received: 05/10/2000
Oakland, CA 94608	Client Contact: Mark Erickson	Date Extracted: 05/10-05/12/2000
	Client P.O:	Date Analyzed: 05/10-05/12/2000

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
37447	MW-1	W	2700,a	34	55	13	19	25	105
37448	MW-3	W	690,a	ND	ND	2.1	0.85	1.6	104
37449	MW-4	W	ND	ND	ND	ND	ND	ND	91
37450	MW-6	W	ND	ND	ND	ND	ND	ND	91
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.

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

Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #129-0741; Naomi English Hoosies	Date Sampled: 05/09/2000
		Date Received: 05/10/2000
	Client Contact: Mark Erickson	Date Extracted: 05/16/00
	Client P.O:	Date Analyzed: 05/16/00

Methyl tert-Butyl Ether *

EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
37447	MW-1	W	29	94
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	1.0 ug/L	
		S	5.0 ug/kg	

* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

Date: 05/10/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 36227				Instrument: GC-3			
Surrogate1	0.000	95.0	94.0	100.00	95	94	1.1
Xylenes	0.000	278.0	261.0	300.00	93	87	6.3
Ethyl Benzene	0.000	95.0	90.0	100.00	95	90	5.4
Toluene	0.000	91.0	86.0	100.00	91	86	5.6
Benzene	0.000	94.0	90.0	100.00	94	90	4.3
MTBE	0.000	103.0	109.0	100.00	103	109	5.7
GAS	0.000	890.2	857.1	1000.00	89	86	3.8
SampleID: 51000				Instrument: MB-1			
Oil & Grease	0.000	19.8	19.9	20.00	99	100	0.5
SampleID: 51100				Instrument: GC-2 A			
Surrogate1	0.000	110.0	110.0	100.00	110	110	0.0
TPH (diesel)	0.000	283.0	284.0	300.00	94	95	0.4
SampleID: 51000				Instrument: IR-1			
Surrogate1	0.000	88.9	87.8	100.00	89	88	1.2
TRPH	0.000	26.2	26.9	23.70	111	114	2.6

$$\%\,\text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

VOCs (EPA 8240/8260)

Date: 05/15/00-05/16/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 5200				Instrument: GC-10			
Surrogate	0.000	103.0	102.0	100.00	103	102	1.0
tert-Amyl Methyl Ether	0.000	96.0	96.0	100.00	96	96	0.0
Methyl tert-Butyl Ether	0.000	98.0	101.0	100.00	98	101	3.0
Ethyl tert-Butyl Ether	0.000	99.0	100.0	100.00	99	100	1.0
Di-isopropyl Ether	0.000	100.0	103.0	100.00	100	103	3.0

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

20147 zc19.doc

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: MARK ERICKSON Bill To: CAMBRIA ENV. TECH
Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608
Tele: (510) 420-0700 Fax: (510) 420-9170
Project #: 129-0741 Project Name: NAOMI ENGLISH
Project Location: 1499 MACARTHUR BLVD, HOOSITES.
Sampler Signature: [signature]

Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/ MTBE; TPH as Diesel (8015); Total Petroleum Oil & Grease (5520 E&F/B&F); Total Petroleum Hydrocarbons (418.1); EPA 601 / 8010; BTEX ONLY (EPA 602 / 8020); EPA 608 / 8080; EPA 608 / 8080 PCB's ONLY; EPA 624 / 8240 / 8260 MTBE only; EPA 625 / 8270 (5-16-00 for rate); PAH's / PNA's by EPA 625 / 8270 / 8310; CAM-17 Metals; LUFT 5 Metals; Lead (7240/7421/239.2/6010); RCI; Other

SAMPLE ID	LOCATION	Date	Time	# Containers	Type Containers	Matrix: Water	Preserved: Ice	Preserved: HCl	BTEX & TPH as Gas / MTBE	EPA 624 / 8240 / 8260	Comments
MW-1		5/9/00	1:35	4	VOAS	X	X	X	X	X	37447
MW-3		↓	1:20	4	↓	↓	↓	↓	↓		37448
MW-4		↓	1:45	4	↓	↓	↓	↓	↓		37449
MW-6		↓	1:05	4	↓	↓	↓	↓	↓		37450

Comments: * CONFIRM HITS MTBE ONLY.

