

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

Darin L. Rouse
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Environmental Remediation

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ExxonMobil
Refining & Supply

January 8, 2001

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.

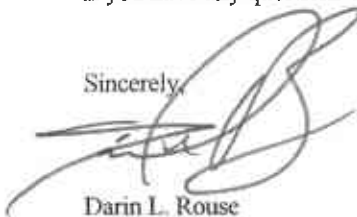
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ENVIRONMENTAL
PROTECTION

Dear Ms. Chu:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring and Remediation Status Report, Fourth Quarter 2000*, dated December 20, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and presents the results of 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, Fourth Quarter 2000, dated December 20, 2000.

cc: w/ attachment
Mr. Stephen Hill, California Regional Water Quality Control Board, San Francisco Bay Region
Mr. Winson B. Low, Environmental Safety and Affairs Department

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

1/23/01 - Per Jim Chappell, TPHd was detected in MW-11 at 1600ppb in Jan 2001. However, QA/QC had blank + other wells w/ < 100ppb TPHd. He will try to run for TPHd again, in next sampling event.



December 20, 2000
ERI 250611.R02

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

Subject: Quarterly Groundwater Monitoring and Remediation Status Report, Fourth 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) performed the fourth 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).

GROUNDWATER MONITORING AND SAMPLING

On October 3, 2000, ERI 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 ERI's groundwater sampling protocol (Attachment A).

Historical and recent monitoring data are summarized in Table 1. Due to ongoing soil and groundwater remediation, the hydraulic 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).

Site plan only show 3 AS wells (AS1, SW1, SM1)
2 VW wells (VW1, VW2)

Mw-1, Mw-3, Mw-2 also
have air sponge unit

Since the modified system, it appears more
HC are being extracted. What changes were
made to system?

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. At the completion of retrofit activities, the system resumed operation on June 28, 2000. Operational and performance data collected by ERI 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. ERI's standard operating procedure for calculating pounds of hydrocarbons in air stream is attached (Attachment D).

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 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 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 TPPHg removed by the AS/SVE system since the last reporting period and since startup.

Period	Pounds of Hydrocarbons Removed	Gallons of Hydrocarbons Removed
7/11/00 - 10/2/00	18.3	3
To Date	< 79.2	< 13

The table below presents the estimated amounts of hydrocarbons removed by the GRS since startup.

Period	Pounds of Hydrocarbons Removed	Gallons of Hydrocarbons Removed
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

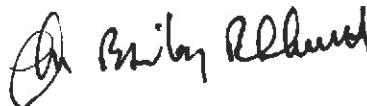
Mr. Winson B. Low
Environmental and Safety Affairs Department
One Valero Place, MS-06E
San Antonio, Texas 78212

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

Sincerely,
Environmental Resolutions, Inc.



James F. Chappell
Assistant Project Manager



John B. Bobbitt
R.G. 4313



- 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: AS/SVE System Operation Data From Previous Consultants
 - Attachment D: 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 1 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....ug/L.....>								
MW1	09/12/94	NLPH	7.11	10.24	1,600 ^a	---	200	1.9	210	6.6	---
(17.35)	10/01/94	NLPH	7.44	9.91	1,400 ^a	---	200	<0.5	160	6.6	---
	01/13/95	NLPH	5.13	12.22	2,100 ^a	---	410 ^b	17	280 ^b	89	---
	04/27/95	NLPH	6.57	10.78	4,700	---	460	41	340	270	---
	08/03/95	NLPH	7.46	9.89	1,900	30	140	<5.0	160	9.9	---
	10/17/95	NLPH	7.67	9.68	280	5.5	6.2	<0.5	13	0.75	---
	01/24/96	NLPH	6.52	10.83	740	440	21	1.4	38	3.1	---
	04/24/96	NLPH	5.95	11.40	7,800	250	200	110	1,000	740	---
	07/26/96	NLPH	7.60	9.75	620	23	8.0	0.99	26	1.0	---
	10/30/96	NLPH	8.06	9.29	700	33	14	2.9	85	3.5	---
	01/31/97	NLPH	5.12	12.23	7,600	<200	420	33	1,400	480	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.54	9.81	580	12	10	<0.5	<0.5	<0.5	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	4.48	12.87	820	<2.5 ^c	110	2.8	170	14	---
	04/14/98	---	4.69	12.66	---	---	---	---	---	---	---
	07/30/98	NLPH	6.19	11.16	2,700	41	210	<5.0	550	<5.0	---
	10/19/98	NLPH	6.72	10.63	---	---	---	---	---	---	---
	01/13/99	NLPH	6.52	10.83	491	9.78	8.0	<0.5	<0.5	<0.5	---
	04/28/99	---	5.37	11.98	---	---	---	---	---	---	---
	07/09/99	NLPH	6.39	10.96	1,030	10.6	114	8.07	184	0.644	---
	10/25/99	NLPH	6.68	10.67	---	---	---	---	---	---	---
	01/21/00	NLPH	6.20	11.15	<50	5.1	<1.0	<1.0	<1.0	<1.0	---
	04/14/00	NLPH	5.18	12.17	---	---	---	---	---	---	---
	07/05/00	NLPH	5.93	11.42	88	200	4.3	<0.5	0.61	<0.5	---
	10/03/00	NLPH	6.51	10.84	<50	240	0.72	<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
 (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 ^c	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	---	---	---	---	---	---	---	
07/05/00	NLPH	5.44	11.23	150	86	15	<0.5	6.2	2.8	---	
10/03/00	NLPH	6.31	10.36	200	2,500	35	0.51	5.1	12	---	
MW3 (17.11)	09/12/94	NLPH	6.58	10.53	3,100 ^a	---	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 ^a	---	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
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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	---	---	---	---	---	---	---	---	---	---
	07/05/00	---	---	---	---	---	---	---	---	---	---
	10/03/00	---	---	---	---	---	---	---	---	---	---
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
 (Page 4 of 15)

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 ^c	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	---	---	---	---	---	---	---
	07/05/00	NLPH	5.48	11.86	1,600	260	400	3.9	100	84	---
	10/03/00	NLPH	6.22	11.12	1,600	190	280	2	64	34.10	---
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 ^c	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 ^c	1,500	34	73	57	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 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	---	---	---	---	---	---	---	
	07/05/00	NLPH	5.37	11.34	5,100	380	1,800	14	52	34	---	
	10/03/00	NLPH	5.93	10.78	5,800	630	2,000	8.9	59	21.0	---	
MW6	09/12/94	NLPH	6.88	10.68	1,500 ^d	---	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 ^e	
	01/28/98	NLPH	3.74	13.82	15,000	2,400 ^f	650	2,300	900	2,700	---	
	04/14/98	NLPH	3.92	13.64	25,000	2,100 ^f	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
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Well ID #	Sampling (TOC)	SUBJ	DTW Date	Elev. <.....feet.....>	TPPHg <.....ug/L.....>	MTBE	B	T	E	X	Oxygenated Compounds
MW6(cont)	07/09/99	NLPH	6.07	11.49	1,140	439	121	9.95	160	4.69	---
(17.56)	10/25/99	NLPH	6.11	11.45	2,200	3,400	590	<10	22	12.1	---
	01/21/00	NLPH	5.86	11.70	1,300	1,000	95	15	94	74	---
	04/14/00	NLPH	4.29	13.27	13,000	420	440	630	840	3,000	---
	07/05/00	NLPH	5.39	12.17	5,800	830	1,000	13	550	798	---
	10/03/00	NLPH	6.14	11.42	490	3,800	61	<0.5	74	12	---
MW7	09/12/94	NLPH	6.43	10.69	6,000 ^a	---	490	50	280	70	---
(17.12)	10/01/94	NLPH	6.71	10.41	8,900 ^a	---	940	670	310	160	---
	01/13/95	NLPH	4.29	12.83	20,000 ^d	---	590	780	970	4,200	---
	04/27/95	NLPH	5.00	12.12	8,800	---	410	32	410	230	---
	08/03/95	NLPH	6.53	10.59	4,900	17,000	390	<50	290	<50	---
	10/17/95	NLPH	7.23	9.89	6,700	17,000	530	26	240	25	---
	01/24/96	NLPH	5.26	11.86	9,300	60,000	2,000	390	350	230	---
	04/24/96	NLPH	5.06	12.06	9,000	360,000	2,400	850	150	130	---
	07/26/96	NLPH	6.62	10.50	4,800	86,000	530	25	60	46	---
	10/30/96	NLPH	7.09	10.03	3,400	28,000	180	9.8	58	38	---
	01/31/97	NLPH	3.65	13.47	3,800	45,000	300	18	48	37	---
	04/10/97	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.44	9.68	3,500	18,000	70	<25	<25	<25	---
	10/08/97	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.06	14.06	100	250 ^c	1.0	<0.5	<0.5	0.67	---
	04/14/98	---	3.10	14.02	---	---	---	---	---	---	---
	07/30/98	NLPH	5.78	11.34	100	670	1.4	<0.5	<0.5	<0.5	---
	10/19/98	NLPH	6.25	10.87	---	---	---	---	---	---	---
	01/13/99	NLPH	5.98	11.14	273	530	<2.5	<2.5	<2.5	<2.5	---
	04/28/99	---	4.32	12.80	---	---	---	---	---	---	---
	07/09/99	NLPH	5.67	11.45	139	860	3.79	7.10	1.19	8.65	---
	10/25/99	NLPH	6.23	10.89	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	01/21/00	NLPH	5.41	11.71	410	500	10	2.5	<1.0	2.5	---
	04/14/00	NLPH	3.84	13.28	---	---	---	---	---	---	---
	07/05/00	NLPH	5.05	12.07	140	480	<0.5	<0.5	<0.5	0.56	---
	10/03/00	NLPH	5.88	11.24	370	1,900	<0.5	0.62	<0.5	3.20	---

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.....>						
MW8 (16.33)	09/12/94	NLPH	6.42	9.91	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	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 ^c	<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	---	
07/05/00	NLPH	5.67	10.66	<50	<2	<0.5	<0.5	<0.5	<0.5	---	
10/03/00	NLPH	6.02	10.31	<50	<2	<0.5	<0.5	<0.5	<0.5	---	
MW9 (15.62)	09/12/94	NLPH	6.84	8.78	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	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
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Well ID #	Sampling	SUBI	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 ^c	<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
	07/05/00	NLPH	6.34	9.28	<50	<2	<0.5	<0.5	<0.5	<0.5	---
	10/03/00	NLPH	6.52	9.10	<50	<2	<0.5	<0.5	<0.5	<0.5	---
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 (TOC)	SUBJ	DTW	Elev.	TPPHg	MTBE	B	T	E	X	Oxygenated Compounds	
	Date		<.....feet.....>		<.....ug/L.....>							
MW10(cont)	01/31/97	NLPH	5.88	10.91	<50	10	<0.5	<0.5	<0.5	<0.5	---	
(16.79)	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	10/17/95	NLPH	7.72	10.32	34,000	890	3,800	150	950	4,500	---	
(18.04)	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 ^c	
	01/28/98	NLPH	4.77	13.27	35,000	6,800 ^f	2,400	3,500	1,700	7,900	---	
	04/14/98	NLPH	4.68	13.36	15,000	1,200 ^f	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 ^f	3,790	4,260	1,790	2,970	2,390 ^f	
	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	---	
	07/05/00	NLPH	5.93	12.11	32,000	3,900	3,000	2,700	1,300	6,200	---	
	10/03/00	NLPH	6.57	11.47	46,000	4,300	2,900	3,600	1,600	7,900	---	
MW12	10/17/95	NLPH	6.38	9.92	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---	
(16.3)	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
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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 7-9104
 1725 Park Street
 Alameda, California
 (Page 1 of 2)

Date	Sample ID	Hour Meter	FIELD MEASUREMENTS					Analytical Laboratory Results		TPPHg Removal		Benzene Removal		Benzene Emission Rate lbs/day
			Hours of Operation	Temp F	Vacuum in H ₂ O	Flow lfm	Flow cfm	PID ppmv	TPPHg mg/m ³	Benzene mg/m ³	Per Period Pounds	Cumulative Pounds	Per Period Pounds	
2/16/98	System start	---	0	---	---	---	---	---	---	---	---	---	---	---
3/24/00	System shutdown pending evaluation 12,001									60.8	60.8	---	---	
4/1/00	Environmental Resolutions Inc., assumed operation of the system.													
6/28/00	System upgrades completed, system restarted.													
	A-INF	12,008	7	---	26	---	---	770.0						
	A-INT							18.1						
	A-EFF							13.3						
	System shutdown for carbon changeout, 2 x 500-pounds.													
7/11/00	System down upon arrival, restart.													
	A-INF	12,011	3	86	8	4,000	85	207.0	51	< 1.0	0.16	< 61.0	< 0.00	< 0.0
	A-INT							9.1	< 10	< 1.0				
	A-EFF							0.0	< 10	< 1.0				< 0.01
7/20/00	System running upon arrival (VES only). System running on departure.													
	A-INF	12,226	215	78	9	4,500	97	42.3						
	A-INT							2.4						
	A-EFF							0.0						
7/31/00	System running upon arrival (VES only). System down on departure for carbon changeout (2x500 lb).													
	A-INF	12,493	267	87	9	4,500	95	266.0						
	A-INT							73.0						
	A-EFF							41.2						
8/10/00	System down upon arrival for carbon changeout. System running on departure.													
	A-INF	12,733	0	80	30	800	17	53.5	43	< 1	6.22	< 67.2	< 0.13	< 0.14
	A-INT							0.0	< 10	< 1				
	A-EFF							0.0	< 10	< 1				< 0.002
8/16/00	System running upon arrival (VES only). System running on departure.													
	A-INF	12,874	141	84	31.5	250	5	164.1						
	A-INT							0.0						
	A-EFF							0.0						
8/24/00	System running upon arrival (VES only). System down on departure for carbon changeout.													
	A-INF	13,065	191	76	20	2,400	52	294.0						
	A-INT							23.7						
	A-EFF							2.4						
9/12/00	System down upon arrival for carbon changeout. System running on departure.													
	A-INF	13,070	5	74	20	1,600	56	247.5	190	2.5	4.79	< 72.0	< 0.07	< 0.21
	A-INT							0.0	< 10	< 1.0				
	A-EFF							0.0	< 10	< 1.0				< 0.01
9/26/00	System running upon arrival (VES only). System running on departure.													
	A-INF	13,406	336	80	22	2,450	52	448.7						
	A-INT							10.7						
	A-EFF							0.0						
10/12/00	System running on arrival and down upon departure for carbon c/o. Samples taken													
	A-INF	13,786	380	67	24	2,400	53	96.4	55	< 1.0	17.64	< 89.6	< 0.25	< 0.46
	A-INT							72.3	21	< 1.0				
	A-EFF							9.0	< 10	< 1.0				< 0.005

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/M³ = Milligrams per cubic meter.
--- = Not sampled/not measured.

Removal rates are calculated using ERJ 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				
12/02/94	1,392,010	0.8	W-INF	65	1.9	0.9	<0.5	2.4	0.03	0.0	0.0006	0.00
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/13/95	1,415,980	0.4	W-INF	1,000	< 0.5	<0.5	<0.5	<0.5	0.11	0.1	0.0002	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
02/23/95	1,494,030	1.3	W-INF	57	< 0.5	<0.5	<0.5	2.7	0.34	0.5	0.0003	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/14/95	---		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				
04/14/95	1,513,240	0.3	W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	0.01	0.5	0.0001	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/18/95	1,714,850	4.1	W-INF	NS	---	---	---	---	---	---	---	
06/30/95	1,847,330	2.1	W-INF	1,700	480	23	66	180	2.44	2.9	0.6685	0.67
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
07/12/95	1,908,730	3.6	W-INF	290	68	<2.0	2.4	5.6	0.51	3.4	0.1128	0.78
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/09/95	2,027,830	3.0	W-INF	6,600	1,700	260	370	550	3.42	6.9	0.8768	1.66
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
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Former Exxon Service Station 7-0104
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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.....>	
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
09/06/95	2,158,260	3.2	W-INF	120	17	0.84	1.0	3.0	3.65	10.5	0.9325	2.59
			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	10.6	0.0093	2.60
			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	10.8	0.0190	2.62
			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	10.9	0.0145	2.63
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/05/96	2,516,900	2.0	W-INF	240	26	2.4	1.2	20	0.18	11.1	0.0191	2.65
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
02/14/96	2,680,160	2.8	W-INF	470	43	5.5	<0.5	55	0.48	11.6	0.0469	2.70
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/12/96	2,767,820	2.3	W-INF	620	60	9.8	3.9	70	0.40	12.0	0.0376	2.74
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/16/96	2,927,390	3.2	W-INF	790	120	27	8.8	120	0.94	12.9	0.1196	2.86
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/07/96	2,971,100	1.4	W-INF	430	66	2.7	5	32	0.22	13.2	0.0339	2.89

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
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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.....>	
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/11/96	3,109,730	2.8	W-INF	2,900	470	120	19	410	1.92	15.1	0.3094	3.20
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
07/09/96	3,232,330	3.0	W-INF	490	55	6.2	<0.5	110	1.73	16.8	0.2680	3.47
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/08/96	3,365,060	3.1	W-INF	580	49	4.6	<1.0	75	0.59	17.4	0.0575	3.53
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
09/05/96	---	---	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				
10/02/96	3,530,230	2.1	W-INF	980	130	39	7.8	130	1.07	18.5	0.1231	3.65
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
11/08/96	3,657,370	2.4	W-INF	480	42	7.1	0.69	79	0.77	19.2	0.0911	3.74
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/09/96	3,735,650	1.8	W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	0.17	19.4	0.0139	3.75
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/21/97	3,735,730	0.0	W-INF	690	69	20	20	91	0.00	19.4	0.0000	3.75
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
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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.....>	
02/10/97	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				
03/20/97	3,843,430	2.0	W-INF	86	< 0.5	<0.5	<0.5	5.1	0.43	19.8	0.0452	3.80
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/03/97	3,918,650	3.7	W-INF	690	31	6.1	<5.0	89	0.24	20.1	0.0099	3.81
			W-INT	< 1,000	< 10	<10	<10	<10				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/07/97	4,092,720	3.6	W-INF	1,000	57	29	11	110	1.22	21.3	0.0638	3.87
			W-INT	< 50	1.1	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/11/97	4,144,600	1.0	W-INF	570	66	14	4.7	75	0.34	21.7	0.0266	3.90
			W-INT	< 50	0.57	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/25/97	4,273,310	---	W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5	---	---	---	---
07/24/97	4,363,090	3.5	W-INF	470	25	8.8	3.7	49	0.95	22.6	0.0828	3.98
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/04/97	4,408,100	2.8	W-INF	610	48	18	6.2	69	0.20	22.8	0.0137	4.00
			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	23.1	0.0236	4.02
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
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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.....>	
11/04/97	4,553,090	2.8	W-INF	510	22	9.8	13	60	0.18	23.3	0.0089	4.03
			W-INT	< 50	0.82	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/05/97	4,588,340	0.8	W-INF	79	1.5	<0.5	<0.5	53	0.09	23.4	0.0034	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/08/98	4,625,400	0.8	W-INF	83	2.6	0.74	<0.5	5.4	0.03	23.4	0.0006	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	0.58	<0.5	0.81	1.5				
03/03/98	4,662,470	0.5	W-INF	< 50	0.54	<0.5	<0.5	0.88	0.02	23.4	0.0005	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/02/98	4,702,760	0.9	W-INF	1,100	170	32	12	160	0.19	23.6	0.0286	4.06
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/04/98	4,786,330	1.8	W-INF	1,000	140	23	8.5	150	0.73	24.4	0.1079	4.17
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/10/98	4,852,030	1.2	W-INF	670	110	16	7.6	74	0.46	24.8	0.0684	4.24
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
07/07/98	4,951,910	2.6	W-INF	690	91	13	6.3	55	0.57	25.4	0.0836	4.32
			W-INT	< 200	< 2.0	<2.0	<2.0	<2.0				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/04/98	5,039,980	2.2	W-INF	230	36	6.4	2.5	17	0.34	25.7	0.0466	4.37
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
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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.....>	
09/03/98	5,080,850	0.9	W-INF	280	13	2.0	6.4	21	0.09	25.8	0.0083	4.38
			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				
11/09/98	5,232,360	1.6	W-INF	300	37	10	8.4	43	0.37	26.2	0.0315	4.41
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/08/98	5,284,180	1.2	W-INF	700	82	25	13	100	0.22	26.4	0.0257	4.43
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/13/99	5,377,930	1.8	W-INF	1,030	155	46.5	52.7	73.3	0.68	27.1	0.0925	4.53
			W-INT	< 500	< 5.0	<5.0	<5.0	<5.0				
			W-EFF	< 500	< 5.0	<5.0	<5.0	<5.0				
02/08/99	5,441,820	1.7	W-INF	260	31	9.0	2.4	33	0.34	27.4	0.0495	4.58
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/08/99	5,509,090	1.7	W-INF	800	87	16	8.5	140	0.30	27.7	0.0331	4.61
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/05/99	5,571,890	1.6	W-INF	< 500	36.6	12.2	5.84	20.9	0.34	28.0	0.0323	4.64
			W-INT	< 500	< 5.0	<5.0	<5.0	<5.0				
			W-EFF	< 500	< 5.0	<5.0	<5.0	<5.0				
05/06/99	5,621,560	1.1	W-INF	310	45	6.0	0.86	41	0.17	28.2	0.0169	4.66
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
OPERATION AND PERFORMANCE DATA FOR
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Former Exxon Service Station 7-0104
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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.....>	
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/07/99	5,706,250	1.8	W-INF	< 250	24.8	<2.5	<2.5	8.74	0.20	28.4	0.0246	4.68
			W-INT	< 100	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 250	< 2.5	<2.5	<2.5	<2.5				
07/28/99	5,805,010	1.3	W-INF	< 100	7.00	<1.0	2.40	6.40	0.14	28.5	0.0131	4.70
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/09/99	5,849,280	2.6	W-INF	< 500	17.1	5.88	<5.0	26.8	0.11	28.7	0.0044	4.70
			W-INT	< 250	< 2.5	<2.5	<2.5	<2.5				
			W-EFF	< 250	< 2.5	<2.5	<2.5	<2.5				
09/07/99	5,880,860	0.8	W-INF	< 500	20.4	<5.0	<5.0	31.1	0.13	28.8	0.0049	4.71
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
10/12/99	5,966,690	1.7	W-INF	100	2	<1.0	<1.0	<1.0	0.21	29.0	0.0080	4.71
			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	29.0	0.0014	4.72
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0				
12/09/99	5,992,780	0.7	W-INF	200	28	3.2	2.2	22.4	0.08	29.1	0.0083	4.72
			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				

