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CAMBRIA

ENVIRONMENTAL PROTECTION
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October 18, 2000

D H

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

Re: **Third 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 groundwater monitoring report for the above-referenced site. Presented in the report are the third quarter 2000 activities and the anticipated fourth quarter 2000 activities.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Third Quarter 2000 Monitoring Report

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

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

CAMBRIA

THIRD QUARTER 2000 MONITORING REPORT

Hooshi's Auto Service
1499 MacArthur Blvd.
Oakland, California 94602
Cambria Project No. 129-0741

October 18, 2000

Prepared for:

Ms. Naomi Gatzke
1545 Scenic View Drive
San Leandro, California 94577

Prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, California 94608

REGISTERED GEOLOGIST • RONALD A. SCHEELE • No. 6842 • STATE OF CALIFORNIA

Jason Olson
Staff Environmental Scientist

Ron Scheele, RG
Senior Geologist

CAMBRIA

THIRD QUARTER 2000 MONITORING REPORT

Hooshi's Auto Service
1499 MacArthur Blvd.
Oakland, California 94602
Cambria Project No. 129-0741

OCTOBER 18, 2000

INTRODUCTION

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this report presenting the third quarter 2000 groundwater monitoring results for the above-referenced site (see Figure 1). Presented in the report are the third quarter 2000 activities and the anticipated fourth quarter 2000 activities. This monitoring program complies with the Alameda County Department of Environmental Health requirements regarding underground storage tank investigations.

THIRD QUARTER 2000 ACTIVITIES

Monitoring Activities

Field Activities: On August 15, 2000, Cambria gauged water levels and inspected for separate phase hydrocarbons (SPH) in groundwater monitoring wells MW-1 through MW-6. Groundwater samples were obtained from monitoring wells that did not contain SPH. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified 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. The groundwater analytical results are summarized in Table 1. The laboratory analytical report is included as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on the August 15, 2000 depth-to-water measurements, groundwater appears to be mounded near monitoring well MW-2. This is consistent with the historical groundwater flow maps (Figure 1). Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: SPH were measured at a thickness of 0.04 ft in well MW-5 and at a thickness of 0.01 ft in wells MW-1 and MW-2. A maximum TPHg concentration of 610 micrograms per liter (μg/L) was detected in well MW-3, and a maximum benzene concentration of 2.1 μg/L was detected in well MW-4. TPHg and benzene were not detected in any other well. Table 1 summarizes the groundwater analytical results. The analytical laboratory reports are included as Appendix A and the water sampling field notes are included as Appendix B.

Corrective Action Activities

During the third quarter 2000, Cambria repaired several remediation equipment problems and then performed system startup and source testing of the catalytic oxidizer.

ANTICIPATED FOURTH QUARTER 2000 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, check the wells for SPH, and collect groundwater samples from all wells not containing SPH. Following field activities, Cambria will tabulate the data and prepare a groundwater monitoring report.

Corrective Action Activities:

Cambria plans to perform operation and maintenance of the soil vapor extraction (SVE) system twice a month. Cambria will prepare a system start up report indicating compliance with the BAAQMD air permit. Subsequent system progress reports will be prepared on a quarterly basis.

ATTACHMENTS

Figure 1 – Groundwater Elevation Contour Map
Table 1 – Groundwater Elevation and Analytical Data
Appendix A – Analytical Results for Groundwater Sampling
Appendix B – Water Sampling Field Notes

