September 20, 1999

Mr. Hernan Gomez City of Oakland Fire Department 505 14th Street Oakland, California 94612

Re: Underground Storage Tank Closure Report



Former Shell-branded service station 8930 Bancroft Avenue Oakland, California WIC # 20455081305 Incident # 98995742 SAP # 135678

Mr. Gomez:

Cambria Environmental Technology, Inc. (Cambria) is submitting the results of sampling activities performed at the above referenced site on behalf of Equiva Services LLC (Equiva). The sampling, directed by the City of Oakland Fire Department, was conducted in conjunction with removal of the gasoline underground storage tanks (USTs), dispensers, and associated product piping. Summarized below are the background, sampling activities, and laboratory analytical results.

BACKGROUND

Location: The site is located at the southeast corner of the intersection of Bancroft Avenue and 90th Avenue in Oakland, California. The area surrounding the site is primarily of mixed commercial and residential use. The site was formerly a Shell-branded service station with a station building, four dispenser islands, three USTs, and one hydraulic hoist.

Oakland, CA Sonoma, CA Portiand, OR

Seattle, WA

Groundwater Monitoring Wells: Six groundwater monitoring wells exist on site. Analytical data for groundwater samples collected from these wells is presented in quarterly monitoring reports. The groundwater monitoring laboratory analytical data is presented as Attachment A.

Cambria Environmental

Groundwater: Cambria observed groundwater in the excavation during the UST removal activities at approximately 14.5 feet bgs. Historically, groundwater depth on-site has ranged from approximately 7 feet below ground surface (ft bgs) to approximately 12 ft bgs.

Technology, Inc.

1144 65th Street
Suite B
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Suite B

Oakland, CA 94608

Tel (510) 420-0700

Fax (510) 420-9170

TANK REMOVAL AND TANK EXCAVATION SAMPLING ACTIVITIES

Personnel Present Title Organization

Herman Gomez Inspector Oakland Fire Department

Bob Fisher Foreman Able Maintenance

Troy Buggle Sr. Staff Scientist Cambria

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UST Excavation and Dispenser/Piping Trench Soil Sampling Date: July 8, 1999. Additional soil samples were collected from the sidewalls of the UST excavation on July 15, 1999.

Tanks Removed: Able Maintenance and Construction (Able) of Santa Rosa, California removed three 10,000-gallon fiberglass gasoline USTs on July 8, 1999. Gasoline dispensers and associated product piping were also removed in July, 1999.

Tank Removal Observations: No holes, cracks, or other failures were observed in the removed USTs.

Tank Pit and Dispenser Soil Sampling: Soil sampling was performed under the direction of Hernan Gomez of the City of Oakland Fire Department. On July 8, 1999 Cambria collected soil samples from the four corners of the UST excavation as well as from selected locations under the dispensers and in the product piping trenches. On July 15, 1999 Cambria collected four additional soil samples from the UST excavation sidewalls as directed by Hernan Gomez. The soil sampling locations are shown on Figure 2. Cambria's Standard Tank Removal Sampling Procedures are presented as Attachment B and our Standard Piping and Dispenser Removal Sampling Procedures are presented as Attachment C.

Soil Sampling Chemical Analyses: All soil samples collected from the corners of the UST excavation, and from underneath the piping and dispensers were sent by Cambria to McCampbell Analytical Services. Additional samples collected from the UST excavation sidewalls were sent to Columbia Analytical Services. Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015; benzene, toluene, ethyl benzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8020. Any MTBE detected in soil samples was confirmed by EPA method 8260. Laboratory analytical data for soil is summarized in Table 1. Laboratory analytical reports and chain of custody records are presented as Attachment D.

Groundwater Sampling: Groundwater samples were collected from the UST excavation on July 8, 1999 under the direction of Hernan Gomez. Groundwater sampling laboratory analytical data is summarized in Table 2. Groundwater sampling laboratory analytical reports and chain of custody are included in Attachment D.

UST Disposal: The removed USTs were transported by Ecology Control Industries, Inc. (ECI) to their facility for destruction under manifest numbers 98360194, 98360195, and 98360196. Copies of the manifests are included as Attachment E.



Soil Handling: On July, 15, 1999, 248 tons of stockpiled soil were removed from the site and transported by Manley Trucking Company of Sacramento, California (Manley) to Forward Landfill in Manteca, California (Forward) for disposal. On August 23, 1999, 505 tons of soil were removed from the site by Manley and transported to Forward for disposal. A soil disposal confirmation report is presented as Attachment F. Laboratory analytical reports and chain of custody for soil stockpile samples are included as Attachment G.

Hoist Abandonment: The hydraulic hoist located on site was pumped out in July, 1999 by ECI. The hoist was abandoned in place by Able Maintenance.

FINDINGS

UST Excavation Samples: All UST excavation soil samples were below detection limits for TPHg with the exception of sample T1-2-13' which contained 3.2 mg/kg TPHg. MTBE was detected and confirmed (by EPA method 8260) in UST excavation samples T1-1-13' at 6.10 mg/kg, T1-2-13' at 0.370 mg/kg, T3-1-13' at 6.20 mg/kg, SW-1-13.5' at 1.40 mg/kg, SW-2-13.5' at 1.50 mg/kg, SW-3-13.5' at 0.071 mg/kg, and SW-4-13.5' at 0.240 mg/kg.

Dispenser Samples: Results for TPHg, BTEX, and MTBE were below laboratory detection limits in all of the dispenser samples.

Product Piping Trench Samples: Sample P-5-4' contained 12 mg/kg TPHg, and 0.770 mg/kg MTBE (by EPA method 8260).

Groundwater Sample: Groundwater sample TW-1 contained 7,100 μg/L TPHg, 8.9 μg/L benzene, and 2,900 μg/L MTBE (by EPA method 8260).

CLOSING

We appreciate the opportunity to work with you on this project. Please call Troy Buggle at (510) 420-3333 if you have any questions or comments.

Sincerely,

Cambria Environmental Technology, Inc.

Troy A. Buggle
Senior Staff Scientist

Ailsa Le May, R.G. Senior Geologist

Figures: 1- Vicinity Map

2- UST, Dispenser, and Piping Soil Sampling Locations

floughte@ cambria

Table: 1- Soil Analytical Data

2- Groundwater Analytical Data

Attachments: A- Groundwater Monitoring Laboratory Analytical Data

B- Standard Tank Removal Sampling Procedures

C- Standard Piping and Dispenser Removal Sampling Procedures

D- Laboratory Analytical Reports for UST, Dispenser and Piping Soil Samples

NO. 6717

E- UST and UST Rinsate Hazardous Waste Manifests

F- Soil Disposal Confirmation Reports

G- Soil Stockpile Laboratory Analytical Report

cc: Ms. Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, California 90749-6249

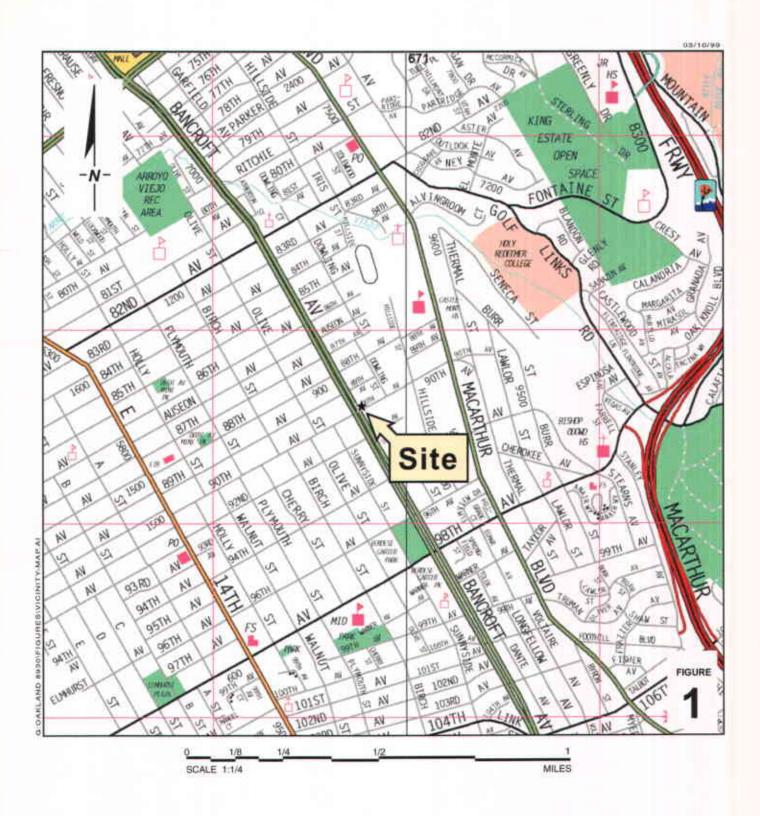
Mr. Brett Hovland, Equiva Services LLC, 4464 Lone Tree Way, #710, Antioch,

California 94509

Alameda County Case Officer, Regional Water Quality Control Board-S.F. Bay Region,

3443 Routier Rd., Sacramento, California 95827-3098

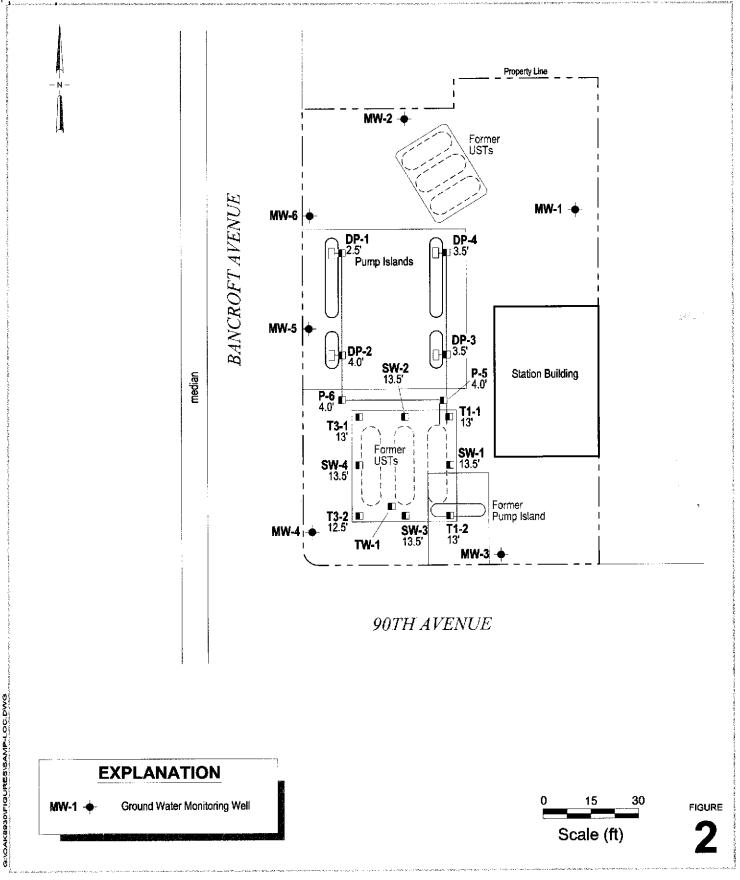
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Shell-branded Service Station

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Vicinity Map



Shell-branded Service Station

8930 Bancroft Avenue Oakland, California Incident #98995742



UST Removal Sample Locations

CAMBRIA

Table 1. Soil Analytical Data - Former Shell-branded Service Station, Incident #98995742, 8930 Bancroft Avenue, Oakland, California

Sample D	Depth Date TPH(g) (ft) Sampled ◀		TPH(g)	MTBE	Benzene (Concentratio	Toluene ns reported in millig	Ethylbenzene rams/kilogram) -	Xylenes	Lead
TD\$ 1 101	10	749/00	-1.0	6.6.76.100)	<0.005	<0.005	<0.005	<0.005	8.9
T1-1-13'	13	7/8/99	<1.0	6.6 (6.100)					
T1-2-13'	13	7/8/99	3.2	0.67 (0.370)	<0.005	<0.005	<0.005	<0.005	9.1
T3-1-13'	11	7/8/99	<1.0	5.7 (6.200)	< 0.005	< 0.005	< 0.005	< 0.005	9.9
T3-2-12.5'	12.5	7/8/99	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	9.7
D/P-1-2.5'	2.5	7/8/99	<1.0	< 0.05	< 0.005	< 0.005	< 0.005	< 0.005	10
D/P-2-4'	4	7/8/99	<1.0	< 0.05	< 0.005	< 0.005	< 0.005	< 0.005	11
D/P-3-3.5'	3.5	7/8/99	<1.0	< 0.05	< 0.005	<0.005	<0.005	<0.005	9.5
D/P-4-3.5'	3.5	7/8/99	<1.0	< 0.05	< 0.005	<0.005	< 0.005	<0.005	11
P-5-4'	4	7/8/99	12	0.92 (0.770)	< 0.005	0.18	0.01	0.37	60
P-6-4'	4	7/8/99	<1.0	<0.05	<0.005	<0.005	<0.005	<0.005	9.4
SW-1-13.5'	13.5	7/15/99	<1.0	1.1 (1.400)	<0.005	<0.005	<0.005	<0.005	12
SW-2-13.5'	13.5	7/15/99	<1.0	1.2 (1.500)	< 0.005	<0.005	<0.005	<0.005	11
	13.5			0.06 (0.071)	<0.005	<0.005	<0.005	<0.005	13
SW-3-13.5'		7/15/99	<1.0	` '					
SW-4-13.5	13.5	7/15/ 9 9	<1.0	0.19 (0.240)	<0.005	< 0.005	<0.005	< 0.005	10

Notes and Abbreviations:

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

MTBE = Methyl tert-butyl ether by EPA Method 8020.

(n) = MTBE by EPA method 8260 (converted from µg/kg to mg/kg)

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

<n = Below detection limit of n mg/kg

NT = Not Tested

Table 2. Groundwater Analytical Data - Former Shell-branded Service Station, Incident #98995742, 8930 Bancroft Avenue, Oakland, California

Sample ID	Date Sampled	TPH(g)	МТВЕ	Benzene (Concentratio	Toluene ans reported in microg	Ethylbenzene rams/kilogram)	Xylenes	Lead •
TW-1	7/8/99	7,100	2,000 (2,900)	8.9	8.2	25	17	7.8

Notes and Abbreviations:

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

MTBE = Methyl ter-butyl ether by EPA method 8260

(n) = MTBE by EPA method 8260

BTEX = benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020

<n = Below detection limit of n mg/kg

ATTACHMENT A

Groundwater Monitoring Laboratory Analytical Data

WELL CONCENTRATIONS Shell-branded Service Station 8930 Bancroft Avenue Oakland, California

					_	_		MTBE	MTBE		Depth to	GW
Well ID	Date	TPPH	TEPH	В	T	E	Х	8020	8260	TOC	Water	Elevation
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)
MW-1	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	11.87	41.32
:MW-1	03/09/1999	<50.0	NA:	<0.500	<0.500	<0.500	<0.500	.≤5.00∷	NA	53.19	8.21	44.98
MW-2	12/17/1998	9900	NA	<5.0	37	22	47	48	<20	52.66	11.65	41.01
MW-2	03/09/1999	2760	NA	12,3	7.50	85.4	444	<50,0	NA .	52.66	8.07	44.59
MW-3	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	10	11	51.30	11.85	39.45
MW-3	03/09/1999	. <50.0 ∷	NA	<0.500	<0.500	.<0.500∶	<0.500	<5.00	NA	51.30	6.53	44.77
MW-4	12/17/1998	700	NA	4.3	0.88	<0.50	<0.50	21,000	26,000	50.73	10.80	39.93
MW-4	03/09/1999	83.9	NA	≮0.500	<0.500	.≮0.500:	<0.500	17,900	23,700	50,73	6.91	43.82
MW-5	12/17/1998	750	NA	<0.50	17	1.8	3.5	33	32	51.43	11.51	39.92
MW-5	03/09/1999	<50.0	NA	<0.500	<0.500	:<0.500	<0.500	<5.00	NA	51.43	7.15	44.28
MW-6	12/17/1998	940	NA	27	0.32	2.4	2.3	3.0	3.2	51.88	11.37	40.51
MW-6	03/09/1999	336	NA.	7.78	1,60	2.40	6,36	<10.0	NA	51.88	8.10	43,78

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015 TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether by EPA Method 8020

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection ilmit

ATTACHMENT B

Standard Tank Removal Sampling Procedures

STANDARD TANK REMOVAL SAMPLING PROCEDURES

This document describes Cambria Environmental Technology's standard operating procedures for collecting soil and ground water samples during underground storage tank removal. These procedures ensure that the samples are collected, handled, and documented in compliance with California Administration Code Title 23: Waters; Chapter 3: Water Resources Control Board; Subchapter 16: Underground Storage Tank Regulations (Title 23). Cambria's sampling procedures are based on guidelines contained in the California State Regional Water Quality Control Board Tri-Regional Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites dated August 10, 1990.

Tank Removal Sampling

The objective of sample collection during routine underground storage tank removals is to determine whether hydrocarbons or other stored chemicals have leaked to the subsurface. If no ground water is encountered within the tank excavation, Cambria will sample native soil 1 to 2 ft beneath the removed tank. Additional soil samples may also be collected at locations of obvious spillage to determine maximum concentrations in the surrounding soils. For underground storage tanks with a capacity of less than 1,000 gallons, one soil sample is collected beneath the fill end of the tank. For tanks with a capacity of between 1,000 and 10,000 gallons, one soil sample is collected beneath each end of the tank. For tanks larger than 10,000 gallons, 3 or more soil samples are collected beneath the removed tank. We also collect one soil sample for every 20 ft of product piping.

In cases where ground water is encountered within underground storage tank excavations, Cambria will collect confirmatory soil samples from the excavation sidewalls just above the soil/ground water interface and a representative ground water sample from the excavation. The excavation is typically purged and allowed to recover prior to collecting the water sample. For tanks with capacities of 10,000 gallons or less, one soil sample is collected from the wall at each end of the tank excavation. For tanks with capacities greater than 10,000 gallons, or tank clusters, at least four soil samples are collected from the excavation walls next to the tank ends. Piping samples are collected in native soil 1 to 2 ft beneath the removed piping. One sample is typically collected for every 20 linear ft of piping unless regulatory agencies approve of different sampling requirements.

The soil samples are collected in steam cleaned brass or steel tubes from either a driven split-spoon type sampler or the bucket of a backhoe. When a backhoe is used, approximately three inches of soil are scraped from the surface and the tube is driven into the exposed soil.

Upon removal from the split-spoon sampler or the backhoe, the samples are trimmed flush, capped with Teflon sheets and plastic end caps, labeled, logged and refrigerated for delivery under chain of custody to a State certified analytic laboratory.

The ground water sample is collected using steam cleaned Teflon or PVC bailers, decanted into a volatile organic analysis (VOA) bottle or other appropriate clean sample container, refrigerated and transported under chain of custody to a State certified analytic laboratory.

ATTACHMENT C

Standard Piping and Dispenser Sampling Procedures

STANDARD PIPING AND DISPENSER REMOVAL SAMPLING PROCEDURES

Cambria Environmental Technology, Inc. (Cambria) has developed standard operating procedures for collecting soil samples during petroleum dispenser and piping removal. These procedures ensure that the samples are collected, handled, and documented in compliance with California Administration Code Title 23: Waters; Chapter 3: Water Resources Control Board; Subchapter 16: Underground Storage Tank Regulations (Title 23). Cambria's sampling procedures are based on guidelines contained in the California State Regional Water Quality Control Board Tri-Regional Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites dated August 10, 1990.

Piping and Dispenser Removal Sampling

The objective of sample collection during routine dispenser and piping removals is to determine whether hydrocarbons or other stored chemicals have leaked to the subsurface. We collect one soil sample from the native soil beneath each dispenser unit, at each piping elbow, and at every 20 ft of product piping, as applicable.

The soil samples are collected in steam cleaned brass or steel tubes from either a driven split-spoon type sampler or the bucket of a backhoe. When a backhoe is used, approximately three inches of soil are scraped from the surface and the tube is driven into the exposed soil.

Upon removal from the split-spoon sampler or the backhoe, the samples are trimmed flush, capped with Teflon sheets and plastic end caps, labeled, logged and refrigerated for delivery under chain of custody to a State certified analytic laboratory.

ATTACHMENT D

Laboratory Analytical Reports For UST Excavation, Dispenser and Piping Soil Samples

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: #98995742; 8930	Date Sampled: 07/08/99	
1144 65th Street, Suite C	Bancroft, Oakland	Date Received: 07/09/99	
Oakland, CA 94608	Client Contact: Troy Buggle	Date Extracted: 07/09/99	
	Client P.O:	Date Analyzed: 07/09/99	

07/16/99

Dear Troy:

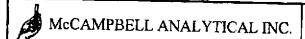
Enclosed are:

- 1). the results of 11 samples from your #98995742; 8930 Bancroft, Oakland 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.