Relinquished By	Date	Time	Received By
[signature]	5/1/00		S. Rahi (Wixoam)
[signature]			S. Valle
S. Rahi	5/10	13:18	

Remarks:
ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ____
PRESERVATION VOAS | O&G | METALS | OTHER
APPROPRIATE CONTAINERS ✓

9

ATTACHMENT B

Water Sampling Field Notes

CAMBRIA

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
mw-1	11:38		14.01'		20.05'	
mw-2	11:48	10.85'	10.88'	0.03'		SPH
mw-3	11:35		12.92'		21.0'	
mw-4	11:41		12.81'		19.98'	
mw-5	11:45	13.26'	13.55'	0.29'		SPH
mw-6	11:32		11.71'		22.20'	

Project Name: NAOMI ENGLISH - HOUSES

Project Number: 129-0741

Measured By: MJE

Date: 5/9/00

F:\TEMPLATE\FORMS\FIELD\GW-DEPTH.WPD

CAMBRIA

WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: **DCE**	Well ID: MW-1
Project Number: **129-0741**	Date: 5/9/00	Well Yield: —
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): ME
Initial Depth to Water: 14.01'	Total Well Depth: 20.05	Water Column Height: 6.04'
Volume/ft: 0.16	1 Casing Volume: 0.97 gal	3 Casing Volumes: 2.9 Gal
Purging Device: **disposable bailer**	Did Well Dewater?: NO	Total Gallons Purged: 3.5 Gal
Start Purge Time: 12:30	Stop Purge Time: 12:40	Total Time: 10 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
12:32	1	18.4	7.4	712	~~BREAK~~ PURGE
12:34	2	18.1	7.3	723	ODORous
12:36	3	18.1	7.1	721	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	5/9/00		**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

CAMBRIA

WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: **DCE**	Well ID: MW-3
Project Number: **129-0741**	Date: 5/9/00	Well Yield: —
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): ME
Initial Depth to Water: 12.92'	Total Well Depth: 21.0'	Water Column Height: 8.08'
Volume/ft: 0.16	1 Casing Volume: 1.3 GAL	3 Casing Volumes: 3.9 GAL
Purging Device: **disposable bailer**	Did Well Dewater?: NO	Total Gallons Purged: 4.1 GAL
Start Purge Time: 12:15	Stop Purge Time: 12:24	Total Time: 9 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
12:18	1	18.6	7.8	582	ODOROUS
12:20	2	18.5	7.6	573	
12:22	3	18.6	7.3	579	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	5/9/00	1:20	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

CAMBRIA

WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: **DCE**	Well ID: MW-4
Project Number: **129-0741**	Date: 5/9/00	Well Yield: —
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): ME
Initial Depth to Water: 12.81'	Total Well Depth: 19.98'	Water Column Height: 7.17'
Volume/ft: 0.16	1 Casing Volume: 1.14 gal	3 Casing Volumes: 3.4 gal
Purging Device: **disposable bailer**	Did Well Dewater?: NO	Total Gallons Purged: 4.0 gal
Start Purge Time: 12:47	Stop Purge Time: 12:57	Total Time: 10 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
12:50	1	17.3	6.9	395	
12:53	2	16.9	6.9	619	
12:56	3	16.8	6.9	614	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	5/9/00		**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

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WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: **DCE**	Well ID: MW-6
Project Number: **129-0741**	Date: 5/9/00	Well Yield: —
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): ME
Initial Depth to Water: 11.71'	Total Well Depth: 22.20'	Water Column Height: 10.49'
Volume/ft: 0.16	1 Casing Volume: 1.67 GAL	3 Casing Volumes: 5.03 GALS
Purging Device: **disposable bailer**	Did Well Dewater?: no.	Total Gallons Purged: 5.1 GAL
Start Purge Time: 12:01	Stop Purge Time: 12:12	Total Time: 11 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. µS	Comments
12:03	1	18.7	9.0	746	
12:07	2	18.5	8.3	721	
12:11	3	18.7	7.8	810	
12:12	3	18.5	7.6	804	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	5/9/00	1:05	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: MARK ERICKSON Bill To: CAMBRIA ENV. TECH
Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608
Tele: (510) 420-0700 Fax: (510) 420-9170
Project #: 129-0741 Project Name: NAOMI ENBUSH
Project Location: 1499 MACARTHUR BLVD HOOSIES.
Sampler Signature:

Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/ MTBE; TPH as Diesel (8015); Total Petroleum Oil & Grease (5520 E&F/B&F); Total Petroleum Hydrocarbons (418.1); EPA 601 / 8010; BTEX ONLY (EPA 602 / 8020); EPA 608 / 8080; EPA 608 / 8080 PCB's ONLY; EPA 624 / 8240 / 8260 MTBE ONLY; EPA 625 / 8270; PAH's / PNA's by EPA 625 / 8270 / 8310; CAM-17 Metals; LUFT 5 Metals; Lead (7240/7421/239.2/6010); RCI; Other

Comments: ✱ CONFIRM HITS MTBE ONLY.

SAMPLE ID	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE
MW-1		5/9/00	1:35	4	VOAS	X					X	X			X
MW-3		5/9/00	1:20	4	VOAS	X					X	X			X
MW-4		5/9/00	1:45	4	VOAS	X					X	X			X
MW-6		5/9/00	1:05	4	VOAS	X					X	X			X

Relinquished By:	Date:	Time:	Received By:
[signature]	5/10/00		

Remarks: