

ExxonMobil
Refining and Supply Company
Downstream - Safety, Health & Environment
Environmental Remediation

Rec'd 7/19/00

Darin L. Rouse
Senior Engineer
Environmental Remediation

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ExxonMobil
Refining & Supply

July 17, 2000

Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

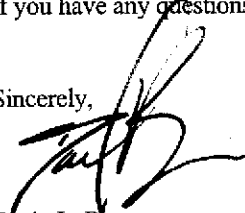
RE: Former Exxon RAS #7-0104/1725 Park Street, Alameda, California.

Dear Ms. Chu:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter 2000*, dated July 6, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and details the results of the quarterly groundwater monitoring, sampling, and remedial activities at the subject site.

If you have any questions or comments, please contact me at (925) 246-8768.

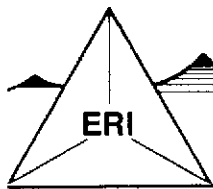
Sincerely,


Darin L. Rouse
Senior Engineer

Attachment: ERI's Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter 2000, dated July 6, 2000.

cc: w/attachment
Mr. Stephen Hill - California Regional Water Quality Control Board-San Francisco Bay Region

w/o attachment
Mr. James F. Chappell - Environmental Resolutions, Inc.



ENVIRONMENTAL RESOLUTIONS, INC.

July 6, 2000
ERI 250611.R01

Mr. Darin L. Rouse
ExxonMobil Refining and Supply
P.O. Box 4032
Concord, California 94524-4032

Subject: Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter
2000, Former Exxon Service Station 7-0104, 1725 Park Street, Alameda, California.

Mr. Rouse:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) is reporting the results of second quarter 2000 groundwater monitoring and sampling activities at the subject site. The location of the site is shown on the Site Vicinity Map (Plate 1). The purpose of quarterly monitoring and sampling is to evaluate concentrations of dissolved hydrocarbons in groundwater and the effectiveness of remedial actions. The locations of selected site features are shown on the Generalized Site Plan (Plate 2). Blaine Tech Services, Inc. (Blaine Tech) performed the groundwater monitoring and sampling activities; and ERI and Delta Environmental Consultants, Inc. performed operation and maintenance activities.

GROUNDWATER MONITORING AND SAMPLING

On April 14, 2000, Blaine Tech measured the depth to water (DTW) and collected groundwater samples from select wells for laboratory analysis. Groundwater monitoring and sampling were performed in accordance with Blaine Tech's groundwater sampling protocol (Attachment A).

Historical and recent monitoring data are summarized in Table 1. Due to ongoing soil and groundwater remediation, groundwater gradient and flow direction may be affected; and therefore, were not calculated.

Laboratory Analyses and Results

Groundwater samples were submitted to Southern Petroleum Laboratories, Inc. (SPL), a state-certified laboratory, under Chain of Custody protocol. The samples were analyzed for total purgeable petroleum hydrocarbons as gasoline (TPPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE). The specific methods of analysis are listed in the notes in Table 1. The results of analyses are presented in Table 1 and are shown on Plate 2. The laboratory analysis report and Chain of Custody record are attached (Attachment B).

SOIL AND GROUNDWATER REMEDIATION

Air Sparge/Soil Vapor Extraction

The air sparge/soil vapor extraction (AS/SVE) system began operation on February 16, 1998. ERI assumed operation of the system on April 1, 2000. The AS/SVE system was shutdown on March 24, 2000, pending system evaluation. Cumulative operational and performance data are presented in Table 2.

The AS/SVE system consists of six AS wells, two SVE wells, a horizontal SVE trench, a moisture separator, a Sutorbuilt 100 standard cubic feet per minute (scfm) vacuum blower, a Gast AS compressor, and two 500-pound vapor-phase granular activated carbon (GAC) vessels.

Groundwater Extraction and Treatment

The groundwater remediation system (GRS) is designed to treat separate-phase and dissolved hydrocarbons in groundwater extracted from the groundwater extraction wells. Pneumatic pumps are utilized to extract groundwater from extraction wells EW1 through EW5. Subsurface and above-ground collection piping are used to transfer extracted groundwater to the treatment system. A transfer pump and polyvinyl chloride (PVC) piping are used to direct the water stream through sediment filters, and liquid-phase granular activated carbon (GAC) vessels connected in series. The treated groundwater is discharged to the sanitary sewer under an East Bay Municipal Utilities District (EBMUD) discharge permit.

The GRS system was shut down on March 24, 2000, pending system evaluation. Cumulative GRS flow rates, total volume extracted, and influent, intermediate, and effluent sample concentrations are presented in Table 3.

SUMMARY AND STATUS OF INVESTIGATION

The table below presents the estimated amounts of hydrocarbons removed by the AS/SVE system since the last reporting period and since startup.

Period	Pounds of Hydrocarbons Removed	Gallons of Hydrocarbons Removed
3/1/00 – 6/31/00	0	0
To Date	<60.8	<10

The table below presents the estimated amounts of hydrocarbons removed by the GRS since the last reporting period and since startup.

Period	Pounds of Hydrocarbons Removed	Gallons of Hydrocarbons Removed
3/1/00 – 6/31/00	0	0
To Date	29	5

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental practice in California at the time this investigation was performed. This report has been prepared for ExxonMobil, and any reliance on this report by third parties shall be at such party's sole risk.

ERI recommends forwarding copies of this report to:

Ms. Eva Chu
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

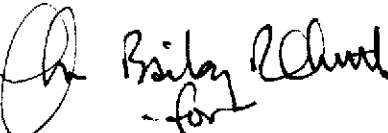
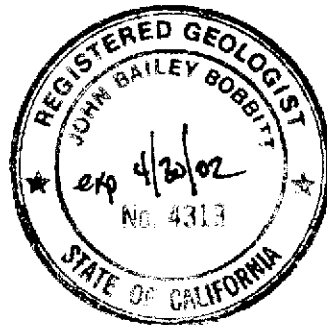
Mr. Stephen Hill
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Please call Mr. James Chappell at (415) 382-4323 with any questions regarding this project.

Sincerely,
Environmental Resolutions, Inc.



James F. Chappell
Senior Staff Scientist



Mark S. Dockum
R.G. 4412
C.E.G. 1675

- Attachments:
- Table 1: Cumulative Groundwater Monitoring and Sampling Data
 - Table 2: Cumulative Hydrocarbon Removal and Emissions for Soil Vapor Extraction System
 - Table 3: Operation and Performance Data for Groundwater Remediation System

 - Plate 1: Site Vicinity Map
 - Plate 2: Generalized Site Plan

 - Attachment A: Groundwater Sampling Protocol
 - Attachment B: Laboratory Analysis Reports and Chain of Custody Records
 - Attachment C: ERI SOP-25 "Hydrocarbons Removed from a Vadose Well"

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
(Page 2 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....ug/L.....>								
MW2 (16.67)	09/12/94	NLPH	6.71	9.96	31,000 ^a	---	4,400	120	1,700	2,100	---
	10/01/94	NLPH	7.22	9.45	45,000 ^a	---	4,500	250	1,800	2,400	---
	01/13/95	NLPH	4.46	12.21	---	---	---	---	---	---	---
	04/27/95	NLPH	6.92	9.75	44,000	---	7,000	840	2,400	3,400	---
	08/03/95	NLPH	6.96	9.71	30,000	37,000	4,600	170	1,600	1,100	---
	10/17/95	NLPH	7.83	8.84	45,000	14,000	5,400	190	2,000	1,500	---
	01/24/96	NLPH	6.45	10.22	30,000	4,100	5,000	810	2,200	2,200	---
	04/24/96	NLPH	6.00	10.67	34,000	22,000	8,700	410	2,200	2,000	---
	07/26/96	NLPH	7.14	9.53	40,000	18,000	10,000	<200	1,800	760	---
	10/30/96	NLPH	6.95	9.72	43,000	18,000	9,100	<250	2,400	730	---
	01/31/97	NLPH	5.07	11.60	28,000	8,000 ^c	2,400	630	1,500	3,300	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.34	9.33	18,000	2,600	2,900	82	1,500	530	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	4.46	12.21	29,000	28,000 ^e	5,600	410	1,500	720	---
	04/14/98	---	4.48	12.19	---	---	---	---	---	---	---
	07/30/98	NLPH	6.01	10.66	24,000	6,300	7,500	<200	1,300	280	---
	10/19/98	NLPH	6.35	10.32	---	---	---	---	---	---	---
	01/13/99	NLPH	6.54	10.13	18,400	2,200	4,750	211	1,760	45.3	---
	04/28/99	---	5.54	11.13	---	---	---	---	---	---	---
07/09/99	NLPH	6.45	10.22	14,100	3,410	4,270	80.1	1,300	339	---	
10/25/99	---	---	---	---	---	---	---	---	---	---	
01/21/00	---	---	---	---	---	---	---	---	---	---	
02/11/00	NLPH	---	---	<50	15	<1.0	<1.0	<1.0	<1.0	---	
04/14/00	NLPH	4.69	11.98	---	---	---	---	---	---	---	
MW3 (17.11)	09/12/94	NLPH	6.58	10.53	3,100 ^d	---	580	8	340	100	---
	10/01/94	NLPH	6.85	10.26	3,800 ^a	---	640	11	230	130	---
	01/13/95	NLPH	5.27	11.84	3,800 ^b	---	690	24	210	130	---
	04/27/95	NLPH	6.05	11.06	7,500	---	940	35	810	530	---
	08/03/95	NLPH	6.71	10.40	1,900	24	380	<5.0	140	45	---

