STID 0515

CAMBRIA
Environmental Technology, Inc.

November 1, 1995

Dale Klettke
Alameda County Department of
Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: ***Third Quarter Monitoring Report***
Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #20-105-104

Dear Ms. Hugo:

This report summarizes the third quarter 1995 ground water monitoring results for the site referenced above. Described below are the third quarter 1995 activities, anticipated fourth quarter 1995 activities and a discussion of the hydrocarbon distribution in ground water.

Third Quarter 1995 Activities:

Blaine Tech Services, Inc. of San Jose, California (BTS) collected ground water samples from wells MW-1, MW-2 and MW-3 on August 22, 1995. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX). BTS also gauged all site wells and checked them for liquid-phase hydrocarbons. No liquid-phase hydrocarbons were detected.

Cambria also sampled the stockpiled soil at the site, and Ms. Susan Hogo confirmed that the concentrations were sufficiently low that the soil could be returned to the tank excavation and remediated *in situ,* along with the rest of the site.

Anticipated Fourth Quarter 1995 Activities:

BTS will gauge all site wells, check the wells for liquid-phase hydrocarbons, and collect water samples from the wells. Cambria will tabulate the data and prepare a quarterly monitoring report. **We also anticipate performing feasibility tests and submitting a corrective action plan.**

1144 Sixty-Fifth Street Suite C Oakland, CA 94608 Fax (510) 420-9170 Phone (510) 420-0700

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Hydrocarbon Distribution in Ground Water:

TPHg and benzene were detected in all three of the site wells, at up to 74,000 and 14,000 parts per billion (ppb), respectively (Table 1, Attachment A). Hydrocarbon concentrations in ground water are highest downgradient of the former underground gasoline tanks and the southernmost pump island. Based on the ground water flow direction (Figure 1) and hydrocarbon concentrations at the downgradient property line, it appears that hydrocarbons are migrating offsite to the west.

Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

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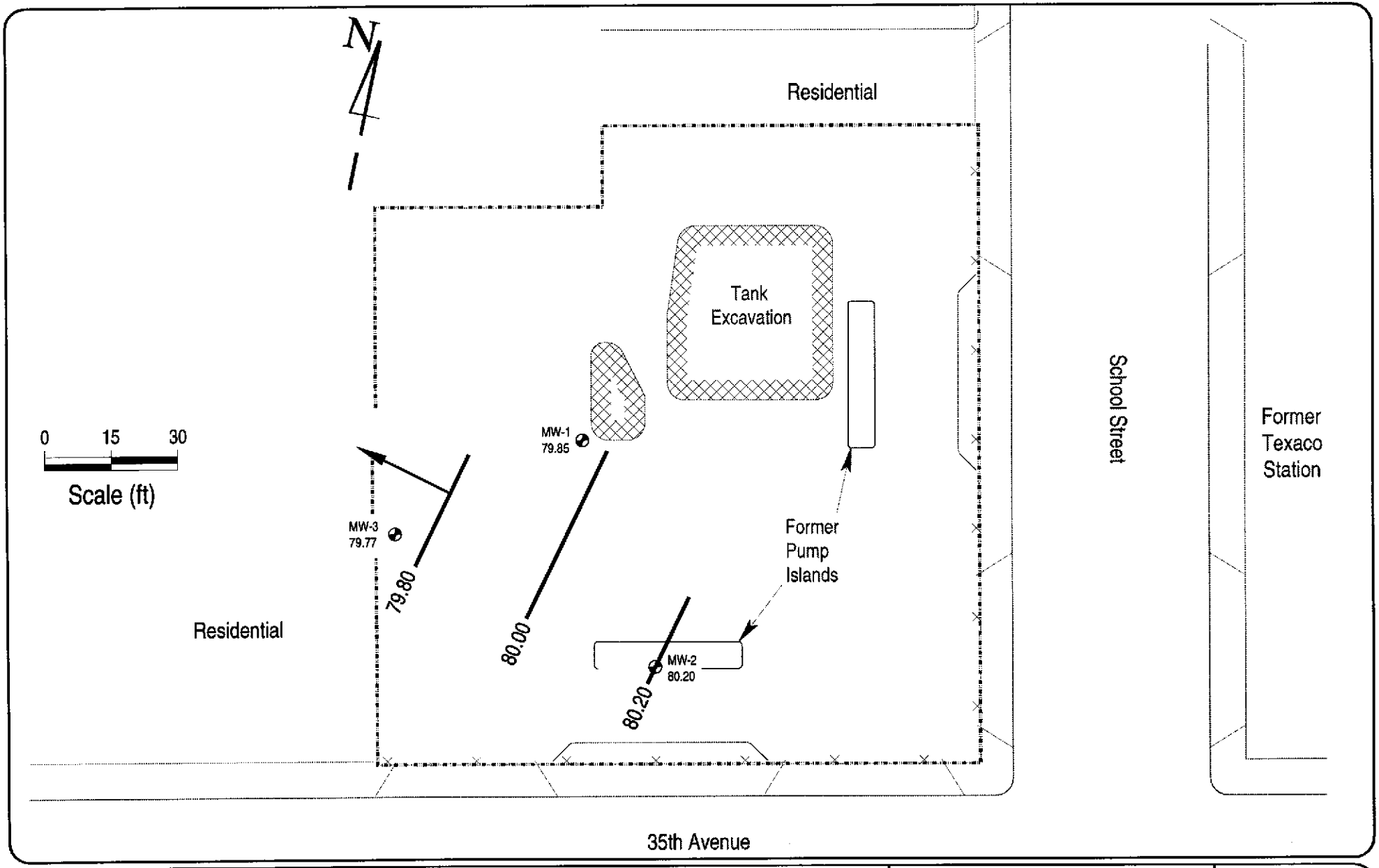
Attachments: A - Analytic Reports for Ground Water