**TABLE 3
OPERATION AND PERFORMANCE DATA FOR
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1725 Park Street

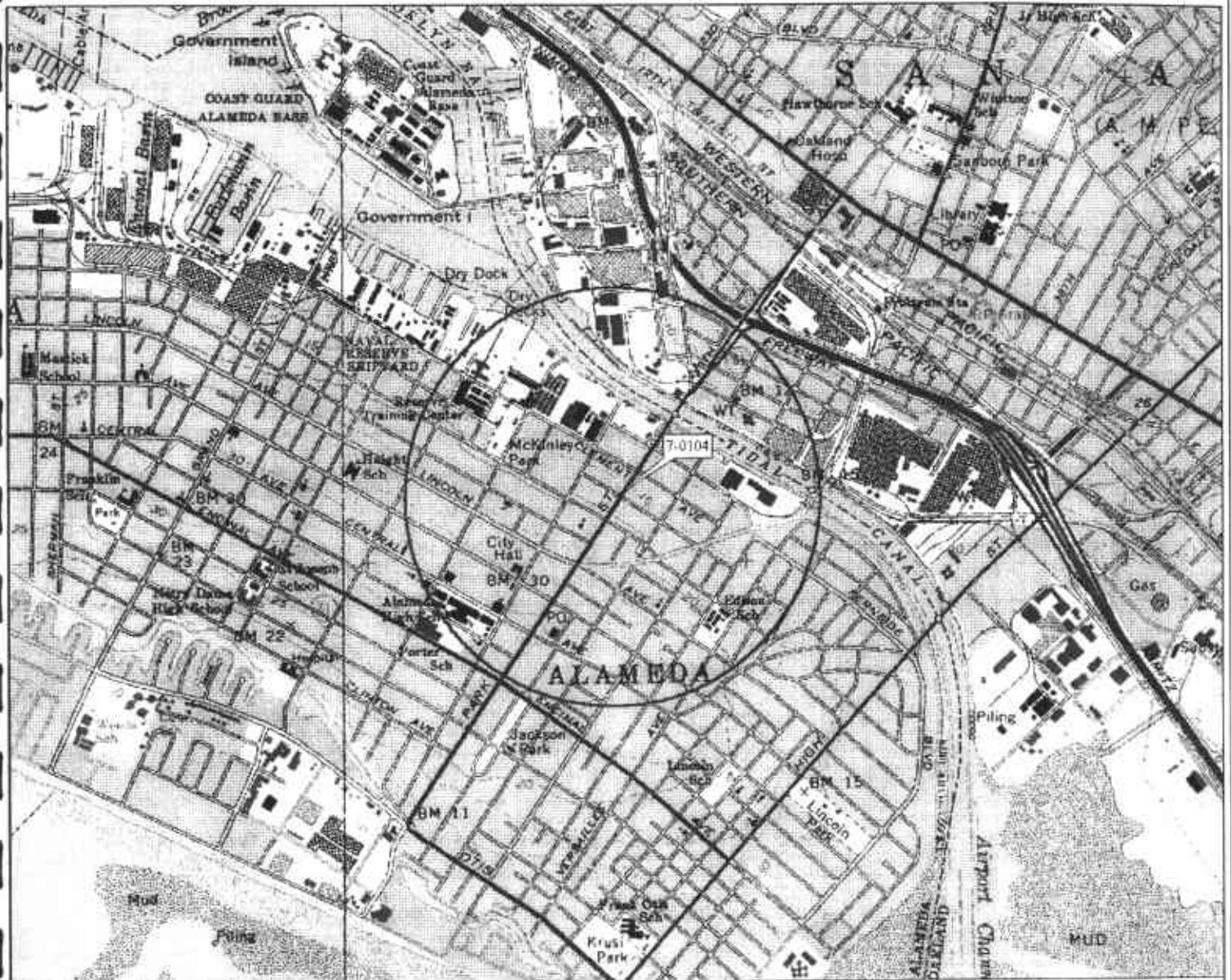
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
01/10/00	6,035,690	0.9	W-INF	120	11	1.5	1.8	14.5	0.06	29.2	0.0070	4.73
			W-INT	< 50	< 1.0	< 1.0	< 1.0	< 1.0				
			W-EFF	< 50	< 1.0	< 1.0	< 1.0	< 1.0				
02/08/00	6,055,000	0.5	W-INF	130	14	< 1.0	< 1.0	11.9	0.02	29.2	0.3530	5.08
			MID	< 50	< 1.0	< 1.0	< 1.0	< 1.0				
			W-EFF	< 50	< 1.0	< 1.0	< 1.0	< 1.0				
03/24/00	6,080,125	0.4	System shutdown pending evaluation.									
03/28/00	6,080,360	0.0	W-INF	< 50	< 1.0	< 1.0	< 1.0	< 1.0	0.02	29.2	0.0016	5.08
			MID	< 50	< 1.0	< 1.0	< 1.0	< 1.0				
			W-EFF	< 67	< 1.0	< 1.0	< 1.0	< 1.0				
03/28/00	System shutdown upon departure.											
04/01/00	Environmental Resolutions, Inc. assumed operation of the remediation system.											

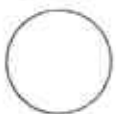
Notes: Data prior to April 1, 2000 provided by Delta Environmental Consultants, Inc.

- 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 Earthmate, ME 04004 Source Data: USGS 508 ft Scale: 1:19,200 Total: 114 Tiles: WQ324

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE



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



SITE VICINITY MAP

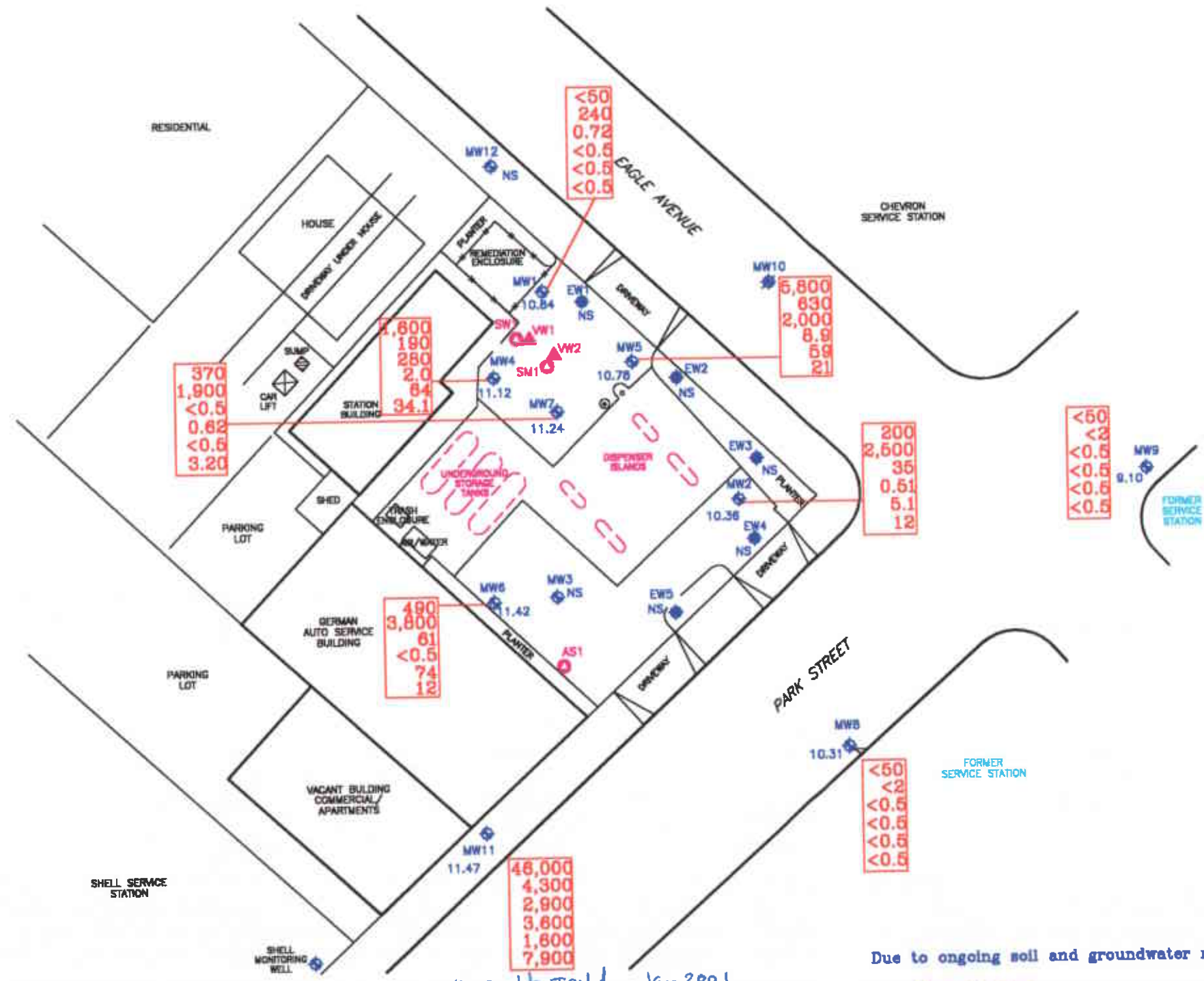
FORMER EXXON SERVICE STATION 7-0104
1725 Park Street
Alameda, California

PROJECT NO.

2506

PLATE

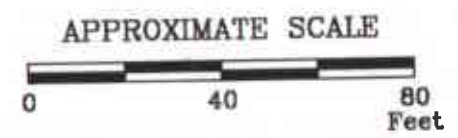
1



Groundwater Concentrations in ug/L
Sampled October 3, 2000

48,000	Total Purgeable Petroleum Hydrocarbons as gasoline
4,300	Methyl Tertiary Butyl Ether
2,900	Benzene
3,600	Toluene
1,600	Ethylbenzene
7,900	Total Xylenes

< Less Than the Stated Laboratory Detection Limit
ug/L Micrograms per Liter
NS Not Sampled



Due to ongoing soil and groundwater remediation, the hydraulic gradient and flow direction may be affected, and therefore, were not calculated.

FN 25060002



GENERALIZED SITE PLAN

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

EXPLANATION

	Groundwater Monitoring Well		Air Sparge/Soil Vapor Well
	Groundwater elevation in feet above mean sea level		
	Destroyed Groundwater Monitoring Well		
	Vapor Extraction Well		
	Recovery Well		

PROJECT NO.	2506
PLATE	2
	October 26, 2000

ATTACHMENT A

GROUNDWATER SAMPLING PROTOCOL

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate phase product level, if present, in each well that contained water and/or separate phase product are measured with a MMC Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples are checked for measurable liquid-phase hydrocarbons or sheen. Any liquid-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until stabilization of the temperature, pH, and conductivity is obtained, or until a minimum of three well casing volumes are purged. Water samples from the wells that do not obtain stability of the temperature, pH, and conductivity are considered to be "grab samples". The quantity of water purged from each well is calculated as follows:

1 well casing volume = $\pi r^2 h (7.48)$ where:

r	=	radius of the well casing in feet.
h	=	column of water in the well in feet (depth to bottom - depth to water)
7.48	=	conversion constant from cubic feet to gallons
π	=	ratio of the circumference of a circle to its diameter

Gallons of water purged/gallons in one well casing volume = well casing volumes removed.

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples are collected with a new, disposable Teflon® bailer. The groundwater is carefully poured into 40-milliliter (ml) glass vials, which are filled so as to produce a positive meniscus. Each vial is preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

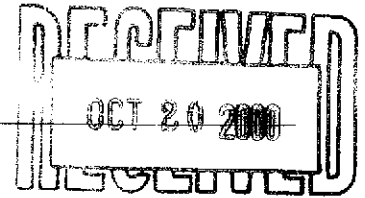
ATTACHMENT B

**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:
00100167

<p>Report To:</p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949-</p> <p>ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 250613x</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number: LWR#20007903</p> <p>State: California</p> <p>State Cert. No.:</p> <p>Date Reported: 10/17/00</p>
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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.

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.

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

Sonia West
 West, Sonia
 Senior Project Manager

10/17/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00100167

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250613x Site: 7-0104,20003753 Site Address: PO Number: LWR#20007903 State: California State Cert. No.: Date Reported: 10/17/00
Fax To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
8/24/003	00100167-01	Water	10/3/00	10/6/00 10:00:00 AM		<input type="checkbox"/>
BB-MW4	00100167-02	Water	10/3/00 4:58:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW8	00100167-03	Water	10/3/00 4:01:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW9	00100167-04	Water	10/3/00 4:09:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-9-MW2	00100167-05	Water	10/3/00 4:26:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW1	00100167-06	Water	10/3/00 5:08:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-5-MW7	00100167-07	Water	10/3/00 4:52:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW4	00100167-08	Water	10/3/00 4:33:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW5	00100167-09	Water	10/3/00 5:16:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW6	00100167-10	Water	10/3/00 5:38:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>
W-6-MW11	00100167-11	Water	10/3/00 5:38:00 PM	10/6/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

10/17/00

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



Client Sample ID TB 8/24/003

Collected: 10/3/00

SPL Sample ID: 00100167-01

Site: 7-0104,20003753

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		10/11/00 16:12	D_R	431929
Surr: 1,4-Difluorobenzene	97.3	% 62-144	1		10/11/00 16:12	D_R	431929
Surr: 4-Bromofluorobenzene	80.3	% 44-153	1		10/11/00 16:12	D_R	431929
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		10/11/00 16:12	D_R	431852
Ethylbenzene	ND	0.5	1		10/11/00 16:12	D_R	431852
Methyl tert-butyl ether	ND	2	1		10/11/00 16:12	D_R	431852
Toluene	ND	0.5	1		10/11/00 16:12	D_R	431852
m,p-Xylene	ND	0.5	1		10/11/00 16:12	D_R	431852
o-Xylene	ND	0.5	1		10/11/00 16:12	D_R	431852
Xylenes, Total	ND	0.5	1		10/11/00 16:12	D_R	431852
Surr: 1,4-Difluorobenzene	92.2	% 72-137	1		10/11/00 16:12	D_R	431852
Surr: 4-Bromofluorobenzene	93.8	% 48-156	1		10/11/00 16:12	D_R	431852

