CAMBRIA

#4070

July 6, 2001

Mr. Lee Douglas
Douglas Parking
1721 Webster Street
Oakland, California 94612

JUL 11 2001

Re: **First Quarter 2001 Monitoring Report**
Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0197

Dear Mr. Douglas:

This report summarizes the first quarter 2001 groundwater monitoring results for the above-referenced site. Presented in the report are the first quarter 2001 activities and the anticipated second quarter 2001 activities.

If you have any questions or comments, please call me at (510) 420-3340.

Sincerely,
Cambria Environmental Technology, Inc.

John Riggi, R.G.
Project Geologist

Attachments: First Quarter 2001 Monitoring Report

cc: Mr. Larry Seto, Alameda County Department of Environmental Health, 1131 Harbor Bay Parkway, 2nd Floor, Alameda, CA 94502
Mr. Hari Patel, Technical Review Unit, UST Cleanup Fund, 1001 I Street, Sacramento, CA 94244

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

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

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FIRST QUARTER 2001 MONITORING REPORT

Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0917

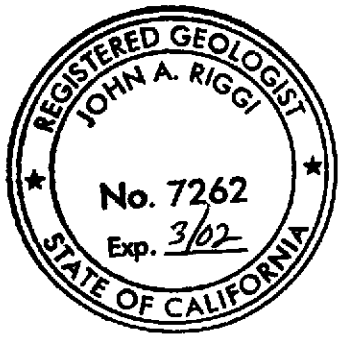
July 6, 2001

Prepared for:

Mr. Lee Douglas
1721 Webster Street
Oakland, California 94612

Prepared by:

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



Ian Young
Staff Geologist

John A. Riggi, R.G.
Project Geologist

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

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FIRST QUARTER 2001 MONITORING REPORT

Douglas Parking
1721 Webster Street
Oakland, California
Cambria Project No. 580-0917

July 6, 2001

INTRODUCTION

On behalf of Douglas Parking, Cambria Environmental Technology, Inc. (Cambria) is submitting this first quarter 2001 groundwater monitoring report for the above-referenced site. Presented below are the first quarter 2001 activities and the anticipated second quarter 2001 activities.

FIRST QUARTER 2001 ACTIVITIES

Monitoring Activities

Field Activities: On January 12, 2001, Cambria gauged water levels, inspected for separate-phase hydrocarbons (SPHs), and monitored dissolved oxygen (DO) concentrations in monitoring wells MW-1 through MW-5. Groundwater samples were collected from the monitoring wells MW-2, MW-3, MW-4 and MW-5. Well MW-1 is not part of the sampling schedule. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) using modified EPA Method 8015, and benzene, toluene, ethylbenzene and xylene (BTEX) and methyl tert-butyl ether (MTBE) using EPA Method 8020 by McCampbell Analytical, Inc. of Pacheco, California. MTBE was analyzed by EPA Method 8260 to confirm the analytical results detected by EPA Method 8020 in groundwater samples collected from well MW-2. The laboratory analytical report is included as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water data collected during Cambria's January 12, 2001 site visit, groundwater beneath the site flows predominantly toward the northeast with an average gradient of 0.006 ft/ft (Figure 1). This flow direction is consistent with the historical groundwater flow direction for this site. Depth-to-water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbon distribution in groundwater for the first quarter 2001 is consistent with historic site data, assuming that the results for offsite wells MW-4 and MW-5 are anomalous. No SPHs or MTBE were detected in site monitoring wells. The maximum detected TPHg and benzene concentrations were 25,000 micrograms per liter (µg/l) and 2,700 µg/l, respectively, in well MW-2. Benzene was detected in well MW-3 at 4.3 µg/l. Analytical results for monitoring wells MW-4 and MW-5 are anomalous when compared to historical results, and are not interpreted for the purposes of this quarterly report. Second quarter 2001 groundwater sampling will be used to evaluate groundwater conditions in wells MW-4 and MW-5. The analytical results are summarized on Table 1.

ANTICIPATED SECOND QUARTER 2001 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, check the wells for SPHs, and collect groundwater samples from monitoring wells not containing SPHs. If MTBE is detected, concentrations will be confirmed using EPA Method 8260. Following field activities, Cambria will tabulate the data, contour site groundwater elevations, and prepare a groundwater monitoring report.

Corrective Action Activities

Cambria has prepared a *Feasibility Testing and Feasibility Study Proposal* for UST Cleanup Fund approval. Upon UST Cleanup Fund approval, Cambria will initiate soil vapor extraction and air sparging pilot testing, and evaluate the feasibility of air sparging and soil vapor extraction at the subject site.

Appendices

Figure 1 – Groundwater Elevation Contours and Hydrocarbon Concentration Map
Table 1 – Groundwater Elevation and Analytical Data
Appendix A – Field Data Sheets
Appendix B – Laboratory Analytical Report

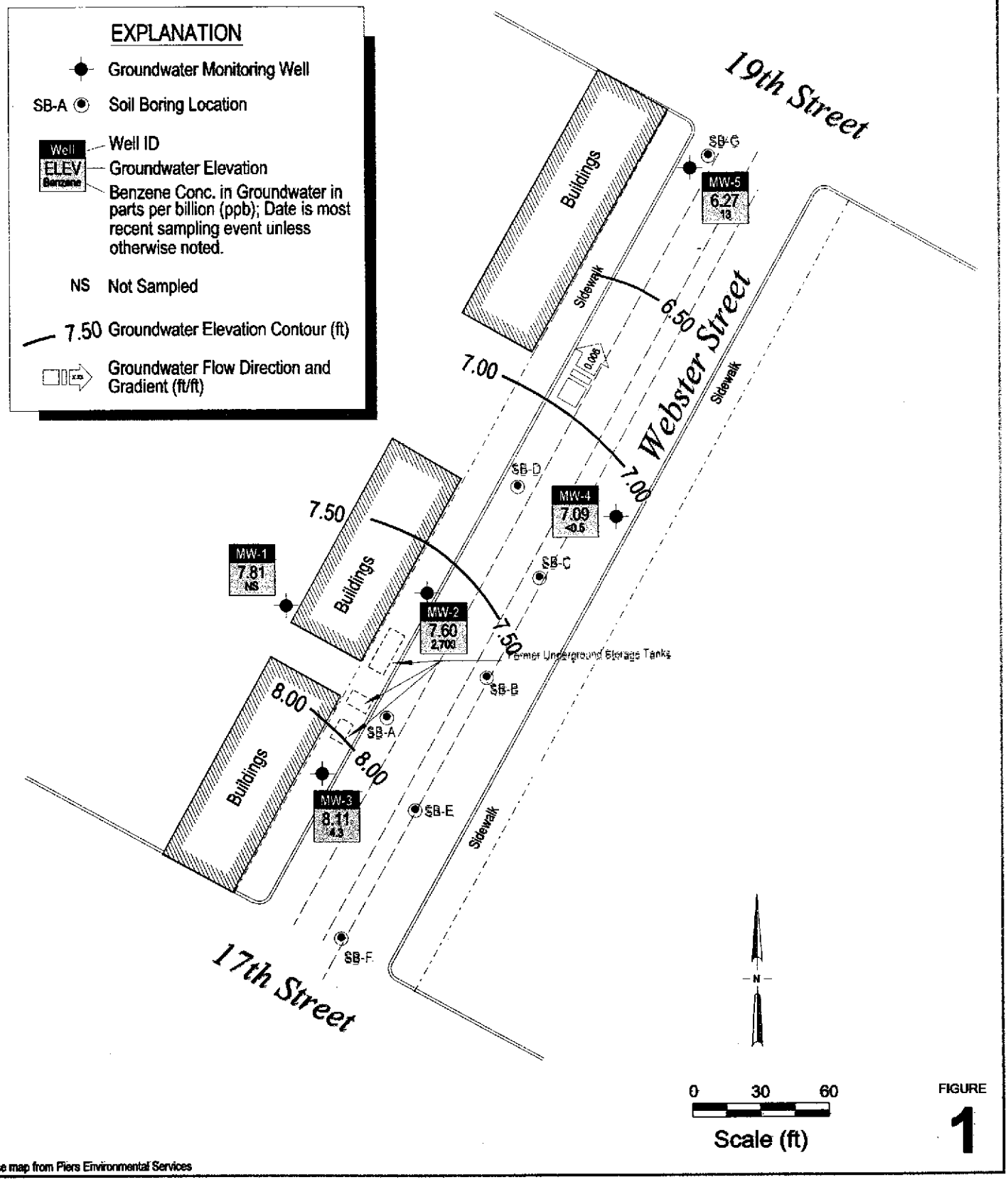

FIGURE
1

Base map from Piers Environmental Services

I:\SB-2004\DOUGLAS\1721 Webster\FIGURES\1QM01-MF.DWG

Douglas Parking Facility

1721 Webster Street
Oakland, California

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Groundwater Elevation Contour Map

January 12, 2001

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
					← (Concentrations in µg/l) →							
MW-1	12/2/1994	29.25	19.42	9.83	nd	nd	nd	nd	nd	-	-	1
	3/6/1995	29.73	20.69	9.04	nd	nd	nd	nd	nd	-	-	1
	7/11/1995	29.81	20.65	9.16	nd	nd	nd	nd	nd	-	-	
	5/10/1996	29.81	20.80	9.01	nd	nd	nd	nd	nd	-	-	
	10/2/1996	29.81	21.35	8.46	-	-	-	-	-	-	-	2
	2/28/1997	29.81	20.57	9.24	-	-	-	-	-	-	-	2
	9/16/1997	29.81	21.50	8.31	-	-	-	-	-	-	-	2