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

H:\SB-2004\OAK-HOOSHI\FIGURES\3QM00-MP.DWG

Hooshi's Auto Service

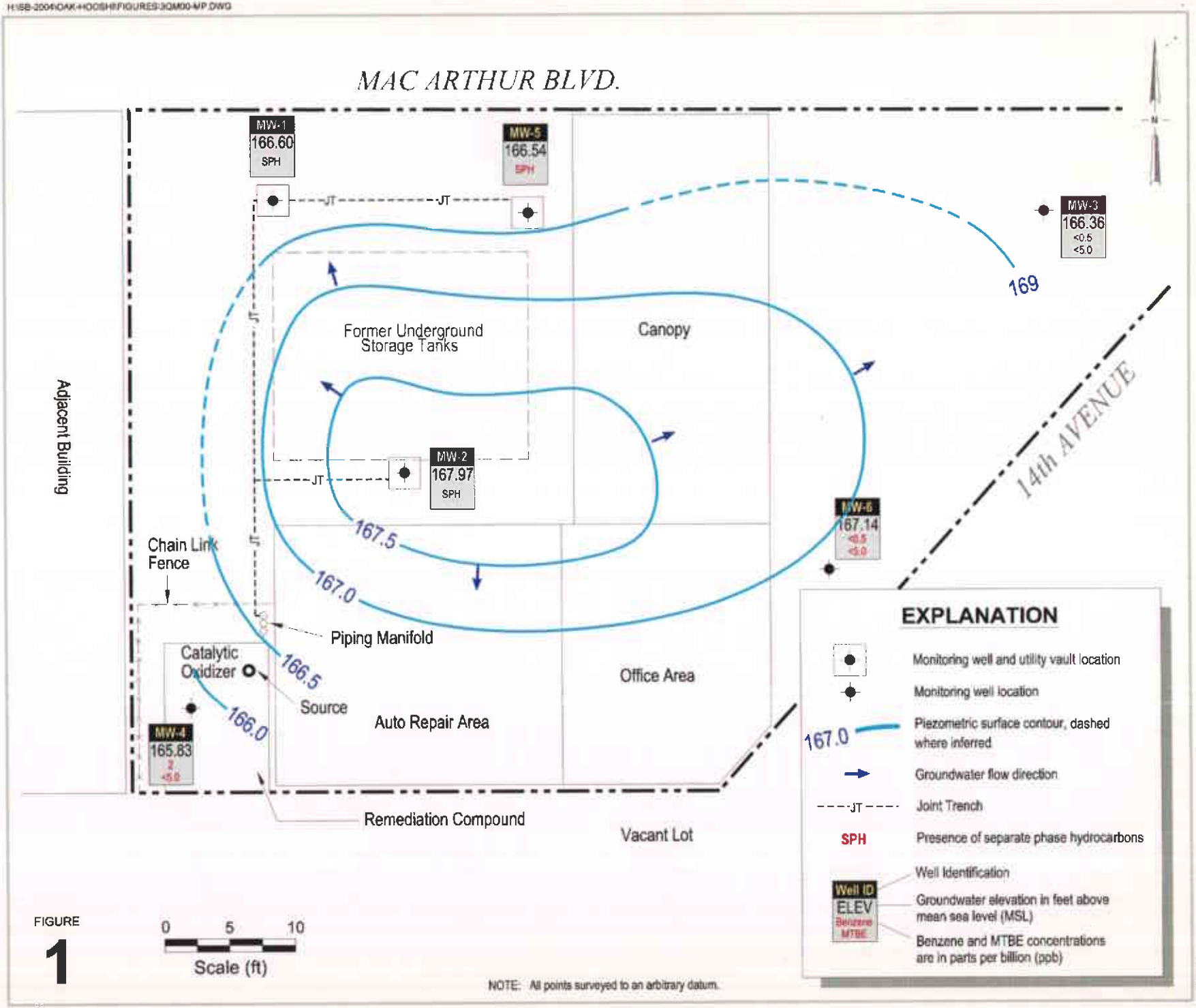
1499 MacAurthur Boulevard

Oakland, California

CAMBRIA

Groundwater Elevation Contour Map

August 15, 2000



FIGURE

1

CAMBRIA

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

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	1/4/93	--	--	--	539	130	12	22	13	--	
181.00	4/22/93	--	--	--	1,130	75	8.0	38	11	--	
	12/27/94	--	--	--	770	22	6.6	14	21	--	
	6/27/96	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	
	5/8/98	13.85	167.15	--	3,200	300	12	62	36	<120	a
	8/17/98	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/98	14.28	166.72	--	1,100	11	4.3	3.6	6.5	<50	a
	2/17/99	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/99	14.16	166.84	--	2,500	81	12	29	41	<80	a
	8/19/99	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
	2/17/00	13.85	166.98	--	1,300	60	9.1	22	19	22 (16)	a,b
	5/9/00	14.01	166.82	--	2,700	55	13	19	25	34 (29)	a
	8/15/00	**14.24**	**166.60**	**0.01**	--	--	--	--	--	--	
MW-2	1/4/93	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	4/22/93	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/94	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	6/27/96	12.61	168.64	1.00	--	--	--	--	--	--	
	12/10/99	11.10	169.55	0.25	--	--	--	--	--	--	
	5/8/98	10.81	169.66	0.03	--	--	--	--	--	--	
	8/17/98	12.16	168.31	0.02	--	--	--	--	--	--	
	11/4/98	12.61	167.86	0.02	--	--	--	--	--	--	
	2/17/99	9.82	170.66	0.04	--	--	--	--	--	--	
	5/27/99	11.07	169.48	0.13	--	--	--	--	--	--	
	8/19/99	12.79	167.68	0.02	--	--	--	--	--	--	
180.24	11/23/99	12.14	168.20	0.12	--	--	--	--	--	--	
	2/17/00	10.01	170.37	0.18	--	--	--	--	--	--	
	5/9/00	10.88	169.38	0.03	--	--	--	--	--	--	
	8/15/00	**12.28**	**167.97**	**0.01**	--	--	--	--	--	--	