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
(Page 3 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>				<.....ug/L.....>				
MW3 (cont.)	10/17/95	NLPH	7.46	9.65	6,100	<5.0	950	29	230	190	---
(17.11)	01/24/96	NLPH	5.83	11.28	3,000	<100	730	15	190	110	---
	04/24/96	NLPH	5.38	11.73	11,000	<100	1,200	130	1,000	1,400	---
	07/26/96	NLPH	6.80	10.31	2,500	250	800	16	24	56	---
	10/30/96	NLPH	7.20	9.91	5,200	2,900	1,300	28	170	180	---
	01/31/97	NLPH	4.31	12.80	---	---	---	---	---	---	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	---	---	---	---	---	---	---	---	---	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	4.03	13.08	---	---	---	---	---	---	---
	04/14/98	NLPH	3.80	13.31	---	---	---	---	---	---	---
	07/30/98	NLPH	5.84	11.27	---	---	---	---	---	---	---
	10/19/98	NLPH	6.25	10.86	---	---	---	---	---	---	---
	01/13/99	NLPH	6.14	10.97	---	---	---	---	---	---	---
	04/28/99	---	4.95	12.16	---	---	---	---	---	---	---
	07/09/99	---	---	---	---	---	---	---	---	---	---
	10/25/99	---	---	---	---	---	---	---	---	---	---
	01/21/00	---	---	---	---	---	---	---	---	---	---
	04/14/00	---	---	---	---	---	---	---	---	---	---
MW4	09/12/94	NLPH	6.80	10.54	5,200 ^a	---	900	57	310	490	---
(17.34)	10/01/94	NLPH	7.09	10.25	9,100 ^a	---	1,200	66	360	380	---
	01/13/95	NLPH	4.66	12.68	25,000 ^a	---	1,300	200	550	1,000	---
	04/27/95	NLPH	5.54	11.80	5,900	---	650	130	350	590	---
	08/03/95	NLPH	6.92	10.42	4,200	5,700	1,000	<12	170	140	---
	10/17/95	NLPH	7.50	9.84	6,900	1,700	1,300	30	360	380	---
	01/24/96	NLPH	5.81	11.53	6,300	830	1,900	46	290	330	---
	04/24/96	NLPH	5.44	11.90	5,000	1,600	1,800	<20	190	130	---
	07/26/96	NLPH	7.03	10.31	9,100	1,200	1,700	<25	340	280	---
	10/30/96	NLPH	7.57	9.77	5,300	1,500	1,100	35	420	300	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....ug/L.....>								
MW4(cont)	01/31/97	NLPH	4.22	13.12	6,500	40,000	1,200	28	490	130	---
(17.34)	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.56	9.78	10,000	11,000	1,100	120	470	720	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.70	13.64	1,700	4,900 ^f	450	6.8	220	73	---
	04/14/98	---	3.81	13.53	---	---	---	---	---	---	---
	07/30/98	NLPH	5.96	11.38	2,900	2,800	680	<10	220	56	---
	10/19/98	NLPH	6.51	10.83	---	---	---	---	---	---	---
	01/13/99	NLPH	6.24	11.10	2,140	1,800	146	<10	60.9	16.2	---
	04/28/99	---	4.80	12.54	---	---	---	---	---	---	---
	07/09/99	NLPH	6.04	11.30	1,300	1,310	322	<2.5	76.1	<2.5	---
	10/25/99	NLPH	6.51	10.83	---	---	---	---	---	---	---
	01/21/00	NLPH	5.75	11.59	2,200	1,000	410	3.70	40	14.4	---
	04/14/00	NLPH	4.39	12.95	---	---	---	---	---	---	---
MW5	09/12/94	NLPH	7.12	9.59	10,000 ^a	---	2,300	17	320	230	---
(16.71)	10/01/94	Sheen	7.06	9.65	11,000 ^a	---	2,300	19	220	200	---
	01/13/95	thickness of	4.85	11.86	---	---	---	---	---	---	---
	04/27/95	NLPH	6.51	10.20	14,000	---	2,200	72	540	350	---
	08/03/95	NLPH	7.24	9.47	<10,000	39,000	2,100	<100	210	<100	---
	10/17/95	NLPH	7.80	8.91	13,000	38,000	1,800	14	240	170	---
	01/24/96	NLPH	6.66	10.05	10,000	20,000	2,400	79	340	190	---
	04/24/96	NLPH	5.80	10.91	13,000	33,000	3,700	120	520	170	---
	07/26/96	NLPH	7.67	9.04	15,000	140,000	3,400	53	280	76	---
	10/30/96	NLPH	7.77	8.94	10,000	110,000 ^a	2,600	76	260	150	---
	01/31/97	NLPH	4.90	11.81	10,000	34,000 ^f	2,400	66	430	140	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.65	9.06	9,800	36,000/52,000 ^c	1,400	120	190	120	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.95	12.76	6,500	15,000 ^f	1,500	34	73	57	---

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 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
 (Page 5 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>			<.....ug/L.....>						
MW5(cont)	04/14/98	---	4.30	12.41	---	---	---	---	---	---	---
(16.71)	07/30/98	NLPH	5.86	10.85	8,300	4,300	1,700	26	110	66	---
	10/19/98	NLPH	6.20	10.51	---	---	---	---	---	---	---
	01/13/99	NLPH	6.37	10.34	4,780	3,650	1,240	11.1	< 10	< 10	---
	04/28/99	---	5.25	11.46	---	---	---	---	---	---	---
	07/09/99	NLPH	6.08	10.63	4,360	2,360	1,780	18.6	45	< 5.0	---
	10/25/99	NLPH	6.46	10.25	---	---	---	---	---	---	---
	01/21/00	NLPH	5.79	10.92	2,600	3,100	720	4.7	25	11.3	---
	04/14/00	NLPH	4.57	12.14	---	---	---	---	---	---	---
MW6	09/12/94	NLPH	6.88	10.68	1,500 ^a	---	150	4.4	170	85	---
(17.56)	10/01/94	NLPH	7.15	10.41	87 ^a	---	120	<0.5	99	38	---
	01/13/95	NLPH	4.80	12.76	9,900 ^a	---	710	220	780	1,100	---
	04/27/95	NLPH	6.14	11.42	3,900	---	340	40	460	320	---
	08/03/95	NLPH	6.83	10.73	1,100	65	89	<2.5	110	63	---
	10/17/95	NLPH	7.66	9.90	8,500	<5.0	410	74	850	110	---
	01/24/96	NLPH	5.86	11.70	31,000	<5.0	560	1,500	2,200	7,500	---
	04/24/96	NLPH	5.39	12.17	15,000	280	460	570	1,400	3,300	---
	07/26/96	NLPH	6.97	10.59	27,000	1,300	270	660	1,600	5,500	---
	10/30/96	NLPH	7.45	10.11	28,000	900	490	440	1,800	6,200	---
	01/31/97	NLPH	4.30	13.26	7,000	770	190	1,000	380	1,400	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.57	9.99	6,800	1,100	200	<50	300	860	---
	10/08/97	NLPH	7.48	10.08	51,000	580	870	7,300	2,600	12,000	700 ^c
	01/28/98	NLPH	3.74	13.82	15,000	2,400 ^c	650	2,300	900	2,700	---
	04/14/98	NLPH	3.92	13.64	25,000	2,100 ^c	850	3,300	1,200	4,300	---
	07/30/98	NLPH	6.09	11.47	5,900	910	270	65	500	630	---
	10/19/98	NLPH	6.56	11.00	---	---	---	---	---	---	---
	01/13/99	NLPH	6.35	11.21	3,150	422	204	107	297	304	---
	04/28/99	NLPH	4.89	12.67	15,300	436 ^c	1,270	980	1,100	3,320	436 ^c

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
 (Page 7 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....ug/L.....>								
MW8	09/12/94	NLPH	6.42	9.91	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
(16.33)	10/01/94	NLPH	6.62	9.71	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	01/13/95	NLPH	5.25	11.08	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.00	10.33	<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/03/95	NLPH	6.28	10.05	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/17/95	NLPH	6.93	9.40	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/24/96	NLPH	5.71	10.62	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	04/24/96	NLPH	5.52	10.81	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	07/26/96	NLPH	6.27	10.06	<50	230	<0.5	<0.5	<0.5	<0.5	---
	10/30/96	NLPH	6.69	9.64	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/31/97	NLPH	5.18	11.15	---	---	---	---	---	---	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	---	---	---	---	---	---	---	---	---	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	5.11	11.22	---	---	---	---	---	---	---
	04/14/98	NLPH	5.02	11.31	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	07/30/98	NLPH	5.84	10.49	<50	6.6	<0.5	<0.5	<0.5	<0.5	---
	10/19/98	NLPH	6.07	10.26	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	01/13/99	NLPH	5.59	10.74	<50	<2.0	<0.5	<0.5	<0.5	<0.5	---
	04/28/99	NLPH	5.38	10.95	<50	<0.5 ^e	<0.5	<0.5	<0.5	<0.5	ND
	07/09/99	NLPH	5.71	10.62	<50	3.01	<0.5	<0.5	<0.5	<0.5	---
	10/25/99	NLPH	6.15	10.18	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	01/21/00	NLPH	6.51	9.82	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	04/14/00	BROWN	5.54	10.79	<50	<1	<1	<1	<1	<1	---
MW9	09/12/94	NLPH	6.84	8.78	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
(15.62)	10/01/94	NLPH	6.97	8.65	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	01/13/95	NLPH	6.18	9.44	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.58	9.04	<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/03/95	NLPH	6.72	8.90	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....>	feet.....>	<.....>	ug/L.....>						
MW9(cont)	10/17/95	NLPH	7.09	8.53	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
(15.62)	01/24/96	NLPH	6.46	9.16	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	04/24/96	NLPH	6.43	9.19	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	07/26/96	NLPH	6.80	8.82	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	10/30/96	NLPH	6.94	8.68	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/31/97	NLPH	6.10	9.52	---	---	---	---	---	---	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	---	---	---	---	---	---	---	---	---	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	5.66	9.96	---	---	---	---	---	---	---
	04/14/98	---	---	---	---	---	---	---	---	---	---
	07/30/98	NLPH	6.17	9.45	---	---	---	---	---	---	---
	10/19/98	NLPH	6.40	9.22	---	---	---	---	---	---	---
	01/13/99	NLPH	6.28	9.34	---	---	---	---	---	---	---
	04/28/99	NLPH	5.87	9.75	<50	<0.5 ^e	<0.5	<0.5	<0.5	<0.5	ND
	07/09/99	NLPH	6.24	9.38	<50	<2.0	<0.5	<0.5	<0.5	<0.5	---
	10/25/99	NLPH	6.67	8.95	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	01/21/00	NLPH	6.93	8.69	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	04/14/00	TURBID	6.05	9.57	<50	<1	<1	<1	<1	<1	<1
MW10	09/12/94	NLPH	7.04	9.75	71 ^a	---	<0.5	<0.5	1.6	<0.5	---
(16.79)	10/01/94	NLPH	7.30	9.49	330 ^a	---	1.1	<0.5	2.8	0.73	---
	01/13/95	NLPH	6.04	10.75	90 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.66	10.13	140	---	<0.5	<0.5	5.4	1.3	---
	08/03/95	NLPH	7.23	9.56	150	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/17/95	NLPH	7.93	8.86	<50	95	<0.5	<0.5	<0.5	<0.5	---
	01/24/96	NLPH	6.43	10.36	760	24	1.6	0.52	62	28	---
	04/24/96	NLPH	6.42	10.37	110	6.8	<0.5	<0.5	7.1	<0.5	---
	07/26/96	NLPH	7.47	9.32	140	<5.0	<0.5	<0.5	12	0.86	---
	10/30/96	NLPH	7.88	8.91	<50	5.6	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....>	feet.....>	<.....>ug/L.....>						
MW10(cont) (16.79)	01/31/97	NLPH	5.88	10.91	<50	10	<0.5	<0.5	<0.5	<0.5	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.32	9.47	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	12/12/97	Well destroyed.									
MW11 (18.04)	10/17/95	NLPH	7.72	10.32	34,000	890	3,800	150	950	4,500	---
	01/24/96	NLPH	5.97	12.07	44,000	<500	3,800	1,200	2,100	9,800	---
	04/24/96	NLPH	5.84	12.20	34,000	720	2,900	1,400	1,700	8,300	---
	07/26/96	NLPH	6.98	11.06	39,000	800	4,600	4,200	950	9,500	---
	10/30/96	NLPH	7.54	10.50	53,000	990	4,200	3,600	2,100	9,600	---
	01/31/97	NLPH	5.00	13.04	23,000	310 ^c	170	2,500	940	4,300	---
	04/10/97	NLPH	---	---	29,000	200	1,200	440	970	6,400	---
	07/10/97	NLPH	7.30	10.74	42,000	690	1,700	870	1,900	12,000	---
	10/08/97	NLPH	7.62	10.42	42,000	1,100	1,700	2,500	1,400	9,900	1,300 ^f
	01/28/98	NLPH	4.77	13.27	35,000	6,800 ^c	2,400	3,500	1,700	7,900	---
	04/14/98	NLPH	4.68	13.36	15,000	1,200 ^c	1,700	250	500	2,000	---
	07/30/98	NLPH	6.33	11.71	24,000	1,700	1,600	560	1,000	4,300	---
	10/19/98	NLPH	6.65	11.39	29,000	1,700	1,200	2,500	920	4,900	---
	01/13/99	NLPH	6.42	11.62	50,900	1,920	2,210	6,440	2,030	10,600	---
	04/28/99	NLPH	5.30	12.74	59,400	2,390 ^c	3,790	4,260	1,790	2,970	2,390 ^c
07/09/99	NLPH	6.22	11.82	51,500	4,630	5,890	5,340	2,370	12,700	---	
10/25/99	NLPH	6.77	11.27	51,000	1,700	3,900	5,800	2,300	12,300	---	
01/21/00	NLPH	6.47	11.57	56,000	1,100	2,300	4,600	2,100	11,600	---	
04/14/00	NLPH	5.09	12.95	42,000	2,100	3,000	2,600	1,600	8,000	---	
MW12 (16.3)	10/17/95	NLPH	6.38	9.92	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/24/96	NLPH	4.86	11.44	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	04/24/96	NLPH	4.46	11.84	<50	<5.0	<0.5	0.68	<0.5	0.72	---
	07/26/96	NLPH	5.90	10.40	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<feet..... >		<ug/L..... >							

- Notes:
- SUBJ = Results of subjective evaluation, liquid-phase hydrocarbon thickness in feet.
 - TOC = Elevation of top of well casing; in feet above mean sea level.
 - DTW = Depth to water.
 - Elev. = Elevation of groundwater in feet above mean sea level.
 - TPPHg = Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA method 5030/8015 (modified).
 - MTBE = Methyl tertiary butyl ether analyzed using EPA method 8021B.
 - BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA method 8021B.
 - Oxygenated Compounds = Oxygenates compounds analyzed using EPA method 8260.
 - NLPH = No liquid-phase hydrocarbons.
 - * = MTBE confirmatory analysis performed using EPA method 8260.
 - = Not Sampled.
 - ug/L = Micrograms per liter.
 - < = Less than the stated laboratory method detection limit.
 - a = Total volatile hydrocarbons by DHS /LUFT Manual Method.
 - b = Results obtained from a 1:10 dilution analyzed on January 17, 1995.
 - c = Methyl tertiary butyl ether by EPA Method 8260 (GC/MS).

Data prior to second Quarter 2000 provided by Delta Environmental Consultants, Inc.

TABLE 2
 CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
 SOIL VAPOR EXTRACTION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
 (Page 1 of 3)

Date	Sample ID	Hour Mete	FIELD MEASUREMENTS					Laboratory Analytical Results		TPPHg Removal		Benzene Removal		Benzene
			Hours of Operation	Temp F	Press in H ₂ O	Flow cfm	PID ppmv	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds	Emission Rate lbs/day
2/16/98	System startup	1,583	0	---	---	---	---							
2/19/98	A-INF	1,652	69	---	---	48	---	< 2.4	< 0.031	---	< 0.1			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
3/3/98	A-INF	1,828	176	---	---	50	---	< 2.4	< 0.031	---	< 0.2			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
4/2/98	A-INF	2,184	356	---	---	52	---	< 2.4	< 0.031	---	< 0.5			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
5/4/98	A-INF	2,538	354	---	---	131	---	17	0.44	---	< 5.8			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
6/10/98	A-INF	2,940	402	---	---	131	---	12	0.047	---	< 10.0			
	A-INT			---	---		---	4.2	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
7/7/99	A-INF	2,940	0	---	---	131	---	76	2.6	---	< 10.0			
	A-INT			---	---		---	---	---					
	A-EFF			---	---		---	< 2.4	< 0.031					
8/4/98	A-INF	3,248	308	---	---	131	---	34	0.94	---	< 19.1			
	A-INT			---	---		---	8.8	0.27					
	A-EFF			---	---		---	10	< 0.031					
10/20/98	A-INF	3,249	1	---	---	131	---	210	6.0	---	< 19.3			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
11/9/98	A-INF	3,464	215	---	---	131	---	13	0.056	---	< 21.7			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
12/8/98	A-INF	3,798	334	---	---	131	---	3.1	0.034	---	< 22.7			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					

TABLE 2
 CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
 SOIL VAPOR EXTRACTION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Date	Sample ID	FIELD MEASUREMENTS						Laboratory Analytical Results		TPPHg Removal		Benzene Removal		Benzene
		Hour Mete	Hours of Operation	Temp F	Press in H ₂ O	Flow cfm	PID ppmv	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds	Emission Rate lbs/day
1/13/99	A-INF	4,264	466	---	---	131	---	12	< 0.031	---	< 27.5			
	A-INT			---	---		---	5.6	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
2/8/99	A-INF	4,600	336	---	---	131	---	< 12.1	< 0.16	---	< 31.1			
	A-INT			---	---		---	< 12.1	< 0.16					
	A-EFF			---	---		---	< 12.1	< 0.16					
3/8/99	A-INF	4,919	319	---	---	131	---	2.7	< 0.031	---	< 31.8			
	A-INT			---	---		---	< 2.4	< 0.031					
	A-EFF			---	---		---	< 2.4	< 0.031					
4/5/99	A-INF	4,957	38	---	---	131	---	42.6	0.474	---	< 33.3			
	A-INT			---	---		---	4.6	< 0.0314					
	A-EFF			---	---		---	< 2.84	< 0.0314					
5/6/99	A-INF	5,470	513	---	---	131	---	11.84	0.0872	---	< 38.6			
	A-INT			---	---		---	4.20	< 0.0314					
	A-EFF			---	---		---	4.71	< 0.0314					
5/26/99	A-INF	5,799	329	---	---	131	---	---	---	---	< 42.0			
	A-INT			---	---		---	18.03	< 0.031					
	A-EFF			---	---		---	11.98	< 0.031					
8/9/99	A-INF	5,799	0	---	---	118	---	240	1.60	---	< 42.0			
	A-INT			---	---		---	< 2.84	< 0.0314					
	A-EFF			---	---		---	< 2.84	< 0.0314					
9/7/99	A-INF	6,275	476	---	---	109	---	10.6	0.0403	---	< 45.7			
	A-INT			---	---		---	6.23	< 0.0314					
	A-EFF			---	---		---	3.74	< 0.0314					
10/12/99	A-INF	6,638	363	---	---	122	---	15	< 0.31	---	< 50.1			
	A-INT			---	---		---	< 2.8	< 0.31					
	A-EFF			---	---		---	< 2.8	< 0.31					
12/9/99	A-INF	6,686	48	---	---	109	---	82	1.0	---	< 53.0			
	A-INT			---	---		---	< 2.8	< 0.31					
	A-EFF			---	---		---	< 2.8	< 0.31					
2/8/00	A-INF	7,030	344	---	---	109	---	31	0.59	---	< 60.8			
	A-INT			---	---		---	< 2.8	< 0.31					
	A-EFF			---	---		---	< 2.8	< 0.31					
3/24/00	System shutdown pending evaluation													
4/1/00	Environmental Resolutions Inc., assumed operation of the system.													

TABLE 2
CUMULATIVE HYDROCARBON REMOVAL AND EMISSIONS FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
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Notes:

Data prior to April 1, 2000 provided by Delta Environmental Consultants, Inc.

A-INF	=	Influent vapor sample collected prior to biofilters.
A-INT1	=	Vapor sample collected after biofilters.
A-INT2	=	Vapor sample collected after 1st carbon vessel.
A-INT3	=	Vapor sample collected after 2nd carbon vessel.
A-EFF	=	Vapor sample collected from effluent sample port.
cfm	=	Cubic feet per minute.
ppmv	=	Parts per million by volume
mg/M ³	=	Milligrams per cubic meter.
---	=	Not sampled/not measured.

Removal rates are calculated using ERI SOP-25 "Hydrocarbons Removed from A Vadose Well".

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104

1725 park Street

Alameda, California

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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
			ug/L.....>					lbs.....>	lbs.....>	
10/10/94	1,331,420		W-INF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
12/2/94	1,392,010	0.8	W-INF	65	1.9	0.9	< 0.5	2.4	0.03	0.03	0.0006	0.0006	
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
1/13/95	1,415,980	0.4	W-INF	1,000	< 0.5	< 0.5	< 0.5	< 0.5	0.11	0.14	0.0002	0.0008	
			W-INT	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
2/23/95	1,494,030	1.3	W-INF	57	< 0.5	< 0.5	< 0.5	2.7	0.34	0.48	0.0003	0.0012	
			W-INT	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
3/14/95	---		W-INF	< 50	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	---	
			W-INT	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
4/14/95	1,513,240	0.3	W-INF	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.01	0.49	0.0001	0.0013	
			W-INT	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
5/18/95	1,714,850	4.1	W-INF	NS	---	---	---	---	---	---	---		
6/30/95	1,847,330	2.1	W-INF	1,700	480	23	66	180	2.44	2.93	0.6685	0.6697	
			W-INT	< 50	< 0.5	< 0.5	< 0.5	< 0.5					
			W-EFF	< 50	< 0.5	< 0.5	< 0.5	< 0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104
 1725 park Street
 Alameda, California
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
				ug/L						lbs		lbs	
7/12/95	1,908,730	3.6	W-INF	290	68	<2.0	2.4	5.6	0.51	3.44	0.1128	0.7825	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
8/9/95	2,027,830	3.0	W-INF	6,600	1,700	260	370	550	3.42	6.86	0.8768	1.6594	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
9/6/95	2,158,260	3.2	W-INF	120	17	0.84	1.0	3.0	3.65	10.51	0.9325	2.5919	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
10/11/95	2,215,310	1.1	W-INF	160	22	0.97	1.2	4.0	0.07	10.58	0.0093	2.6012	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
11/16/95	2,384,880	3.3	W-INF	120	4.9	<0.5	<0.5	5.9	0.20	10.77	0.0190	2.6202	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
12/14/95	2,453,200	1.7	W-INF	450	46	16	4.6	65	0.16	10.94	0.0145	2.6346	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
1/5/96	2,516,900	2.0	W-INF	240	26	2.4	1.2	20	0.18	11.12	0.0191	2.6537	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104

1725 park Street

Alameda, California

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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
2/14/96	2,680,160	2.8	W-INF	470	43	5.5	<0.5	55	0.48	11.60	0.0469	2.7006
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
3/12/96	2,767,820	2.3	W-INF	620	60	9.8	3.9	70	0.40	12.00	0.0376	2.7382
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
4/16/96	2,927,390	3.2	W-INF	790	120	27	8.8	120	0.94	12.94	0.1196	2.8578
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
5/7/96	2,971,100	1.4	W-INF	430	66	2.7	5	32	0.22	13.16	0.0339	2.8917
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
6/11/96	3,109,730	2.8	W-INF	2,900	470	120	19	410	1.92	15.08	0.3094	3.2011
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
7/9/96	3,232,330	3.0	W-INF	490	55	6.2	<0.5	110	1.73	16.81	0.2680	3.4691
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
8/8/96	3,365,060	3.1	W-INF	580	49	4.6	<1.0	75	0.59	17.40	0.0575	3.5266
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104

1725 park Street

Alameda, California

(Page 4 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
			ug/L.....					lbs.....	lbs.....	
9/5/96	---	---	W-INF	740	67	19	10	72	---	---	---	---	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
10/2/96	3,530,230	2.1	W-INF	980	130	39	7.8	130	1.07	18.48	0.1231	3.6497	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
11/8/96	3,657,370	2.4	W-INF	480	42	7.1	0.69	79	0.77	19.25	0.0911	3.7408	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
12/9/96	3,735,650	1.8	W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	0.17	19.42	0.0139	3.7546	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
1/21/97	3,735,730	0.0	W-INF	690	69	20	20	91	0.00	19.42	0.0000	3.7547	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
2/10/97	3,735,360	0.0	W-INF	860	100	24	1.4	160	---	---	---	---	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
3/20/97	3,843,430	2.0	W-INF	86	< 0.5	<0.5	<0.5	5.1	0.43	19.85	0.0452	3.7999	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104

1725 park Street

Alameda, California

(Page 5 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg <.....ug/L.....>	B	T	E	X	Per Period <.....lbs.....>	Cumulative	Per Period <.....lbs.....>	Cumulative	
4/3/97	3,918,650	3.7	W-INF	690	31	6.1	<5.0	89	0.24	20.09	0.0099	3.8098	
			W-INT	< 1,000	< 10	<10	<10	<10					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
5/7/97	4,092,720	3.6	W-INF	1,000	57	29	11	110	1.22	21.32	0.0638	3.8735	
			W-INT	< 50	1.1	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
6/11/97	4,144,600	1.0	W-INF	570	66	14	4.7	75	0.34	21.66	0.0266	3.9001	
			W-INT	< 50	0.57	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
6/25/97	4,273,310	---	W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5	---	---	---	---	
7/24/97	4,363,090	3.5	W-INF	470	25	8.8	3.7	49	0.95	22.60	0.0828	3.9829	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
8/4/97	4,408,100	2.8	W-INF	610	48	18	6.2	69	0.20	22.80	0.0137	3.9966	
			W-INT	< 50	0.76	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
10/21/97	4,496,810	0.8	W-INF	250	16	5.4	2.3	29	0.32	23.12	0.0236	4.0202	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
11/4/97	4,553,090	2.8	W-INF	510	22	9.8	13	60	0.18	23.30	0.0089	4.0291	
			W-INT	< 50	0.82	<0.5	<0.5	0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104
 1725 park Street
 Alameda, California
 (Page 6 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
			ug/L.....					lbs.....	lbs.....	
12/5/97	4,588,340	0.8	W-INF	79	1.5	<0.5	<0.5	53	0.09	23.39	0.0034	4.0326	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
1/8/98	4,625,400	0.8	W-INF	83	2.6	0.74	<0.5	5.4	0.03	23.41	0.0006	4.0332	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	0.58	<0.5	0.81	1.5					
3/3/98	4,662,470	0.5	W-INF	< 50	0.54	<0.5	<0.5	0.88	0.02	23.43	0.0005	4.0337	
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
4/2/98	4,702,760	0.9	W-INF	1,100	170	32	12	160	0.19	23.62	0.0286	4.0623	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
5/4/98	4,786,330	1.8	W-INF	1,000	140	23	8.5	150	0.73	24.36	0.1079	4.1702	
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
6/10/98	4,852,030	1.2	W-INF	670	110	16	7.6	74	0.46	24.81	0.0684	4.2386	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
7/7/98	4,951,910	2.6	W-INF	690	91	13	6.3	55	0.57	25.38	0.0836	4.3222	
			W-INT	< 200	< 2.0	<2.0	<2.0	<2.0					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104
 1725 park Street
 Alameda, California
 (Page 7 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg <.....ug/L.....>	B	T	E	X	Per Period <.....lbs.....>	Cumulative	Per Period <.....lbs.....>	Cumulative	
8/4/98	5,039,980	2.2	W-INF	230	36	6.4	2.5	17	0.34	25.72	0.0466	4.3688	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
9/3/98	5,080,850	0.9	W-INF	280	13	2.0	6.4	21	0.09	25.80	0.0083	4.3771	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
10/20/98	NM		W-INF	740	43	54	25	110	---	---	---	---	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
11/9/98	5,232,360	1.6	W-INF	300	37	10	8.4	43	0.37	26.17	0.0315	4.4086	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
12/8/98	5,284,180	1.2	W-INF	700	82	25	13	100	0.22	26.38	0.0257	4.4343	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					
1/13/99	5,377,930	1.8	W-INF	1,030	155	46.5	52.7	73.3	0.68	27.06	0.0925	4.5268	
			W-INT	< 500	< 5.0	<5.0	<5.0	<5.0					
			W-EFF	< 500	< 5.0	<5.0	<5.0	<5.0					
2/8/99	5,441,820	1.7	W-INF	260	31	9.0	2.4	33	0.34	27.40	0.0495	4.5763	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5					
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5					

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104

1725 park Street

Alameda, California

(Page 8 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
			ug/L.....					lbs.....	lbs.....	
3/8/99	5,509,090	1.7	W-INF	800		87	16	8.5	140	0.30	27.70	0.0331	4.6094
			W-INT	< 50	<	0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	<	0.5	<0.5	<0.5	<0.5				
4/5/99	5,571,890	1.6	W-INF	< 500		36.6	12.2	5.84	20.9	0.34	28.04	0.0323	4.6417
			W-INT	< 500	<	5.0	<5.0	<5.0	<5.0				
			W-EFF	< 500	<	5.0	<5.0	<5.0	<5.0				
5/6/99	5,621,560	1.1	W-INF	310		45	6.0	0.86	41	0.17	28.21	0.0169	4.6586
			W-INT	< 50	<	0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	<	0.5	<0.5	<0.5	<0.5				
6/7/99	5,706,250	1.8	W-INF	< 250		24.8	<2.5	<2.5	8.74	0.20	28.40	0.0246	4.6832
			W-INT	< 100	<	1.0	<1.0	<1.0	<1.0				
			W-EFF	< 250	<	2.5	<2.5	<2.5	<2.5				
7/28/99	5,805,010	1.3	W-INF	< 100		7.00	<1.0	2.40	6.40	0.14	28.55	0.0131	4.6963
			W-INT	< 50	<	0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	<	0.5	<0.5	<0.5	<0.5				
8/9/99	5,849,280	2.6	W-INF	< 500		17.1	5.88	<5.0	26.8	0.11	28.66	0.0044	4.7007
			W-INT	< 250	<	2.5	<2.5	<2.5	<2.5				
			W-EFF	< 250	<	2.5	<2.5	<2.5	<2.5				
9/7/99	5,880,860	0.8	W-INF	< 500		20.4	<5.0	<5.0	31.1	0.13	28.79	0.0049	4.7057
			W-INT	< 50	<	0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	<	0.5	<0.5	<0.5	<0.5				

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

Former Exxon Service Station 7-0104
 1725 park Street
 Alameda, California
 (Page 9 of 10)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative	
				<.....ug/L.....>						<.....lbs.....>		<.....lbs.....>	
10/12/99	5,966,690	1.7	W-INF	100	2	<1.0	<1.0	<1.0		0.21	29.00	0.0080	4.7137
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0					
11/18/99	5,971,540	0.1	W-INF	660	66	7.8	5.6	57		0.02	29.02	0.0014	4.7150
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0					
12/9/99	5,992,780	0.7	W-INF	200	28	3.2	2.2	22.4		0.08	29.10	0.0083	4.7233
			W-INT1	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-INT2	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0					
1/10/00	6,035,690	0.9	W-INF	120	11	1.8	1.5	14.5		0.06	29.15	0.0070	4.7303
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0					
2/8/00	6,055,000	0.5	W-INF	130	14	<1.0	<1.0	11.9		0.02	29.17	0.3530	5.0833
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0					
3/24/00	6,080,125	0.4	System shutdown pending evaluation										
3/28/00	6,080,360	0.0	W-INF	< 50	< 1.0	<1.0	<1.0	<1.0		0.02	29.19	0.0016	5.0849
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0					
			W-EFF	< 67	< 1.0	<1.0	<1.0	<1.0					
3/28/00	System shutdown upon departure.												
4/1/00	Environmental Resolutions, Inc. assumed operation of the remediation system.												