	2/5/1998	29.81	20.91	8.90	-	-	-	-	-	-	1.90	2
	8/11/1998	29.81	20.50	9.31	-	-	-	-	-	-	0.06	2
	2/8/1999	29.81	21.42	8.39	-	-	-	-	-	-	6.00	2, 3
	2/24/1999	29.81	22.99	6.82	-	-	-	-	-	-	2.00	2, 3
	3/3/1999	29.81	20.84	8.97	-	-	-	-	-	-	3.80	2, 3
	3/10/1999	29.81	20.89	8.92	-	-	-	-	-	-	3.40	2, 3
	3/17/1999	29.81	20.84	8.97	-	-	-	-	-	-	2.80	2, 3
	5/4/1999	29.81	20.80	9.01	-	-	-	-	-	-	3.50	2
	7/20/1999	29.81	21.25	8.56	-	-	-	-	-	-	3.07	2
	10/5/1999	29.81	21.37	8.44	-	-	-	-	-	-	5.40	2
	1/7/2000	29.81	21.65	8.16	-	-	-	-	-	-	2.10	2
	4/6/2000	29.81	21.05	8.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.90	4
	7/31/2000	29.81	21.13	8.68	-	-	-	-	-	-	1.80	2
	10/3/2000	29.81	21.69	8.12	-	-	-	-	-	-	1.42	2
	1/12/2001	**29.81**	**22.00**	**7.81**	-	-	-	-	-	-	**0.68**	
MW-2	12/2/1994	27.10	19.50	7.60	61,300	3,000	3,900	160	4,500	-	-	1
	3/6/1995	27.10	18.49	8.61	98,000	8,400	16,000	2,000	2,600	-	-	1
	7/11/1995	27.40	18.45	8.95	38,000	3,100	7,500	940	3,700	-	-	
	5/10/1996	27.40	18.56	8.84	63,000	7,400	16,000	1,500	6,000	-	-	
	10/2/1996	27.40	19.15	8.25	21,000	2,200	3,400	430	1,600	-	-	
	2/28/1997	27.40	18.43	8.97	39,000	4,700	9,600	950	4,200	nd	-	
	9/16/1997	27.40	19.26	8.14	29,000	3,300	5,800	690	2,900	<620	-	
	2/5/1998	27.40	18.66	8.74	10,000	1,000	2,000	170	860	<330	7.90	

Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
					←		(Concentrations in µg/l)			→		
	8/11/1998	27.40	18.41	8.99	12,000	1,200	2,300	260	1,400	300	5.40	
	2/8/1999	27.40	19.84	7.56	5,500	740	1,200	150	780	60	3.70	
	2/17/1999	27.40	18.94	8.46	-	-	-	-	-	-	>20	3, 5
	2/24/1999	27.40	20.76	6.64	-	-	-	-	-	-	>20	3, 5
	3/3/1999	27.40	18.55	8.85	-	-	-	-	-	-	>20	3, 5
	3/10/1999	27.40	20.74	6.66	-	-	-	-	-	-	>20	3, 5
	3/17/1999	27.40	18.57	8.83	-	-	-	-	-	-	>20	3, 5
	5/4/1999	27.40	18.55	8.85	90,000	9,200	21,000	1,600	10,000	560	3.20	
	7/20/1999	27.40	18.98	8.42	28,000	2,100	3,700	900	4,200	<860	0.64	
	10/5/1999	27.40	19.10	8.30	11,000	870	180	30	1,400	<110	0.58	
	1/7/2000	27.40	19.41	7.99	15,000	1,300	2,100	440	1,800	<14	0.94	
	4/6/2000	27.40	18.80	8.60	17,000	1,800	3,100	500	2,200	<50	0.64	
	7/31/2000	27.40	18.87	8.53	17,000	1,500	2,700	430	2,100	<200	0.50	
	10/3/2000	27.40	19.45	7.95	27,000	2,500	4,000	660	2,900	<50	0.16	
	1/12/2001	**27.40**	**19.80**	**7.60**	**25,000**	**2,700**	**4,100**	**670**	**3,000**	**<200 (<10)**	**0.35**	
MW-3	12/2/1994	29.50	22.15	7.35	394,000	1,200	nd	1,800	4,000	-	-	1
	3/6/1995	29.25	20.09	9.16	21,000	400	150	24	62	-	-	1
	7/11/1995	29.56	19.99	9.57	12,000	nd	10	16	99	-	-	
	5/10/1996	29.56	20.24	9.32	8,600	nd	7.6	16	84	-	-	
	10/2/1996	29.56	20.90	8.66	11,000	nd	7.4	19	92	-	-	
	2/28/1997	29.56	20.12	9.44	6,000	nd	4.4	17	88	50	-	
	9/16/1997	29.56	20.97	8.59	6,500	<0.5	1	1	7	<5.0	-	
	2/5/1998	29.56	20.39	9.17	5,400	<0.5	6.3	15	86	<63	1.90	
	8/11/1998	29.56	19.95	9.61	2,700	<0.5	3.5	3.2	12	<10	0.05	
	2/8/1999	29.56	20.58	8.98	6,100	<0.5	8.1	18	80	<140	2.20	
	2/17/1999	29.56	20.53	9.03	-	-	-	-	-	-	>20	3, 5
	2/24/1999	29.56	22.53	7.03	-	-	-	-	-	-	>20	3, 5
	3/3/1999	29.56	20.28	9.28	-	-	-	-	-	-	>20	3, 5
	3/10/1999	29.56	22.45	7.11	-	-	-	-	-	-	>20	3, 5
	3/17/1999	29.56	20.26	9.30	-	-	-	-	-	-	>20	3, 5