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-BB-MW4

Collected: 10/3/00 4:58:00 SPL Sample ID: 00100167-02

Site: 7-0104,20003753

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		10/12/00 0:44	D_R	431954
Surr: 1,4-Difluorobenzene	99.0	% 62-144	1		10/12/00 0:44	D_R	431954
Surr: 4-Bromofluorobenzene	69.7	% 44-153	1		10/12/00 0:44	D_R	431954
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		10/12/00 0:44	D_R	431870
Ethylbenzene	ND	0.5	1		10/12/00 0:44	D_R	431870
Methyl tert-butyl ether	ND	2	1		10/12/00 0:44	D_R	431870
Toluene	ND	0.5	1		10/12/00 0:44	D_R	431870
m,p-Xylene	ND	0.5	1		10/12/00 0:44	D_R	431870
o-Xylene	ND	0.5	1		10/12/00 0:44	D_R	431870
Xylenes,Total	ND	0.5	1		10/12/00 0:44	D_R	431870
Surr: 1,4-Difluorobenzene	94.2	% 72-137	1		10/12/00 0:44	D_R	431870
Surr: 4-Bromofluorobenzene	95.2	% 48-156	1		10/12/00 0:44	D_R	431870

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW8

Collected: 10/3/00 4:01:00

SPL Sample ID: 00100167-03

Site: 7-0104,20003753

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		10/12/00 1:09	D_R	431955
Surr: 1,4-Difluorobenzene	97.3	% 62-144	1		10/12/00 1:09	D_R	431955
Surr: 4-Bromofluorobenzene	74.7	% 44-153	1		10/12/00 1:09	D_R	431955
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		10/12/00 1:09	D_R	431871
Ethylbenzene	ND	0.5	1		10/12/00 1:09	D_R	431871
Methyl tert-butyl ether	ND	2	1		10/12/00 1:09	D_R	431871
Toluene	ND	0.5	1		10/12/00 1:09	D_R	431871
m,p-Xylene	ND	0.5	1		10/12/00 1:09	D_R	431871
o-Xylene	ND	0.5	1		10/12/00 1:09	D_R	431871
Xylenes, Total	ND	0.5	1		10/12/00 1:09	D_R	431871
Surr: 1,4-Difluorobenzene	94.2	% 72-137	1		10/12/00 1:09	D_R	431871
Surr: 4-Bromofluorobenzene	95.4	% 48-156	1		10/12/00 1:09	D_R	431871

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW9

Collected: 10/3/00 4:09:00

SPL Sample ID: 00100167-04

Site: 7-0104,20003753

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		10/12/00 1:35	D_R	431956
Surr: 1,4-Difluorobenzene	108	% 62-144	1		10/12/00 1:35	D_R	431956
Surr: 4-Bromofluorobenzene	73.7	% 44-153	1		10/12/00 1:35	D_R	431956
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		10/12/00 1:35	D_R	431872
Ethylbenzene	ND	0.5	1		10/12/00 1:35	D_R	431872
Methyl tert-butyl ether	ND	2	1		10/12/00 1:35	D_R	431872
Toluene	ND	0.5	1		10/12/00 1:35	D_R	431872
m,p-Xylene	ND	0.5	1		10/12/00 1:35	D_R	431872
o-Xylene	ND	0.5	1		10/12/00 1:35	D_R	431872
Xylenes,Total	ND	0.5	1		10/12/00 1:35	D_R	431872
Surr: 1,4-Difluorobenzene	94.2	% 72-137	1		10/12/00 1:35	D_R	431872
Surr: 4-Bromofluorobenzene	100	% 48-156	1		10/12/00 1:35	D_R	431872

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
 MI - Matrix Interference



Client Sample ID W-9-MW2

Collected: 10/3/00 4:26:00

SPL Sample ID: 00100167-05

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	200	50	1		10/12/00 22:07	D_R	432973
Surr: 1,4-Difluorobenzene	114	% 62-144	1		10/12/00 22:07	D_R	432973
Surr: 4-Bromofluorobenzene	90.0	% 44-153	1		10/12/00 22:07	D_R	432973
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	35	0.5	1		10/12/00 22:07	D_R	432927
Ethylbenzene	5.1	0.5	1		10/12/00 22:07	D_R	432927
Methyl tert-butyl ether	2500	20	10		10/13/00 21:26	D_R	434156
Toluene	0.51	0.5	1		10/12/00 22:07	D_R	432927
m,p-Xylene	12	0.5	1		10/12/00 22:07	D_R	432927
o-Xylene	ND	0.5	1		10/12/00 22:07	D_R	432927
Xylenes, Total	12	0.5	1		10/12/00 22:07	D_R	432927
Surr: 1,4-Difluorobenzene	93.3	% 72-137	10		10/13/00 21:26	D_R	434156
Surr: 1,4-Difluorobenzene	123	% 72-137	1		10/12/00 22:07	D_R	432927
Surr: 4-Bromofluorobenzene	98.2	% 48-156	10		10/13/00 21:26	D_R	434156
Surr: 4-Bromofluorobenzene	101	% 48-156	1		10/12/00 22:07	D_R	432927

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW1

Collected: 10/3/00 5:08:00

SPL Sample ID: 00100167-06

Site: 7-0104,20003753

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		10/12/00 22:32	D_R	432974
Surr: 1,4-Difluorobenzene	110	% 62-144	1		10/12/00 22:32	D_R	432974
Surr: 4-Bromofluorobenzene	94.0	% 44-153	1		10/12/00 22:32	D_R	432974
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	0.72	0.5	1		10/13/00 20:35	D_R	434154
Ethylbenzene	ND	0.5	1		10/13/00 20:35	D_R	434154
Methyl tert-butyl ether	240	2	1		10/13/00 20:35	D_R	434154
Toluene	ND	0.5	1		10/13/00 20:35	D_R	434154
m,p-Xylene	ND	0.5	1		10/13/00 20:35	D_R	434154
o-Xylene	ND	0.5	1		10/13/00 20:35	D_R	434154
Xylenes, Total	ND	0.5	1		10/13/00 20:35	D_R	434154
Surr: 1,4-Difluorobenzene	98.4	% 72-137	1		10/13/00 20:35	D_R	434154
Surr: 4-Bromofluorobenzene	112	% 48-156	1		10/13/00 20:35	D_R	434154

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-5-MW7

Collected: 10/3/00 4:52:00

SPL Sample ID: 00100167-07

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA GRO	Units: ug/L		
Gasoline Range Organics	370	50	1		10/12/00 22:58	D_R	432975
Surr: 1,4-Difluorobenzene	143	% 62-144	1		10/12/00 22:58	D_R	432975
Surr: 4-Bromofluorobenzene	113	% 44-153	1		10/12/00 22:58	D_R	432975
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		10/12/00 22:58	D_R	432928
Ethylbenzene	ND	0.5	1		10/12/00 22:58	D_R	432928
Methyl tert-butyl ether	1900	20	10		10/13/00 21:52	D_R	434157
Toluene	0.62	0.5	1		10/12/00 22:58	D_R	432928
m,p-Xylene	2.3	0.5	1		10/12/00 22:58	D_R	432928
o-Xylene	0.9	0.5	1		10/12/00 22:58	D_R	432928
Xylenes, Total	3.2	0.5	1		10/12/00 22:58	D_R	432928
Surr: 1,4-Difluorobenzene	93.5	% 72-137	10		10/13/00 21:52	D_R	434157
Surr: 1,4-Difluorobenzene	117	% 72-137	1		10/12/00 22:58	D_R	432928
Surr: 4-Bromofluorobenzene	95.4	% 48-156	10		10/13/00 21:52	D_R	434157
Surr: 4-Bromofluorobenzene	121	% 48-156	1		10/12/00 22:58	D_R	432928

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW4

Collected: 10/3/00 4:33:00

SPL Sample ID: 00100167-08

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	1600	50	1		10/12/00 23:23	D_R	433148
Surr: 1,4-Difluorobenzene	143	% 62-144	1		10/12/00 23:23	D_R	433148
Surr: 4-Bromofluorobenzene	456	% 44-153	1	*	10/12/00 23:23	D_R	433148
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	280	0.5	1		10/13/00 21:00	D_R	434155
Ethylbenzene	64	0.5	1		10/13/00 21:00	D_R	434155
Methyl tert-butyl ether	190	2	1		10/13/00 21:00	D_R	434155
Toluene	2	0.5	1		10/13/00 21:00	D_R	434155
m,p-Xylene	29	0.5	1		10/13/00 21:00	D_R	434155
o-Xylene	5.1	0.5	1		10/13/00 21:00	D_R	434155
Xylenes,Total	34.1	0.5	1		10/13/00 21:00	D_R	434155
Surr: 1,4-Difluorobenzene	113	% 72-137	1		10/13/00 21:00	D_R	434155
Surr: 4-Bromofluorobenzene	226	% 48-156	1	*	10/13/00 21:00	D_R	434155

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW5

Collected: 10/3/00 5:16:00

SPL Sample ID: 00100167-09

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	5800	250	5		10/12/00 23:49	D_R	432977
Surr: 1,4-Difluorobenzene	230	% 62-144	5	*	10/12/00 23:49	D_R	432977
Surr: 4-Bromofluorobenzene	149	% 44-153	5		10/12/00 23:49	D_R	432977
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	2000	2.5	5		10/12/00 23:49	D_R	432929
Ethylbenzene	59	2.5	5		10/12/00 23:49	D_R	432929
Methyl tert-butyl ether	630	10	5		10/12/00 23:49	D_R	432929
Toluene	8.9	2.5	5		10/12/00 23:49	D_R	432929
m,p-Xylene	17	2.5	5		10/12/00 23:49	D_R	432929
o-Xylene	4	2.5	5		10/12/00 23:49	D_R	432929
Xylenes, Total	21	2.5	5		10/12/00 23:49	D_R	432929
Surr: 1,4-Difluorobenzene	174	% 72-137	5	*	10/12/00 23:49	D_R	432929
Surr: 4-Bromofluorobenzene	126	% 48-156	5		10/12/00 23:49	D_R	432929

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
 MI - Matrix Interference



Client Sample ID W-6-MW6

Collected: 10/3/00 5:38:00

SPL Sample ID: 00100167-10

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	490	50	1		10/13/00 2:22	D_R	432979
Surr: 1,4-Difluorobenzene	154	% 62-144	1	*	10/13/00 2:22	D_R	432979
Surr: 4-Bromofluorobenzene	153	% 44-153	1	*	10/13/00 2:22	D_R	432979
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	61	0.5	1		10/13/00 2:22	D_R	432933
Ethylbenzene	74	0.5	1		10/13/00 2:22	D_R	432933
Methyl tert-butyl ether	3800	50	25		10/13/00 22:17	D_R	434158
Toluene	ND	0.5	1		10/13/00 2:22	D_R	432933
m,p-Xylene	12	0.5	1		10/13/00 2:22	D_R	432933
o-Xylene	ND	0.5	1		10/13/00 2:22	D_R	432933
Xylenes, Total	12	0.5	1		10/13/00 2:22	D_R	432933
Surr: 1,4-Difluorobenzene	100	% 72-137	25		10/13/00 22:17	D_R	434158
Surr: 1,4-Difluorobenzene	92.9	% 72-137	1		10/13/00 2:22	D_R	432933
Surr: 4-Bromofluorobenzene	100	% 48-156	25		10/13/00 22:17	D_R	434158
Surr: 4-Bromofluorobenzene	132	% 48-156	1		10/13/00 2:22	D_R	432933

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID W-6-MW11 Collected: 10/3/00 5:38:00 SPL Sample ID: 00100167-11

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	46000	2500	50		10/13/00 2:47	D_R	432980
Surr: 1,4-Difluorobenzene	123	% 62-144	50		10/13/00 2:47	D_R	432980
Surr: 4-Bromofluorobenzene	105	% 44-153	50		10/13/00 2:47	D_R	432980
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	2900	25	50		10/13/00 22:43	D_R	434159
Ethylbenzene	1600	25	50		10/13/00 22:43	D_R	434159
Methyl tert-butyl ether	4300	100	50		10/13/00 22:43	D_R	434159
Toluene	3600	25	50		10/13/00 22:43	D_R	434159
m,p-Xylene	5500	25	50		10/13/00 22:43	D_R	434159
o-Xylene	2400	25	50		10/13/00 22:43	D_R	434159
Xylenes, Total	7900	25	50		10/13/00 22:43	D_R	434159
Surr: 1,4-Difluorobenzene	117	% 72-137	50		10/13/00 22:43	D_R	434159
Surr: 4-Bromofluorobenzene	106	% 48-156	50		10/13/00 22:43	D_R	434159

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL

Quality Control Documentation



Quality Control Report
 EXXON Company U.S.A.
 250613x

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00100167
 Lab Batch ID: R22380

Method Blank

Samples in Analytical Batch:

RunID: HP_R_001011A-431844 Units: ug/L
 Analysis Date: 10/11/2000 12:57 Analyst: D_R

Lab Sample ID Client Sample ID
 00100167-01A TB 8/24/003
 00100167-02A W-BB-MW4
 00100167-03A W-6-MW8
 00100167-04A W-6-MW9

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	93.4	72-137
Surr: 4-Bromofluorobenzene	96.0	48-156

Laboratory Control Sample (LCS)

RunID: HP_R_001011A-431840 Units: ug/L
 Analysis Date: 10/11/2000 12:06 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	53	105	70	130
Ethylbenzene	50	49	99	70	130
Methyl tert-butyl ether	50	51	102	70	130
Toluene	50	50	101	70	130
m,p-Xylene	100	100	104	70	130
o-Xylene	50	51	102	70	130
Xylenes, Total	150	151	101	70	130

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

Sample Spiked: 00100264-02
 RunID: HP_R_001011A-431848 Units: ug/L
 Analysis Date: 10/11/2000 14:04 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	1.5	20	28	131	20	28	132	1.25	21	32	164
Ethylbenzene	0.78	20	25	123	20	25	119	3.54	19	52	142
Methyl tert-butyl ether	ND	20	25	122	20	26	130	6.29	20	39	150

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits
 D - Recovery Unreportable due to Dilution
 MI - Matrix Interference



Quality Control Report
 EXXON Company U.S.A.
 250613x

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00100167
 Lab Batch ID: R22380

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

Sample Spiked: 00100264-02
 RunID: HP_R_001011A-431848 Units: ug/L
 Analysis Date: 10/11/2000 14:04 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	1.6	20	27	128	20	25	119	6.93	20	38	159
m,p-Xylene	2.7	40	54	128	40	49	116	9.99	17	53	144
o-Xylene	1.1	20	26	126	20	25	117	7.19	18	53	143
Xylenes, Total	3.8	60	80	127	60	74	117	8.20	18	53	144

Qualifiers: ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution

MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

250613x

Analysis: Gasoline Range Organics
 Method: CA_GRO

WorkOrder: 00100167
 Lab Batch ID: R22384

Method Blank

Samples in Analytical Batch:

RunID: HP_R_001011B-431918 Units: mg/L
 Analysis Date: 10/11/2000 12:57 Analyst: D_R

Lab Sample ID	Client Sample ID
00100167-01A	TB 8/24/003
00100167-02A	W-BB-MW4
00100167-03A	W-6-MW8
00100167-04A	W-6-MW9

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	99.0	62-144
Surr: 4-Bromofluorobenzene	75.0	44-153

Laboratory Control Sample (LCS)

RunID: HP_R_001011B-431914 Units: mg/L
 Analysis Date: 10/11/2000 12:31 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.94	94	70	130

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

Sample Spiked: 00100264-03
 RunID: HP_R_001011B-431921 Units: mg/L
 Analysis Date: 10/11/2000 14:56 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	0.9	100	0.9	0.88	97.2	2.85	36	36	160

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits
 D - Recovery Unreportable due to Dilution
 MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

250613x

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 00100167
Lab Batch ID: R22425

Method Blank

Samples in Analytical Batch:

RunID: HP_R_001012A-432919 Units: ug/L
Analysis Date: 10/12/2000 16:34 Analyst: D_R

Lab Sample ID	Client Sample ID
00100167-05A	W-9-MW2
00100167-07A	W-5-MW7
00100167-09A	W-6-MW5
00100167-10A	W-6-MW6

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	97.6	72-137
Surr: 4-Bromofluorobenzene	95.7	48-156

Laboratory Control Sample (LCS)

RunID: HP_R_001012A-432918 Units: ug/L
Analysis Date: 10/12/2000 15:43 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	55	110	70	130
Ethylbenzene	50	52	104	70	130
Methyl tert-butyl ether	50	51	102	70	130
Toluene	50	53	105	70	130
m,p-Xylene	100	110	109	70	130
o-Xylene	50	53	107	70	130
Xylenes, Total	150	163	109	70	130

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

Sample Spiked: 00100268-02
RunID: HP_R_001012A-432950 Units: ug/L
Analysis Date: 10/12/2000 17:00 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	25	123	20	25	123	0.793	21	32	164
Ethylbenzene	ND	20	22	112	20	23	114	1.95	19	52	142
Methyl tert-butyl ether	90	20	110	76.2	20	110	73.3	3.94	20	39	150

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

MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

250613x

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00100167
 Lab Batch ID: R22425

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

Sample Spiked: 00100268-02
 RunID: HP_R_001012A-432950 Units: ug/L
 Analysis Date: 10/12/2000 17:00 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	113	20	25	125	9.70	20	38	159
m,p-Xylene	ND	40	47	117	40	48	119	1.83	17	53	144
o-Xylene	ND	20	23	116	20	23	117	1.35	18	53	143
Aromatics, Total	ND	60	70	117	60	71	118	1.42	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 MI - Matrix Interference



Quality Control Report
 EXXON Company U.S.A.
 250613x

Analysis: Gasoline Range Organics
 Method: CA_GRO

WorkOrder: 00100167
 Lab Batch ID: R22429

Method Blank

RunID: HP_R_001012B-432969 Units: mg/L
 Analysis Date: 10/12/2000 16:34 Analyst: D_R

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00100167-05A	W-9-MW2
00100167-06A	W-6-MW1
00100167-07A	W-5-MW7
00100167-08A	W-6-MW4
00100167-09A	W-6-MW5
00100167-10A	W-6-MW6
00100167-11A	W-6-MW11

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Sum: 1,4-Difluorobenzene	98.0	62-144
Sum: 4-Bromofluorobenzene	74.0	44-153

Laboratory Control Sample (LCS)

RunID: HP_R_001012B-432981 Units: mg/L
 Analysis Date: 10/12/2000 16:09 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	1	101	70	130

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

Sample Spiked: 00100268-04
 RunID: HP_R_001012B-432970 Units: mg/L
 Analysis Date: 10/12/2000 17:51 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	0.88	97.8	0.9	0.89	98.9	1.11	36	36	160

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits
 D - Recovery Unreportable due to Dilution
 MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

250613x

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00100167
 Lab Batch ID: R22503

Method Blank

Samples in Analytical Batch:

RunID: HP_R_001013A-434150 Units: ug/L
 Analysis Date: 10/13/2000 18:26 Analyst: D_R

Lab Sample ID	Client Sample ID
00100167-05A	W-9-MW2
00100167-06A	W-6-MW1
00100167-07A	W-5-MW7
00100167-08A	W-6-MW4
00100167-10A	W-6-MW6
00100167-11A	W-6-MW11

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Sum: 1,4-Difluorobenzene	93.5	72-137
Surr: 4-Bromofluorobenzene	100.3	48-156

Laboratory Control Sample (LCS)

RunID: HP_R_001013A-434144 Units: ug/L
 Analysis Date: 10/13/2000 15:27 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	55	110	70	130
Ethylbenzene	50	55	109	70	130
Methyl tert-butyl ether	50	53	106	70	130
Toluene	50	54	108	70	130
m,p-Xylene	100	110	114	70	130
o-Xylene	50	56	112	70	130
Xylenes, Total	150	166	111	70	130

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

Sample Spiked: 00100184-03
 RunID: HP_R_001013A-434146 Units: ug/L
 Analysis Date: 10/13/2000 16:44 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
Benzene	ND	20	26	131	20	26	130	0.697	21	32	164
Ethylbenzene	ND	20	24	121	20	24	122	0.585	19	52	142
Methyl tert-butyl ether	0.68	20	26	125	20	26	126	0.931	20	39	150

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 MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

250613x

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 00100167
 Lab Batch ID: R22503

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

Sample Spiked: 00100184-03
 RunID: HP_R_001013A-434146 Units: ug/L
 Analysis Date: 10/13/2000 16:44 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
Benzene	ND	20	25	123	20	25	123	0.165	20	38	159
m,p-Xylene	ND	40	51	126	40	51	127	0.678	17	53	144
o-Xylene	ND	20	25	125	20	25	125	0.491	18	53	143
Aromatics, Total	ND	60	76	127	60	76	127	0	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 MI - Matrix Interference

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. _____

Page 2 of 2

Exxon Engineer: DARIN ROUSE Phone: (925) 246-8768
 Consultant Co. Name: ERE Contact: JIM CHAPPEL
 Address: 73 DIGITAL DRIVE Fax: (415) 382-1856
SUITE 100 BAYLATE CA 94949
 RAS #: 7-0104 Facility/State ID # (TN Only): _____
 AFE # (Terminal Only): _____ Consultant Project #: 25663X
 Location: 1725 PARK ST. (City) ALAMEDA (State) CA
 EE C&M SDT
 Consultant Work Release #: 20003753
 Sampled By: T. Colig

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO	BTEX 8020	MTBE 8020	OXYGENATES (7) 8260	O&G IR 413.1	GRAV. 413.2	VOL. 8260	SEMI-VOL 8270	PNAPAH 8100	PCB/PEST 8081/8082	TCLP FULL	METALS, TOTAL	LEAD, TOTAL	LEAD, DISSOLVED	REACTIVITY	PURGEABLE HYDROCARBON	TPHIR 418.1	TOX/ICH	
		8015 DRO	602	8260		413.1	413.2	624	825	8270	8310	PCB ONLY	HERB	METALS, TCLP	7421	LEAD, TCLP	FLASH POINT	8010	601	
3	40L	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX			OTHER	PRESERVATIVE
					H ₂ O	SOIL	AIR		
W-6-MW11	10/3	1730		Y				HCL	

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

**EXXON UST
CONTRACT NO.
C41483**

SPECIAL DETECTION LIMITS (Specify)
 SPECIAL REPORTING REQUIREMENTS (Specify)
 PDF EDD
 FAX FAX C-O-C W/REPORT

REMARKS:
 LAB USE ONLY Lot # _____ Storage Location _____
 WORK ORDER #: _____ LAB WORK RELEASE #: _____

CUSTODY RECORD

Relinquished By Sampler:	<u>John W. MacShaney ERE</u>	Date	<u>10/5/00</u>	Time	<u>0900</u>	Received By:	
Relinquished:		Date		Time		Received By:	
Relinquished:		Date		Time		Received By:	



HOUSTON LABORATORY
8800 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
(713) 660-0901

Sample Receipt Checklist

Workorder: 00100167
Date and Time Received: 10/6/00 10:00:00 AM
Temperature: 3

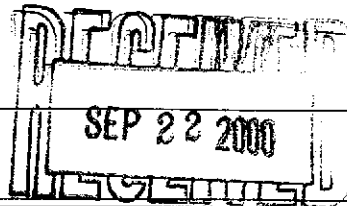
Received by: Stelly, D'Anna
Carrier name: FedEx

-
- | | | | |
|---|---|-----------------------------|---|
| 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"/> | |
-



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

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



Certificate of Analysis Number:
00090350

<p>Report To:</p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949-</p> <p>ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 2506-XTM</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number: LWR#</p> <p>State: California</p> <p>State Cert. No.:</p> <p>Date Reported: 9/18/00</p>
---	--

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.

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.

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

Sonia West
 West, Sonia
 Senior Project Manager

9/18/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00090350

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-XTM Site: 7-0104,20003753 Site Address: PO Number: LWR# State: California State Cert. No.: Date Reported: 9/18/00
Box To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
	00090350-01	Air	9/12/00 1:00:00 PM	9/14/00 10:00:00 AM		<input type="checkbox"/>
	00090350-02	Air	9/12/00 1:00:00 PM	9/14/00 10:00:00 AM		<input type="checkbox"/>
	00090350-03	Air	9/12/00 1:00:00 PM	9/14/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

West, Sonia
 Senior Project Manager

9/18/00
 Date

Joel Grice
 Laboratory Director
 Ted Yen
 Quality Assurance Officer



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00090350

Report To:

Environmental Resolution, Inc.
 Jim Chappell
 73 Digital Drive Suite 100

Novato
 California
 94949-

ph: (415) 382-9105 fax: (415) 382-1856

Project Name: 2506-XTM
Site: 7-0104,20003763
Site Address:

PO Number: LWR#
State: California
State Cert. No.:
Date Reported: 9/18/00

Client Sample ID: A-Eff

SPL Sample ID: 00090350-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-Inf

SPL Sample ID: 00090350-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	2.5	1.0	0.77	0.31
Toluene	3.9	1.0	1.0	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	190	10	53	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00090350

Report To:

Environmental Resolution, Inc.
Jim Chappell
73 Digital Drive Suite 100

Novato
California

94949-

ph: (415) 382-9105

fax: (415) 382-1856

Project Name: 2506-XTM

Site: 7-0104,20003753

Site Address:

PO Number: LWR#

State: California

State Cert. No.:

Date Reported: 9/18/00

Client Sample ID: A-Int

SPL Sample ID: 00090350-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8



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

Client Sample ID: A-Inf

Collected: 9/12/00 1:00:00

SPL Sample ID: 00090350-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	2.5	1.0	1		09/14/00 20:08	FB	402090
Toluene	3.9	1.0	1		09/14/00 20:08	FB	402090
Ethylbenzene	ND	1.0	1		09/14/00 20:08	FB	402090
m,p-Xylene	ND	1.0	1		09/14/00 20:08	FB	402090
o-Xylene	ND	1.0	1		09/14/00 20:08	FB	402090
Xylenes, Total	ND	1.0	1		09/14/00 20:08	FB	402090
Surr: 1,4-Difluorobenzene	106	% 20-150	1		09/14/00 20:08	FB	402090
Surr: 4-Bromofluorobenzene	92.5	% 58-139	1		09/14/00 20:08	FB	402090
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	190	10	1		09/14/00 20:08	FB	402186
Surr: 1,4-Difluorobenzene	93.8	% 62-144	1		09/14/00 20:08	FB	402186
Surr: 4-Bromofluorobenzene	82.0	% 44-153	1		09/14/00 20:08	FB	402186

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
 MI - Matrix Interference



Client Sample ID: A-Int Collected: 9/12/00 1:00:00 SPL Sample ID: 00090350-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		09/14/00 21:07	FB	402092
Toluene	ND	1.0	1		09/14/00 21:07	FB	402092
Ethylbenzene	ND	1.0	1		09/14/00 21:07	FB	402092
m,p-Xylene	ND	1.0	1		09/14/00 21:07	FB	402092
o-Xylene	ND	1.0	1		09/14/00 21:07	FB	402092
Xylenes, Total	ND	1.0	1		09/14/00 21:07	FB	402092
Surr: 1,4-Difluorobenzene	110	% 20-150	1		09/14/00 21:07	FB	402092
Surr: 4-Bromofluorobenzene	95.5	% 58-139	1		09/14/00 21:07	FB	402092

TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		09/14/00 21:07	FB	402187
Surr: 1,4-Difluorobenzene	97.7	% 62-144	1		09/14/00 21:07	FB	402187
Surr: 4-Bromofluorobenzene	92.9	% 44-153	1		09/14/00 21:07	FB	402187

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID: A-Eff

Collected: 9/12/00 1:00:00

SPL Sample ID: 00090350-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		09/14/00 21:37	FB	402094
Toluene	ND	1.0	1		09/14/00 21:37	FB	402094
Ethylbenzene	ND	1.0	1		09/14/00 21:37	FB	402094
m,p-Xylene	ND	1.0	1		09/14/00 21:37	FB	402094
o-Xylene	ND	1.0	1		09/14/00 21:37	FB	402094
Xylenes, Total	ND	1.0	1		09/14/00 21:37	FB	402094
Surr: 1,4-Difluorobenzene	106	% 20-150	1		09/14/00 21:37	FB	402094
Surr: 4-Bromofluorobenzene	97.8	% 58-139	1		09/14/00 21:37	FB	402094
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		09/14/00 21:37	FB	402188
Surr: 1,4-Difluorobenzene	99.9	% 62-144	1		09/14/00 21:37	FB	402188
Surr: 4-Bromofluorobenzene	95.3	% 44-153	1		09/14/00 21:37	FB	402188

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
 MI - Matrix Interference

Quality Control Documentation



Quality Control Report
EXXON Company U.S.A.
2506-XTM

Analysis: Purgeable Aromatics in Air
Method: SW8020A

WorkOrder: 00090350
Lab Batch ID: R20730

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000914A-402087 Units: mg/m³
Analysis Date: 09/14/2000 18:39 Analyst: FB

Lab Sample ID	Client Sample ID
00090350-01A	A-Inf
00090350-02A	A-Int
00090350-03A	A-Eff

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	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	102.5	20-150
Surr: 4-Bromofluorobenzene	89.4	58-139

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000914A-402084 Units: mg/m³
Analysis Date: 09/14/2000 17:41 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzene	64	53	83	64	50	78	7.1	34	37	117
Ethylbenzene	88	66	75	88	60	69	8.9	35	56	115
Toluene	80	61	76	80	56	70	7.7	30	25	113
m,p-Xylene	88	65	73	88	60	68	7.8	35	12	114
o-Xylene	88	65	74	88	60	68	8.6	35	15	109
Xylenes, Total	176	130	74	176	120	68	8.0	35	12	114

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 MI - Matrix Interference



Quality Control Report
 EXXON Company U.S.A.
 2506-XTM

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00090350
 Lab Batch ID: R20734

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000914B-402183 Units: mg/m³
 Analysis Date: 09/14/2000 18:39 Analyst: FB

Lab Sample ID	Client Sample ID
00090350-01A	A-Inf
00090350-02A	A-Int
00090350-03A	A-Eff

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	96.5	62-144
Surr: 4-Bromofluorobenzene	86.6	44-153

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000914B-402181 Units: mg/m³
 Analysis Date: 09/14/2000 17:41 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
TPH Air	770	480	62	770	480	63	1.3	30	40	140

Qualifiers: ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution

MI - Matrix Interference

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

(West Coast)

Exxon Engineer: Darin Fouse Phone: (925)246-8768
 Consultant Co. Name: ERT Contact: Jim Chappell
 Address: 73 Digital Dr. Fax: (415) 382-1856
Suite 100 Novato, CA
 RAS #: 7-0104 Facility/State ID # (TN Only): _____
 AFE # (Terminal Only): _____ Consultant Project #: 2566-11XTM
 Location: 1725 Park St. (City) Alameda (State) CA
 EE C&M SDT
 Consultant Work Release #: EWR 20003753
 Sampled By: Chris Brown

CHAIN OF CUSTODY RECORD NO. _____ Page _____

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO	8015 DRO	BTEX 8020	602	MTBE 8020	8260	OXYGENATES (?) 8260	ORG IR 413.1	GRAV. 413.2	VOL 8260	624	SEMI-VOL 8270	625	PNA/PAH 8100	8310	8270	PCB/PEST 8081/8082	PCB ONLY	TOLP FULL	VOA	SEMI-VOA	PEST	HERB	METALS, TOTAL	METALS, TOLP	LEAD, TOTAL 238.1	7421	LEAD, TOLP	LEAD, DISSOLVED	LEAD TOTAL	REACTIVITY	CORROSIVITY	RASH POINT	PURGEABLE HYDROCARBON 8010	601	TPHIR 418.1	TOMTOH				
1	1L	X	X	X	X																																					
1	1L	X	X	X	X																																					
1	1L	X	X	X	X																																					

RUSH

TAT 24 HR. _____ * 72 HR. _____ * 48 HR. _____ * 96 HR. _____ * 8 Business <input checked="" type="checkbox"/> *Contact US Prior to Sending Sample Other _____	EXXON UST CONTRACT NO. C41483	SPECIAL DETECTION LIMITS (Specify) SPECIAL REPORTING REQUIREMENTS (Specify) PDF <input type="checkbox"/> <input type="checkbox"/> EDD FAX <input type="checkbox"/> <input type="checkbox"/> FAX C-O-C W/REPORT	REMARKS: LAB USE ONLY Lot # <u>150</u> Storage Location <u>NA</u> WORK ORDER # <u>00090350</u> LAB WORK RELEASE #: _____
--	--	---	--

CUSTODY RECORD	Relinquished/By Sampler: <u>Chris Brown / ERT</u>	Date: <u>9/12/00</u> Time: <u>1500</u>	Received By: _____
	Relinquished: _____	Date: _____ Time: _____	Received By: _____
	Relinquished: _____	Date: _____ Time: _____	Received By: <u>Wayne Bowen</u> <u>9/11/00</u> Temp: <u>AMBIENT</u>



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

Sample Receipt Checklist

Workorder: 00090350 Received by: Barrera, Nancy
Date and Time Received: 9/14/00 10:00:00 AM Carrier name: FedEx
Temperature: Ambient

- | | | | |
|---|---|--|---|
| 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 type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
-



HOUSTON LABORATORY
 8890 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 660-0901

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

Certificate of Analysis Number:
 00100414

RECEIVED
 OCT 31 2000
 11595001

<p>Report To:</p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 250611X</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number: LWR#20008236</p> <p>State: California</p> <p>State Cert. No.:</p> <p>Date Reported:</p>
---	---

Your air samples "A-INF", "A-INT", "A-EFF" for BTEX and TPH were received outside the method required holding time. As per your request on October 19, 2000, the laboratory proceeded with the analyses.

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.

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.

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

Sonia West
 West, Sonia
 Senior Project Manager

10/26/00

Date



EXXON Company U.S.A.

Certificate of Analysis Number:
00100414

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008236 State: California State Cert. No.: Date Reported:
Fax To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
INF	00100414-01	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
INT	00100414-02	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
A-EFF	00100414-03	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

10/26/00

West, 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

EXXON Company U.S.A.

Certificate of Analysis Number:

00100414

Report To:

Environmental Resolution, Inc.
Jim Chappell
73 Digital Drive Suite 100

Novato
California
94949-

ph: (415) 382-9105 fax: (415) 382-1856

Project Name: 250611X

Site: 7-0104,20003753

Site Address:

PO Number: LWR#20008236

State: California

State Cert. No.:

Date Reported:

Client Sample ID: A-EFF

SPL Sample ID: 00100414-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-INF

SPL Sample ID: 00100414-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	1.2	1.0	0.31	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	55	10	15	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00100414

Report To:

Environmental Resolution, Inc.
Jim Chappell
73 Digital Drive Suite 100

Novato
California
94949-

ph: (415) 382-9105 fax: (415) 382-1856

Project Name: 250611X

Site: 7-0104,20003753

Site Address:

PO Number: LWR#20008236

State: California

State Cert. No.:

Date Reported:

Client Sample ID: A-INT

SPL Sample ID: 00100414-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	21	10	5.9	2.8



Client Sample ID A-INF

Collected: 10/12/00 9:00:00 SPL Sample ID: 00100414-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		10/16/00 15:29	TM	439907
Toluene	1.2	1.0	1		10/16/00 15:29	TM	439907
Ethylbenzene	ND	1.0	1		10/16/00 15:29	TM	439907
m,p-Xylene	ND	1.0	1		10/16/00 15:29	TM	439907
o-Xylene	ND	1.0	1		10/16/00 15:29	TM	439907
Xylenes, Total	ND	1.0	1		10/16/00 15:29	TM	439907
Surr: 1,4-Difluorobenzene	103	% 20-150	1		10/16/00 15:29	TM	439907
Surr: 4-Bromofluorobenzene	86.3	% 58-139	1		10/16/00 15:29	TM	439907
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	55	10	1		10/16/00 15:29	TM	439924
Surr: 1,4-Difluorobenzene	93.3	% 62-144	1		10/16/00 15:29	TM	439924
Surr: 4-Bromofluorobenzene	88.1	% 44-153	1		10/16/00 15:29	TM	439924

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-INT

Collected: 10/12/00 9:00:00 SPL Sample ID: 00100414-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		10/16/00 15:58	TM	439908
Toluene	ND	1.0	1		10/16/00 15:58	TM	439908
Ethylbenzene	ND	1.0	1		10/16/00 15:58	TM	439908
m,p-Xylene	ND	1.0	1		10/16/00 15:58	TM	439908
o-Xylene	ND	1.0	1		10/16/00 15:58	TM	439908
Xylenes, Total	ND	1.0	1		10/16/00 15:58	TM	439908
Surr: 1,4-Difluorobenzene	106	% 20-150	1		10/16/00 15:58	TM	439908
Surr: 4-Bromofluorobenzene	87.9	% 58-139	1		10/16/00 15:58	TM	439908
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	21	10	1		10/16/00 15:58	TM	439925
Surr: 1,4-Difluorobenzene	96.5	% 62-144	1		10/16/00 15:58	TM	439925
Surr: 4-Bromofluorobenzene	86.6	% 44-153	1		10/16/00 15:58	TM	439925

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL

Quality Control Documentation



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

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

Certificate of Analysis Number:
00100414

RECEIVED
 OCT 31 2000
 HOUSTON

<p>Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 250611X</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number: LWR#20008236</p> <p>State: California</p> <p>State Cert. No.:</p> <p>Date Reported:</p>
---	---

Your air samples "A-INF", "A-INT", "A-EFF" for BTEX and TPH were received outside the method required holding time. As per your request on October 19, 2000, the laboratory proceeded with the analyses.

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.

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.

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

Sonia West
 West, Sonia
 Senior Project Manager

10/26/00
 Date



EXXON Company U.S.A.

Certificate of Analysis Number:
00100414

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008236 State: California State Cert. No.: Date Reported:
Fax To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
INF	00100414-01	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
INT	00100414-02	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
A-EFF	00100414-03	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

10/26/00

West, 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

EXXON Company U.S.A.

Certificate of Analysis Number:
00100414

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008236 State: California State Cert. No.: Date Reported:
--	--

Client Sample ID: A-EFF

SPL Sample ID: 00100414-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-INF

SPL Sample ID: 00100414-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	1.2	1.0	0.31	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	55	10	15	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00100414

Report To:

Environmental Resolution, Inc.
Jim Chappell
73 Digital Drive Suite 100

Novato
California
94949-

ph: (415) 382-9105 fax: (415) 382-1856

Project Name: 250611X

Site: 7-0104,20003753

Site Address:

PO Number: LWR#20008236

State: California

State Cert. No.:

Date Reported:

Client Sample ID: A-INT

SPL Sample ID: 00100414-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	21	10	5.9	2.8



Client Sample ID A-INF

Collected: 10/12/00 9:00:00 SPL Sample ID: 00100414-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		10/16/00 15:29	TM	439907
Toluene	1.2	1.0	1		10/16/00 15:29	TM	439907
Ethylbenzene	ND	1.0	1		10/16/00 15:29	TM	439907
m,p-Xylene	ND	1.0	1		10/16/00 15:29	TM	439907
o-Xylene	ND	1.0	1		10/16/00 15:29	TM	439907
Xylenes, Total	ND	1.0	1		10/16/00 15:29	TM	439907
Surr: 1,4-Difluorobenzene	103	% 20-150	1		10/16/00 15:29	TM	439907
Surr: 4-Bromofluorobenzene	86.3	% 58-139	1		10/16/00 15:29	TM	439907
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	55	10	1		10/16/00 15:29	TM	439924
Surr: 1,4-Difluorobenzene	93.3	% 62-144	1		10/16/00 15:29	TM	439924
Surr: 4-Bromofluorobenzene	88.1	% 44-153	1		10/16/00 15:29	TM	439924

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-INT

Collected: 10/12/00 9:00:00 SPL Sample ID: 00100414-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		10/16/00 15:58	TM	439908
Toluene	ND	1.0	1		10/16/00 15:58	TM	439908
Ethylbenzene	ND	1.0	1		10/16/00 15:58	TM	439908
m,p-Xylene	ND	1.0	1		10/16/00 15:58	TM	439908
o-Xylene	ND	1.0	1		10/16/00 15:58	TM	439908
Xylenes, Total	ND	1.0	1		10/16/00 15:58	TM	439908
Surr: 1,4-Difluorobenzene	106	% 20-150	1		10/16/00 15:58	TM	439908
Surr: 4-Bromofluorobenzene	87.9	% 58-139	1		10/16/00 15:58	TM	439908

TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	21	10	1		10/16/00 15:58	TM	439925
Surr: 1,4-Difluorobenzene	96.5	% 62-144	1		10/16/00 15:58	TM	439925
Surr: 4-Bromofluorobenzene	86.6	% 44-153	1		10/16/00 15:58	TM	439925

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
MI - Matrix Interference



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Client Sample ID A-EFF

Collected: 10/12/00 9:00:00 SPL Sample ID: 00100414-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		10/16/00 16:28	TM	439909
Toluene	ND	1.0	1		10/16/00 16:28	TM	439909
Ethylbenzene	ND	1.0	1		10/16/00 16:28	TM	439909
m,p-Xylene	ND	1.0	1		10/16/00 16:28	TM	439909
o-Xylene	ND	1.0	1		10/16/00 16:28	TM	439909
Xylenes, Total	ND	1.0	1		10/16/00 16:28	TM	439909
Surr: 1,4-Difluorobenzene	102	% 20-150	1		10/16/00 16:28	TM	439909
Surr: 4-Bromofluorobenzene	87.8	% 58-139	1		10/16/00 16:28	TM	439909
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		10/16/00 16:28	TM	439926
Surr: 1,4-Difluorobenzene	95.9	% 62-144	1		10/16/00 16:28	TM	439926
Surr: 4-Bromofluorobenzene	86.5	% 44-153	1		10/16/00 16:28	TM	439926

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
 MI - Matrix Interference



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

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

RECEIVED
 JUL 30 2000
 HOUSTON

Certificate of Analysis Number:
00070260

<p>Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 2506-11XTM</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number:</p> <p>State: California</p> <p>State Cert. No.:</p> <p>Date Reported:</p>
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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

7/24/00

Date



EXXON Company U.S.A.

Certificate of Analysis Number:
00070260

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11XTM Site: 7-0104,20003753 Site Address: PO Number: State: California State Cert. No.: Date Reported:
Link To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
A-Inf	00070260-01	Air	7/11/00 11:45:00 AM	7/13/00 1:00:00 PM		<input type="checkbox"/>
A-Inf	00070260-02	Air	7/11/00 11:45:00 AM	7/13/00 1:00:00 PM		<input type="checkbox"/>
A-Inf	00070260-03	Air	7/11/00 11:45:00 AM	7/13/00 1:00:00 PM		<input type="checkbox"/>

Sonia West

7/24/00

West, 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

EXXON Company U.S.A.

Certificate of Analysis Number:
00070260

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11XTM Site: 7-0104,20003753 Site Address: PO Number: State: California State Cert. No.: Date Reported:
--	--

Client Sample ID: A-Eff

SPL Sample ID: 00070260-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-Inf

SPL Sample ID: 00070260-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	3.8	1.0	1.0	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	3.5	1.0	0.80	0.23
o-Xylene	1.9	1.0	0.43	0.23
Xylenes, Total	5.4	1.0	1.2	0.23
TPH Air	51	10	14	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00070260

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11XTM Site: 7-0104,20003753 Site Address: PO Number: State: California State Cert. No.: Date Reported:
--	--

Client Sample ID: A-Int

SPL Sample ID: 00070260-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8



Client Sample ID A-Inf

Collected: 7/11/00 11:45:00 SPL Sample ID: 00070260-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		07/13/00 18:53	WR	334346
Toluene	3.8	1.0	1		07/13/00 18:53	WR	334346
Ethylbenzene	ND	1.0	1		07/13/00 18:53	WR	334346
m,p-Xylene	3.5	1.0	1		07/13/00 18:53	WR	334346
o-Xylene	1.9	1.0	1		07/13/00 18:53	WR	334346
Xylenes, Total	5.4	1.0	1		07/13/00 18:53	WR	334346
Surr: 1,4-Difluorobenzene	111	% 20-150	1		07/13/00 18:53	WR	334346
Surr: 4-Bromofluorobenzene	99.5	% 58-139	1		07/13/00 18:53	WR	334346
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	51	10	1		07/13/00 18:53	WR	334445
Surr: 1,4-Difluorobenzene	100	% 62-144	1		07/13/00 18:53	WR	334445
Surr: 4-Bromofluorobenzene	96.7	% 44-153	1		07/13/00 18:53	WR	334445

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-int Collected: 7/11/00 11:45:00 SPL Sample ID: 00070260-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		07/13/00 19:22	WR	334351
Toluene	ND	1.0	1		07/13/00 19:22	WR	334351
Ethylbenzene	ND	1.0	1		07/13/00 19:22	WR	334351
m,p-Xylene	ND	1.0	1		07/13/00 19:22	WR	334351
o-Xylene	ND	1.0	1		07/13/00 19:22	WR	334351
Xylenes, Total	ND	1.0	1		07/13/00 19:22	WR	334351
Surr: 1,4-Difluorobenzene	110	% 20-150	1		07/13/00 19:22	WR	334351
Surr: 4-Bromofluorobenzene	98.2	% 58-139	1		07/13/00 19:22	WR	334351

TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		07/13/00 19:22	WR	334447
Surr: 1,4-Difluorobenzene	106	% 62-144	1		07/13/00 19:22	WR	334447
Surr: 4-Bromofluorobenzene	98.3	% 44-153	1		07/13/00 19:22	WR	334447

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-Eff

Collected: 7/11/00 11:45:00 SPL Sample ID: 00070260-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		07/13/00 16:24	WR	334337
Toluene	ND	1.0	1		07/13/00 16:24	WR	334337
Ethylbenzene	ND	1.0	1		07/13/00 16:24	WR	334337
m,p-Xylene	ND	1.0	1		07/13/00 16:24	WR	334337
o-Xylene	ND	1.0	1		07/13/00 16:24	WR	334337
Xylenes, Total	ND	1.0	1		07/13/00 16:24	WR	334337
Surr: 1,4-Difluorobenzene	110	% 20-150	1		07/13/00 16:24	WR	334337
Surr: 4-Bromofluorobenzene	94.0	% 58-139	1		07/13/00 16:24	WR	334337
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		07/13/00 16:24	WR	334439
Surr: 1,4-Difluorobenzene	102	% 62-144	1		07/13/00 16:24	WR	334439
Surr: 4-Bromofluorobenzene	95.3	% 44-153	1		07/13/00 16:24	WR	334439

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Quality Control Documentation



Quality Control Report
EXXON Company U.S.A.
2506-11XTM

Analysis: Purgeable Aromatics in Air
Method: SW8020A

WorkOrder: 00070260
Lab Batch ID: R17195

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000713A-334330 Units: mg/m³
Analysis Date: 07/13/2000 15:25 Analyst: WR

Lab Sample ID	Client Sample ID
00070260-01A	A-Inf
00070260-02A	A-Int
00070260-03A	A-Eff

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	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	109.6	20-150
Surr: 4-Bromofluorobenzene	95.3	58-139

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000713A-334325 Units: mg/m³
Analysis Date: 07/13/2000 14:26 Analyst: WR

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzene	64	60	94	64	53	82	13.4	34	37	117
Ethylbenzene	88	79	90	88	69	79	13.6	35	56	115
Toluene	80	71	88	80	62	78	12.9	30	25	113
m,p-Xylene	88	80	91	88	67	76	18.5	35	12	114
o-Xylene	88	79	90	88	68	77	15.4	35	15	109
Xylenes, Total	176	159	90	176	135	77	16.3	35	12	114

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 MI - Matrix Interference



Quality Control Report
 EXXON Company U.S.A.
 2506-11XTM

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00070260
 Lab Batch ID: R17201

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000713B-334437 Units: mg/m³
 Analysis Date: 07/13/2000 15:25 Analyst: WR

Lab Sample ID Client Sample ID
 00070260-01A A-Inf
 00070260-02A A-Int
 00070260-03A A-Eff

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	101.2	62-144
Surr: 4-Bromofluorobenzene	95.8	44-153

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000713B-334435 Units: mg/m³
 Analysis Date: 07/13/2000 14:26 Analyst: WR

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
TPH Air	770	550	71	770	490	63	11.8	30	40	140

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 MI - Matrix Interference

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. _____

Page 1 of 1

Exxon Engineer: DARIN ROUSE Phone: (925) 246-8268
 Consultant Co. Name: ERI Contact: JIM CHAPPELL
 Address: 73 DIGITAL DR Fax: (415) 382-1856
SUITE 100, NOVATO, CA, 94949
 RAS #: 7-0104 Facility/State ID # (TN Only): _____
 AFE # (Terminal Only): _____ Consultant Project #: 2506-UATM
 Location: 1725 PARK STREET (City) ALAMEDA (State) CA
 EE C&M SDT
 Consultant Work Release #: 2000 3753
 Sampled By: CARL MIKLICH

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GROSS <input checked="" type="checkbox"/> 8015 DRO <input type="checkbox"/>	BTEX 8020 <input checked="" type="checkbox"/> 602 <input type="checkbox"/>	MTBE 8020 <input type="checkbox"/> 8260 <input type="checkbox"/>	OXYGENATES (?) 8250 <input type="checkbox"/>	O&G IR 413.1 <input type="checkbox"/> GRAV. 413.2 <input type="checkbox"/>	VOL. 8260 <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 8081/8082 <input type="checkbox"/> PCB ONLY <input type="checkbox"/>	TCLP FULL <input type="checkbox"/> VOC <input type="checkbox"/> SEMI-VOC <input type="checkbox"/> PEST <input type="checkbox"/> HERB <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"/>	LEAD, DISSOLVED <input type="checkbox"/> LEAD TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/> CORROSION <input type="checkbox"/> FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/> 601 <input type="checkbox"/>	TPH/R 418.1 <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>	
		RUSH!																	
		TAT 24 HR. ___* 72 HR. ___* 48 HR. ___* 96 HR. ___* 8 Business <input checked="" type="checkbox"/> *Contact US Prior to Sending Sample Other ___																	