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
GROUNDWATER REMEDIATION SYSTEM

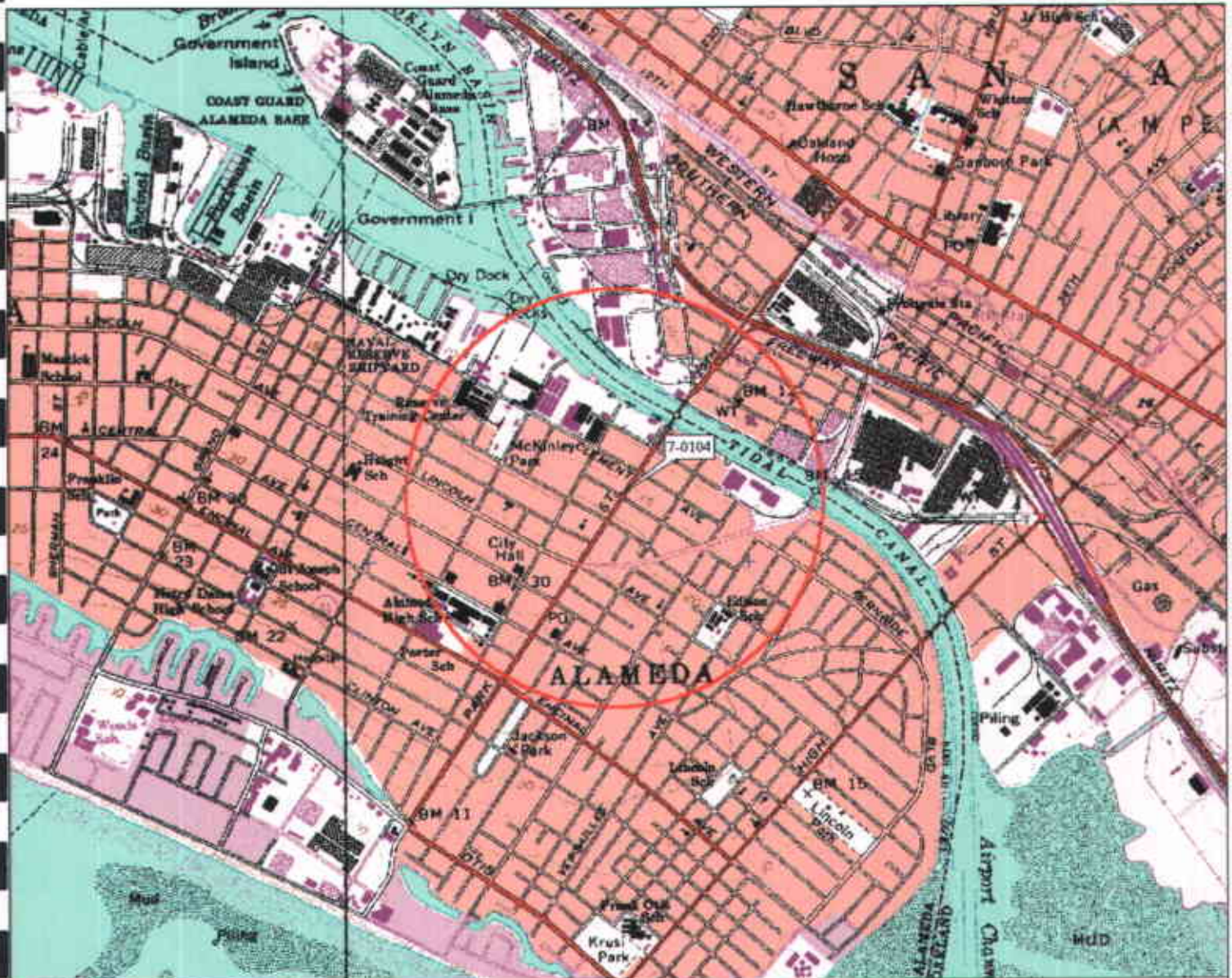
Former Exxon Service Station 7-0104

1725 park Street
Alameda, California

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Notes: Data prior to April 1, 2000 provided by Delta Environmental Consultants, Inc.

W- INF	=	Water sample collected at the influent sample location.
W-INT	=	Water sample collected at the intermediate sample location.
W-EFF	=	Water sample collected at the effluent sample location (EBMUD sample location SS#1).
gal	=	Gallons.
gpm	=	Gallons per minute.
ug/L	=	Micrograms per liter.
lbs	=	Pounds.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline.
B	=	Benzene.
T	=	Toluene.
E	=	Ethylbenzene.
X	=	Total Xylenes.
<	=	Less than the laboratory method detection limit as indicated.
--	=	Not measured/sampled/analyzed.



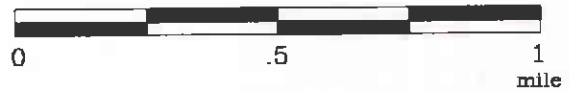
3-D TopoQuads Copyright © 1999 DeLorme, Bethel, ME 04901 Source Data: USGS 1:50,000 Scale 1:25,000 Detail 1:4,000 Edition: WQ204

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE



SOURCE:
Modified from a map
provided by
DeLorme 3-D TopoQuads



SITE VICINITY MAP

FORMER EXXON SERVICE STATION 7-0104
1725 Park Street
Alameda, California

PROJECT NO.

2506

PLATE

1

Gradient and flow direction may be affected by ongoing AS/SVE and groundwater extraction.



Groundwater Concentrations in ug/L
Sampled April 14, 2000

42,000 Total Purgeable Petroleum Hydrocarbons as gasoline
2,100 Methyl Tertiary Butyl Ether
3,000 Benzene
2,800 Toluene
1,800 Ethylbenzene
8,000 Total Xylenes
< Less Than the Stated Laboratory Detection Limit
ug/L Micrograms per Liter
NS Not Sampled



SOURCE: Modified from a map provided by Delta Environmental Consultants

FN 2506002A



GENERALIZED SITE PLAN
FORMER
EXXON SERVICE STATION 7-0104
1725 Park Street
Alameda, California

EXPLANATION	
	Groundwater Monitoring Well
	Destroyed Groundwater Monitoring Well
	Vapor Extraction Well
	Recovery Well
	Air Sparge

PROJECT NO.	2506
PLATE	2
	June 2, 2000

ATTACHMENT A
GROUNDWATER SAMPLING PROTOCOL

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT EXXON STATIONS

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for Exxon comply with Exxon's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Exxon site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist. Each wellcap is removed prior to gauging to allow the water level to equilibrate for at least 15 minutes.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). If sheen or product is found in a well, the Project Coordinator notifies the appropriate party (e.g. Exxon employee or consultant).

No samples are collected from a well containing sheen or product.

EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading documentation to a

Blaine Tech Services, Inc. facility before being transported to an Exxon approved disposal facility (e.g. Romic Environmental Technologies Corporation in East Palo Alto, California).

SAMPLE COLLECTION DEVICES

All samples are collected using a disposable bailer.

SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

TRIP BLANKS

A Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 58 or equivalent YSI meter). These meters are equipped with a YSI stirring device that enables them to collect accurate in-situ readings. The probe/stirring devices are modified to allow downhole measurements to be taken from wells as small as two-inch diameter.

The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe and stirrer is lowered into the water column allowed to stabilize before use.

OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

ATTACHMENT B
LABORATORY ANALYSIS REPORTS
AND CHAIN OF CUSTODY RECORDS



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
(713) 660-0901

Case Narrative for:
EXXON Company U.S.A.

Certificate of Analysis Number:
00040479

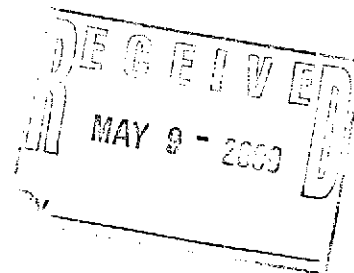
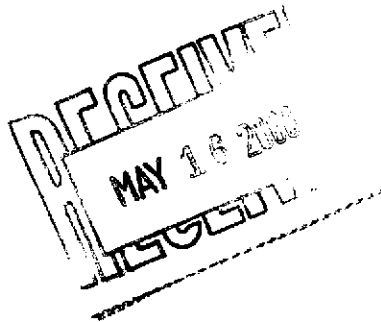
Report To: Delta Environmental Consultants, Inc. Steven Meeks 3164 Gold Camp Drive, Suite 200 Rancho Cordova California 95670- ph: (916) 638-2765 fax: (916) 638-8385	Project Name: Site: 7-0104,19908579 Site Address: 1725 Park St. Alameda CA PO Number: EWR#20003876 State: California State Cert. No.: Date Reported:
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Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.



Sonia West
West, Sonia
Senior Project Manager

4/28/00

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 660-0901

EXXON Company U.S.A.