Yours truly,

Edward Hamilton, Lab Director



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: #98995742; 8930	Date Sampled: 07/08/99	
1144 65th Street, Suite C	Bancroft, Oakland	Date Received: 07/09/99	
Oakland, CA 94608	Client Contact: Troy Buggle	Date Extracted: 07/09/99	
	Client P.O;	Date Analyzed: 07/09/99	

925 798 4612;

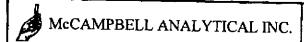
Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

Lab ID	Client ID	Matrix	TPH(g)⁺	МТВЕ	Benzene	Toluene	Ethylben- zene	Xylenes	% Recovery Surrogate
15143	TW-I	W	7100,a,h	2000	8.9	8.2	25	17	113
15144	T1-1-13'	s	ND	5.5	ΝD	ND	ND	ND	101
15145	T1-2-13'	s	3.2,g	0.67	ND	ND	ND	ИD	101
15146	73-1-13	s	ND	5.7	ND	ИD	ND	ND	92
15147	T3-2-12.5°	S	ND	ND	ND	ND	ND	ND	98
15148	D/P-1-2.5°	S	ND	ND	ND	ND	ND	ND	100
15149	D/P-2-4'	S	ND	ND	ND	ND	ND	ND	95
15150	D/P-3-3.5'	s	ND	ND	ND	ND	ND	ND	99
15151	D/P-4-3.5'	s	ND	ND	ND	ND	ND	ND	95
15152	P-5-4'	S	12,g	0.92	ND	0.018	0.01	0.37	94
15153	P-6-4'	S	ND	ND	ND	ND	ND	ND	98
otherwis	g Limit unless ie stated; ND	w	50 ug/L	5.0	0.5	0.5	0.5	0.5	
means not detected above the reporting limit		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

cluttered chromatogram; sample peak coclutes 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.



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 Env	vironmental Techr	iology	Client Project ID: #98995742; 8930	Date Sampled: 0	7/08/99	
1 144 65 th Str	reet, Suite C		Bancroft, Oakland	Date Received: (17/09/99	
Oakland, CA	94608		Client Contact: Troy Buggle	Date Extracted: (07/09/99	
			Client P.O;	Date Analyzed: 07/09/99		
EPA method 82	260 modified	<u> </u>	Methyl tert-Butyl Ether *			
Lab ID	Client ID	Matri	x MTBE*		% Recovery Surrogate	
15143	TW-1	w	2900,h	_	108	
15144	T1-1-13'	s	6100		93	
15145	T1-2-13'	S	370		93	
15146	T3-1-13'	S	6200		99	
15152	P-5-4'	s	770		90	
Reporting Limi	it unless otherwise	W	1.0 ug/1.			
ated; ND mean:	s not detected above		<u> </u>			

^{*} 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

DHS Certification No. 1644

the reporting limit



5.0 ug/kg

Edward Hamilton, Lab Director

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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: #98995742; 8930	Date Sampled: 07/08/99	
1144 65 th Street, Suite C	Bancroft, Oakland	Date Received: 07/09/99	
Oakland, CA 94608	Client Contact: Troy Buggle	Date Extracted: 07/09/99	
	Client P.O;	Date Analyzed; 07/09/99	

	· -		Lead*		
EPA analytical	methods 6010/200.7, 23	9.2*	Leag-		
Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
15143	TW-1	w	TTLC	0.0078	NA
15144	T1-1-13'	S	TILC	8.9	99
15145	T1-2-13*	S	TTLC	9.1	98
15146	T3-1-13'	s	TTLC	9.9	99
15147	T3-2-12.5'	S	TTLC	9.7	98
15148	D/P-1-2.5	s	TILC	10	99
15149	D/P-2-4	S	TTI.C	11	99
15150	D/P-3-3.5°	S	TTLC	9.5	98
15151	D/P-4-3.5'	s	TILC	11	96
15152	P-5-4'	S	TTLC	60	96
15153	P-6-4'	s	TTLC	9.4	96
Penarting 1 is	mit unless otherwise	S	TTLC	3.0 mg/kg	
stated; ND mea	ans not detected above porting limit	W	TTLC	0.005 mg/L	
uic ic	porong mun		STLC,TCLP	0,2 mg/L	

^{*} soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L Lead is analysed using EPA method 6010 (ICP) for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

DHS Certification No. 1644

Edward Hamilton, Lab Director

^o EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

[&]quot;surrogate diluted out of range; N/A means surrogate not applicable to this analysis

^{*} reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 07/09/99-07/10/99 Matrix: WATER

	Concent	ration	(ug/L)	% Recovery			
Analyte	Sample			Amount		•	RPD
	(#14880) 	MS	MSD	Spiked	MS	MSD	
TPH (gas)	0.0	105.2	105.1	100.0	105.0	105.4	
Benzene	:		•	100.0	105.2	105.1	0.1
	0.0	9.7	9.7	10.0	97.0	97.0	0.0
Toluene	0.0	9.9	9.8	10.0	99.0	98.0	1.0
Ethyl Benzene	0.0	10.0	10.0	10.0	100.0	100.0	0.0
Xylenes 	0.0	30.1	30.1	30.0	100.3	100.3	0.0
TPH(diesel)	0.0	6941	6976	7500	93	93	0.5
TRPH (oil & grease)	0	26400	25300	23700	111	107	4.3

% Rec. = (MS - Sample) / amount spiked x 100

QC REPORT FOR HYDROCARBON ANALYSES

Date: 07/09/99-07/10/99 Matrix: SOIL

	Concent	ration	(mg/kg)	% Recovery			· · · · · · · · · · · · · · · · · · ·
Analyte	Sample			Amount			RPD
	(#00684)	MS	MSD	Spiked	MS	MSD	
i				[
TPH (gas)	0.000	2.154	2.118	2.03	106	104	1.7
Benzene	0.000	0.202	0.204	0.2	101	102	1.0
Toluene	0.000	0.208	0.212	0.2	104	106	1.9
Ethylbenzene	0.000	0.212	0.216	0.2	106	108	1.9
Xylenes	0.000	0.616	0.628	0.6	103	105	1.9
TPH(diesel)	0	281	282	300 -	94	94	0.3
TRPH	0.0	20.8	21.0	20.8	100	101	1.0
(oil and grease)							
	· 						

[%] Rec. = (MS - Sample) / amount spiked \times 100

RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100

110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR VOCs (EPA 8240/8260)

Date: 07/08/99-07/09/99 Matrix: WATER

	Concentr	ation	(ug/kg,u	% Recovery			
Analyte 	Sample (#14082)	MS	msd	Amount Spiked	 MS 	MSD	RPD
 1,1-Dichloroethe	0	83	94	100	83	94	12.4
Trichloroethene	0 N/A	83 N/A	92 N/A	100 N/A	83 N/A	92 N/A	10.3 N/A
Chlorobenzene Benzene	0	76 75	88 82	100 100	76 75	88 82	14.6 8.9
Toluene 	0	77	88 	100	77	88	13.3

% Rec. = (MS - Sample) / amount spiked x 100

QC REPORT FOR VOCs (EPA 8240/8260)

Date: 07/09/99-07/10/99 Matrix: SOIL

	Concentr	ation	(ug/kg,u		% Reco		
Analyte 	Sample (#09037)	MS	MSD	Amount Spiked	 MS 	MSD	RPD
1,1-Dichloroethe	0	87	92	100	87	92	5.6
Trichloroethene	0 N/A	89 N/A	92 N/A	100 N/A	89 N/A	92 N/A	3.3 N/A
Chlorobenzene	0	N/A 84	83	100	84	83	1.2
Benzene	0	79	83	100	79	83	4.9
Toluene 	0	85	85 	100	85 	85	0.0

% Rec. = $\{MS - Sample\}$ / amount spiked x 100

QC REPORT FOR ICP and/or AA METALS

Date: 07/09/99-07/10/99 Matrix: WATER

Extraction:

TTLC

	Concent	ration	(mg/L)		% Reco		
Analyte	 Sample MS _		MSD	Amount	 MS 	MSD	RPD
Total Lead Total Cadmium Total Chromium Total Nickel Total Zinc	0.00 N/A N/A N/A N/A	5.00 N/A N/A N/A N/A	5.00 N/A N/A N/A N/A	5.00 N/A N/A N/A N/A	100 N/A N/A N/A N/A	100 N/A N/A N/A N/A	0.1 N/A N/A N/A N/A
Total Copper	N/A	N/A	N/A	 N/A	N/A	N/A	N/A
Organic Lead	 N/A	N/A	N/A	N/A	N/A	N/A	N/A

[%] Rec. = (MS - Sample) / amount spiked x 100

QC REPORT FOR ICP and/or AA METALS

Date: 07/09/99-07/10/99

Matrix: SOIL

Extraction:

TTLC

	Concent	ration			% Reco		
Analyte	(mg	g/kg,mg/1	L)	Amount			RPD
	Sample	MS	MSD	Spiked 	MS	MSD	
Total Lead	0.0	5.00	5.01	5,0	100	100	0.2
Total Cadmium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Chromium	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Nickel	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Cobalt	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

SHELL RETAIL E										•	CH		1 O Ial N		UST	OD	YR	EC	ORD		e 2 ol 2]
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Incident #	98	195	747																CHECK OHE (1) BOX OHE	G1/D1		2
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July 28, 1999

Service Request No.: S9902125

Mr. Troy Buggle Cambria Environmental Technology, Inc. 1144 65th Street Suite C Oakland, CA 94608

RE:

Incident# 98995742

Dear Mr. Buggle:

Enclosed are the results of the sample(s) submitted to our laboratory on July 16, 1999. All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply to the sample(s) analyzed. Columbia Analytical Services is not responsible for use of less than the complete report. Signature of this CAS Analytical Report confirms that pages 2 through 21, following, have been thoroughly reviewed and approved for release.

Columbia Analytical Services is certified for environmental analyses by the California Department of Health Services (certificate number: 1496, expiration: January 31, 2001).

If you have any question, please call me at (408) 748-9700.

Respectfully submitted,

Columbia Analytical Services, Inc.

Lori Tyler

Project Chemist

Acronyms

A2LA American Association for Laboratory Accreditation

ASTM American Society for Testing and Materials

BOD Biochemical Oxygen Demand

BTEX Benzene, Toluene, Ethylbenzene, Xylenes

CAM California Assessment Metals
CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit
COD Chemical Oxygen Demand

DEC Department of Environmental Conservation
DEQ Department of Environmental Quality
DHS Department of Health Services

DLCS Duplicate Laboratory Control Sample

DMS Duplicate Matrix Spike
DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

IC Ion Chromatography

ICB Initial Calibration Blank sample

ICP Inductively Coupled Plasma atomic emission spectrometry

ICV Initial Calibration Verification sample

J Estimated concentration. The value is less than the MRL, but greater than or equal to

the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.

LUFT Laboratory Control Sample
Leaking Underground Fuel Tank

M Modified

MBAS Methylene Blue Active Substances

MCL Maximum Contaminant Level. The highest permissible concentration of a

substance allowed in drinking water as established by the U. S. EPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

MS Matrix Spike

MTBE Methyl tert-Butyl Ether

NA Not Applicable
NAN Not Analyzed
NC Not Calculated

NCASI National Council of the paper industry for Air and Stream Improvement
ND Not Detected at or above the method reporting/detection limit (MRL/MDL)

NIOSH National Institute for Occupational Safety and Health

NTU Nephelometric Turbidity Units

ppb Parts Per Billion ppm Parts Per Million

PQL Practical Quantitation Limit
QA/QC Quality Assurance/Quality Control

RCRA Resource Conservation and Recovery Act

RPD Relative Percent Difference SIM Selected Ion Monitoring

SM Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992

STLC Solubility Threshold Limit Concentration

SW Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,

3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.

TCLP Toxicity Characteristic Leaching Procedure

TDS Total Dissolved Solids

TPH Total Petroleum Hydrocarbons

tr Trace level. The concentration of an analyte that is less than the PQL but greater than or equal

to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.

TRPH Total Recoverable Petroleum Hydrocarbons

TSS Total Suspended Solids

TTLC Total Threshold Limit Concentration

VOA Volatile Organic Analyte(s)
Page 2

ACRONLST.DOC 7/14/95

Analytical Report

Client: Project: Equiva Services Incident# 98995742

Soil

Service Request: S9902125 Date Collected: 7/15/99 Date Received: 7/16/99

Sample Matrix:

oil

EPA Method 8260 Volatile Organic Compounds

Sample Name: Lab Code:

Test Notes:

SW-1 - 13.5'

S9902125-001

Units: ug/Kg (ppb)

Basis: Wet

Analysis Prep Dilution Date Date Result Analyte Method MRL Method Factor Extracted Analyzed Result Notes Methyl tert-Butyl Ether EPA 5030A 8260 5 2 7/16/99 7/27/99 1400

Approved By:

<u> WOVC</u>

Date: 7

7-28-99

Analytical Report

Client:

Project:

Equiva Services Incident# 98995742

Soil

Service Request: S9902125 Date Collected: 7/15/99 Date Received: 7/16/99

EPA Method 8260 Volatile Organic Compounds

Sample Name: Lab Code:

Sample Matrix:

SW-2 - 13.5'

Units: ug/Kg (ppb) Basis: Wet

Test Notes:

S9902125-002

Analyte

Prep Method

Analysis Method MRL Dilution

Factor Extracted Analyzed 7/16/99

Date

Result 1500

Result Notes

Methyl tert-Butyl Ether

EPA 5030A

8260

5

7/27/99

Date

Approved By: ___

Lou Inf

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Date: 7-28-59

Page 4

Analytical Report

Client:

Project:

Equiva Services Incident# 98995742

Service Request: S9902125 Date Collected: 7/15/99

Date Received: 7/16/99

Sample Matrix:

Soil

EPA Method 8260 Volatile Organic Compounds

Sample Name:

Lab Code: Test Notes: SW-3 - 13.5'

S9902125-003

Units: ug/Kg (ppb)

Basis: Wet

Prep Analysis Dilution Date Date Result Analyte Method Method MRL Factor Extracted Analyzed Result Notes Methyl tert-Butyl Ether EPA 5030A 5 8260 7/16/99 7/27/99 71

Approved By: _

Lou If

1544/021397µ

Date: 7-28-55

Analytical Report

Client:

Project:

Equiva Services Incident# 98995742

Service Request: S9902125 Date Collected: 7/15/99

Sample Matrix:

Soil

Date Received: 7/16/99

EPA Method 8260 Volatile Organic Compounds

Sample Name:

Lab Code: Test Notes: SW-4 - 13.5'

S9902125-004

Units: ug/Kg (ppb)

Basis: Wet

Analysis Dilution Date Date Result Prep Analyte Method MRL Method Factor Extracted Analyzed Result Notes Methyl tert-Butyl Ether EPA 5030A 8260 5 7/16/99 7/27/99 240 1

Lou De

Date: 7-28-99

dikersoonser

Analytical Report

Client:

Project: Sample Matrix: Equiva Services Incident# 98995742

Service Request: S9902125

Date Collected: NA Date Received: NA

Soil

EPA Method 8260 Volatile Organic Compounds

Sample Name: Lab Code:

Test Notes:

Method Blank

S990716-SB1

Units: ug/Kg (ppb)

Basis: Wet

Analyte

Prep Method Analysis Method MRL 5

Dilution

Date Factor Extracted Analyzed 7/16/99

Date Result 7/27/99

Result Notes

Methyl tert-Butyl Ether

EPA 5030A

8260

ND

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: \$9902125

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: NA

Surrogate Recovery Summary

Volatile Organic Compounds

Prep Method: Analysis Method: EPA 5030A

8260

Units: PERCENT

Basis: NA

Sample Name	Lab Code	Test Notes	Perce Dibromofluoromethane	n t R e c Toluene-D8	o v e r y 4-Bromofluorobenzene
SW-1 - 13.5'	S9902125-001		101	103	101
SW-2 - 13.5'	S9902125-002		101	104	101
SW-3 - 13.5'	S9902125-003		98	104	102
SW-4 - 13.5'	S9902125-004		98	103	103
BATCH QC	S9902052-004MS		96	103	104
BATCH QC	S9902052-004DMS		97	102	103
Method Blank	S990716-SB1		100	104	103

EPA Acceptance Limits:

Loui Info

80-120

81-117

74-121

Approved By:

SUR3/020597p

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: NA

Date Received: NA
Date Extracted: 7/16/99
Date Analyzed: 7/16/99

Matrix Spike/Duplicate Matrix Spike Summary Volatile Organic Compounds

Sample Name:

BATCH QC

Units: ug/Kg (ppb)

Lab Code:

S9902052-004MS,

S9902052-004DMS

Basis: Wet

Test Notes:

Percent Recovery

	Prep	Analysis		Spik	e Level	Sample	Spike Result				CAS Acceptance	Relative Percent	Result
Analyte	Method	Method	MRL	MS	DMS	Result	MS	DMS	MS	DMS	Limits	Difference	Notes
1,1-Dichloroethene	NONE	8260	5	100	100	ND	71	64	71	64	61-145	10	
Benzene	NONE	8260	5	100	100	ND	110	100	110	100	76-127	10	
Trichloroethene	NONE	8260	5	100	100	ND	110	99	110	99	71-120	11	
Toluene	NONE	8260	5	100	100	ND	110	100	110	100	76-125	10	
Chlorobenzene	NONE	8260	5	100	100	ND	110	100	110	100	75-130	10	
1,2-Dichlorobenzene	NONE	8260	5	100	100	ND	110	100	110	100	18-190	10	
Naphthalene	NONE	8260	20	100	100	ND	100	97	100	97	40-160	3	

Approved By: Date: 7-28-59

DMS/020597p

Analytical Report

Client:

Equiva Services

Project:

Incident# 98995742

Service Request: S9902125 Date Collected: 7/15/99

Sample Matrix:

Soil

Date Received: 7/16/99

Lead

Prep Method:

EPA 3050BM

Units: mg/Kg (ppm)

Analysis Method:

6010A

Test Notes:

Basis: Wet

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SW-1 - 13.5'	S9902125-001	5	1	7/20/99	7/22/99	12	
SW-2 - 13.5'	S9902125-002	5	1	7/20/99	7/22/99	11	
SW-3 - 13.5'	S9902125-003	5	1	7/20/99	7/22/99	13	
SW-4 - 13.5'	S9902125-004	5	1	7/20/99	7/22/99	10	
Method Blank	S990720-MB	5	1	7/20/99	7/22/99	ND	

Approved By:

Date: 7-28-59

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: NA

Date Received: NA
Date Extracted: 7/20/99
Date Analyzed: 7/20/99

Matrix Spike/Duplicate Matrix Spike Summary

Lead

Sample Name:

BATCH QC

Units: mg/Kg (ppm)

Lab Code:

Code: \$9902135-001MS,

Basis: Wet

Test Notes:

S9902135-001DMS

Percent Recovery

											CAS	Relative	
	Prep	Analysis		Spike	e Level	Sample	Spike	Result			Acceptance	Percent	Result
Analyte	Method	Method	MRL	MS	DMS	Result	MS	DMS	MS	DMS	Limits	Difference	Notes
Lead	EPA 3050BM	6010A	5	100	100	12	100	110	88	98	75-125	10	

Approved By:

7-28-55

DMS/020597p

QA/QC Report

Client:

Equiva Services

Project:

LCS Matrix:

Incident# 98995742 Soil

Service Request: S9902125

Date Collected: NA

Date Received: NA Date Extracted: 7/20/99

Date Analyzed: 7/22/99

Laboratory Control Sample Summary

Lead

Sample Name:

Lab Control Sample

Lab Code:

S990720-LCS

Units: mg/Kg (ppm)

Basis: Wet

Test Notes:

CAS Percent Recovery Acceptance Analysis True Percent

Analyte

Method

6010A

Value 100

Limits Recovery

Result

EPA 3050BM

Method

Notes

Lead

Prep

97

Result

97

75-125

Sou hf

Date: 7-28-99

LCS/020597p

Analytical Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: 7/15/99 Date Received: 7/16/99

BTEX, MTBE and TPH as Gasoline

Sample Name:

SW-1 - 13.5'

Lab Code:

Test Notes:

S9902125-001

Units: mg/Kg (ppm)

Basis: Wet

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	1	1	7/16/99	7/22/99	ND	
Benzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Toluene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Ethylbenzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Xylenes, Total	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Methyl tert-Butyl Ether	EPA 5030	8020	0.05	l	7/16/99	7/22/99	1.1	

Lou If Approved By:

LS22/020597p

Analytical Report

Client:

Equiva Services Incident# 98995742

Project:

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: 7/15/99

Date Received: 7/16/99

BTEX, MTBE and TPH as Gasoline

Sample Name:

SW-2 - 13.5'

Lab Code:

59902125-002

Units: mg/Kg (ppm)

Basis: Wet

Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	1	1	7/16/99	7/22/99	ND	
Benzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Toluene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Ethylbenzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Xylenes, Total	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Methyl tert-Butyl Ether	EPA 5030	8020	0.05	1	7/16/99	7/22/99	1.2	

Lou If Date: 7-28-99 1S22/020597p

Analytical Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125 Date Collected: 7/15/99

Date Received: 7/16/99

BTEX, MTBE and TPH as Gasoline

Sample Name:

SW-3 - 13.5'

Lab Code:

S9902125-003

Test Notes:

Units: mg/Kg (ppm)

Basis: Wet

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	1	1	7/16/99	7/22/99	ND	
Benzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Toluene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Ethylbenzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Xylenes, Total	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Methyl tert-Butyl Ether	EPA 5030	8020	0.05	1	7/16/99	7/22/99	0.06	

Lou Info Date: 7-28-59

1S22/020597p

Analytical Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: \$9902125 Date Collected: 7/15/99

Date Received: 7/16/99

BTEX, MTBE and TPH as Gasoline

Sample Name:

SW-4 - 13.5'

Lab Code:

S9902125-004

Test Notes:

Units: mg/Kg (ppm)

Basis: Wet

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	1	1	7/16/99	7/22/99	ND	
Benzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Toluene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Ethylbenzene	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Xylenes, Total	EPA 5030	8020	0.005	1	7/16/99	7/22/99	ND	
Methyl tert-Butyl Ether	EPA 5030	8020	0.05	1	7/16/99	7/22/99	0.19	

Approved By: Lou L

____ Date: 7-28-59

1S22/020597p

Analytical Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: NA Date Received: NA

BTEX, MTBE and TPH as Gasoline

Sample Name:

Method Blank

Lab Code: Test Notes: S990716-SB1

Units: mg/Kg (ppm)

Basis: Wet

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	1	1	7/16/99	7/16/99	ND	
Benzene	EPA 5030	8020	0.005	1	7/16/99	7/16/99	ND	
Toluene	EPA 5030	8020	0.005	1	7/16/99	7/16/99	ND	
Ethylbenzene	EPA 5030	8020	0.005	1	7/16/99	7/16/99	ND	
Xylenes, Total	EPA 5030	8020	0.005	1	7/16/99	7/16/99	ND	
Methyl tert-Butyl Ether	EPA 5030	8020	0.05	1	7/16/99	7/16/99	ND	

Lou If

__ Date: _ 7 - 28 - 59

1S22/020597p

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

CA/LUFT

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: NA

Date Received: NA

Date Extracted: NA Date Analyzed: NA

Surrogate Recovery Summary BTEX and TPH as Gasoline

Prep Method:

EPA 5030

Analysis Method: 8020

Units: PERCENT

Basis: NA

		Test	Percent	Recovery
Sample Name	Lab Code	Notes	4-Bromofluorobenzene	a,a,a-Trifluorotoluene
SW-1 - 13.5'	S9902125-001		98	99
SW-2 - 13.5'	S9902125-002		97	99
SW-3 - 13.5'	S9902125-003		106	90
SW-4 - 13.5'	S9902125-004		104	92
BATCH QC	S9902078-002MS		96	103
BATCH QC	S9902078-002DMS		94	102
BATCH QC	S9902078-002MS		97	103
BATCH QC	S9902078-002DMS		98	104
Method Blank	S990716-SB1		92	105

CAS Acceptance Limits:

51-137

51-137

Lou Zy Approved By:

_Date: 7.18-55

SUR2/020397p

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix:

Soil

Service Request: S9902125

Date Collected: NA

Date Received: NA Date Extracted: 7/16/99

Date Analyzed: 7/19/99

Matrix Spike/Duplicate Matrix Spike Summary

BTE

Sample Name:

BATCH QC

S9902078-002MS,

S9902078-002DMS

Units: mg/Kg (ppm)

Basis: Wet

Lab Code: Test Notes:

Percent Recovery

	Prep	Analysis		Spik	e Level	Sample	Spike	Result			CAS Acceptance	Relative Percent	Result
Analyte	Method	Method	MRL	MS	DMS	Result	MS	DMS	MS	DMS	Limits	Difference	Notes
Benzene	EPA 5030	8020	0.005	0.5	0.5	ND	0.47	0.48	94	96	57-154	2	
Toluene	EPA 5030	8020	0.005	0.5	0.5	ND	0.48	0.48	96	96	60-142	<1	
Ethylbenzene	EPA 5030	8020	0.005	0.5	0.5	ND	0.46	0.47	92	94	46-150	2	

DMS/020597p

QA/QC Report

Client:

Equiva Services

Project:

Incident# 98995742

Sample Matrix: Soil

Service Request: S9902125

Date Collected: NA
Date Received: NA

Date Extracted: 7/16/99 Date Analyzed: 7/19/99

Matrix Spike/Duplicate Matrix Spike Summary

TPH as Gasoline

Sample Name:

BATCH QC

Lab Code:

S9902078-002MS,

S9902078-002DMS

Units: mg/Kg (ppm)

Basis: Wet

Test Notes:

Percent Recovery

CAS Relative

alt Acceptance Percent Result

MS MS DMS Limits Difference Notes

Ргер Analysis Spike Level Sample Spike Result Analyte Method Method MS Difference MRL MS DMS Result DMS MS **DMS** Limits Gasoline EPA 5030 CA/LUFT 9 1 10 10 ND 10 90 100 67-121 11

Approved By: Date: 7.28-55

DMS/020597p

QA/QC Report

Client: Project: Equiva Services

Incident# 98995742

Service Request: S9902125

Date Analyzed: 7/22/99

Initial Calibration Verification (ICV) Summary BTEX, MTBE and TPH as Gasoline

Sample Name:

ICV

Units: mg/Kg (ppm)

Lab Code:

ICV1

Basis: Wet

Test Notes:

ICV/032196

ICV Source:					CAS		
					Percent Recovery	•	
	Prep	Analysis	True		Acceptance	Percent	Result
Analyte	Method	Method	Value	Result	Limits	Recovery	Notes
TPH as Gasoline	EPA 5030	CA/LUFT	25	24	90-110	96	
Benzene	EPA 5030	8020	2.5	2.7	85-115	108	
Toluene	EPA 5030	8020	2.5	2.8	85-115	112	
Ethylbenzene	EPA 5030	8020	2.5	2.7	85-115	108	
Xylenes, Total	EPA 5030	8020	7.5	7.7	85-115	103	
Methyl tert -Butyl Ether	EPA 5030	8020	2.5	2.4	85-115	96	

Date: _7.28-55

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ATTACHMENT E

UST Disposal Hazardous Waste Manifests

A	AUG. 6.1999 10:31AM Cauteria — Environmental Protection Agency proved OMB No. 2050-0039 (Expires 9-30-99) rigg of type. Form designed for use an alite 1724	olich) typowriter.	ee Instructions			2001	<u> </u>	nt of Toxic Substances Co acramente, California
1	UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	. 1	nifest Document		f of 1		In the shaded proce red by Federal law.
	3. Generator's Name and Mailing Address	EQUILON ENTS NORA CORTEZ, P. O. BOX 20	RPRISES LL TSP1389K-			Jes) Dosomant N	S redmu	836019
	4. Generator's Phone (713/241~80	573 HOUSTON, TX	77252-209	9			5 0 1	0 1 7 7
	5. Transporter 1 Company Nome	6. US EPA	ID Number		C. Shale from	opriors is	<u> </u>	70
ľ	ECOLOGY CONTROL INDU			0 1 7 3		J. Wi		
	7. Transporter 2 Company Name	â. US EPA			N SECTION			
	Posignated facility Name and Site Address ECOLOGY CONTROL INDI 255 PARR BLVD.	ISTRIES			H. Mallika	hada		3 1924
ł	RICHMOND, CA 94901		0 0 9 4 6	6 3 9 2	giners	13. Torei	14. Unli	+ 11 - 11 - 11 - 1
	11. US DOT Description (Including Proper Ship		[umber]	No.	Туро	Quantity	WI/Vol	1. World Mimber Sight moses
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l	15. Special Handling Instructions and Addition		·	·	Ŧ	acility ERVICE		
	24 HOUR EMERGENCY PH ACCUMULATION DATE: 0 TANK #1	MINE NUMBER (800) 07/08/1999	424-9300		(SERVICE 1930 BAN 194605	CROFT	N
	16. GENERATOR'S CERTIFICATION: I hereby morked, and labeled, and are in all respo	ets in proper condition for transport	by high wa y according	to applicable in	rernational on	y voljevaj Šenet	iwer! (egula	ilious.
	If I om a large quantity generalor, I certif practicable and that I have selected the pr and the anvironment; OR, if I am a small available to me and that I can afford.	y mar I have a program in place to racicable method of treatment, stora quantity generator, I have made a g	reduce the valums and Be, or disposal curren good faith effort to mir	ily avallable lo imize my waste	Bedetation at the which with	a select the pesi	MOTIO MOVO	sament method that is
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THANSPORTER FAC	Printed Typed North STULA 18 Transporter 2 Acknowledgement of Receipt	t of Majoriols		And			Mont	h Day Yei
F	Printed Typed Name 10 Transporter 2 Acknowledgement of Receign Printed Typed Name	r of Majeriols Signer	red by this manifest ax	capt as nated in	Inom 19.		Mont	

App pri	olifornia—Environmental Protection Agency proved OMB No. 2050-0039 (Expires 9-30-99) Int or type. Form designed for use on elite (12-pitch) typewriter.	See Instruction		Docume			Page 1	1/1	ant of Toxic Substation increments, Californ n in the shaded are	
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	NORA CO	EQUILON ENTERPRISES LLC					anifest Bootspant Multiber 983600			
	4. Gonerator's Phone (713)/241-RA75 HOUSTON, TX 77252-2099				TAN DE BANKE					
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	J. Additional Descriptions for Materials Listed Abave A EMPTY PROPERTY AND PERSONAL	erstrel fore	, ,	1 1 1	Pi Man	A COAL	h was Address	is Liggard Alba		
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	15. Special Handling Instructions and Additional Information	· · · · · · · · · · · · · · · · · · ·					cility			
	24 HOUR EMERGENCY PHONE NUMBER (800) 424-9300 SERVICE STATION 8930 BANCROFT DAKLAND, CA 94605									
	16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of marked, and labeled, and are in all respects in proper candition for	this consignment are fully a	nd occur	ataly dea	cribed abov	e by proper	shipping	nome and or	e classified, packet lations.	
	If I am a large quantity generator, I certify that I have a program in practicable and that I have relected the practicable method of treatment the environment; OR, if I am a small quantity generator, I have available to me and that I can affect.	place to reduce the valum tent, storage, or disposal of made a good faith effort t	e and to prently of minimi	ixicity of ovaliable ze my w	no we which we see the	rated to the h minimize tion and se	e degrae (s rha prese lect'the be	have determ int and futur it waste ma	nined to be scener to threat to human negament method	
↓	Printed/Typed Name Olson Employed by Lawrence Olson ECT	Signaline ((AL	`	DN BE	ALF IN EN	F 0°	7 0 8	
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H	19. Discrepancy Indication Space							t		
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Ĺ	20. Facility Owner or Operator Cartification of receipt of hezerdous man	irials covered by this month	t) excep	l as naje	d in Hem 19					
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3. Generotor's Name and Mailing Address	EBUTLON ENTERPRISES L NORÁ CORTEZ, TSP1389K P. D. BOX 2099	LC (-1	A. Slove Month	ntol's ID	Number 9	8360				
4, Generator's Phone 713/241-867. 5. Transporter Company Name	3 HOUSTON, TX 77252-20)99	C. State Leansy	H G S	691	0,1,7,4				
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9. Dasignated Facility Name and Site Address		G 3510 131 11 11 11 11 11 11 11 11 11 11 11 11								
ECOLOGY CONTROL INDUS	심시킨이크	H. Papility's Prient								
PICHOND CA 94801 11. US DOT Description (including Proper Shippin	ig Nome, Hazard Class, and ID Number)	12. Cei No.	Type	13. Total Quantity	14. Unit WI/Val	I. World Nur				
* NON-RCRA HAZARDOUS	WASTE SOLID	0 0 1	TP O	400	P	State Sills				
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15. Special Handling Instructions and Additional	Information				<u></u>	<u> </u>				
24 HOUR EMERGENCY PHE ACCUMULATION DATE: 07 TANK #:		Facility: SERVICE STATION 8730 BANCROFT OAKLAND, CA 94605								
16. GENERATOR'S CERTIFICATION: I hereby declore that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, permarked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.										
if I am a large quantity generator. I certify that I have a program in place to reduce the volume and toxicity of worth generated to the degree I have determined to hum produceble and that I have selected the practicable mothed of treatment, storage, or disposal currently available to me which minimizes the present and future threat to hum and the environment; OR, if I am a small quantity generator. I have made a good faith effort to minimize my worth generation and select the best waste management methodically to many that I can offere.										
Printed/Typed Name Lawrence Class	mployed by significant	la	DN 1	BEHALF ILON EN	OF M	7 0 18				
17. Transporter Acknowledgement of Receipt of Ringed/Typed North CHR. Stopstor 18. Transporter 2 Acknowledgement of Receipt o	Signalura (Kino	light I	Janea .		C	TO E				
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19. Discrepency Indication Space										

BH

ATTACHMENT F

Soil Disposal Confirmation Report