cc: Lynn Worthington, Better Homes Realty, 5942 MacArthur Boulevard, Suite B, Oakland, California 94605



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EXPLANATION

MW-3 85.01 — Monitoring Well and Ground Water Elevation

79.25 — Ground Water Elevation Contour

Estimated Ground Water Flow Direction

Ground Water Elevations
August 22, 1995

3055 35th Avenue
Oakland, California

FIGURE
1

Table 1. Ground Water Elevation and Analytic Data - 3055 35th Avenue, Oakland, California

Well/ Boring ID	Date	Casing Elev. (ft)	GW Depth (ft)	LPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	B	T	E	X	Notes
						(Concentration in parts per billion)							
Wells													
MW-1	5/25/94	100.85	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	a
	7/19/94		20.77	0	80.08	---	---	---	---	---	---	---	
	8/18/94		21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	
	11/11/94		15.80	0	85.05	57,000	---	---	14,000	4,400	1,400	6,400	
	2/27/95		15.53	0	85.32	45,000	---	---	2,900	2,500	760	4,100	
	5/23/95		15.29	0	85.56	22,000	---	---	9,900	990	790	2,000	
	8/22/95		20.90	0	79.95	23,000	---	---	[illegible]	340	1,200	1,900	
MW-2	5/25/94	100.00	15.65	0	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	a
	7/19/94		19.81	0	80.19	---	---	---	---	---	---	---	
	8/18/94		20.37	0	79.63	88,000	---	---	10,750	10,500	1,850	9,600	
	11/11/94		15.52	0	84.48	54,000	---	---	5,900	6,700	1,300	7,500	
	2/27/95		14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	
	5/23/95		14.17	0	85.83	33,000	---	---	8,200	5,600	900	6,600	
	0.00383		19.80	0	80.20	[illegible]	---	---	6,400	5,000	1,100	5,600	
MW-3	5/25/94	96.87	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	a
	7/19/94		17.04	0	79.83	---	---	---	---	---	---	---	
	8/18/94		17.75	0	79.12	116,000	---	---	28,300	26,000	2,400	15,000	
	11/11/94		17.80	0	79.07	89,000	---	---	1,600	1,900	1,900	14,000	
	2/27/95		11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	
	5/23/95		11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	
	8/22/95		17.10	0	79.77	[illegible]	---	---	[illegible]	13,000	1,900	11,000	