Certificate of Analysis Number:

00040479

Report To: Delta Environmental Consultants, Inc. Steven Meeks 3164 Gold Camp Drive, Suite 200 Rancho Cordova California 95670- ph: (916) 638-2765 fax: (916) 638-8385	Project Name: Site: 7-0104,19908579 Site Address: 1725 Park St. Alameda CA PO Number: EWR#20003876 State: California State Cert. No.: Date Reported:
Fax To: Delta Environmental Consultants, Inc. Steven Meeks fax: (916) 638-8385	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
V-6	00040479-01	Water	4/14/00 2:35:00 PM	4/18/00 10:00:00 AM		<input type="checkbox"/>
V-8	00040479-02	Water	4/14/00 2:00:00 PM	4/18/00 10:00:00 AM		<input type="checkbox"/>
VW-9	00040479-03	Water	4/14/00 2:15:00 PM	4/18/00 10:00:00 AM		<input type="checkbox"/>
V-11	00040479-04	Water	4/14/00 2:50:00 PM	4/18/00 10:00:00 AM		<input type="checkbox"/>
T Blank	00040479-05	Water	4/14/00	4/18/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

4/28/00

est, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 660-0901

Client Sample ID MW-6 Collected: 4/14/00 2:35:00 SPL Sample ID: 00040479-01

Site: 7-0104,19908579

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA GRO	Units: ug/L		
Gasoline Range Organics	13000	1200	25		04/25/00 1:11	D_R	257976
Surr: 1,4-Difluorobenzene	92.5	% 62-144	25		04/25/00 1:11	D_R	257976
Surr: 4-Bromofluorobenzene	99.2	% 44-153	25		04/25/00 1:11	D_R	257976
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	440	25	25		04/25/00 1:11	D_R	257941
Ethylbenzene	840	25	25		04/25/00 1:11	D_R	257941
Methyl tert-butyl ether	420	25	25		04/25/00 1:11	D_R	257941
Toluene	630	25	25		04/25/00 1:11	D_R	257941
m,p-Xylene	2400	25	25		04/25/00 1:11	D_R	257941
o-Xylene	600	25	25		04/25/00 1:11	D_R	257941
Xylenes, Total	3000	25	25		04/25/00 1:11	D_R	257941
Surr: 1,4-Difluorobenzene	105	% 72-137	25		04/25/00 1:11	D_R	257941
Surr: 4-Bromofluorobenzene	106	% 48-156	25		04/25/00 1:11	D_R	257941

Sonia West

West, Sonia
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL



Client Sample ID MW-8 Collected: 4/14/00 2:00:00 SPL Sample ID: 00040479-02

Site: 7-0104,19908579

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		04/25/00 1:40	D_R	257977
Surr: 1,4-Difluorobenzene	97.0	% 62-144	1		04/25/00 1:40	D_R	257977
Surr: 4-Bromofluorobenzene	101	% 44-153	1		04/25/00 1:40	D_R	257977
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	1	1		04/25/00 1:40	D_R	257942
Ethylbenzene	ND	1	1		04/25/00 1:40	D_R	257942
Methyl tert-butyl ether	ND	1	1		04/25/00 1:40	D_R	257942
Toluene	ND	1	1		04/25/00 1:40	D_R	257942
m,p-Xylene	ND	1	1		04/25/00 1:40	D_R	257942
o-Xylene	ND	1	1		04/25/00 1:40	D_R	257942
Xylenes, Total	ND	1	1		04/25/00 1:40	D_R	257942
Surr: 1,4-Difluorobenzene	102	% 72-137	1		04/25/00 1:40	D_R	257942
Surr: 4-Bromofluorobenzene	99.8	% 48-156	1		04/25/00 1:40	D_R	257942

Sonia West

West, Sonia
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL



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 (713) 660-0901

Client Sample ID MW-9

Collected: 4/14/00 2:15:00 SPL Sample ID: 00040479-03

Site: 7-0104,19908579

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		04/25/00 2:09	D_R	257978
Surr: 1,4-Difluorobenzene	94.1	% 62-144	1		04/25/00 2:09	D_R	257978
Surr: 4-Bromofluorobenzene	102	% 44-153	1		04/25/00 2:09	D_R	257978
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	1	1		04/25/00 2:09	D_R	257943
Ethylbenzene	ND	1	1		04/25/00 2:09	D_R	257943
Methyl tert-butyl ether	ND	1	1		04/25/00 2:09	D_R	257943
Toluene	ND	1	1		04/25/00 2:09	D_R	257943
m,p-Xylene	ND	1	1		04/25/00 2:09	D_R	257943
o-Xylene	ND	1	1		04/25/00 2:09	D_R	257943
Xylenes, Total	ND	1	1		04/25/00 2:09	D_R	257943
Surr: 1,4-Difluorobenzene	104	% 72-137	1		04/25/00 2:09	D_R	257943
Surr: 4-Bromofluorobenzene	100	% 48-156	1		04/25/00 2:09	D_R	257943

Sonia West

West, Sonia
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution



Client Sample ID MW-11

Collected: 4/14/00 2:50:00 SPL Sample ID: 00040479-04

Site: 7-0104,19908579

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	42000	2500	50		04/25/00 2:37	D_R	257979
Surr: 1,4-Difluorobenzene	91.8	% 62-144	50		04/25/00 2:37	D_R	257979
Surr: 4-Bromofluorobenzene	97.8	% 44-153	50		04/25/00 2:37	D_R	257979
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	3000	50	50		04/25/00 2:37	D_R	257944
Ethylbenzene	1600	50	50		04/25/00 2:37	D_R	257944
Methyl tert-butyl ether	2100	50	50		04/25/00 2:37	D_R	257944
Toluene	2600	50	50		04/25/00 2:37	D_R	257944
m,p-Xylene	5900	50	50		04/25/00 2:37	D_R	257944
o-Xylene	2100	50	50		04/25/00 2:37	D_R	257944
Xylenes,Total	8000	50	50		04/25/00 2:37	D_R	257944
Surr: 1,4-Difluorobenzene	102	% 72-137	50		04/25/00 2:37	D_R	257944
Surr: 4-Bromofluorobenzene	105	% 48-156	50		04/25/00 2:37	D_R	257944

Sonia West

West, Sonia
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution



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 6880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 680-0901

Client Sample ID Trip Blank Collected: 4/14/00 SPL Sample ID: 00040479-05

Site: 7-0104,19908579

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		04/25/00 3:05	D_R	257980
Surr: 1,4-Difluorobenzene	92.3	% 62-144	1		04/25/00 3:05	D_R	257980
Surr: 4-Bromofluorobenzene	101	% 44-153	1		04/25/00 3:05	D_R	257980
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	1	1		04/25/00 3:05	D_R	257945
Ethylbenzene	ND	1	1		04/25/00 3:05	D_R	257945
Methyl tert-butyl ether	ND	1	1		04/25/00 3:05	D_R	257945
Toluene	ND	1	1		04/25/00 3:05	D_R	257945
m,p-Xylene	ND	1	1		04/25/00 3:05	D_R	257945
o-Xylene	ND	1	1		04/25/00 3:05	D_R	257945
Xylenes,Total	ND	1	1		04/25/00 3:05	D_R	257945
Surr: 1,4-Difluorobenzene	102	% 72-137	1		04/25/00 3:05	D_R	257945
Surr: 4-Bromofluorobenzene	100	% 48-156	1		04/25/00 3:05	D_R	257945

Sonia West

West, Sonia
 Project Manager

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Surrogate Recovery Outside Advisable QC Limits
 J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)
 D - Surrogate Recovery Unreportable due to Dilution

Quality Control Documentation



Quality Control Report
 EXXON Company U.S.A.

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00040479
 Lab Batch ID: R12840

Method Blank

Samples in Analytical Batch:

RunID: HP_S_000424A-257706 Units: ug/L
 Analysis Date: 04/24/2000 12:23 Analyst: D_R

Lab Sample ID	Client Sample ID
00040479-01A	MW-6
00040479-02A	MW-8
00040479-03A	MW-9
00040479-04A	MW-11
00040479-05A	Trip Blank

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Methyl tert-butyl ether	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	1.0
o-Xylene	ND	1.0
Xylenes, Total	ND	1.0
Surr: 1,4-Difluorobenzene	101.2	72-137
Surr: 4-Bromofluorobenzene	100.8	48-156

Laboratory Control Sample (LCS)

RunID: HP_S_000424A-257705 Units: ug/L
 Analysis Date: 04/24/2000 11:15 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	53	106	61	119
Ethylbenzene	50	53	107	70	118
Methyl tert-butyl ether	50	46	93	72	128
Toluene	50	53	106	65	125
m,p-Xylene	100	110	107	72	116
o-Xylene	50	53	105	72	117
Xylenes, Total	150	163	109	72	117

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00040478-01
 RunID: HP_S_000424A-257938 Units: ug/L
 Analysis Date: 04/24/2000 21:45 Analyst: D_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	23	114	20	22	108	5.80	21	32	164
Ethylbenzene	ND	20	21	106	20	21	103	2.66	19	52	142
Methyl tert-butyl ether	5.3	20	27	111	20	28	114	2.24	20	39	150
Toluene	ND	20	22	110	20	22	108	2.23	20	38	159

Qualifiers: ND/U - Not Detected at the Reporting Limit * - Recovery Outside Advisable QC Limits
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 660-0901

Quality Control Report
 EXXON Company U.S.A.

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00040479
 Lab Batch ID: R12840

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00040478-01
 RunID: HP_S_000424A-257938 Units: ug/L
 Analysis Date: 04/24/2000 21:45 Analyst: D_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
m-Xylene	ND	40	43	106	40	42	104	2.32	17	53	144
o-Xylene	ND	20	23	113	20	22	112	1.31	18	53	143
Xylenes, Total	ND	60	66	110	60	64	107	3.08	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit * - Recovery Outside Advisable QC Limits
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL



Quality Control Report
 EXXON Company U.S.A.