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
					← (Concentrations in µg/l) →							
	5/4/1999	29.56	20.24	9.32	11,000	<2	<2	9.8	140	<10	3.10	
	7/20/1999	29.56	20.68	8.88	11,000	<0.5	3.1	13	88	<80	0.75	
	10/5/1999	29.56	20.81	8.75	31,000	62	<0.5	21	170	<90	0.68	
	1/7/2000	29.56	21.09	8.47	13,000	<0.5	<2	21	140	<80	1.96	
	4/6/2000	29.56	20.48	9.08	5,300	1.5	1.4	9.8	60	<30	4.15	
	7/31/2000	29.56	20.62	8.94	7,100	3.5	1.0	12	66	<5.0	0.35	
	10/3/2000	29.56	21.13	8.43	8,000	<0.5	3.3	11	70	<40	3.66	
	1/12/2001	**29.56**	**21.45**	**8.11**	**11,000**	**4.3**	**6.7**	**11**	**73**	**<70**	**0.35**	
MW-4	5/10/1996	25.29	16.98	8.31	14,000	nd	1,200	720	3,100	-	-	
	10/2/1996	25.29	17.65	7.64	12,000	nd	650	580	2,200	-	-	
	2/28/1997	25.29	16.80	8.49	13,000	nd	1,100	750	2,700	110	-	
	9/17/1997	25.29	17.93	7.36	13,000	<2.5	820	750	2,900	<190	-	
	2/5/1998	25.29	16.78	8.51	13,000	<1.0	690	690	2,900	<170	2.10	
	8/11/1998	25.29	16.59	8.70	15,000	<5	360	520	1,900	280	2.80	
	2/8/1999	25.29	17.10	8.19	9,800	<5	680	770	2,200	300	1.80	3
	2/24/1999	25.29	18.95	6.34	-	-	-	-	-	-	2.20	3
	3/3/1999	25.29	16.80	8.49	-	-	-	-	-	-	4.60	3
	3/10/1999	25.29	16.86	8.43	-	-	-	-	-	-	3.70	3
	3/17/1999	25.29	16.82	8.47	-	-	-	-	-	-	4.30	3
	5/4/1999	25.29	16.86	8.43	11,000	46	600	620	1,900	<100	4.10	
	7/20/1999	25.29	17.30	7.99	13,000	<0.5	470	7.0	2,000	<150	0.38	
	10/5/1999	25.29	17.43	7.86	18,000	4.4	720	800	2,100	<120	0.71	
	1/7/2000	25.29	17.78	7.51	18,000	<2	930	990	2,700	<30	0.98	
	4/6/2000	25.29	17.17	8.12	8,000	31	390	530	1,300	<10	1.33	
	7/31/2000	25.29	17.21	8.08	6,200	13	170	460	850	<10	0.50	
	10/3/2000	25.29	18.00	7.29	14,000	42	820	730	2,000	<50	0.54	
	1/12/2001	**25.29**	**18.20**	**7.09**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.39**	**6**

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
					← (Concentrations in µg/l) →							
MW-5	5/10/1996	21.97	14.60	7.37	nd	nd	nd	nd	nd	-	-	
	10/2/1996	21.97	15.25	6.72	nd	nd	nd	nd	nd	-	-	
	2/28/1997	21.97	14.31	7.66	nd	nd	nd	nd	nd	nd	-	
	9/17/1997	21.97	15.18	6.79	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	-	
	2/5/1998	21.97	13.64	8.33	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.80	
	8/11/1998	21.97	13.92	8.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.05	
	2/8/1999	21.97	14.19	7.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.00	
	2/24/1999	21.97	16.18	5.79	-	-	-	-	-	-	4.90	3
	3/3/1999	21.97	14.23	7.74	-	-	-	-	-	-	3.40	3
	3/10/1999	21.97	14.32	7.65	-	-	-	-	-	-	3.60	3
	3/17/1999	21.97	14.25	7.72	-	-	-	-	-	-	3.90	3
	5/4/1999	21.97	14.41	7.56	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.20	
	7/20/1999	21.97	14.44	7.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.99	
	10/5/1999	21.97	14.79	7.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.52	
	1/7/2000	21.97	15.23	6.74	-	-	-	-	-	-	-	Well inaccessible
	4/6/2000	21.97	14.74	7.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.67	
	7/31/2000	21.97	14.52	7.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.55	
	10/3/2000	21.97	15.37	6.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.51	
	1/12/2001	**21.97**	**15.70**	**6.27**	**6,400**	**13**	**290**	**450**	**1,100**	**<40**	**0.71**	**6**

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Table 1. Groundwater Elevation and Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	TOC Elevation (ft-msl)	Depth to Water (ft)	Groundwater Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DO (mg/L)	Notes
					←		(Concentrations in µg/l)			→		
Trip Blank	**01/12/01**	-	-	-	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	-	

Notes and Abbreviations:

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8020.
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015.
MTBE = methyl tertiary butyl ether by EPA Method 8020 (by EPA Method 8260 in parentheses).
µg/L = micrograms per liter
mg/L = milligrams per liter
ft-msl = feet above mean sea level
TOC = top of casing
nd = not detected
DO = dissolved oxygen
1 = Data prior to 7/11/95 from Gen Tech and Piers Environmental Quarterly Groundwater Monitoring Reports dated December 2, 1994 and March 6, 1995, respectively.
2 = Sampling no longer required in well MW-1 per September 17, 1996, ACDEH letter to Douglas Parking.
3 = DO monitoring event (no hydrocarbon analyses), as described in November 11, 1998 Remedial Workplan.
4 = Sampled well once to confirm well is still not impacted.
5 = Hydrogen peroxide injection occurring per our Remedial Workplan, dated November 11,1998.
6 = Analytical results not consistent with historical data.