CAMBRIA

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

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	1/4/93	--	--	--	1,610	772	14	11	ND	-	
179.94	4/22/93	--	--	--	3,040	980	34	19	16		
	12/27/94	--	--	--	2,600	180	9.0	7.2	13		
	6/27/96	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	
	5/8/98	13.03	166.91	--	780	3.7	2.1	1.1	2.4	<32	a
	8/17/98	13.22	166.72	--	870	2.8	<0.5	<0.5	3.7	<5.0	b,c
	11/4/98	13.31	166.63	--	770	1.6	4.4	2.0	6.9	<30	c
	2/17/99	12.89	167.05	--	650	6.2	3.4	1.5	2.6	<5.0	b,c
	5/27/99	12.32	167.62	--	570	1.5	1.2	0.72	1.1	<20	a
	8/19/99	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
	2/17/00	12.78	166.77	--	250	<0.5	1.5	<0.5	0.62	<5.0	d
	5/9/00	12.92	166.63	--	690	<0.5	2.1	0.85	1.6	<5.0	a
	8/15/00	**13.19**	**166.36**	**--**	**610**	**<0.5**	**2.3**	**0.75**	**1.2**	**<5.0**	**c,d**
MW-4	6/27/96	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	
	5/8/98	11.46	169.08	--	<50	0.60	<0.5	<0.5	<0.5	<5.0	
	8/17/98	13.98	166.56	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	11/4/98	14.36	166.18	--	96	9.7	8.1	4.8	18	<5.0	a
	2/17/99	8.39	172.15	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	5/27/99	12.80	167.74	--	<50	<0.5	1.0	<0.5	2.9	<5.0	
	8/19/99	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	
	2/17/00	8.15	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	12.81	167.31	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	**14.29**	**165.83**	**--**	**<50**	**2.1**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	

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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)		→	
MW-5	6/27/96	13.62	166.74	0.16	--	--	--	--	--	--	
180.23	12/10/96	13.26	167.77	1.00	--	--	--	--	--	--	
	5/8/98	13.15	167.11	0.04	--	--	--	--	--	--	
	8/17/98	13.36	166.89	0.02	--	--	--	--	--	--	
	11/4/98	13.52	166.73	0.02	--	--	--	--	--	--	
	2/17/99	13.02	167.23	0.02	--	--	--	--	--	--	
	5/27/99	13.80	166.71	0.35	--	--	--	--	--	--	
	8/19/99	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/99	14.03	166.35	0.36	--	--	--	--	--	--	
	2/17/00	13.28	167.02	0.26	--	--	--	--	--	--	
	5/9/00	13.55	166.77	0.29	--	--	--	--	--	--	
	8/15/00	**13.58**	**166.54**	**0.04**	--	--	--	--	--	--	
MW-6	6/27/96	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	
	5/8/98	11.62	168.41	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/17/98	12.66	167.37	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	13.56	166.47	--	68	3.8	3.7	2.8	11	<5.0	a
	2/17/99	12.91	167.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	13.03	167.00	--	<50	1.0	1.7	0.82	4.9	<5.0	
	8/19/99	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	
	2/17/00	10.72	168.91	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	11.71	167.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	**12.49**	**167.14**	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	
Trip Blank	5/8/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	--	--	--	<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, California

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;Hooshi's	Date Sampled: 08/15/00
1144 65th Street, Suite C		Date Received: 08/17/00
Oakland, CA 94608	Client Contact: Cathy Bell	Date Extracted: 08/17-08/18/00
	Client P.O:	Date Analyzed: 08/17-08/18/00

