RO 148

ETIC ENGINEERING

11 November 2003

Mr. Don Hwang
Hazardous Materials Specialist
Local Oversight Program
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Third Quarter 2003 Groundwater Monitoring Report
Former Cox Cadillac Fuel Leak Case No. RO0000148
230 Bay Place, Oakland, CA

Dear Mr. Hawng:

ETIC Engineering, Inc., on behalf of The Greater Bay Trust Company, presents the results of the Third Quarter 2003 groundwater monitoring activities conducted at the above-referenced subject site on 3 and 22 October 2003. The groundwater monitoring program was modified for this quarter to include sampling of wells TW4 and TW5, and to include the analysis of gasoline oxygenates by EPA Test Method 8260.

The subject report presents the analytical results and groundwater gauging performed at the subject site. Data tables and site figures are presented including groundwater flow contours. Field data sheets and laboratory data sheets are included as appendices.

An evaluation of the contaminants in the soil and groundwater beneath the site will be presented in the supplemental site investigation report upon completion of the field investigation activities.

Should you have any questions or comments, please contact me at (510) 602-1600 extension 16.

Very truly yours,

ETIC Engineering, Inc.

Luis A. Fraticelli, R.G.
Senior Project Manager

Cc: Lance Shoemaker - Hanson, Bridgett, Marcus, Vlahos, Rudy, LLP
Zachary R. Walton - Paul, Hastings, Janofsky & Walker, LLP

RO 148

ETIC ENGINEERING

THIRD QUARTER 2003
GROUNDWATER MONITORING REPORT

FORMER COX CADILLAC
230 BAY PLACE
OAKLAND, CALIFORNIA

Prepared For:

Mr. Lance Shoemaker
Hanson, Bridgett, Marcus, Vlahos, & Rudy
333 Market Street, Suite 2300
San Francisco, California 94105

Prepared By:

ETIC Engineering, Inc
1333 Broadway, Suite 1015
Oakland, CA 94612

November 11, 2003

ETIC ENGINEERING

Third Quarter 2003
Groundwater Monitoring Report

Former Cox Cadillac Facility
230 Bay Place
Oakland, California

November 11, 2003

Prepared for:

Mr. Lance Shoemaker
Hanson, Bridgett, Marcus, Vlahos, & Rudy
333 Market Street, Suite 2300
San Francisco, California 94105

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1333 Broadway, Suite 1015
Oakland, California 94612

Katherine Brandt
Project Geologist

Luis A. Fraticelli, R.G.
Senior Project Manager

REGISTERED GEOLOGIST
LUIS A. FRATICELLI
No. 6521
Exp. 04/05
STATE OF CALIFORNIA

SITE CONTACTS

Site Name:	Former Cox Cadillac
Site Address:	230 Bay Place Oakland, California
Consultant:	ETIC Engineering, Inc. 1333 Broadway, Suite 1015 Oakland, California 94612 (510) 208-1600
ETIC Project Manager:	Luis A. Fraticelli
Regulatory Oversight:	Don Hwang Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 (510) 567-6746

INTRODUCTION

At the request of the Hanson, Bridgett, Marcus, Vlahos, & Rudy, ETIC Engineering, Inc. has prepared this third quarter 2003 groundwater monitoring report for the Former Cox Cadillac Facility. Specifically, this report presents the results for the most recent groundwater monitoring conducted at the site. This report covers site activities during October 2003, the dates of the most recent monitoring event. Groundwater monitoring results, well construction details, and a groundwater monitoring plan for the site are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

GENERAL SITE INFORMATION

Site name:	Former Cox Cadillac
Site address:	230 Bay Place, Oakland, California
Current property owner:	Bond CC Oakland, LLC
Current site use:	Vacant – Monthly parking in the rear
Current phase of project:	Groundwater monitoring
Tanks at site:	Two former open tanks (1 gasoline, 1 waste-oil) and one closed mineral spirit tank
Number of wells:	7 (5 onsite, 2 offsite)

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	October 2003
Wells gauged and sampled:	MW1, MW2, TW2, TW4, TW5, TW6, TW7
Wells gauged only:	None
Groundwater flow direction:	Southwest
Groundwater gradient:	0.06
Well screens not submerged:	None
Liquid-phase hydrocarbons:	Not observed or detected
Laboratory:	Severn Trent Laboratories of San Francisco, Pleasanton, CA

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl t-butyl ether (MTBE), fuel oxygenates, and ethanol by EPA Method 8260B.

ADDITIONAL ACTIVITIES PERFORMED AT SITE

Soil and groundwater sampling was performed in the utility trenches along Bay Place. This data will be supplemented with the forthcoming soil and hydropunch investigation results (PES Environmental [PES], 2003a[1], 2003b[2]), and be presented in a Supplemental Investigation Report following completion of the field work in November 2003.

WORK PROPOSED FOR NEXT QUARTER

Groundwater will be monitored in accordance with the attached groundwater monitoring plan.

A Supplemental Investigation Workplan and Addendum was submitted to the Alameda County Health Services Agency on 24 January 2003 and 21 May 2003, respectively. The soil and hydropunch investigation described in the workplan and addendum is expected to be competed in November 2003.

Attachments:

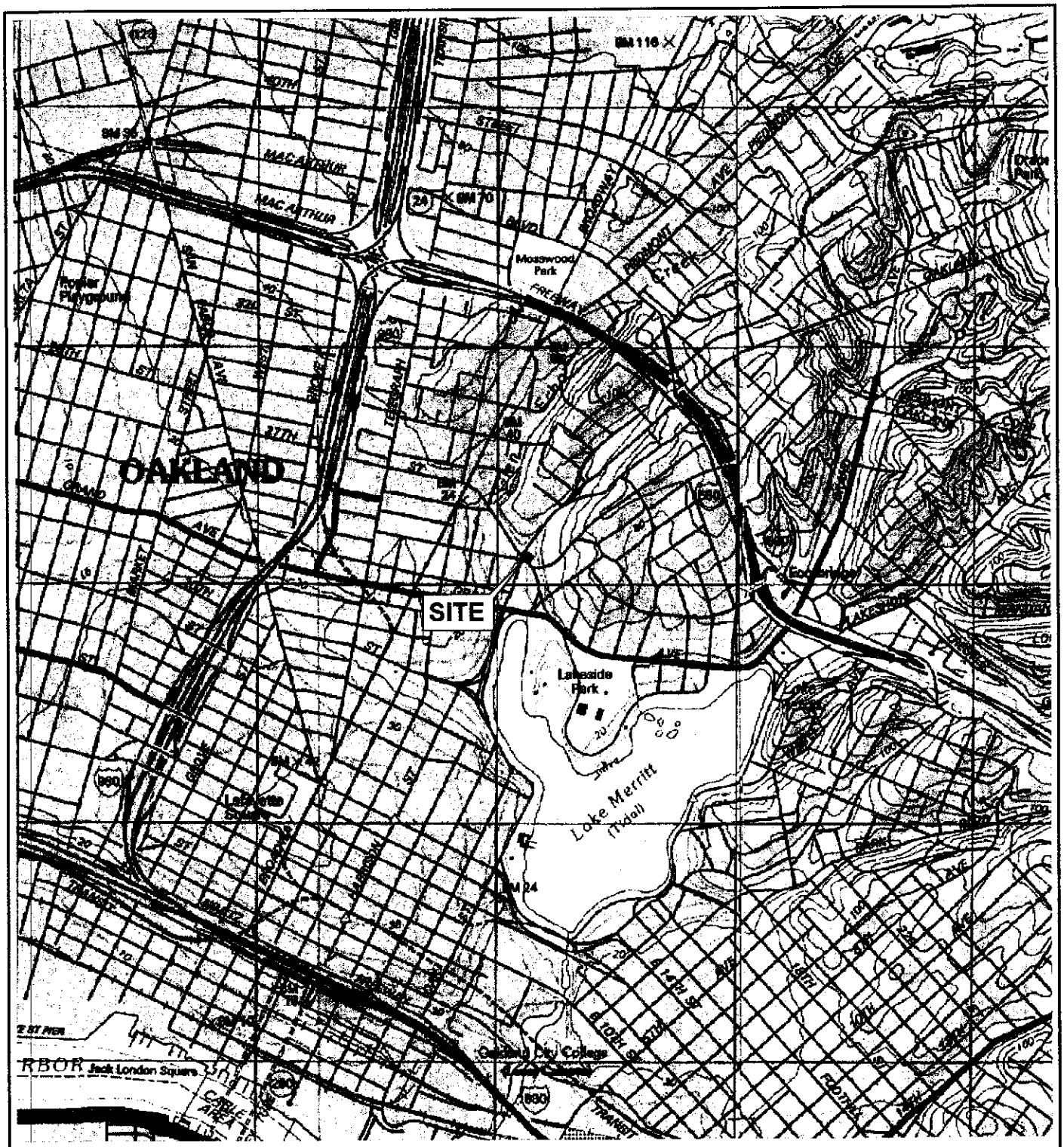
Figure 1: Site Vicinity Map
Figure 2: Site Plan Showing Groundwater Elevation Data 22 October 2003
Figure 3: Site Plan Showing Groundwater Analytical Results October 2003

Table 1: Groundwater Elevation Data
Table 2: Groundwater Analytical Data
Table 3: Groundwater Monitoring Schedule

Appendix A: Field Protocols
Appendix B: Field Documents
Appendix C: Laboratory Analytical Reports

1: PES. 2003a. Workplan Supplemental Site Investigation, Former Cox Cadillac Facility, 230 Bay Place, Oakland, CA. January 24.
2: PES. 2003a. Addendum to Workplan Supplemental Site Investigation, Former Cox Cadillac Facility, 230 Bay Place, Oakland, CA. May 21.

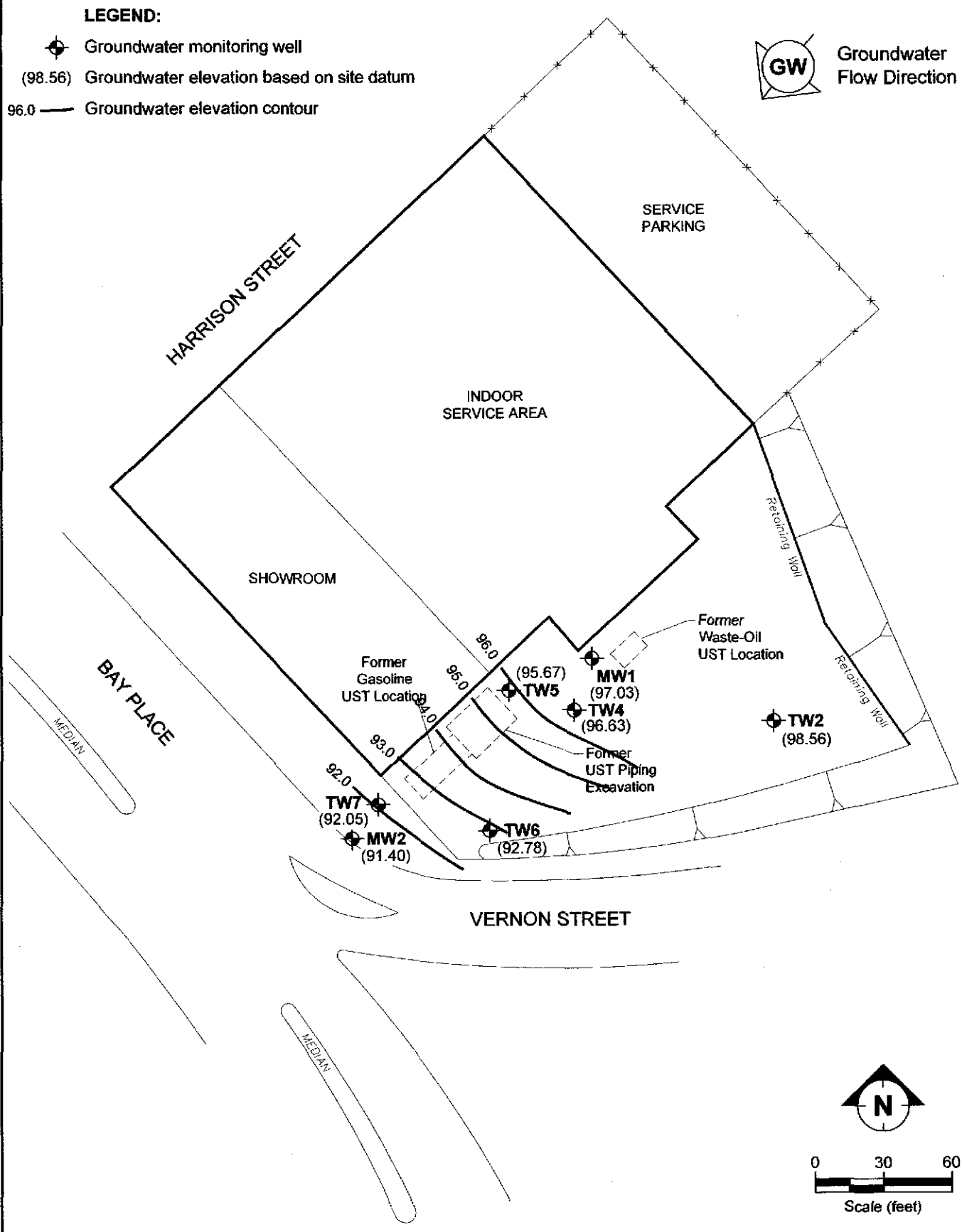
Figures



Map Source: USGS Topography Map

ETIC ENGINEERING	SITE VICINITY MAP FORMER COX CADILLAC 230 BAY PLACE OAKLAND, CALIFORNIA	FIGURE: 1

FILENAME: SITEPLAN.DWG 11/04/03

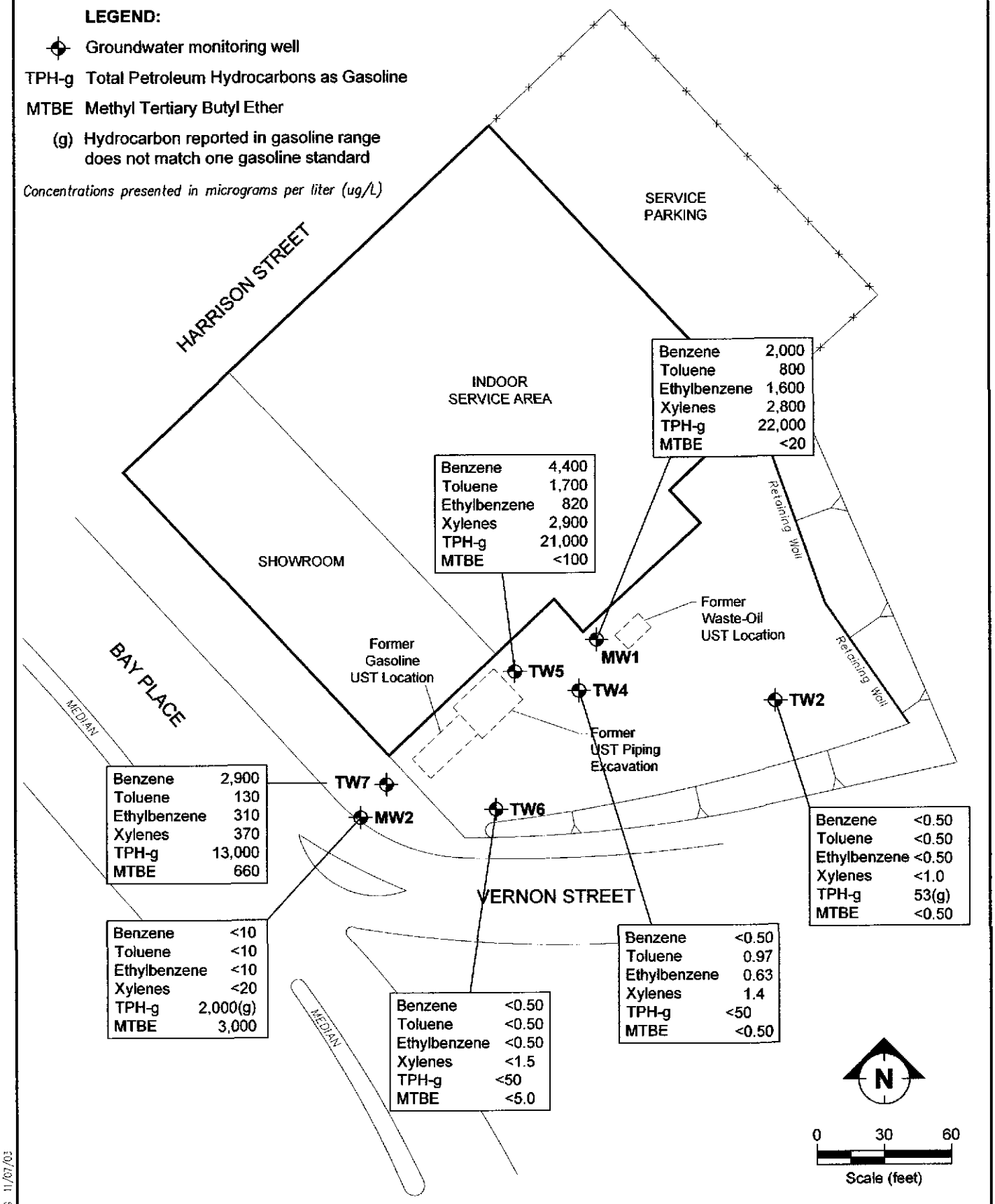


ETIC ENGINEERING

SITE PLAN SHOWING GROUNDWATER ELEVATION DATA
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA
22 OCTOBER 2003

FIGURE: **2**

FILENAME: SITEPLAN.DWG 11/07/03



ETIC ENGINEERING

SITE PLAN SHOWING GROUNDWATER ANALYTICAL RESULTS
FORMER COX CADILLAC
230 BAY PLACE, OAKLAND, CALIFORNIA
OCTOBER 2003

FIGURE: 3

FILENAME: SITEPLAN.DWG 11/07/03

Tables

TABLE 1 GROUNDWATER ELEVATION DATA
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND CALIFORNIA

Well Number	Sample Date	TOC Elevation (feet)	Depth to Groundwater (Feet BTOC)	Groundwater Elevation (feet msl)
MW-1	12/22/94	100.00	2.96	97.04
	03/24/95	100.00	2.21	97.79
	06/29/95	100.00	2.44	97.56
	09/29/95	100.00	3.00	97.00
	02/23/96	100.00	2.18	97.82
	01/12/99	100.00	2.79	97.21
	04/13/99	100.00	2.00	98.00
	07/07/99	100.00	2.60	97.40
	10/06/99	100.00	2.94	97.06
	01/11/00	100.00	2.69	97.31
	04/06/01	100.00	2.99	97.01
	07/25/01	100.00	6.00	94.00
	11/20/01	100.00	3.32	96.68
	01/23/02	100.00	2.47	97.53
	04/26/02	100.00	2.25	97.75
	07/25/02	100.00	3.04	96.96
	10/22/02	100.00	3.02	96.98
	01/27/03	100.00	2.27	97.73
	10/03/03	100.00	2.81	97.19
	10/22/03	100.00	2.97	97.03
MW-2	01/12/99	97.48	5.62	91.86
	04/13/99	97.48	5.30	92.18
	07/07/99	97.48	5.80	91.68
	10/06/99	97.48	5.99	91.49
	01/11/00	97.48	5.73	91.75
	04/06/01	97.48	5.65	91.83
	07/25/01	97.48	6.41	91.07
	11/20/01	97.48	5.89	91.59
	01/23/02	97.48	5.68	91.80
	04/26/02	97.48	5.85	91.63
	07/25/02	97.48	6.15	91.33
	10/22/02	97.48	6.25	91.23
	01/27/03	97.48	5.71	91.77
	10/03/03	97.48	6.04	91.44
	10/22/03	97.48	6.08	91.40
TW-2	12/22/94	100.43	2.88	97.55
	03/24/95	100.43	1.87	98.56
	06/29/95	100.43	2.10	98.33
	09/29/95	100.43	3.02	97.41
	02/23/96	100.43	2.13	98.30
	01/12/99	100.43	1.91	98.52
	04/13/99	100.43	2.51	97.92
	07/07/99	100.43	1.89	98.54
	10/06/99	100.43	1.97	98.46
	01/11/00	100.43	1.79	98.64
	04/06/01	100.43	3.46	96.97

TABLE 1 GROUNDWATER ELEVATION DATA
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND CALIFORNIA

Well Number	Sample Date	TOC Elevation (feet)	Depth to Groundwater (Feet BTOC)	Groundwater Elevation (feet msl)
TW-2	07/25/01	100.43	2.60	97.83
	11/20/01	100.43	1.85	98.58
	01/23/02	100.43	3.21	97.22
	04/26/02	100.43	4.30	96.13
	07/25/02	100.43	1.89	98.54
	10/22/02	100.43	1.97	98.46
	01/27/03	100.43	3.15	97.28
	10/03/03	100.43	1.92	98.51
	10/22/03	100.43	1.87	98.56
TW-4	04/13/99	99.35	1.82	97.53
	07/07/99	99.35	2.36	96.99
	01/11/00	99.35	2.63	96.72
	04/06/01	99.35	3.97	95.38
	07/25/01	99.35	2.55	96.80
	11/20/01	99.35	2.33	97.02
	01/23/02	99.35	2.26	97.09
	04/26/02	99.35	2.20	97.15
	07/25/02	99.35	2.24	97.11
	10/22/02	99.35	2.60	96.75
	01/27/03	99.35	2.03	97.32
	10/03/03	99.35	2.72	96.63
TW-5	04/13/99	99.40	1.96	97.44
	07/07/99	99.40	3.12	96.28
	01/11/00	99.40	1.03	98.37
	04/06/01	99.40	3.04	96.36
	07/25/01	99.40	3.90	95.50
	11/20/01	99.40	2.55	96.85
	01/23/02	99.40	2.64	96.76
	04/26/02	99.40	2.50	96.90
	07/25/02	99.40	3.15	96.25
	10/22/02	99.40	3.69	95.71
	01/27/03	99.40	2.38	97.02
	10/03/03	99.40	3.73	95.67
TW-6	12/22/94	98.75	4.66	94.09
	03/24/95	98.75	3.81	94.94
	06/29/95	98.75	5.25	93.50
	09/29/95	98.75	6.12	92.63
	02/23/96	98.75	3.66	95.09
	01/12/99	98.75	5.52	93.23
	04/13/99	98.75	4.91	93.84
	07/07/99	98.75	6.04	92.71
	10/06/99	98.75	6.64	92.11
	01/11/00	98.75	6.41	92.34
	04/06/01	98.75	4.93	93.82
	07/25/01	98.75	6.72	92.03

TABLE 1 GROUNDWATER ELEVATION DATA
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND CALIFORNIA

Well Number	Sample Date	TOC Elevation (feet)	Depth to Groundwater (Feet BTOC)	Groundwater Elevation (feet msl)
	11/20/01	98.75	5.44	93.31
TW-6	01/23/02	98.75	3.25	95.50
	04/26/02	98.75	3.40	95.35
	07/25/02	98.75	6.54	92.21
	10/22/02	98.75	7.06	91.69
	01/27/03	98.75	2.50	96.25
	10/03/03	98.75	8.85	89.90
	10/22/03	98.75	5.97	92.78
TW-7	12/22/94	97.96	4.50	93.46
	03/24/95	97.96	2.98	94.98
	06/29/95	97.96	4.30	93.66
	09/29/95	97.96	5.19	92.77
	02/23/96	97.96	3.45	94.51
	01/12/99	97.96	4.81	93.15
	04/13/99	97.96	4.73	93.23
	07/07/99	97.96	5.17	92.79
	10/06/99	97.96	5.70	92.26
	01/11/00	97.96	5.42	92.54
	04/06/01	97.96	4.63	93.33
	07/25/01	97.96	6.80	91.16
	11/20/01	97.96	4.75	93.21
	01/23/02	97.96	5.68	92.28
	04/26/02	97.96	4.80	93.16
	07/25/02	97.96	5.61	92.35
	10/22/02	97.96	6.11	91.85
	01/27/03	97.96	4.38	93.58
	10/03/03	97.96	5.80	92.16
	10/22/03	97.96	5.91	92.05

Notes:
TOC - Top of Casing.
BTOC - Beneath top of casing.
msl - Mean sea level.

TABLE 2 GROUNDWATER ANALYTICAL DATA
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND, CALIFORNIA

			Concentration (µg/L)														
Well Number	Sample Date		Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g		MTBE		1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Dissolved Lead	Ethanol
MW-1	03/03/93		**8,500**	**7,500**	**4,400**	**15,000**	**110,000**		--		**350**	--	--	--	--	--	--	--	--
	10/13/93		**6,100**	**4,800**	**4,000**	**11,000**	**74,000**		--		**350**	**80**	--	--	--	--	--	--	--
	12/22/94		**18,000**	**11,000**	**2,800**	**16,000**	**110,000**		--		**130**	--	--	--	--	--	<1.0	--	--
	03/24/95		**3,700**	**1,800**	**2,200**	**4,700**	**25,000**		--		**130**	--	--	--	--	--	<5.0	**23**	--
	06/29/95		**5,300**	**2,100**	**3,200**	**7,500**	**28,000**		--		**110**	--	--	--	--	--	<2.0	**14**	--
	09/29/95		**5,600**	**2,200**	**3,800**	**7,400**	**43,000**		--		**98**	--	--	--	--	--	<1.0	**16**	--
	02/23/96		**4,800**	**3,000**	**3,400**	**7,700**	**46,000**		--		**96**	--	--	--	--	--	<1.0	**24**	--
	01/12/99		**2,600**	**970**	**2,900**	**5,700**	**39,000**		**800**		--	--	--	--	--	--	--	--	--
	04/13/99		**1,500**	**500**	**<50**	**4,000**	**29,000**		**520**		--	--	--	--	--	--	--	--	--
	07/07/99		**1,900**	**870**	**1,600**	**3,900**	**31,000**		<250		--	--	--	--	--	--	--	--	--
	10/06/99		**2,100**	**910**	**1,800**	**4,400**	**32,000**		<250	a	--	--	--	--	--	--	--	--	--
	01/11/00		**52**	**3.9**	**63**	**12**	**2,400**		<5.0	a	--	--	--	--	--	--	--	--	--
	04/06/01		**4,300**	**3,200**	**2,600**	**7,300**	**32,000**		<10	a	--	--	--	--	--	--	--	--	--
	07/25/01		**2,300**	**1,300**	**2,500**	**6,200**	**24,000**		<25	a	--	--	--	--	--	--	--	--	--
	11/20/01		**2,100**	**890**	**2,500**	**3,600**	**33,000**		<100	a	--	--	--	--	--	--	--	--	--
	01/23/02		**2,400**	**1,400**	**2,500**	**5,900**	**28,000**		**350**		--	--	--	--	--	--	--	--	--
	04/26/02		**3,200**	**2,400**	**2,700**	**6,300**	**39,000**		**2,800**		--	--	--	--	--	--	--	--	--
	07/25/02		**2,300**	**1,300**	**2,500**	**4,700**	**26,000**		<500		--	--	--	--	--	--	--	--	--
	10/22/02		**2,800**	**1,300**	**4,300**	**8,600**	**42,000**		<10		<50	<50	<50	<100	<50	<50	--	--	--
	01/27/03		**1,600**	**660**	**2,100**	**3,100**	**20,000**		<20		<100	<100	<100	<200	<100	<100	--	--	--
	10/22/03	b	**2,000**	**800**	**1,600**	**2,800**	**22,000**		<20		<20	<20	<20	<200	<40	<20	--	--	<1,000
MW-2	01/12/99		**1.5**	<0.50	<0.50	<0.50	<50		**2,900**		--	--	--	--	--	--	--	--	--
	04/13/99		**0.76**	<0.50	<0.50	<0.50	<50		**3,800**		--	--	--	--	--	--	--	--	--
	07/07/99		<25	<25	<25	<25	<2,500		**7,000**	a	--	--	--	--	--	--	--	--	--
	10/06/99		**73**	<25	<25	<25	**2,800**		**300**	a	--	--	--	--	--	--	--	--	--
	01/11/00		**890**	<100	<100	<100	**11,000**		**8,400**	a	--	--	--	--	--	--	--	--	--
	04/06/01		**210**	<25	<25	<25	**2,800**		**3,800**	a	--	--	--	--	--	--	--	--	--
	07/25/01		**250**	<12.5	<12.5	<12.5	**3,400**		**4,200**	a	--	--	--	--	--	--	--	--	--
	11/20/01		**870**	<100	<100	200	**12,000**		**8,700**		--	--	--	--	--	--	--	--	--
	01/23/02		**100**	<25	<25	<25	**3,900**		**3,300**		--	--	--	--	--	--	--	--	--
	04/26/02		**13**	<0.50	<0.50	<1.5	**90**		**6,900**		--	--	--	--	--	--	--	--	--
	07/25/02		<50	<50	<50	<100	<5,000		**6,600**		--	--	--	--	--	--	--	--	--
	10/22/02		<5.0	<5.0	<5.0	<10	**7,800**		**7,000**		<250	<250	<250	<500	<250	<250	--	--	--
	01/27/03		**90**	**100**	**60**	**78**	**6,100**		**6,400**		<250	<250	<250	<500	<250	<250	--	--	--
	10/22/03	b	<10	<10	<10	<20	**2,000**	g	**3,000**		<10	<10	<10	<100	<20	<10	--	--	<500
TW-1	10/13/93		<0.50	<0.50	<0.50	<0.50	<50		--		<0.50	<0.50	--	--	--	--	--	--	--
TW-2	10/13/93		<0.50	<0.50	<0.50	<0.50	<50		--		<0.50	<0.50	--	--	--	--	--	--	--
	01/12/99		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	04/13/99		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	07/07/99		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	10/06/99		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	01/11/00		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	04/06/01		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	07/25/01		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	11/20/01		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	01/23/02		<0.50	<0.50	<0.50	<0.50	<50		<5.0		--	--	--	--	--	--	--	--	--
	04/26/02		<0.50	<0.50	<0.50	<1.5	<50		<5.0		--	--	--	--	--	--	--	--	--
	07/25/02		<0.50	<0.50	<0.50	<1.0	<50		<5.0		--	--	--	--	--	--	--	--	--
	10/22/02		<0.50	<0.50	<0.50	<1.0	<50		<1.0		<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
	01/27/03		<0.50	<0.50	<0.50	<1.0	<50		<1.0		<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
	10/22/03	b	<0.50	<0.50	<0.50	<1.0	**53**	g	<0.50		<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-3	10/13/93		<0.50	<0.50	<0.50	<0.50	<50		--		<0.50	<0.50	--	--	--	--	--	--	--
TW-4	10/13/93		**65**	**18**	**49**	**33**	**2,000**		--		<5.0	<5.0	--	--	--	--	--	--	--
	10/03/03	b	<0.50	**0.97**	**0.63**	1.4	<50		<0.50		<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-5	10/13/93		**20,000**	**25,000**	**3,800**	**23,000**	**140,000**		--		<100	<100	--	--	--	--	--	--	--
	10/03/03	b	**4,400**	**1,700**	**820**	**2,900**	**21,000**		<100		<100	<100	<100	<100	<200	<100	--	--	<5,000
TW-6	10/14/93		**3,800**	**1,600**	**110**	**540**	**4,100**		--		<1.0	<1.0	--	--	--	--	--	--	--
	12/22/94		**5,400**	**2,700**	**3,100**	**6,800**	**24,000**		--		<1.0	--	--	--	--	--	<1.0	--	--
	03/24/95		**4,900**	**530**	**270**	**380**	**10,000**		--		<2.0	--	--	--	--	--	<2.0	<3.0	--
	06/29/95		**12,000**	**6,600**	**1,000**	**3,000**	**28,000**		--		<1.0	--	--	--	--	--	<1.0	**4.2**	--
	09/29/95		**19,000**	**5,200**	**1,500**	**4,000**	**47,000**		--		<1.0	--	--	--	--	--	<1.0	**3.3**	--
	02/23/96		**13,000**	**5,200**	**1,100**	**2,770**	**25,000**		--		<1.0	--	--	--	--	--	<1.0	**5.2**	--
	01/12/99		**9,900**	**4,100**	**1,000**	**4,000**	**29,000**		**210**		--	--	--	--	--	--	--	--	--
	04/13/99		**0.70**	<0.50	<0.50	**0.62**	<50		**22**		--	--	--	--	--	--	--	--	--
	07/07/99		**13**	<0.50	<0.50	**2.2**	**55**		**8.1**	a	--	--	--	--	--	--	--	--	--

TABLE 2 GROUNDWATER ANALYTICAL DATA
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND, CALIFORNIA

			Concentration (µg/L)														
Well Number	Sample Date		Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	MTBE		1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Dissolved Lead	Ethanol
	10/06/99		**0.59**	<0.50	<0.50	<0.50	<50	<5		--	--	--	--	--	--	--	--	--
	01/11/00		<0.50	<0.50	<0.50	<0.50	<50	<5.0		--	--	--	--	--	--	--	--	--
	04/06/01		<0.50	<0.50	<0.50	<0.50	<50	<5.0		--	--	--	--	--	--	--	--	--
	07/25/01		<0.50	<0.50	<0.50	<0.50	<50	<5.0		--	--	--	--	--	--	--	--	--
	11/20/01		<0.50	<0.50	<0.50	<0.50	<50	<5.0		--	--	--	--	--	--	--	--	--
	01/23/02		<0.50	<0.50	<0.50	<0.50	<50	<5.0		--	--	--	--	--	--	--	--	--
	04/26/02		<0.50	<0.50	<0.50	<1.5	<50	<5.0		--	--	--	--	--	--	--	--	--
	07/25/02		**0.60**	<0.50	<0.50	<1	<50	<5.0		--	--	--	--	--	--	--	--	--
	10/22/02		<0.50	<0.50	<0.50	<1.0	<50	<1.0		<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
	01/27/03		<0.50	<0.50	<0.50	<1.0	<50	<1.0		<5.0	<5.0	<5.0	<10	<5.0	<5.0	--	--	--
	10/22/03	b	<0.50	<0.50	<0.50	<1.0	<50	<5.0		<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	--	--	<25
TW-7	10/14/93		**48,000**	**15,000**	**3,400**	**16,000**	**100,000**	--		<50	<50	--	--	--	--	--	--	--
	12/22/94		**49,000**	**33,000**	**7,300**	**28,000**	**210,000**	--		<1.0	--	--	--	--	--	<1.0	--	--
	03/24/95		**13,000**	**7,000**	**1,500**	**5,600**	**56,000**	--		<2.0	--	--	--	--	--	<2.0	<3.0	--
	06/29/95		**39,000**	**8,100**	**3,000**	**8,300**	**100,000**	--		<1.0	--	--	--	--	--	<1.0	**3.5**	--
	09/29/95		**32,000**	**8,700**	**2,900**	**8,600**	**74,000**	--		<1.0	--	--	--	--	--	<1.0	**3.5**	--
	02/23/96		**22,000**	**8,400**	**2,700**	**6,900**	**50,000**	--		<5.0	--	--	--	--	--	<5.0	**3.8**	--
	01/12/99		**7,300**	**670**	**2,700**	**960**	**29,000**	<100		--	--	--	--	--	--	--	--	--
	04/13/99		**4,500**	**1,800**	**180**	**8,200**	**54,000**	**1,200**		--	--	--	--	--	--	--	--	--
	07/07/99		**8,000**	**4,500**	**1,200**	**3,500**	**42,000**	**2,200**	a	--	--	--	--	--	--	--	--	--
	10/06/99		**9,700**	**1,600**	**1,600**	**2,100**	**29,000**	**580**	a	--	--	--	--	--	--	--	--	--
	01/11/00		**8,500**	**7,100**	**1,600**	**6,700**	**52,000**	**2,600**	a	--	--	--	--	--	--	--	--	--
	04/06/01		**4,800**	**1,800**	**2,200**	**3,400**	**22,000**	**690**	a	--	--	--	--	--	--	--	--	--
	07/25/01		**5,100**	**660**	**1,400**	**2,100**	**20,000**	**1,100**	a	--	--	--	--	--	--	--	--	--
	11/20/01		**6,400**	**1,100**	**1,000**	**2,400**	**26,000**	**1,600**		--	--	--	--	--	--	--	--	--
	01/23/02		**5,100**	**510**	**2,200**	**3,900**	**25,000**	**1,200**		--	--	--	--	--	--	--	--	--
	04/26/02		**4,400**	**1,300**	**2,900**	**2,370**	**29,000**	**1,600**		--	--	--	--	--	--	--	--	--
	07/25/02		**4,900**	**470**	**1,600**	**1,700**	**21,000**	**1,900**		--	--	--	--	--	--	--	--	--
	10/22/02		**6,700**	**410**	**1,100**	**1,500**	**31,000**	**1,700**	a	<100	<100	<100	<200	<100	<100	--	--	--
	01/27/03		**2,700**	**710**	**1,900**	**1,100**	**17,000**	**680**		<100	<100	<100	<200	<100	<100	--	--	--
	10/22/03	b	**2,900**	**130**	**310**	**370**	**13,000**	**660**		<13	<13	<13	<130	<25	<13	--	--	<630

Notes:
TPHg - Total Petroleum Hydrocarbons as gasoline
MTBE - Methyl tert-butyl ether
DCA - Dichloroethane
EDB - Ethylene dibromide
TAME - Tert-amyl methyl ether
TBA - Tert-butyl alcohol
DIPE - Di-isopropyle ether
ETBE - Ethyl tert-butyl ether
µg/L = Micrograms per liter.
< = Not detected at or above indicated laboratory reporting limit.
-- = Not Analyzed
a = MTBE Confirmation bt EPA Method 8260B.
b = Samples were analyzed by EPA Method 8260B.
g = hydrocarbon reported in gasoline range does not match our gasoline standard.

TABLE 3 GROUNDWATER MONITORING SCHEDULE
FORMER COX CADILLAC, 230 BAY PLACE, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX	MTBE	TPH-g
MW1	Q	Q	Q	Q
MW2	Q	Q	Q	Q
TW2	Q	Q	Q	Q
TW4	Q	Q	Q	Q
TW5	Q	Q	Q	Q
TW6	Q	Q	Q	Q
TW7	Q	Q	Q	Q

Notes:
Q = Quarterly.
BTEX = Benzene, toluene, ethylbenzene, total xylenes.
TPH-g = Total Petroleum Hydrocarbons as gasoline.
MTBE = Methyl tertiary butyl ether.

Appendix A

Field Protocols

PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

Appendix B

Field Documents

ETIC
Engineering, Inc.

MONITORING WELL DATA FORM

Client: COX CADILLAC	Date: 10/3/03
Project Number: TMCOX1.1	Station Number: COX CADILLIC
Site Location: 230 BAY PLACE , OAKLAND , CA.	Samplers: PP

MONITORING WELL NUMBER	DEPTH TO WATER (TOC)	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	GENERAL FIELD COMMENTS
TW2	1.92					7.92 7.81	2"
TW4	2.72					8.79 8.71	2"
TW5	3.73					7.75 7.66	2"
TW6	8.85					7.89 7.78	2"
TW7	5.80					9.95 9.88	2"
MW1	2.81					20.17 20.1	2"
MW2	6.04					20.05 19.95	2"

Note: Depth to bottom measured during first quarter unless noted.

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: COX CADILLAC , 230 BAY PLACE , OAKLAND Well No: TW4 Date: 10/3/03

Project No: TMCOX1.1 Personnel: PATRICK P

GAUGING DATA

Water Level Measuring Method: ~~WATER LEVEL METER~~ IP Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	8.79	−	2.72	=	6.07	X	1	2	4	6	.97	=	9.71
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: (gpm)

Time	10:34	10:36	10:40	10:42	10:49	
Volume Purge (gal)	1	2	3	4	5	6
Temperature (C)	23.6	24.8	24.8	24.4	23.4	
pH	7.02	6.81	6.55	6.64	7.06	
Spec Cond (umhos)	3711	3875	6962	8623	9455	
Turbidity/Color	SILTY / GREY	SILTY / GREY	SILTY / GREY	SILTY / GREY	SILTY / GREY	
Odor (Y/N)	N	N	N	N	N	
Casing Volumes	-	-	-	-	-	
Dewatered (Y/N)	N	N	N	N	N	

Comments/Observbations: DEWATERED @ 5 gal. / RECHARGED & SAMPLED

SAMPLING DATA

Time Sampled: 11:00 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW4	6	VOA	HCL	40ml		

Total Purge Volume: 5 (gallons) Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: ~~NONE~~ CAP BROKEN

Problems Encountered During Purging and Sampling: DEWATERED @ 5 gal

Comments:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name:	COX CADILLAC , 230 BAY PLACE , OAKLAND	Well No:	TW5	Date:	10/3/03
Project No:	TMCOX1.1	Personnel:	PATRICK P		

GAUGING DATA

Water Level Measuring Method: ~~WATER LEVEL METER~~ IP Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	7.75	−	3.73	=	4.02	X	1	2	4	6	.64	=	6.4
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: *(gpm)*

Time	11:29	11:32				
Volume Purge (gal)	1	2	3	4	5	6
Temperature (C)	23.1	22.2				
pH	8.25	8.26				
Spec Cond (umhos)	1205	1123				
Turbidity/Color	SLTY BLK	SLTY BK				
Odor (Y/N)	Y	Y				
Casing Volumes	–	–				
Dewatered (Y/N)	N	N				

Comments/Observbations: DEWATERED @ 2 1/2 gal / RECHARGED & SAMPLED

SAMPLING DATA

Time Sampled: 12:00 Approximate Depth to Water During Sampling: *(feet)*

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW5	6	VOA	HCL	40ml		

Total Purge Volume: 2.5 *(gallons)* Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: CAP BROKEN

Problems Encountered During Purging and Sampling: DEWATERED @ 2 1/2 gal

Comments:

ETIC ENGINEERING

Engineering, Inc.

MONITORING WELL DATA FORM

Client: Exxon Cox Cadillac

Date: 10/22/03

Project Number:TMCOX.9

Station Number: COX

Site Location:
230 Bay Place, Oakland

Samplers: PP

MONITORING WELL NUMBER	DEPTH TO WATER (TOC) ft.	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	Well Completion Depth	DEPTH TO BOTTOM (TOC) ft.	WELL CASING DIAMETER in.
MW-1	2.97					20.18	2"
MW-2	6.08					20.04	2"
TW-2	1.87					7.92	2"
TW-6	5.97					7.89	2"
TW-7	5.91					9.97	2"
	Measure DTB and BTW						

C:\WINDOWS\Desktop\[MonitoringWellData.xls]Sheet1

Note: Depth to bottom measured during first quarter unless noted.

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: MW1 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: PP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.18	(-)	2.97	(=)	17.21	(X)	1	2	4	6	2.75	(=)	8.26
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	10:06	10:09	10:12			
Volume Purge (gal)	3	6	9			
Temperature (C)	20.2	20.4	19.8			
pH	6.76	6.53	6.57			
Spec.Cond.(umhos)	3571	3292	3643			
Turbidity/Color	SLTY/BRN	SLTY/GRY	SLTY/GRY			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 10:15 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW1	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 9 (gallons) | Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: NO BOLTS (3X)

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: MW2 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: AP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.04	-	6.08	=	13.96	X	1	2	4	6	2.23	=	6.70
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	11:23	11:24	11:25			
Volume Purge (gal)	2	4	6			
Temperature (C)	20.7	21.6	21.6			
pH	6.40	6.41	6.35			
Spec.Cond.(umhos)	4158	4499	4470			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 11:30 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW2	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 6 (gallons) | Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: TW2 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: PP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	7.92	-	1.87	=	6.05	X	1	2	4	6	.96	=	2.88
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	9:34	9:35	9:36			
Volume Purge (gal)	1	2	3			
Temperature (C)	20.2	20.5	20.7			
pH	6.55	6.32	6.57			
Spec.Cond.(umhos)	5144	5476	5421			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 9:40 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW2	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 3 (gallons) | Disposal: ROMIC

Weather Conditions: Cloudy

Condition of Well Box and Casing at Time of Sampling: NO LID & NO BOLTS

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: 10 FT WATERRA TUBING & 1 CHECK VALVE USED

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: TW6 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: PP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
							1	2	4	6			
	7.89	-	5.97	=	1.92	X	0.04	0.16	0.64	1.44	.30	=	.92

PURGING DATA

Purge Method: ~~Waterra~~ BAILER

Time	10:47	10:49	10:51			
Volume Purge (gal)	.30	.60	.90			
Temperature (C)	20.8.	21.4	21.5			
pH	7.13	6.83	6.75			
Spec.Cond.(umhos)	513.5	496.4	494.3			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 10:55 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW6	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: .90 (gallons) | Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: 1 BAILER USED

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac Well No: TW7 Date: 10/22/03

Project No: TMCOX.9 Personnel: PP

GAUGING DATA

Water Level Measuring Method: Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
							1	2	4	6			
	9.97	(-)	5.91	(=)	4.06	(X)	0.04	0.16	0.64	1.44	.64	(=)	1.94

PURGING DATA

Purge Method: ~~Waterra~~ BAILER

Time	11:49	11:52	11:55			
Volume Purge (gal)	1	2	3			
Temperature (C)	21.9	21.9	22.0			
pH	6.41	6.38	6.51			
Spec.Cond.(umhos)	900.5	883.2	877.1			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 12:00 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW7	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 3 (gallons) Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: 1 BAILER USED

ETIC ENGINEERING

Engineering, Inc.

MONITORING WELL DATA FORM

Client: Exxon Cox Cadillac

Date: 10/22/03

Project Number:TMCOX.9

Station Number: COX

Site Location:
230 Bay Place, Oakland

Samplers: AP

MONITORING WELL NUMBER	DEPTH TO WATER (TOC) ft.	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	Well Completion Depth	DEPTH TO BOTTOM (TOC) ft.	WELL CASING DIAMETER in.
MW-1	2.97					20.18	2"
MW-2	6.08					20.04	2"
TW-2	1.87					7.92	2"
TW-6	5.97					7.89	2"
TW-7	5.91					9.97	2"
	Measure DTB and BTW						

C:\WINDOWS\Desktop\[MonitoringWellData.xls]Sheet1

Note: Depth to bottom measured during first quarter unless noted.

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: MW1 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: AP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.18	(-)	2.97	(=)	17.21	(X)	1	2	4	6	2.75	(=)	8.2C
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	10:06	10:09	10:12			
Volume Purge (gal)	3	6	9			
Temperature (C)	20.2	20.4	19.8			
pH	6.76	6.53	6.57			
Spec.Cond.(umhos)	3571	3292	3643			
Turbidity/Color	SLTY/BRN	SLTY/GRY	SLTY/GRY			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 10:15 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW1	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 9 (gallons) | Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: [redacted] NO BOLTS (3X)

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: MW2 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: PP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	20.04	-	6.08	=	13.96	X	1	2	4	6	2.23	=	6.70
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	11:23	11:24	11:25			
Volume Purge (gal)	2	4	6			
Temperature (C)	20.7	21.6	21.6			
pH	6.40	6.41	6.35			
Spec.Cond.(umhos)	4158	4499	4470			
Turbidity/Color	SLTM/BRN	SLTM/BRN	SLTM/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 11:30 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW2	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 6 (gallons) | Disposal: ROMIC

Weather Conditions: cloudy

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: TW2 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: CP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	7.92	(-)	1.87	(=)	6.05	(X)	1	2	4	6	.96	(=)	2.88
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: Waterra

Time	9:34	9:35	9:36			
Volume Purge (gal)	1	2	3			
Temperature (C)	20.2	20.5	20.7			
pH	6.55	6.32	6.57			
Spec.Cond.(umhos)	5144	5476	5421			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 9:40 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW2	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 3 (gallons) | Disposal: ROMIC

Weather Conditions: Cloudy

Condition of Well Box and Casing at Time of Sampling: NO LID & NO BOLTS

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: 10 FT WATERRA TUBING & 1 CHECK VALVE USED

ETIC ENGINEERING

Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: TW6 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: PP

GAUGING DATA

Water Level Measuring Method: | Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
							1	2	4	6			
	7.89	-	5.97	=	1.92	X	0.04	0.16	0.64	1.44	.30	=	.92

PURGING DATA

Purge Method: ~~Waterra~~ BAILER

Time	10:47	10:49	10:51			
Volume Purge (gal)	.30	.60	.90			
Temperature (C)	20.8	21.4	21.5			
pH	7.13	6.83	6.75			
Spec.Cond.(umhos)	513.5	496.4	494.3			
Turbidity/Color	SLTY/BRN	SLTY/BRN	SLTY/BRN			
Odor (Y/N)	N	N	N			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: 0

SAMPLING DATA

Time Sampled: 10:55 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW6	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: .90 (gallons) | Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: / OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: / BAILER USED

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ETIC ENGINEERING
Engineering, Inc.

GROUNDWATER PURGE AND SAMPLE

Project Name: Cox Cadillac | Well No: TW 7 | Date: 10/22/03

Project No: TMCOX.9 | Personnel: JP

GAUGING DATA

Water Level Measuring Method:

Measuring Point Description: TOC

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter	Casing Volume (gal)		Total Purge Volume (gal)
	9.97	−	5.91	=	4.06	X	1: 0.04; (2): (0.16); 4: 0.64; 6: 1.44	.64	=	1.94

PURGING DATA

Purge Method: ~~Waterra~~ BAILER

Time	11:49	11:52	11:55			
Volume Purge (gal)	1	2	3			
Temperature (C)	21.9	21.9	22.0			
pH	6.41	6.38	6.51			
Spec.Cond.(umhos)	900.5	883.2	817.1			
Turbidity/Color	SILTY/BRN	SILTY/BRN	SILTY/BRN			
Odor (Y/N)	Y	Y	Y			
Dewatered (Y/N)	N	N	N			

Comments/Observations: 0

SAMPLING DATA

Time Sampled: 12:00

Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
TW 7	6	VOA	HCL	40ml		TPH-g, BTEX, MTBE

Total Purge Volume: 3 (gallons)

Disposal: ROMIC

Weather Conditions: CLOUDY

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments: 1 BAILER USED

Appendix C

Laboratory Analytical Reports

SEVERN TRENT STL

Submission#: 2003-10-0185

ETIC Oakland

October 14, 2003

1333 Broadway, Suite 1015
Oakland, CA 94612

Attn.: Luis Fraticelli

Project#: TMCOX.1.1
Project: Cox Cadillac

Attached is our report for your samples received on 10/03/2003 16:35
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/17/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

RECEIVED
OCT 30 2003
ETIC ENGINEERING

SEVERN TRENT STL

Submission #: 2003-10-0185

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
TW4	10/03/2003 11:00	Water	1
TW5	10/03/2003 12:00	Water	2

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Prep(s): 5030B
Sample ID: **TW4**
Sampled: 10/03/2003 11:00
Matrix: Water

Test(s): 8260B
Lab ID: 2003-10-0185 - 1
Extracted: 10/10/2003 04:16
QC Batch#: 2003/10/09-02.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/10/2003 04:16	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/10/2003 04:16	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/10/2003 04:16	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/10/2003 04:16	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/10/2003 04:16	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/10/2003 04:16	
1,2-DCA	ND	0.50	ug/L	1.00	10/10/2003 04:16	
EDB	ND	0.50	ug/L	1.00	10/10/2003 04:16	
Benzene	ND	0.50	ug/L	1.00	10/10/2003 04:16	
Toluene	0.97	0.50	ug/L	1.00	10/10/2003 04:16	
Ethylbenzene	0.63	0.50	ug/L	1.00	10/10/2003 04:16	
Total xylenes	1.4	1.0	ug/L	1.00	10/10/2003 04:16	
Ethanol	ND	25	ug/L	1.00	10/10/2003 04:16	
Surrogate(s)						
1,2-Dichloroethane-d4	95.7	76-114	%	1.00	10/10/2003 04:16	
Toluene-d8	99.5	88-110	%	1.00	10/10/2003 04:16	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Prep(s): 5030B
Sample ID: **TW5**
Sampled: 10/03/2003 12:00
Matrix: Water

Test(s): 8260B
Lab ID: 2003-10-0185 - 2
Extracted: 10/10/2003 04:39
QC Batch#: 2003/10/09-02.65

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	21000	10000	ug/L	200.00	10/10/2003 04:39	
tert-Butyl alcohol (TBA)	ND	1000	ug/L	200.00	10/10/2003 04:39	
Methyl tert-butyl ether (MTBE)	ND	100	ug/L	200.00	10/10/2003 04:39	
Di-isopropyl Ether (DIPE)	ND	200	ug/L	200.00	10/10/2003 04:39	
Ethyl tert-butyl ether (ETBE)	ND	100	ug/L	200.00	10/10/2003 04:39	
tert-Amyl methyl ether (TAME)	ND	100	ug/L	200.00	10/10/2003 04:39	
1,2-DCA	ND	100	ug/L	200.00	10/10/2003 04:39	
EDB	ND	100	ug/L	200.00	10/10/2003 04:39	
Benzene	4400	100	ug/L	200.00	10/10/2003 04:39	
Toluene	1700	100	ug/L	200.00	10/10/2003 04:39	
Ethylbenzene	820	100	ug/L	200.00	10/10/2003 04:39	
Total xylenes	2900	200	ug/L	200.00	10/10/2003 04:39	
Ethanol	ND	5000	ug/L	200.00	10/10/2003 04:39	
Surrogate(s)						
1,2-Dichloroethane-d4	99.3	76-114	%	200.00	10/10/2003 04:39	
Toluene-d8	106.7	88-110	%	200.00	10/10/2003 04:39	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/10/09-02.65

MB: 2003/10/09-02.65-048

Date Extracted: 10/09/2003 20:48

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/09/2003 20:48	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/09/2003 20:48	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/09/2003 20:48	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	10/09/2003 20:48	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	10/09/2003 20:48	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	10/09/2003 20:48	
1,2-DCA	ND	0.5	ug/L	10/09/2003 20:48	
EDB	ND	0.5	ug/L	10/09/2003 20:48	
Benzene	ND	0.5	ug/L	10/09/2003 20:48	
Toluene	ND	0.5	ug/L	10/09/2003 20:48	
Ethylbenzene	ND	0.5	ug/L	10/09/2003 20:48	
Total xylenes	ND	1.0	ug/L	10/09/2003 20:48	
Ethanol	ND	25	ug/L	10/09/2003 20:48	
Surrogates(s)					
1,2-Dichloroethane-d4	90.6	76-114	%	10/09/2003 20:48	
Toluene-d8	104.9	88-110	%	10/09/2003 20:48	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike | **Water** | **QC Batch # 2003/10/09-02.65**

LCS 2003/10/09-02.65-049
LCSD

Extracted: 10/09/2003

Analyzed: 10/09/2003 20:02

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	21.6		25.0	86.4			65-165	20		
Benzene	22.6		25.0	90.4			69-129	20		
Toluene	24.0		25.0	96.0			70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	454		500	90.8			76-114	0		
Toluene-d8	492		500	98.4			88-110	0		

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2003/10/09-02.65**

S-17 >> MS

MS: 2003/10/09-02.65-002 Extracted: 10/10/2003

Lab ID: 2003-10-0165 - 003
Analyzed: 10/10/2003 02:02
Dilution: 1.00

MSD: 2003/10/09-02.65-024 Extracted: 10/10/2003

Analyzed: 10/10/2003 02:24
Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	22.6	20.5	ND	25.0	90.4	82.0	9.7	65-165	20		
Benzene	24.6	23.2	ND	25.0	98.4	92.8	5.9	69-129	20		
Toluene	27.1	24.5	ND	25.0	108.4	98.0	10.1	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	442	446		500	88.4	89.2		76-114			
Toluene-d8	530	524		500	106.1	104.7		88-110			

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.1.1
Cox Cadillac

Received: 10/03/2003 16:35

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

SEVERN TRENT SERVICES

STL

Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: info@chromalab.com

Reference #: 78098

2003-10-0185

Date 10/3/03 Page 1 of 1

From

Proj.Mgr	Luis Fraticelli
Company	ETIC Engineering
Address	1333 Broadway, Suite 1015. OAKLAND, CA 94612
Sampler (Signature)	
Phone (510)268-1500	Fax/Email(510)208-1804

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8015, 8020/8021) Gas w/ BTEX MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) Silica Gel Diesel Motor Oil Other	Fuel Oxygenates (8260) DCA, EDB; Full Oxygenate List MTBE BTEX	Purgeable Halocarbons (HVOCs) (EPA 8010/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease Petroleum Total (EPA 1664)	Pesticides (EPA 8081) PCBs (EPA 8082)	PNAs by 8270 8310	CAM17Metals (EPA 6010/7470/7471)	Metals: Lead LUFT RCRA Other:	W.E.T (STLC) TCLP	Hexavalent Chromium pH (24h hold time for H2O)	Spec Cond. Alkalinity TDS TSS	Anions: Cl SO4 NO3 F Br NO2 PO4	TPH-g, BTEX, 5 fuel oxygenates, 1,2-DCA, EDB, and ethanol by EPA Method 8260				Number of Containers
TW4	10/3	11:00																				X				6
TW5	10/3	12:00																				X				6

Project Info.

Project Name: Cox Cadillac

Project# : TMCOX.21

PO#:

Credit Card#:

TAT: Std 5 Day | 72h | 48h | 24h

Report: Routine Level 2 Level 3 Level 4 (X EDD)

Special Instructions / Comments:

GLOBAL ID#

Sample Receipt

of Containers:

Head Space:

Temp: 6.0 °C

Conforms to record:

Other

1) Relinquished by:
Signature: [signature] Time: 13:10
Printed Name: PATRICK HO Date: 10/3/03
Company: ETIC

1) Received by:
Signature: [signature] Time: 1550
Printed Name: MUSA Date: 10-03-03
Company: STL S.F

2) Relinquished by:
Signature: [signature] Time: 1635
Printed Name: MUSA Date: 10-03-03
Company: STL S.F

2) Received by:
Signature: Time:
Printed Name: Date:
Company:

3) Relinquished by:
Signature: Time:
Printed Name: Date:
Company:

3) Received by:
Signature: [signature] Time: 1635
Printed Name: M. VILLANUEVA Date: 10/3/03
Company: STL SF

8/1/01

SEVERN TRENT SERVICES

STL
Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: info@chromalab.com

Reference #: 78098

2003-10-0185

Date 10/3/03 Page 1 of 1

From

Proj.Mgr	Luis Fraticelli
Company	ETIC Engineering
Address	1333 Broadway, Suite 1015. OAKLAND, CA 94612
Sampler (Signature)	
Phone (510)208-1600	Fax/Email(510)208-1604

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8015, 8020/8021) Gas w/ BTEX MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	Fuel Oxygenates (8260B): ☐ DCA, EDB ☐ Full Oxygenate List ☐ MTBE ☐ BTEX	Purgeable Halocarbons (HVOCs) (EPA 8010/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease ☐ Petroleum ☐ Total (EPA 1664)	Pesticides (EPA 8081) ☐ PCBs (EPA 8082)	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	W.E.T (STLC) ☐ TCLP	Hexavalent Chromium ☐ pH (24h hold time for H_2O)	Spec Cond. ☐ Alkalinity ☐ TSS	Anions : ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TPH-g, BTEX, 5 fuel oxygenates, 1,2-DCA, EDB, and ethanol by EPA Method 8260				Number of Containers
TW4	10/3	11:00																			X					6
TW5	10/3	12:00																			X					6

Project Info

Project Name: Cox Cadillac
Project# : TMCOX.21.1
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 6.0°C
Conforms to record:

TAT: Std 5 Day | 72h | 48h | 24h
Other

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 (X EDD)
Special Instructions / Comments:

GLOBAL ID#

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 13:10	Signature: [signature] Time:	Signature: Time:
Printed Name: PATRICK HO Date: 10/3/03	Printed Name: MUSA Date: 10-03-03	Printed Name: Date:
Company: ETIC	Company: STL S.F	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 1550	Signature: Time:	Signature: [signature] Time: 1635
Printed Name: MUSA Date: 10-03-03	Printed Name: Date:	Printed Name: M. VILLANUEVA Date: 10/3/03
Company: STL SF	Company:	Company: STL SF

Rev 05/01

SEVERN TRENT STL

STL San Francisco

Sample Receipt Checklist

Submission #:2003- 10 - 0185

Checklist completed by: (initials) DSH Date: 10 / 06 /03

Courier name: ☑ STL San Francisco ☐ Client _____

Custody seals intact on shipping container/samples	Yes___ No___	Not Present ✓
Chain of custody present?	Yes ✓ No___	
Chain of custody signed when relinquished and received?	Yes ✓ No___	
Chain of custody agrees with sample labels?	Yes ✓ No___	
Samples in proper container/bottle?	Yes ✓ No___	
Sample containers intact?	Yes ✓ No___	
Sufficient sample volume for indicated test?	Yes ✓ No___	
All samples received within holding time?	Yes ✓ No___	
Container/Temp Blank temperature in compliance (4^{o} C ± 2)?	Temp: 6.0 °C Yes ✓ No___	
	Ice Present Yes ✓ No___	
Water - VOA vials have zero headspace?	No VOA vials submitted___ Yes ✓ No___	

(if bubble is present, refer to approximate bubble size and itemize in comments as **S** (small ~O), **M** (medium ~ O) or **L** (large ~ O)

Water - **pH acceptable upon receipt?** ☒ Yes ☐ No

☐ **pH adjusted**– Preservative used: ☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc –**Lot #(s)** _____

For any item check-listed "No", provided detail of discrepancy in comment section below:

Comments:

Project Management [Routing for instruction of indicated discrepancy(ies)]

Project Manager: (initials) _____ Date: _____/_____/03

Client contacted: ☐ Yes ☐ No

Summary of discussion:

Corrective Action (per PM/Client):

SEVERN TRENT STL

Submission#: 2003-10-0841

ETIC Oakland

October 30, 2003

1333 Broadway, Suite 1015
Oakland, CA 94612

Attn.: Luis Fraticelli

Project#: TMCOX.21.1
Project: Cox Cadillac

Attached is our report for your samples received on 10/23/2003 13:25
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 12/07/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

RECEIVED
NOV 04 2003
ETIC ENGINEERING

SEVERN TRENT STL

Submission #: 2003-10-0841

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW1	10/22/2003 10:15	Water	1
MW2	10/22/2003 11:30	Water	2
TW2	10/22/2003 09:40	Water	3
TW6	10/22/2003 10:55	Water	4
TW7	10/22/2003 12:00	Water	5

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Prep(s): 5030B
Test(s): 8260B

Sample ID: **MW1**
Lab ID: 2003-10-0841 - 1

Sampled: 10/22/2003 10:15
Extracted: 10/29/2003 01:28

Matrix: Water
QC Batch#: 2003/10/28-02.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	22000	2000	ug/L	40.00	10/29/2003 01:28	
tert-Butyl alcohol (TBA)	ND	200	ug/L	40.00	10/29/2003 01:28	
Methyl tert-butyl ether (MTBE)	ND	20	ug/L	40.00	10/29/2003 01:28	
Di-isopropyl Ether (DIPE)	ND	40	ug/L	40.00	10/29/2003 01:28	
Ethyl tert-butyl ether (ETBE)	ND	20	ug/L	40.00	10/29/2003 01:28	
tert-Amyl methyl ether (TAME)	ND	20	ug/L	40.00	10/29/2003 01:28	
1,2-DCA	ND	20	ug/L	40.00	10/29/2003 01:28	
EDB	ND	20	ug/L	40.00	10/29/2003 01:28	
Benzene	2000	20	ug/L	40.00	10/29/2003 01:28	
Toluene	800	20	ug/L	40.00	10/29/2003 01:28	
Ethylbenzene	1600	20	ug/L	40.00	10/29/2003 01:28	
Total xylenes	2800	40	ug/L	40.00	10/29/2003 01:28	
Ethanol	ND	1000	ug/L	40.00	10/29/2003 01:28	
Surrogate(s)						
1,2-Dichloroethane-d4	104.3	76-114	%	40.00	10/29/2003 01:28	
Toluene-d8	93.8	88-110	%	40.00	10/29/2003 01:28	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Prep(s): 5030B
Sample ID: **MW2**
Sampled: 10/22/2003 11:30
Matrix: Water