ATTACHMENT A

Field Data Sheets

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WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-1	7:31		22.00			DO = 0.68 mg/L
MW-2	7:28		19.80		25.70	
MW-3	7:24		21.45		26.65	
MW-4	7:20		18.20		29.20	
MW-5	7:15		15.70		24.30	

Project Name: Douglas Packing

Project Number: 580-0197

Measured By: S. G

Date: 01-12-01

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WELL SAMPLING FORM

Project Name: Douglas Parking ~~580-0197~~	Cambria Mgr: SR	Well ID: MW- 2
Project Number: 580-0197	Date: 1-12-01	Well Yield: -----
Site Address: 1712 Webster St Oakland	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 19.80	Total Well Depth: 25.70	Water Column Height: 5.90
Volume/ft: 0.16	1 Casing Volume: 0.94	3 Casing Volumes: 2.83
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 8:25	Stop Purge Time: 8:29	Total Time: 3mins

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. uS	Comments
8:26	1 1	14.2	7.35	502	
8:27	2 2	15.7	7.06	494	
8:29	3 3	15.9	7.10	497	
					DO = 0.35mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	12-01-01	8:34	VOA	HCl	TPHg BTEX MTBE	8015/8020
MW-						

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WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 3
Project Number: 580-0197	Date: 01-12-01	Well Yield: -----
Site Address: 1712 Webster St Oakland Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 21.45	Total Well Depth: 26.65	Water Column Height: 5.20
Volume/ft: 0.16	1 Casing Volume: 0.83	3 Casing Volumes: 2.49
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 2.5
Start Purge Time: 8:40	Stop Purge Time: 8:43	Total Time: 3mins

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. uS	Comments
8:41	1 1.5	15.1	7.25	732	
8:42	2 2	16.5	7.29	549	
8:49	3 2.5	16.3	7.40	527	
					DO = 0.35mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 3	1-12-01	8:49	VOA	HCl	TPHs BTEX MTBE	8015/8020
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Doug las Parkings	Cambria Mgr: JR	Well ID: MW- 4
Project Number: 580-0197	Date: 1-12-01	Well Yield: -----
Site Address: 1712 webster st Oakland	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 29.20	Total Well Depth: 18.20	Water Column Height: 11.00
Volume/ft: 0.16	1 Casing Volume: 1.76	3 Casing Volumes: 5.28
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5
Start Purge Time: 8:10	Stop Purge Time: 8:14	Total Time: 4mins

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. uS	Comments
8:11	1 1.5	15.2	7.19	694	
8:12	2 3	15.7	7.26	578	
8:15	3 5	15.9	7.21	542	
					DO = 0.39 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-	1-12-01	8:18	VOA	HCl	TPHg BTEX MTBE	8015/8020
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Douglas Parking	Cambria Mgr: JR	Well ID: MW- 5
Project Number: 580-0197	Date: 1-12-01	Well Yield: -----
Site Address: 1712 Webster St Oakland	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 15.70	Total Well Depth: 24.30	Water Column Height: 8.60
Volume/ft: 0.16	1 Casing Volume: 1.37	3 Casing Volumes: 4.12
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 4
Start Purge Time: 7:55	Stop Purge Time: 7:58	Total Time: 3 mins

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. uS	Comments
7:56	1 1.5	15.7	7.60	498	
7:57	2 3	15.9	7.81	464	
7:59	3 4	15.4	7.78	416	
					DO = 0.71 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 5	1-12-01	8:04	Voa	HCl	TPHg BTEX MTBE	8015/8020
MW-						

D:\TEMPLATE\FORMS\FIELDWELL.SAMP.WPD
NSM 5/31/94

ATTACHMENT B

Laboratory Analytical Report

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: #580-0197	Date Sampled: 01/12/01
1144 65th Street, Suite C		Date Received: 01/15/01
Oakland, CA 94608	Client Contact: John Riggi	Date Extracted: 01/16-01/18/01
	Client P.O:	Date Analyzed: 01/16-01/18/01

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	Ethyl-benzene	Xylenes	% Recovery Surrogate
57894	MW-2	W	25,000,a	ND<200	2700	4100	670	3000	100
57895	MW-3	W	11,000,a	ND<70	4.3	6.7	11	73	---#
57896	MW-4	W	ND	ND	ND	ND	ND	ND	102
57897	MW-5	W	6400,a	ND<40	13	290	450	1100	106
57898	TB	W	ND	ND	ND	ND	ND	ND	101
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

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http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Environmental Technology 1144 65th Street, Suite C Oakland, CA 94608	Client Project ID: #580-0197	Date Sampled: 01/12/01
		Date Received: 01/15/01
	Client Contact: John Riggi	Date Extracted: 01/22/01
	Client P.O:	Date Analyzed: 01/22/01

Methyl tert-Butyl Ether *

EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
57894	MW-2	W	ND<10,j	103
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

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QC REPORT

Date: 01/16/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 121800				Instrument: GC-3			
Surrogate1	0.000	101.0	106.0	100.00	101	106	4.8
Xylenes	0.000	27.2	27.0	30.00	91	90	0.7
Ethyl Benzene	0.000	9.2	9.2	10.00	92	92	0.0
Toluene	0.000	9.4	10.1	10.00	94	101	7.2
Benzene	0.000	9.5	10.3	10.00	95	103	8.1
MTBE	0.000	9.6	10.3	10.00	96	103	7.0
GAS	0.000	81.2	78.6	100.00	81	79	3.3
SampleID: 11601				Instrument: MB-1			
Oil & Grease	0.000	19.0	19.8	23.70	80	84	4.1
SampleID: 11701				Instrument: GC-11 A			
Surrogate1	0.000	109.0	107.0	100.00	109	107	1.9
TPH (diesel)	0.000	7625.0	7625.0	7500.00	102	102	0.0

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

$$RPD = \frac{(MS - MSD)}{(MS - MSD)} \cdot 200$$

RPD means Relative Percent Deviation

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http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

VOCs (EPA 8240/8260)

Date: 01/22/01-01/23/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 12201					Instrument: GC-10		
Surrogate	0.000	93.0	93.0	100.00	93	93	0.0
tert-Amyl Methyl Ether	0.000	116.0	117.0	100.00	116	117	0.9
Methyl tert-Butyl Ether	0.000	115.0	116.0	100.00	115	116	0.9
Ethyl tert-Butyl Ether	0.000	117.0	117.0	100.00	117	117	0.0
Di-isopropyl Ether	0.000	121.0	120.0	100.00	121	120	0.8
Toluene	0.000	100.0	100.0	100.00	100	100	0.0
Benzene	0.000	109.0	110.0	100.00	109	110	0.9
Chlorobenzene	0.000	104.0	104.0	100.00	104	104	0.0
Trichloroethane	0.000	97.0	97.0	100.00	97	97	0.0
1,1-Dichloroethene	0.000	130.0	131.0	100.00	130	131	0.8

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

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

RPD means Relative Percent Deviation

2400Szc293

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: ~~Brent Ortbals~~ John Rissi Bill To:

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) ~~658-6916~~ 420-3340 Fax: (510) 450-8295

Project #: 580-0197 Project Name: Douglas Parking

Project Location: 1721 Webster St. Oakland, Ca

Sampler Signature: [signature]

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other
+ MW-2		1-12-01	8:34	4	VOA	X					X	X		
+ MW-3		1-12-01	8:49	4	VOA	X					X	X		
+ MW-4		1-12-01	8:18	4	VOA	X					X	X		
+ MW-5		1-12-01	8:04	4	VOA	X					X	X		
✓ TB		1-12-01		2	VOA	X					X	X		

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 conf. only 1-22-01	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
X								X						
X														
X														
X														
X														

Other

57894
57895
57896
57897
57898

Comments: for MW-2 & MW-4 Confirm all MTBE hits by 8260

Relinquished By:	Date:	Time:	Received By:
[signature]	1-12-01	17:21	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks:

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

If ND less then call John Rissi