Analysis: Gasoline Range Organics
 Method: CA_GRO

WorkOrder: 00040479
 Lab Batch ID: R12841

Method Blank

Samples in Analytical Batch:

RunID: HP_S_000424B-257713 Units: mg/L
 Analysis Date: 04/24/2000 12:23 Analyst: D_R

Lab Sample ID	Client Sample ID
00040479-01A	MW-6
00040479-02A	MW-8
00040479-03A	MW-9
00040479-04A	MW-11
00040479-05A	Trip Blank

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	94.0	62-144
Surr: 4-Bromofluorobenzene	99.7	44-153

Laboratory Control Sample (LCS)

RunID: HP_S_000424B-257712 Units: mg/L
 Analysis Date: 04/24/2000 11:44 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.91	91	64	131

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 00040478-02
 RunID: HP_S_000424B-257985 Units: mg/L
 Analysis Date: 04/24/2000 22:44 Analyst: D_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.58	64.8	0.9	0.6	66.4	2.44	36	36	160

Qualifiers: ND/U - Not Detected at the Reporting Limit * - Recovery Outside Advisable QC Limits
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

00040479

Exxon Engineer: Marla Guenler Phone: (925) 246-8776
 Consultant Co. Name: Delta Environmental Contact: Steve Meeks
 Address: 3624 Gold Camp Rd. Phone: (916) 536-2613
Rancho Cordova, CA Fax: (916) 638-8385

HAS #: 7-0104 Facility/State ID # (TN Only): _____

AFE # (Terminal Only): _____ Consultant Project # _____

Location: 1725 Park St. (City): Alameda (State): CA
 EE C & M

Consultant Work Release #: 19908579 BTS# 000414-J2

Sampled By: Blaine Tech Services, Inc./ Print Name: _____

ANALYSIS REQUEST:
(CHECK APPROPRIATE BOX)

OTHER

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	BTX 8020 WITH MTBE <input checked="" type="checkbox"/> 602 <input type="checkbox"/>	PURGEABLE HALO-CARBON 8010 <input type="checkbox"/> 601 <input type="checkbox"/>	TPH/IR 413.1 <input type="checkbox"/>	O & G IR 413.1 <input type="checkbox"/> GRAV. 413.2 <input type="checkbox"/>	TPH/GC 8015 GRO <input checked="" type="checkbox"/> 8015 DRO <input type="checkbox"/>	VOL 8240 <input type="checkbox"/> 624 <input type="checkbox"/>	SEMI-VOL 8270 <input type="checkbox"/> 625 <input type="checkbox"/>	PNA/PAH 8100 <input type="checkbox"/> 8310 <input type="checkbox"/> 8270 <input type="checkbox"/>	PCB / PEST 8080 <input type="checkbox"/> PCB ONLY <input type="checkbox"/>	TCDF/PCDD VOAD SEMI-VOAD PESTO HERBIC <input type="checkbox"/>	METALS, TOTAL <input type="checkbox"/> METALS, TCLP <input type="checkbox"/>	LEAD, TOTAL 239.1 <input type="checkbox"/> 7421 <input type="checkbox"/> LEAD, TCLP <input type="checkbox"/>	TOX/COH <input type="checkbox"/>	REACTIVITY <input type="checkbox"/> CORROSION <input type="checkbox"/> IGNITABILITY <input type="checkbox"/>	STATE	
					H ₂ O	SOIL	AIR																				
MW-6	4-14	1435			X				HCL	3		X			X												CA
MW-8		1400			X					1		X			X												
MW-9		1415			X					1		X			X												
MW-11		1450			X					1		X			X												
TD		-			X					2		X			X												

TAT
 24 HR. _____ * 72 HR. _____
 48 HR. _____ * 96 HR. _____
 Standard * Contact US Prior to Sending Sample
 Other _____

EXXON UST
 CONTRACT NO.
 S02317M01

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

LAB USE ONLY LOT # 3 Storage Location

QA/QC Level
 Standard CLP Other

FAX FAX C-O-C W / REPORT

WORK ORDER #: 00040479 LAB WORK RELEASE #:

CUSTODY RECORD	Relinquished By Sampler: _____	Date _____ Time _____	Received By: _____
	Relinquished By Sampler: _____	Date _____ Time _____	Received By: _____
	Relinquished By Sampler: _____	Date _____ Time _____	Received By Laboratory: <u>9/18/00</u> Way Bill #: <u>Blaine Tech Services</u> Code Temp: <u>1000</u>



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
(713) 660-0901

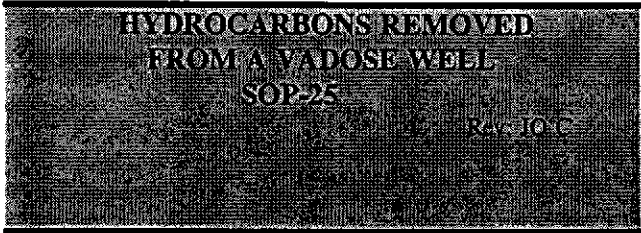
Sample Receipt Checklist

Workorder: 00040479
Date and Time Received: 4/18/00 10:00:00 AM
Temperature: 3

Received by: Stelly, D'Anna
Carrier name: FedEx

-
- | | | | |
|---|---|-----------------------------|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
-

ATTACHMENT C
ERI SOP-25 "HYDROCARBONS REMOVED
FROM A VADOSE WELL"



Rev. 4/29/97

POUNDS OF HYDROCARBON IN AN VAPOR STREAM

INPUT DATA:

- 1) Vapor flow rate acfm (usually by Pitot tube)
- 2) Vapor pressure at the flow measuring device (in inches of H₂O) (use {-} for vacuum)
- 3) Vapor temperature at the flow measuring device.
- 4) Hydrocarbon content of vapor (usually in mg/M³) for ppmv you need molecular weight.
- 5) Length of time (usually hours) over which flow rate occurred)

From periodic measurements, a calculation of total pounds of hydrocarbons removed from a well or from a system are calculated. The input data listed above are measured at a point in time. To calculate quantities removed, some assumptions must be made about what was happening between measurements. The following assumptions will be used for the sake of consistency:

ASSUMPTIONS:

- 1) Vapor flow for the period equals the average of the initial and final reading for the period.
- 2) Pressure and temperature for the entire period will be the final reading.
- 3) Hydrocarbon concentration for the period equals the average of the initial and final reading.
- 4) The hours of operation can be taken from an hour meter, an electric meter or will be assumed to be equal to the time between measurements.
- 5) If the unit is found down - try to determine how many hours it did operate and use the data taken for the previous period to make the calculations. Restart the unit and then take data to start the next period.

SAMPLE DATA AND CALCULATIONS

Date	Time	Temp deg F	Press in H ₂ O	HC conc mg/M ³ acfm	Vapor flow lb. rem.	Calc.
1/6/95	11:00	70	-46	2000	120	
1/7/95	13:00	55	-50	1350	90	
1/8/95	10:00	80	-13	750	100	7.4

Calculate the pounds of hydrocarbon removed from the system during the basis period from 13:00 (1:00 pm) on the 7th to 10 am on the 8th. Pressure and temperature of the measurements (at the flow meter) must be corrected to the P and T used to report the HC concentration (which are P = 1 atm and T = 70 deg F). 1 atm = 14.7psia, 760 mm Hg, or 407 in H₂O. T_{abs} = 460 + T deg F

Hours of operation = 21, T = 80, P = -13, HC = (1350+750)/2 = 1050 mg/M³. Flow = 95

$$\begin{aligned}
 & 21 \text{ hr} \times 60 \text{ min} \times 95 \text{ cu ft} \times \frac{(460+70)}{(460+80)} \times \frac{(407-13)}{407} \times \frac{28.3}{1000} \times \frac{1050}{1000} \times \frac{1}{454} = 7.4 \text{ lb} \\
 & \frac{\text{hr}}{\text{basis}} \times \frac{\text{min}}{\text{hr}} \times \frac{\text{cu ft}}{\text{min}} \times T_{\text{Corr}} \times P_{\text{Corr}} \times \frac{\text{M}^3}{\text{cu ft}} \times \frac{\text{g}}{\text{M}^3} \times \frac{\text{lb}}{\text{g}} = \frac{\text{lb}}{\text{basis}}
 \end{aligned}$$

21 x 60 x 95 x 0.98 x 0.97 x 0.0283 x 1.050 x 1/454 = 7.4 lb.
 cumulative lbs. (the running total) = the sum of all the previous periods.

Note: If results are given in ppm, an assumption about the molecular weight of the hydrocarbon must be made to get mg/M³. ppmv x molecular wt. /24.1 = mg/M³. (Use 102 for gasoline)