SPECIAL DETECTION LIMITS (Specify)

REMARKS: 820419329846 50
70105
Ambient (C)

SPECIAL REPORTING REQUIREMENTS (Specify)

LAB USE ONLY Lot # 150 Storage Location Ambient 713

PDF EDD
 FAX FAX C-O-C W/REPORT

WORK ORDER # 00070260 LAB WORK RELEASE #:

CUSTODY RECORD

Relinquished By Sampler: <u>[Signature] / ERI</u>	Date: <u>7-12-00</u> Time: <u>1400</u>	Received By: _____
Relinquished: _____	Date: _____ Time: _____	Received By: _____
Relinquished: _____	Date: _____ Time: _____	Received By: <u>[Signature]</u> <u>7/12/00</u>

Triplicate: Original • White Lab's Copy • Green Client Copy • Yellow

Way Bill # [Signature] cooler Temp: 1300



HOUSTON LABORATORY
6880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
(713) 660-0901

Sample Receipt Checklist

Workorder: 00070260
Date and Time Received: 7/13/00 1:00:00 PM
Temperature: Ambient

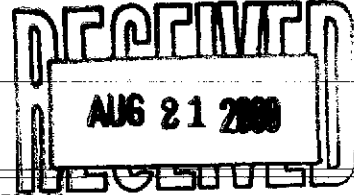
Received by: Barrera, Nancy
Carrier name: FedEx

-
- | | | | |
|---|---|--|---|
| 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 type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
-



HOUSTON LABORATORY
 8800 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 660-0901

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



Certificate of Analysis Number:
00080372

<p><u>Report To:</u></p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p><u>Project Name:</u> 2506-11x</p> <p><u>Site:</u> 7-0104,20003753</p> <p><u>Site Address:</u></p> <p><u>PO Number:</u> LWR#</p> <p><u>State:</u> California</p> <p><u>State Cert. No.:</u></p> <p><u>Date Reported:</u></p>
---	--

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

8/17/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00080372

<p>Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 2506-11x Site: 7-0104,20003753 Site Address: PO Number: LWR# State: California State Cert. No.: Date Reported:</p>
<p>Link To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856</p>	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
A-INF	00080372-01	Air	8/10/00 3:00:00 PM	8/14/00 10:00:00 AM		<input type="checkbox"/>
A-INT	00080372-02	Air	8/10/00 3:00:00 PM	8/14/00 10:00:00 AM		<input type="checkbox"/>
A-EFF	00080372-03	Air	8/10/00 3:00:00 PM	8/14/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

8/17/00

West, 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

EXXON Company U.S.A.

Certificate of Analysis Number:
00080372

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11x Site: 7-0104,20003753 Site Address:
	PO Number: LWR# State: California State Cert. No.: Date Reported: 8/17/00

Client Sample ID: A-EFF

SPL Sample ID: 00080372-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Methyl tert-butyl ether	ND	1.0	ND	0.27
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-INF

SPL Sample ID: 00080372-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Methyl tert-butyl ether	ND	1.0	ND	0.27
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	43	10	12	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00080372

Report To:

Environmental Resolution, Inc.
Jim Chappell
73 Digital Drive Suite 100

Novato
California
94949-

ph: (415) 382-9105 fax: (415) 382-1856

Project Name: 2506-11x

Site: 7-0104,20003753

Site Address:

PO Number: LWR#

State: California

State Cert. No.:

Date Reported: 8/17/00

Client Sample ID: A-INT

SPL Sample ID: 00080372-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Methyl tert-butyl ether	ND	1.0	ND	0.27
Xylenes, Total	ND	1.0	ND	0.23
TPH Air	ND	10	ND	2.8



Client Sample ID A-INF

Collected: 8/10/00 3:00:00

SPL Sample ID: 00080372-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		08/15/00 13:35	FB	370852
Toluene	ND	1.0	1		08/15/00 13:35	FB	370852
Ethylbenzene	ND	1.0	1		08/15/00 13:35	FB	370852
Methyl tert-butyl ether	ND	1.0	1		08/15/00 13:35	FB	370852
m,p-Xylene	ND	1.0	1		08/15/00 13:35	FB	370852
o-Xylene	ND	1.0	1		08/15/00 13:35	FB	370852
Xylenes, Total	ND	1.0	1		08/15/00 13:35	FB	370852
Surr: 1,4-Difluorobenzene	106	% 20-150	1		08/15/00 13:35	FB	370852
Surr: 4-Bromofluorobenzene	84.8	% 58-139	1		08/15/00 13:35	FB	370852
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	43	10	1		08/15/00 13:35	FB	370892
Surr: 1,4-Difluorobenzene	96.2	% 62-144	1		08/15/00 13:35	FB	370892
Surr: 4-Bromofluorobenzene	80.8	% 44-153	1		08/15/00 13:35	FB	370892

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-INT

Collected: 8/10/00 3:00:00 SPL Sample ID: 00080372-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		08/15/00 14:05	FB	370856
Toluene	ND	1.0	1		08/15/00 14:05	FB	370856
Ethylbenzene	ND	1.0	1		08/15/00 14:05	FB	370856
Methyl tert-butyl ether	ND	1.0	1		08/15/00 14:05	FB	370856
m,p-Xylene	ND	1.0	1		08/15/00 14:05	FB	370856
o-Xylene	ND	1.0	1		08/15/00 14:05	FB	370856
Xylenes, Total	ND	1.0	1		08/15/00 14:05	FB	370856
Surr: 1,4-Difluorobenzene	110	% 20-150	1		08/15/00 14:05	FB	370856
Surr: 4-Bromofluorobenzene	80.2	% 58-139	1		08/15/00 14:05	FB	370856
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		08/15/00 14:05	FB	370894
Surr: 1,4-Difluorobenzene	102	% 62-144	1		08/15/00 14:05	FB	370894
Surr: 4-Bromofluorobenzene	78.1	% 44-153	1		08/15/00 14:05	FB	370894

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL



Client Sample ID A-EFF

Collected: 8/10/00 3:00:00 SPL Sample ID: 00080372-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		08/15/00 14:34	FB	370858
Toluene	ND	1.0	1		08/15/00 14:34	FB	370858
Ethylbenzene	ND	1.0	1		08/15/00 14:34	FB	370858
Methyl tert-butyl ether	ND	1.0	1		08/15/00 14:34	FB	370858
m,p-Xylene	ND	1.0	1		08/15/00 14:34	FB	370858
o-Xylene	ND	1.0	1		08/15/00 14:34	FB	370858
Xylenes, Total	ND	1.0	1		08/15/00 14:34	FB	370858
Surr: 1,4-Difluorobenzene	114	% 20-150	1		08/15/00 14:34	FB	370858
Surr: 4-Bromofluorobenzene	80.1	% 58-139	1		08/15/00 14:34	FB	370858

TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		08/15/00 14:34	FB	370896
Surr: 1,4-Difluorobenzene	103	% 62-144	1		08/15/00 14:34	FB	370896
Surr: 4-Bromofluorobenzene	79.0	% 44-153	1		08/15/00 14:34	FB	370896

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 MI - Matrix Interference
 J - Estimated Value between MDL and PQL

Quality Control Documentation



Quality Control Report
EXXON Company U.S.A.
2506-11x

Analysis: Purgeable Aromatics in Air
Method: SW8020A

WorkOrder: 00080372
Lab Batch ID: R19005

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000814A-369546 Units: mg/m³
Analysis Date: 08/15/2000 0:21 Analyst: FB

Lab Sample ID	Client Sample ID
00080372-01A	A-INF
00080372-02A	A-INT
00080372-03A	A-EFF

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
Sum: 1,4-Difluorobenzene	110.8	20-150
Sum: 4-Bromofluorobenzene	38.6	58-139

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000814A-369544 Units: mg/m³
Analysis Date: 08/14/2000 22:16 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Benzene	64	60	94	64	63	98	4.5	34	37	117
Ethylbenzene	88	76	87	88	85	96	10.3	35	56	115
Methyl tert-butyl ether	364	300	83	364	320	88	5.8	30	30	175
Toluene	80	68	86	80	74	92	7.7	30	25	113
m,p-Xylene	88	73	83	88	82	93	11.3	35	12	114
o-Xylene	88	72	82	88	82	93	13.1	35	15	109
Xylenes, Total	176	145	82	176	164	93	12.3	35	12	114

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 MI - Matrix Interference



Quality Control Report
 EXXON Company U.S.A.
 2506-11x

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00080372
 Lab Batch ID: R19006

Method Blank

Samples in Analytical Batch:

RunID: HP_P_000814B-369560 Units: mg/m³
 Analysis Date: 08/15/2000 0:21 Analyst: FB

Lab Sample ID	Client Sample ID
00080372-01A	A-INF
00080372-02A	A-INT
00080372-03A	A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	102.7	62-144
Surr: 4-Bromofluorobenzene	37.8	44-153

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP_P_000814B-369557 Units: mg/m³
 Analysis Date: 08/14/2000 22:16 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
TPH Air	770	520	67	770	570	74	9.9	30	40	140

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B - Analyte detected in the associated Method Blank
 J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits
 D - Recovery Unreportable due to Dilution
 MI - Matrix Interference

*Chain of Custody
And
Sample Receipt Checklist*



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

Sample Receipt Checklist

Workorder: 00080372
Date and Time Received: 8/14/00 10:00:00 AM
Temperature: Ambient

Received by: Barrera, Nancy
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 type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" 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 type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
-

ATTACHMENT C

**AS/SVE SYSTEM OPERATION DATA
PROVIDED BY PREVIOUS CONSULTANTS**

OPERATIONAL DATA FOR
SOIL VAPOR EXTRACTION SYSTEM
Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
(Page 1 of 2)

Date	Sample ID	FIELD MEASUREMENTS			Laboratory Analytical Results		TPPHg Removal	
		Hour Meter	Hours of Operation	Flow cfm	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds
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		
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		

**OPERATIONAL DATA FOR
SOIL VAPOR EXTRACTION SYSTEM**

Former Exxon Service Station 7-0104

1725 Park Street

Alameda, California

(Page 2 of 2)

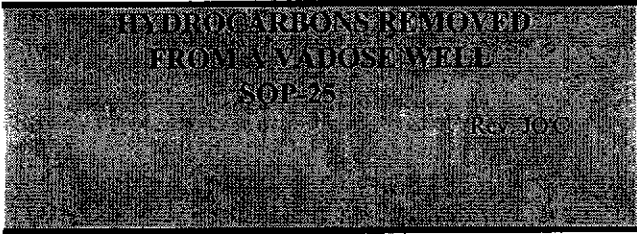
Date	Sample ID	FIELD MEASUREMENTS			Laboratory Analytical Results		TPPHg Removal	
		Hour Meter	Hours of Operation	Flow cfm	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds
	A-EFF				< 2.4	< 0.031		
4/5/99	A-INF	4,957	38	131	42.6	0.474		< 33.3
	A-INT				4.6	< 0.0314		
	A-EFF				< 2.84	< 0.0314		
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.							

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-EFF = Vapor sample collected from effluent sample port.
- cfm = Cubic feet per minute.
- ppmv = Parts per million by volume
- = Not sampled/not measured.

ATTACHMENT D

**ERI SOP-25 "HYDROCARBONS REMOVED
FROM A VADOSE WELL"**



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	Vapor flow acfm	Calc. lb. rem.
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

$$21 \times 60 \times 95 \times \frac{(460+70)}{(460+80)} \times \frac{(407-13)}{407} \times \frac{28.3}{1000} \times \frac{1050}{1000} \times \frac{1}{454} = 7.4 \text{ lb}$$

$$\frac{\text{hr}}{\text{basis}} \times \frac{\text{min}}{\text{hr}} \times \frac{\text{cu ft}}{\text{min}} \times T_{\text{Corr}} \times P_{\text{Corr}} \times \frac{\text{M}^3}{\text{cu ft}} \times \frac{\text{g}}{\text{M}^3} \times \frac{\text{lb}}{\text{g}} \times \frac{\text{lb}}{\text{basis}} = \text{-----}$$

$$21 \times 60 \times 95 \times 0.98 \times 0.97 \times 0.0283 \times 1.050 \times 1/454 = 7.4 \text{ lb.}$$

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)