Abbreviations

Casing Elevation = Top of casing elevation with respect to an onsite benchmark
GW = Ground water
LPH = Liquid-phase hydrocarbons
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
DTSC MCLs = Department of Toxic Substances Control maximum contaminant level for drinking water
NE = Not established

Notes

a = The positive TPHd result appears to be a hydrocarbon lighter than diesel.

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ATTACHMENT A

Analytic Reports for Ground Water

1

from Jennifer 4 pgs

Scott Macleod
Cambria Env. Technology
1144 65th Street
Suite C
Oakland, CA 94608

Date: 09/08/1995
NET Client Acct. No: 98900
NET Pacific Job No: 95.03362
Received: 08/23/1995

Client Reference Information

3055 35th Avenue, Oakland, CA/Proj. No. 950822-M3

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to these samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Submitted by:

NET Santa Rosa
Preliminary Report

Enclosure(s)

PRELIMINARY REPORT

2

Client Name: Cambria Env. Technology
Client Acct: 98900
NET Job No: 95.03362

Date: 09/08/1995
ELAP Cert: 1386
Page: XXX

Ref: 3055 35th Avenue, Oakland, CA/Proj. No. 950822-M3

SAMPLE DESCRIPTION: MW-1
Date Taken: 08/22/1995
Time Taken:
NET Sample No: 249377

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)							09/05/1995	3143
METHOD 5030/M8015	--						09/05/1995	3143
DILUTION FACTOR*	100						09/05/1995	3143
as Gasoline	23		5	mg/L	5030		09/05/1995	3143
METHOD 8020 (GC,Liquid)	--						09/05/1995	3143
Benzene	6,900	FI	500	ug/L	8020		09/05/1995	3143
Toluene	340		50	ug/L	8020		09/05/1995	3143
Ethylbenzene	1,200		50	ug/L	8020		09/05/1995	3143
Xylenes (Total)	1,900		50	ug/L	8020		09/05/1995	3143
SURROGATE RESULTS	--						09/05/1995	3143
Bromofluorobenzene (SURR)	98			% Rec.	5030		09/05/1995	3143

FI : Compound quantitated at a 1000X dilution factor.

PRELIMINARY REPORT

3

Client Name: Cambria Env. Technology
Client Acct: 98900
NET Job No: 95.03362

Date: 09/08/1995
ELAP Cert: 1386
Page: xxx

Ref: 3055 35th Avenue, Oakland, CA/Proj. No. 950822-M3

SAMPLE DESCRIPTION: MW-2
Date Taken: 08/22/1995
Time Taken:
NET Sample No: 249378

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						09/05/1995	3143
DILUTION FACTOR*	100						09/05/1995	3143
as Gasoline	38		5	mg/L	5030		09/05/1995	3143
METHOD 8020 (GC,Liquid)	--						09/05/1995	3143
Benzene	6,400	FI	500	ug/L	8020		09/05/1995	3143
Toluene	5,000	FI	500	ug/L	8020		09/05/1995	3143
Ethylbenzene	1,100		50	ug/L	8020		09/05/1995	3143
Xylenes (Total)	5,600		50	ug/L	8020		09/05/1995	3143
SURROGATE RESULTS	--						09/05/1995	3143
Bromofluorobenzene (SURR)	98			% Rec.	5030		09/05/1995	3143

FI : Compound quantitated at a 1000X dilution factor.