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
45172	MW-3	W	610,b,j	ND	ND	2.3	0.75	1.2	112
45173	MW-4	W	ND	ND	2.1	ND	ND	ND	99
45174	MW-6	W	ND	ND	ND	ND	ND	ND	100
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 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: 08/17/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 43311				Instrument: GC-7			
Surrogate1	0.000	89.0	98.0	100.00	89	98	9.6
Xylenes	0.000	292.0	310.0	300.00	97	103	6.0
Ethyl Benzene	0.000	94.0	101.0	100.00	94	101	7.2
Toluene	0.000	93.0	100.0	100.00	93	100	7.3
Benzene	0.000	90.0	99.0	100.00	90	99	9.5
MTBE	0.000	98.0	99.0	100.00	98	99	1.0
GAS	0.000	960.7	993.3	1000.00	96	99	3.3
SampleID: 81700				Instrument: MB-1			
Oil & Grease	0.000	20.8	21.0	20.00	104	105	1.0
SampleID: 81600				Instrument: GC-2 A			
Surrogate1	0.000	100.0	98.0	100.00	100	98	2.0
TPH (diesel)	0.000	276.0	269.0	300.00	92	90	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

21536 ZC194.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: ~~Bob Schultz~~ Cathy Bell Bill To:
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: Hooshi's
Project Location: 1499 MacArthur, Oakland
Sampler Signature:

	SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	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) *	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
(+)	MW-3		8/15	9:10	4	VOA	X									X								X								[redacted]
(+)	MW-4		↓	9:30	↓	↓	X									X								X								
(+)	MW-6		↓		↓	↓	X									X								X								

Comments: * Confirm all MTBE by 8260

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

Relinquished By:	Date:	Time:	Received By:
[signature]	8/16	15:08	B. Booth
B. Booth	8/17	12:50	Yen Cao 8/17/00

Remarks: * Confirm All MTBE by 8260

C: YC TB: S ✓

ATTACHMENT B

Water Sampling Field Notes

CAMBRIA

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-3	8:16		13.19		21.00	
MW-6	8:23		12.49		22.20	
MW-4	8:30		14.29		19.98	
MW-5	8:37	13.54	13.58			SPH - Visually inspected
MW-1	8:44	14.23	14.24			SPH - "
MW-2	8:51	12.28	12.29			SPH - "

Sph? Sph? " "

Measured By: JO/SG

Date: 9/15

PROJECT Hooshi's

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

CAMBRIA

WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: ~~DCB~~ RAS	Well ID: MW-3
Project Number: **129-0741**	Date: 08-15-00	Well Yield:
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): JO/SG
Initial Depth to Water: 13.19	Total Well Depth: 21.00	Water Column Height: 7.81
Volume/ft: 0.16	1 Casing Volume: 1.25	3 Casing Volumes: 3.75
Purging Device: **disposable bailer**	Did Well Dewater?: N	Total Gallons Purged: 4 gal
Start Purge Time: 9:03	Stop Purge Time: 9:07	Total Time: 4 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.	pH	Cond.	Comments
9:05	1.5	20.1	7.3	174	
9:06	2.5	20.8	6.9	165	
9:07	4	20.9	7.0	162	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	8/15/00	9:10	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

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WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: ~~BCE~~ RAS	Well ID: MW-4
Project Number: **129-0741**	Date: 8/15	Well Yield:
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): TO/SG
Initial Depth to Water: 14.29	Total Well Depth: 19.98	Water Column Height: 5.69
Volume/ft: 0.16	1 Casing Volume: 0.91	3 Casing Volumes: 2.73
Purging Device: **disposable bailer**	Did Well Dewater?:	Total Gallons Purged: 3gal
Start Purge Time: 10:25	Stop Purge Time: 10:35	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.	pH	Cond.	Comments
10:27	1	19.0	7.2	163	
10:32	2	18.3	7.1	157	
10:34	3	17.7	7.3	156	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	8/15	10:40	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

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WELL SAMPLING FORM

Project Name: **Hooshi's**	Cambria Mgr: [redacted] RAS	Well ID: MW-6
Project Number: **129-0741**	Date: 08-15-00	Well Yield:
Site Address: **1499 MacArthur Boulevard Oakland, California**	Sampling Method: **Disposable bailer**	Well Diameter: **2 " pvc**
		Technician(s): JO/SG
Initial Depth to Water: 12.49	Total Well Depth: 22.20	Water Column Height: 9.71
Volume/ft: 0.16	1 Casing Volume: 1.55	3 Casing Volumes: 4.66
Purging Device: **disposable bailer**	Did Well Dewater?: N	Total Gallons Purged: 5 gal
Start Purge Time: 9:25	Stop Purge Time: 9:30	Total Time: 5 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.	pH	Cond.	Comments
9:26	1.5	21.2	7.2	156	
9:28	3.5	20.4	7.0	156	
9:30	4.5	19.8	7.0	152	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	8/15	9:30	**4 voa's**	**HCL**	**TPHg, BTEX, MTBE**	**8020 8015**

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