Test(s): 8260B
Lab ID: 2003-10-0841 - 2
Extracted: 10/29/2003 01:51
QC Batch#: 2003/10/28-02.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	2000	1000	ug/L	20.00	10/29/2003 01:51	g
tert-Butyl alcohol (TBA)	ND	100	ug/L	20.00	10/29/2003 01:51	
Methyl tert-butyl ether (MTBE)	3000	10	ug/L	20.00	10/29/2003 01:51	
Di-isopropyl Ether (DIPE)	ND	20	ug/L	20.00	10/29/2003 01:51	
Ethyl tert-butyl ether (ETBE)	ND	10	ug/L	20.00	10/29/2003 01:51	
tert-Amyl methyl ether (TAME)	ND	10	ug/L	20.00	10/29/2003 01:51	
1,2-DCA	ND	10	ug/L	20.00	10/29/2003 01:51	
EDB	ND	10	ug/L	20.00	10/29/2003 01:51	
Benzene	ND	10	ug/L	20.00	10/29/2003 01:51	
Toluene	ND	10	ug/L	20.00	10/29/2003 01:51	
Ethylbenzene	ND	10	ug/L	20.00	10/29/2003 01:51	
Total xylenes	ND	20	ug/L	20.00	10/29/2003 01:51	
Ethanol	ND	500	ug/L	20.00	10/29/2003 01:51	
Surrogate(s)						
1,2-Dichloroethane-d4	96.2	76-114	%	20.00	10/29/2003 01:51	
Toluene-d8	92.5	88-110	%	20.00	10/29/2003 01:51	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**TW2**	Lab ID:	2003-10-0841 - 3
Sampled:	10/22/2003 09:40	Extracted:	10/29/2003 02:13
Matrix:	Water	QC Batch#:	2003/10/28-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	53	50	ug/L	1.00	10/29/2003 02:13	g
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/29/2003 02:13	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/29/2003 02:13	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/29/2003 02:13	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/29/2003 02:13	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/29/2003 02:13	
1,2-DCA	ND	0.50	ug/L	1.00	10/29/2003 02:13	
EDB	ND	0.50	ug/L	1.00	10/29/2003 02:13	
Benzene	ND	0.50	ug/L	1.00	10/29/2003 02:13	
Toluene	ND	0.50	ug/L	1.00	10/29/2003 02:13	
Ethylbenzene	ND	0.50	ug/L	1.00	10/29/2003 02:13	
Total xylenes	ND	1.0	ug/L	1.00	10/29/2003 02:13	
Ethanol	ND	25	ug/L	1.00	10/29/2003 02:13	
Surrogate(s)						
1,2-Dichloroethane-d4	101.3	76-114	%	1.00	10/29/2003 02:13	
Toluene-d8	92.7	88-110	%	1.00	10/29/2003 02:13	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**TW6**	Lab ID:	2003-10-0841 - 4
Sampled:	10/22/2003 10:55	Extracted:	10/29/2003 03:20
Matrix:	Water	QC Batch#:	2003/10/28-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/29/2003 03:20	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/29/2003 03:20	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	10/29/2003 03:20	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	1.00	10/29/2003 03:20	
Ethyl tert-butyl ether (ETBE)	ND	0.50	ug/L	1.00	10/29/2003 03:20	
tert-Amyl methyl ether (TAME)	ND	0.50	ug/L	1.00	10/29/2003 03:20	
1,2-DCA	ND	0.50	ug/L	1.00	10/29/2003 03:20	
EDB	ND	0.50	ug/L	1.00	10/29/2003 03:20	
Benzene	ND	0.50	ug/L	1.00	10/29/2003 03:20	
Toluene	ND	0.50	ug/L	1.00	10/29/2003 03:20	
Ethylbenzene	ND	0.50	ug/L	1.00	10/29/2003 03:20	
Total xylenes	ND	1.0	ug/L	1.00	10/29/2003 03:20	
Ethanol	ND	25	ug/L	1.00	10/29/2003 03:20	
Surrogate(s)						
1,2-Dichloroethane-d4	97.2	76-114	%	1.00	10/29/2003 03:20	
Toluene-d8	96.7	88-110	%	1.00	10/29/2003 03:20	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Prep(s): 5030B
Test(s): 8260B

Sample ID: **TW7**
Lab ID: 2003-10-0841 - 5

Sampled: 10/22/2003 12:00
Extracted: 10/29/2003 03:42

Matrix: Water
QC Batch#: 2003/10/28-02.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	13000	1300	ug/L	25.00	10/29/2003 03:42	
tert-Butyl alcohol (TBA)	ND	130	ug/L	25.00	10/29/2003 03:42	
Methyl tert-butyl ether (MTBE)	660	13	ug/L	25.00	10/29/2003 03:42	
Di-isopropyl Ether (DIPE)	ND	25	ug/L	25.00	10/29/2003 03:42	
Ethyl tert-butyl ether (ETBE)	ND	13	ug/L	25.00	10/29/2003 03:42	
tert-Amyl methyl ether (TAME)	ND	13	ug/L	25.00	10/29/2003 03:42	
1,2-DCA	ND	13	ug/L	25.00	10/29/2003 03:42	
EDB	ND	13	ug/L	25.00	10/29/2003 03:42	
Benzene	2900	13	ug/L	25.00	10/29/2003 03:42	
Toluene	130	13	ug/L	25.00	10/29/2003 03:42	
Ethylbenzene	310	13	ug/L	25.00	10/29/2003 03:42	
Total xylenes	370	25	ug/L	25.00	10/29/2003 03:42	
Ethanol	ND	630	ug/L	25.00	10/29/2003 03:42	
Surrogate(s)						
1,2-Dichloroethane-d4	100.3	76-114	%	25.00	10/29/2003 03:42	
Toluene-d8	96.1	88-110	%	25.00	10/29/2003 03:42	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2003/10/28-02.62

MB: 2003/10/28-02.62-033

Date Extracted: 10/28/2003 19:33

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/28/2003 19:33	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/28/2003 19:33	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/28/2003 19:33	
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L	10/28/2003 19:33	
Ethyl tert-butyl ether (ETBE)	ND	0.5	ug/L	10/28/2003 19:33	
tert-Amyl methyl ether (TAME)	ND	0.5	ug/L	10/28/2003 19:33	
1,2-DCA	ND	0.5	ug/L	10/28/2003 19:33	
EDB	ND	0.5	ug/L	10/28/2003 19:33	
Benzene	ND	0.5	ug/L	10/28/2003 19:33	
Toluene	ND	0.5	ug/L	10/28/2003 19:33	
Ethylbenzene	ND	0.5	ug/L	10/28/2003 19:33	
Total xylenes	ND	1.0	ug/L	10/28/2003 19:33	
Ethanol	ND	25	ug/L	10/28/2003 19:33	
Surrogates(s)					
1,2-Dichloroethane-d4	91.0	76-114	%	10/28/2003 19:33	
Toluene-d8	100.0	88-110	%	10/28/2003 19:33	

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2003/10/28-02.62**

LCS 2003/10/28-02.62-049 Extracted: 10/28/2003 Analyzed: 10/28/2003 18:49

LCSD 2003/10/28-02.62-011 Extracted: 10/28/2003 Analyzed: 10/28/2003 19:11

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	29.1	30.6	25.0	116.4	122.4	5.0	65-165	20		
Benzene	24.2	23.2	25.0	96.8	92.8	4.2	69-129	20		
Toluene	24.4	23.4	25.0	97.6	93.6	4.2	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	519	506	500	103.8	101.2		76-114			
Toluene-d8	480	477	500	96.0	95.4		88-110			

Fuel Oxygenates by 8260B

ETIC Oakland

Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2003/10/28-02.62**

TW2 >> MS

Lab ID: 2003-10-0841 - 003

MS: 2003/10/28-02.62-035 Extracted: 10/29/2003 Analyzed: 10/29/2003 02:35

Dilution: 1.00

MSD: 2003/10/28-02.62-057 Extracted: 10/29/2003 Analyzed: 10/29/2003 02:57

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	29.8	20.1	ND	25.0	119.6	80.4	39.2	65-165	20		mso
Benzene	26.9	20.3	ND	25.0	107.6	81.2	28.0	69-129	20		mso
Toluene	27.9	20.3	ND	25.0	111.6	81.2	31.5	70-130	20		mso
Surrogate(s)											
1,2-Dichloroethane-d4	539	485		500	107.8	97.0		76-114			
Toluene-d8	539	471		500	107.8	94.2		88-110			

SEVERN TRENT STL

Submission #: 2003-10-0841

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMCOX.21.1
Cox Cadillac

Received: 10/23/2003 13:25

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference. Precision and Accuracy were verified by LCS/LCSD.

TRENT SERVICES

STL
Chain of Custody

Phone: (925) 484-1919 ● Fax: (925) 484-1096
Email: info@chromalab.com

Reference #: 2003-10-0841

Date 10/3/03 Page 1 of 1

From

Proj.Mgr	Luis Fraticelli
Company	ETIC Engineering
Address	1333 Broadway, Suite 1015. OAKLAND, CA 94612
Sampler (Signature)	
Phone (510)208-1600	Fax/Email(510)208-1604

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8015, 8020/8021) Gas w/ BTEX MTBE	Purgeable Aromatics BTEX (EPA 8020/8021)	TEPH (EPA 8015M) ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	Fuel Oxygenates (8260B): ☐ DCA, EDB ☐ Full Oxygenate List ☐ MTBE ☐ BTEX	Purgeable Halocarbons (HVOCs) (EPA 8010/8021)	Volatile Organics GC/MS (VOCs) (EPA 8260A/8260B)	Semivolatiles GC/MS (EPA 8270)	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	☐ Pesticides (EPA 8081) ☐ PCBs (EPA 8082)	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	☐ W.E.T (STLC) ☐ TCLP	Hexavalent Chromium pH (24h hold time for H_2O) ☐ ☐	Spec Cond. ☐ Alkalinity ☐ TSS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TPH-g, BTEX, 5 fuel oxygenates, 1,2-DCA, EDB, and ethanol by EPA Method 8260				Number of Containers
MW1	10/22	10:15	W	HCL																	X					6
MW2	↓	11:30	↓	HCL																	X					6
TW2		9:40		HCL																	X					6
TW6		10:55		HCL																	X					6
TW7	↓	12:00	↓	HCL																	X					6

Project Info.

Project Name: Cox Cadillac

Project# : TMCOX.21.1

PO#: OAK89

Credit Card#:

TAT: Std 5 Day | 72h | 48h | 24h

Other

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 (X EDD)

Special Instructions / Comments:

GLOBAL ID#

Sample Receipt

of Containers:

Head Space:

Temp: 4.1

Conforms to record:

1) Relinquished by:
Signature: [signature] Time: 13:20
Printed Name: PATRICK PICO Date: 10/22/03
Company: ETIC

2) Relinquished by:
Signature: [signature] Time: 13:25
Printed Name: R. ALLEN Date: 10-23-03
Company: STL-SF

3) Relinquished by:
Signature: Time:
Printed Name: Date:
Company:

1) Received by:
Signature: [signature] Time: 10:17
Printed Name: R ALLEN Date: 10-23-03
Company: STL-SF

2) Received by:
Signature: Time:
Printed Name: Date:
Company:

3) Received by:
Signature: [signature] Time: 1325
Printed Name: M. VILLANUEVA Date: 10/23/03
Company: STL - SF

Rev 05/01