PRELIMINARY REPORT

Client Name: Cambria Env. Technology
Client Acct: 98900
NET Job No: 95.03362

Date: 09/08/1995
ELAP Cert: 1386
Page: xxx

Ref: 3055 35th Avenue, Oakland, CA/Proj. No. 950822-M3

SAMPLE DESCRIPTION: MW-3
Date Taken: 08/22/1995
Time Taken:
NET Sample No: 249379

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						09/05/1995	3143
DILUTION FACTOR*	100						09/05/1995	3143
as Gasoline	74		5	mg/L	5030		09/05/1995	3143
METHOD 8020 (GC,Liquid)	--						09/05/1995	3143
Benzene	14,000	FI	500	ug/L	8020		09/05/1995	3143
Toluene	13,000	FI	500	ug/L	8020		09/05/1995	3143
Ethylbenzene	1,900		50	ug/L	8020		09/05/1995	3143
Xylenes (Total)	11,000		50	ug/L	8020		09/05/1995	3143
SURROGATE RESULTS	--						09/05/1995	3143
Bromofluorobenzene (SURR)	100			% Rec.	5030		09/05/1995	3143

FI : Compound quantitated at a 1000X dilution factor.

PRELIMINARY REPORT

WELL GAUGING DATA

Project # 950822-M3 Date 8-22-95 Client CAMBRIA

Site 3055 35th AVE OAKLAND CA

Well I.D.	Well Size (in.)	Sheen/ Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml) ✓	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
				TOC				
MW-1	4			100.85	79.95	20.90	27.50	TOC
MW-2	4			100.00	80.20	19.80	27.60	"
MW-3	2			96.87	79.77	17.10	25.18	"

WELL MONITORING DATA SHEET

Project #: 950822-M3	Client:
Sampler:	Start Date:
Well I.D.: MW-1	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: 27.50	Depth to Water: 20.90
Before After	Before After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1 Case Volume	x	Specified Volumes	=	gallons
4.4	x	3	=	132

Purging: Bailer
Disposable Bailer
Middleburg
~~Electric Submersible~~
~~Extraction Pump~~
Other ___

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other ___

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:30	74.8	7.0	1800	160	5	ODOR ORGANIC
15:32	72.2	6.8	1800	175	10	
15:34	71.8	6.8	1800	150	14	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 14

Sampling Time: 15:38 Sampling Date: 8-22

Sample I.D.: MW-1 Laboratory: (K) NET

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER:
(Circle)

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

WELL MONITORING DATA SHEET

Project #: 950822-M3	Client: CAMBRIA
Sampler: MM	Start Date: 8-22
Well I.D.: MW-2	Well Diameter: (circle one) 2 3 (4) 6 ____
Total Well Depth: 27.60	Depth to Water: 19.80
Before / After	Before / After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCT	Well Diameter	VCT
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

5.1 (1 Case Volume) x 3 (Specified Volumes) = 15.3 gallons

Purging: Bailer
Disposable Bailer
Middleburg
~~Electric Submersible~~
~~Extraction Pump~~
Other

Sampling: (Bailer)
Disposable Bailer
Extraction Port
Other

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:15	76.0	7.0	1400	7200	6	ODOR
15:17	76.4	7.0	1400	185	11	ORGANIC
15:19	76.2	7.0	1400	160	16	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 16

Sampling Time: 15:21 Sampling Date:

Sample I.D.: MW-2 Laboratory: NET

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER: (Circle)

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER: (Circle)

WELL MONITORING DATA SHEET

Project #: 950822-MJ	Client: CAMBRIA
Sampler: MM	Start Date: 8/22
Well I.D.: MW-3	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: 25.18 Before / After	Depth to Water: 17.10 Before / After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

1.4 (1 Case Volume) x 3 (Specified Volumes) = 4.2 gallons

Purging: Bailer; Disposable Bailer; (Middleburg); Electric Submersible; Extraction Pump; Other ____

Sampling: (Bailer); Disposable Bailer; Extraction Port; Other ____

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
15:44	68.6	6.9	2000	7200	1.5	ODOR
15:47	69.0	6.9	1900	7200	3.0	ORGANIC
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 4.5

Sampling Time: 15:55 Sampling Date: 8-22

Sample I.D.: MW-3 Laboratory: NCT

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER: