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**Gene N. Ortega  
Territory Manager  
Global Remediation-US Retail**



July 5, 2001

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

*JUL 10 2001*

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

Dear Ms. Chu:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter 2001*, dated July 5, 2001, 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) 246-8747.

Sincerely,

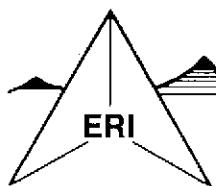
A handwritten signature in black ink, appearing to read "Gene N. Ortega".

Gene N. Ortega  
Territory Manager

Attachment: ERI's Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter 2001, dated July 5, 2001.

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.



**ENVIRONMENTAL RESOLUTIONS, INC.**

July 5, 2001

ERI 250611.R04

JUL 10 2001

Mr. Gene N. Ortega  
ExxonMobil Refining and Supply  
P.O. Box 4032  
Concord, California 94524-4032

Subject: Quarterly Groundwater Monitoring and Remediation Status Report, Second Quarter 2001, Former Exxon Service Station 7-0104, 1725 Park Street, Alameda, California.

Mr. Ortega:

At the request of ExxonMobil Refining and Supply (formerly Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) performed the second quarter 2001 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 April 2, 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 groundwater 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 petroleum hydrocarbons as gasoline (TPHg); total petroleum hydrocarbons as diesel (TPHd); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl tertiary butyl ether (MTBE). The specific methods of analysis are listed in the notes in Table 1. The results of analyses are presented in Table 1 and are shown on Plate 2. The laboratory analysis report and Chain-of-Custody record are attached (Attachment B).

## SOIL AND GROUNDWATER REMEDIATION

### Air Sparge/Soil Vapor Extraction

The air sparge/soil vapor extraction (AS/SVE) system began operation on February 16, 1998. ERI assumed operation of the system on April 1, 2000. The operation and performance data provided by the previous consultant are presented in Attachment C. 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 remove and treat separate-phase hydrocarbons, and groundwater with dissolved hydrocarbons. 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 gasoline hydrocarbons removed by the AS/SVE system since the last reporting period and since startup.

Period	Pounds of Hydrocarbons Removed	Gallons of Hydrocarbons Removed
01/9/01 – 06/4/01	<324.66	<53.3
To Date:	<481.08	<79.0

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:	29.2	4.8

July 5, 2001

## 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. Scott R. Graham at (415) 382-5989 with any questions regarding this project.

Sincerely,  
Environmental Resolutions, Inc.



Scott R. Graham  
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.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>			<.....	ug/L.....					
MW1	09/12/94	NLPH	7.11	10.24	---	1,600a	---	200	1.9	210	6.6	---
(17.35)	10/01/94	NLPH	7.44	9.91	---	1,400a	---	200	<0.5	160	6.6	---
	01/13/95	NLPH	5.13	12.22	---	2,100a	---	410b	17	280b	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	<2.5c	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	---
	01/02/01	NLPH	6.17	11.18	---	<50	68	0.75	<0.5	<0.5	<0.5	---
	04/02/01	NLPH	7.42	9.93	---	140	4.3	<0.5	<0.5	4.1	1.1	---

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.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>					ug/L				
MW2	09/12/94	NLPH	6.71	9.96	---	31,000a	---	4,400	120	1,700	2,100	---
(16.67)	10/01/94	NLPH	7.22	9.45	---	45,000a	---	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	8,000c	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	28,000c	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	---
	01/02/01	---	---	---	---	---	---	---	---	---	---	---
	04/02/01	NLPH	5.00	11.67	---	<50	680	3.6	<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 3 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>		<.....	.....ug/L.....>						
MW3	09/12/94	NLPH	6.58	10.53	---	3,100a	---	580	8	340	100	---
(17.11)	10/01/94	NLPH	6.85	10.26	---	3,800a	---	640	11	230	130	---
	01/13/95	NLPH	5.27	11.84	---	3,800a	---	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	---
	10/17/95	NLPH	7.46	9.65	---	6,100	<5.0	950	29	230	190	---
	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	---	---	---	---	---	---	---	---	---	---	---
	01/02/01	NLPH	5.78	11.33	560d	2,700	3,100	1300	8.8	11	21.3	---
	04/02/01	NLPH	4.71	12.40	620	3,700	1,400	1,400	11	36	21	---

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.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>		<.....		.....ug/L.....					>
MW4	09/12/94	NLPH	6.80	10.54	---	5,200a	---	900	57	310	490	---
(17.34)	10/01/94	NLPH	7.09	10.25	---	9,100a	---	1,200	66	360	380	---
	01/13/95	NLPH	4.66	12.68	---	25,000a	---	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	---
	01/31/97	NLPH	4.22	13.12	---	6,500	40,000	1,200	28	490	130	---
	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	4,900c	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	---
	01/02/01	NLPH	5.93	11.41	---	840	1,000	210	2.5	45	28.10	---
	04/02/01	NLPH	4.89	12.45	---	1,900	320	340	8.5	110	116	---

**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.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>			<.....		ug/L					>
MW5	09/12/94	NLPH	7.12	9.59	---	10,000a	---	2,300	17	320	230	---
(16.71)	10/01/94	Sheen	7.06	9.65	---	11,000a	---	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	110,000a	2,600	76	260	150	---
	01/31/97	NLPH	4.90	11.81	---	10,000	34,000c	2,400	66	430	140	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.65	9.06	---	9,800	36,000/52,000c	1,400	120	190	120	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.95	12.76	---	6,500	15,000c	1,500	34	73	57	---
	04/14/98	---	4.30	12.41	---	---	---	---	---	---	---	---
	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	---
	01/02/01	NLPH	5.68	11.03	---	4,800	1,100	1,600	9.6	38	15	---
	04/02/01	NLPH	4.87	11.84	---	6,800	1,500	2,000	40	150	49	---

**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 6 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		<.....feet.....>		<.....			.ug/L				>
MW6	09/12/94	NLPH	6.88	10.68	---	1,500a	---	150	4.4	170	85	---
(17.56)	10/01/94	NLPH	7.15	10.41	---	87a	---	120	<0.5	99	38	---
	01/13/95	NLPH	4.80	12.76	---	9,900a	---	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	700c
	01/28/98	NLPH	3.74	13.82	---	15,000	2,400c	650	2,300	900	2,700	---
	04/14/98	NLPH	3.92	13.64	---	25,000	2,100c	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	436c	1,270	980	1,100	3,320	436c
	07/09/99	NLPH	6.07	11.49	---	1,140	439	121	9.95	160	4.69	---
	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	---
	01/02/01	---	---	---	---	---	---	---	---	---	---	---
	04/02/01	NLPH	4.70	12.86	409	16,000	450	370	690	870	3,200	---

*from Xtra oil*  
*Detection of TPHd*  
*increasing TPHg:*

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

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>			<.....		ug/L.....					>
MW7	09/12/94	NLPH	6.43	10.69	---	6,000a	---	490	50	280	70	---
(17.12)	10/01/94	NLPH	6.71	10.41	---	8,900a	---	940	670	310	160	---
	01/13/95	NLPH	4.29	12.83	---	20,000a	---	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	250c	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	---
	01/02/01	NLPH	5.52	11.60	---	120	1,500	2.2	<0.5	<0.5	<0.5	---
	04/02/01	NLPH	4.26	12.86	---	120	1,500	0.91	<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 8 of 15)

**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 9 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
												(TOC)
												Date
												<.....feet.....>
												<.....>
												ug/L
MW9	09/12/94	NLPH	6.84	8.78	---	<50a	---	<0.5	<0.5	<0.5	<0.5	---
(15.62)	10/01/94	NLPH	6.97	8.65	---	<50a	---	<0.5	<0.5	<0.5	<0.5	---
	01/13/95	NLPH	6.18	9.44	---	<50a	---	<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	---
	10/17/95	NLPH	7.09	8.53	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	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	<0.5c	<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	---
	01/02/01	NLPH	6.53	9.09	---	<50	<2	<0.5	<0.5	<0.5	<0.5	---
	04/02/01	NLPH	6.21	9.41	---	<50	<2	<0.5	<0.5	0.57	0.73	---

**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 10 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
												(TOC)
												Date
												<.....feet.....>
												<.....>
												ug/L.....>
MW10 (16.79)	09/12/94	NLPH	7.04	9.75	--	71a	--	<0.5	<0.5	1.6	<0.5	--
	10/01/94	NLPH	7.30	9.49	--	330a	--	1.1	<0.5	2.8	0.73	--
	01/13/95	NLPH	6.04	10.75	--	90a	--	<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	--
	01/31/97	NLPH	5.88	10.91	--	<50	10	<0.5	<0.5	<0.5	<0.5	--
	04/10/97	--	--	--	--	--	--	--	--	--	--	--
	07/10/97	NLPH	7.32	9.47	--	<50	<2.5	<0.5	<0.5	<0.5	<0.5	--
	10/08/97	--	--	--	--	--	--	--	--	--	--	--
	12/12/97	Well destroyed.			--							
MW11 (18.04)	10/17/95	NLPH	7.72	10.32	--	34,000	890	3,800	150	950	4,500	--
	01/24/96	NLPH	5.97	12.07	--	44,000	<500	3,800	1,200	2,100	9,800	--
	04/24/96	NLPH	5.84	12.20	--	34,000	720	2,900	1,400	1,700	8,300	--
	07/26/96	NLPH	6.98	11.06	--	39,000	800	4,600	4,200	950	9,500	--
	10/30/96	NLPH	7.54	10.50	--	53,000	990	4,200	3,600	2,100	9,600	--
	01/31/97	NLPH	5.00	13.04	--	23,000	310c	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	1,300c
	01/28/98	NLPH	4.77	13.27	--	35,000	6,800c	2,400	3,500	1,700	7,900	--
	04/14/98	NLPH	4.68	13.36	--	15,000	1,200c	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	--

**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 11 of 15)

**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 12 of 15)



**TABLE 1**  
**CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA**  
Former Exxon Service Station 7-0104  
1725 Park Street  
Alameda, California  
(Page 14 of 15)

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

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated
												Compounds
(TOC)	Date	<.....feet.....>	<.....	ug/L.....	>							
EW-5(cont.)	07/10/97	---	---	---	---	---	---	---	---	---	---	---
(16.51)	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.54	12.97	---	---	---	---	---	---	---	---
	04/14/98	NLPH	3.65	12.86	---	---	---	---	---	---	---	---
	07/30/98	NLPH	7.63	8.88	---	---	---	---	---	---	---	---
	10/19/98	NLPH	5.75	10.76	---	---	---	---	---	---	---	---
	01/13/99	NLPH	7.03	9.48	---	---	---	---	---	---	---	---
	04/28/99	NLPH	8.80	7.71	---	---	---	---	---	---	---	---
Not monitored or sampled 07/09/99 through present.												

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.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 5030/8015 (modified).
TPHd	=	Total petroleum hydrocarbons as diesel 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.
---	=	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).
d	=	Diesel-range hydrocarbons reportedly detected in bailer blank; result is suspect

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

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

Date	Sample ID	Hour Meter	FIELD MEASUREMENTS					Analytical Laboratory Results		TPHg Removal		Benzene Removal		Benzene
			Hours of Operation	Temp F	Vacuum in H <sub>2</sub> O	Flow lfm	Flow cfm	PID ppmv	TPHg mg/m <sup>3</sup>	Benzene mg/m <sup>3</sup>	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds
02/16/98	System startup	---	0	---	---	---	---	---	770.0	< 1.0	< 0.00	< 0.00	< 0.00	---
03/24/00	System shutdown pending evaluation	12,001								< 1.0	60.8	< 60.8	---	---
04/01/00	Environmental Resolutions Inc., assumed operation of the system.													
06/28/00	System upgrades completed, system restarted.													
	A-INF	12,008	7	---	26	---	---	---	18.1					
	A-INT									< 1.0				
	A-EFF								13.3					
	System shutdown for carbon changeout, 2 x 500-pounds.													
07/11/00	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				
	A-EFF								0.0	< 10				< 0.01
07/20/00	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					
07/31/00	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				
08/10/00	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				
	A-EFF								0.0	< 10				< 0.002
08/16/00	A-INF	12,874	141	84	31.5	250	5	164.1						
	A-INT									0.0				
	A-EFF									0.0				
08/24/00	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				
09/12/00	System down upon arrival for carbon changeout. System running on departure.													
	A-INF	13,070	5	74	20	2,600	56	247.5	190	2.5	< 4.79	< 72.0	< 0.07	< 0.21
	A-INT								0.0	< 10				
	A-EFF								0.0	< 10				< 0.01
09/26/00	A-INF	13,406	336	80	22	2,450	52	448.7						
	A-INT									10.7				
	A-EFF									0.0				

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

Date	Sample	Hour Meter ID	FIELD MEASUREMENTS					Analytical PID	Laboratory Results		TPHg Removal		Benzene Removal		Benzene
			Meter Operation	Hours of F	Temp	Vacuum in H <sub>2</sub> O	Flow lfm		TPHg mg/m <sup>3</sup>	Benzene mg/m <sup>3</sup>	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds	Emission Rate lbs/day
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					< 0.005
	A-EFF							9.0	< 10	< 1.0					
10/30/00	System down upon arrival for carbon changeout. System running on departure.														
	A-INF	13,788	2	56	24	2,450	55	10,024	1,700	15	< 0.35	< 90.0	< 0.003	< 0.46	
	A-INT							59.1	< 10	< 1.0					< 0.005
	A-EFF							0.0	< 10	< 1.0					
11/08/00	A-INF	14,008	220	60	25	2,300	51	102.6	29	< 1.0	< 37.69	< 127.6	< 0.35	< 0.81	
	A-INT							41.8	< 10	< 1.0					< 0.005
	A-EFF							Stet	< 10	< 1.0					
11/21/00	System running upon arrival. System down upon departure for carbon changeout.														
	A-INF	14,314	306	68	25	2,300	50	322.0							
	A-INT							32.3							
	A-EFF							42.9							
12/06/00	System down upon arrival for carbon changeout. System down upon departure for carbon changeout														
12/11/00	System down on arrival due to carbon changeout. Running on departure.														
	A-INF	14,316	2	52	24	2,400	54	957	240	2.1	< 8.04	< 135.7	< 0.09	< 0.90	
	A-INT							1.2	< 10	< 1.0					< 0.005
	A-EFF							3.1	< 10	< 1.0					
12/27/00	A-INF	14,697	381	56	26	2,600	58	192.1							
	A-INT							4.8							
	A-EFF							0.0							
01/09/01	A-INF	15,012	315	56	25	2,400	54	82.4	32	< 1.0	< 19.60	< 155.3	< 0.22	< 1.12	
	A-INT							23.2	< 10	< 1.0					< 0.005
	A-EFF							0.0	< 10	< 1.0					
01/23/01	System down on departure for carbon changeout.														
	A-INF	15,353	341	60	26	2,300	51	485.0							
	A-INT							35.2							
	A-EFF							20.7							
01/31/01	A-INF	15,355	2	45	33	1,500	34	10000							
	A-INT							0							
	A-EFF							0							
02/13/01	A-INF	15,669	314	56	12	4,000	90	37.8	31	< 1.0	< 4.43	< 159.7	< 4.20	< 5.32	
	A-INT							29.5	< 10	< 1.0					< 0.008
	A-EFF							0	< 10	< 1.0					
02/27/01	System down upon departure for C/O.														
	A-INF	15,999	330	70	8	4,000	87	316							
	A-INT							37.5							
	A-EFF							73.6							
03/13/01	System down upon arrival for C/O and running upon departure. Monthly samples taken.														
	A-INF	16,002	3	65	9	4,000	88	5833	1300	6.1	< 73.16	< 232.9	< 0.39	< 5.71	
	A-INT							190.4	16	< 1.0					
	A-EFF							0	11	< 1.0					< 0.008
03/27/01	System running on arrival and departure.														
	A-INF	16,336	334	62	10	4,000	89	182.6							
	A-INT							16.8							
	A-EFF							0							

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

Date	Sample ID	FIELD MEASUREMENTS						Analytical Laboratory Results		TPHg Removal		Benzene Removal		Benzene	
		Hour Meter	Hours of Operation	Temp F	Vacuum in H <sub>2</sub> O	Flow lfm	Flow cfm	PID ppmv	TPHg mg/m <sup>3</sup>	Benzene mg/m <sup>3</sup>	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds	lbs/day
04/12/01	System running on arrival and departure.														
	A-INF	16,725	389	72	8	4,000	87	4.8							
	A-INT								2.6						
	A-EFF								0						
04/25/01	System running on arrival and departure.														
	A-INF	17,034	309	80	9	4,000	86	18.6	< 10	< 1.0	< 220.60	< 453.5	< 1.19	< 6.90	
	A-INT								9.5	< 10	< 1.0				
	A-EFF								0	26	< 1.0				< 0.008
05/09/01	System running on arrival and departure.														
	A-INF	17,371	337	86	10	4,000	85	11.3	< 10	< 1.0	< 1.07	< 454.5	< 1.57	< 8.47	
	A-INT								3.6	< 10	< 1.0				
	A-EFF								5.9	< 10	< 1.0				< 0.008
05/24/01	System running on arrival and departure.														
	A-INF	17,734	363	86	20	3,050	65	6.2							
	A-INT								1.6						
	A-EFF								3.1						
06/04/01	System running on arrival and departure.														
	A-INF	17,992	258	80	40	500	11	496	280	< 1.0	< 17.95	< 472.5	< 0.11	< 8.58	
	A-INT								19.7	< 10	< 1.0				
	A-EFF								3.2	< 10	< 1.0				< 0.001

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

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

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

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 1 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T	E	X	>.....	Per Period lbs.	Cumulative lbs.	Per Period lbs.	Cumulative 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	<0.5	<.....	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	<.....				

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 2 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T	E	X >.....	Per Period <.....	Cumulative lbs.....	Per Period <.....	Cumulative lbs.....>	
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					
			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					

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 3 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T	E	X >.....	Per Period	Cumulative lbs	Per Period	Cumulative lbs	
05/07/96	2,971,100	1.4	W-INF	430	66	2.7	5	32	0.22	13.2	0.0339	2.89	
			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					

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
**Former Exxon Service Station 7-0104**  
**1725 Park Street**  
**Alameda, California**  
**(Page 4 of 8)**

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPHg Removal		Benzene Removal	
				TPHg <.....>	B ug/L.....	T	E	X	Per Period <.....lbs.....>	Cumulative 19.4	Per Period <.....lbs.....>	Cumulative 0.0000
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	---	---	---	---
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	---	---	---	---

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
Former Exxon Service Station 7-0104  
1725 Park Street  
Alameda, California  
(Page 5 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T	E	X >.....	Per Period	Cumulative lbs.	Per Period	Cumulative lbs.	
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					
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					

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
Former Exxon Service Station 7-0104  
1725 Park Street  
Alameda, California  
(Page 6 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results						TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T ug/L <.....	E ug/L <.....	X ug/L <.....	Per Period <.....	Cumulative <.....	Per Period <..... lbs.....	Cumulative <..... lbs.....	
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					
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					

**TABLE 3**  
**OPERATION AND PERFORMANCE DATA FOR**  
**GROUNDWATER REMEDIATION SYSTEM**  
Former Exxon Service Station 7-0104  
1725 Park Street  
Alameda, California  
(Page 7 of 8)

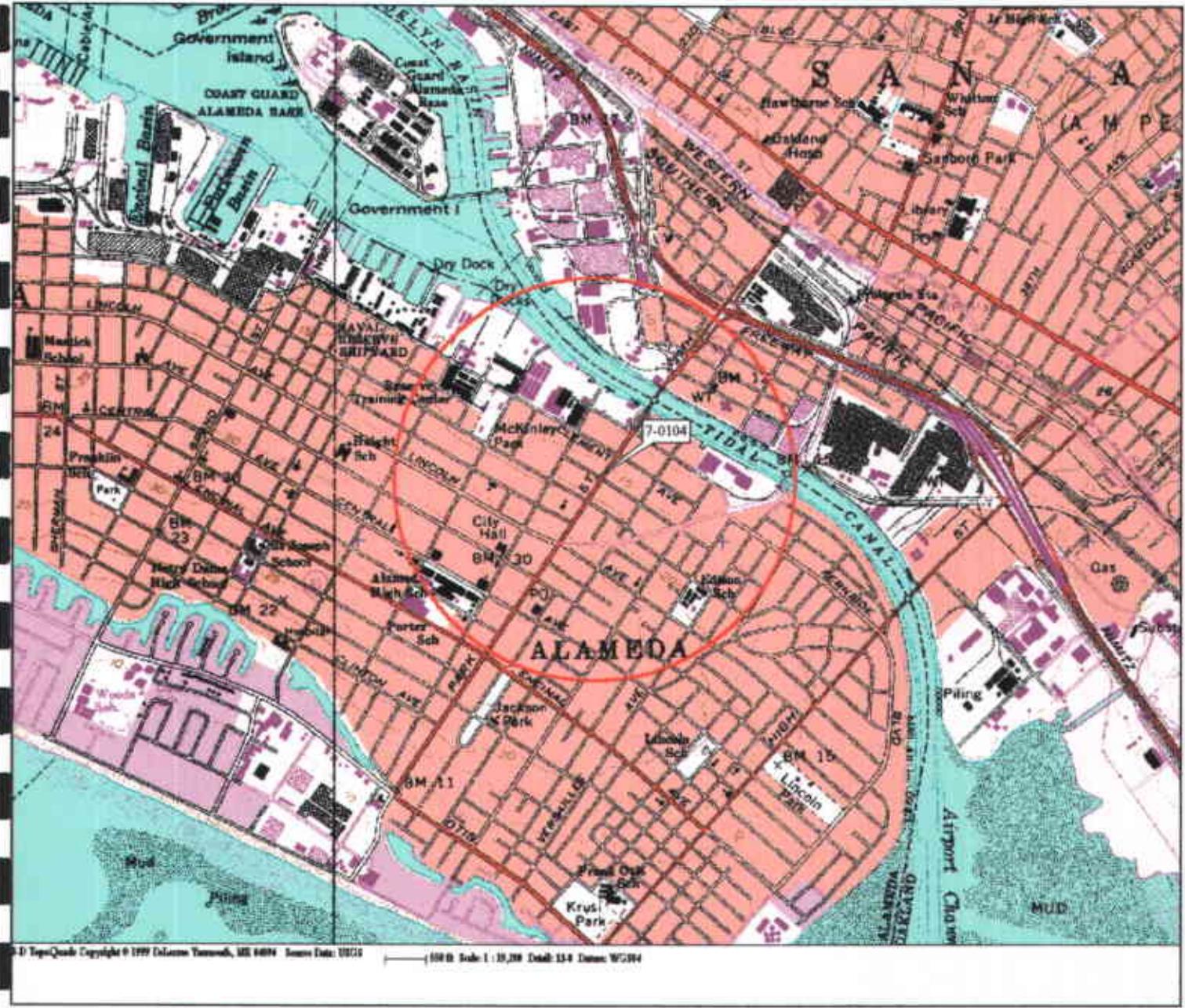
Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPHg Removal		Benzene Removal	
				TPHg <.....	B ug/L <.....	T	E	X > <.....	Per Period lbs	Cumulative lbs	Per Period lbs <.....	Cumulative lbs >
05/06/99	5,621,560	1.1	W-INF	310	45	6.0	0.86	41	0.17	28.2	0.0169	4.66
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			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**  
**GROUNDWATER REMEDIATION SYSTEM**  
 Former Exxon Service Station 7-0104  
 1725 Park Street  
 Alameda, California  
 (Page 8 of 8)

Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPHg Removal		Benzene Removal			
				TPHg <.....	B ug/L.....	T	E	X >.....	Per Period	Cumulative lbs.....	Per Period lbs.....	Cumulative 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.
- TPHg = Total 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.

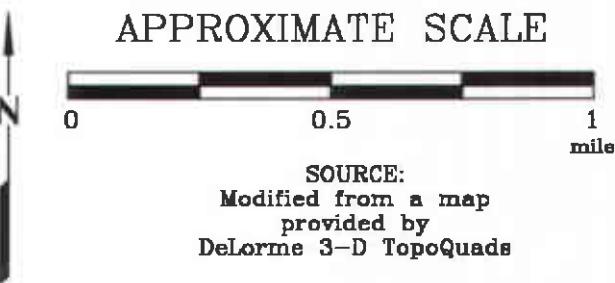


## EXPLANATION



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



**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 ORS 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 top of casing elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® or polypropylene 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 free-phase hydrocarbons or sheen. If appropriate, free-phase hydrocarbons are removed from the well.

Before water samples are collected from the groundwater monitoring wells, the wells are purged until a minimum of three well casing volumes is purged and stabilization of the temperature, pH, and conductivity is obtained. 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:

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

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
$\pi$	=	ratio of the circumference of a circle to its diameter

Gallons of water purged/gallons in 1 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® or polypropylene bailer. The groundwater is carefully poured into selected sample containers (40-milliliter (ml) glass vials, 1,000 ml glass amber bottles, etc.), which are filled so as to produce a positive meniscus.

Depending on the required analysis, each sample container is preserved with hydrochloric acid, nitric acid, etc., or it is preservative free. The type of preservative used for each sample is specified on the chain of custody form.

Each vial and glass amber bottle is 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) 663-0901

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01040099

<u>Report To:</u>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<u>Project Name:</u> 2506-13X <u>Site:</u> 7-0104 <u>Site Address:</u> 1725 Park Street Almeda                          CA <u>PO Number:</u> EWR#21040341 <u>State:</u> California <u>State Cert. No.:</u> 1903 <u>Date Reported:</u> 4/16/01
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This Report Contains A Total Of 25 Pages

Excluding This Page

And

Chain Of Custody





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

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

Certificate of Analysis Number:

**01040099**

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-13X <b>Site:</b> 7-0104 <b>Site Address:</b> 1725 Park Street Almeda CA <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 4/16/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The DRO containers for your sample ID "W-4-MW6" were not received, however, containers labeled "W-9-MW6" (SPL ID: 01040099-12) were received. Per your request, via phone conversation, on April 9, 2001, SPL analyzed your sample ID "W-9-MW6" for Diesel Range Organic by SW846 method 8015.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

01040099 Page 1

4/16/01

Date

Sonia West  
Senior Project Manager



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

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01040099

Report To: Environmental Resolution, Inc.

Jim Chappell  
73 Digital Drive Suite 100

Project Name: 2506-13X

Site: 7-0104

Site Address: 1725 Park Street

Almeda CA

Novato  
California  
94949-

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

PO Number: EWR#21040341

State: California

State Cert. No.: 1903

Fax To:

Environmental Resolution, Inc.

Jim Chappell fax : (415) 382-1856

Date Reported: 4/16/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
W-BB-MW9	01040099-01	Water	4/2/01	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-6-MW9	01040099-02	Water	4/2/01 3:20:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-5-MW1	01040099-03	Water	4/2/01 3:24:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-4-MW4	01040099-04	Water	4/2/01 3:33:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-5-MW5	01040099-05	Water	4/2/01 3:39:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-4-MW7	01040099-06	Water	4/2/01 3:45:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-9-MW2	01040099-07	Water	4/2/01 3:51:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-4-MW6	01040099-08	Water	4/2/01 3:57:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-4-MW3	01040099-09	Water	4/2/01 4:07:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-5-MW11	01040099-10	Water	4/2/01 4:10:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
W-9-MW6	01040099-11	Water	4/2/01 4:21:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>
	01040099-12	Water	4/2/01 3:51:00 PM	4/4/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

4/16/01

Sonia West  
Senior Project Manager

Date

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer



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

Client Sample ID TB Collected: 4/2/01 SPL Sample ID: 01040099-01

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	ND	50	1		04/06/01 21:44	D_R	630281
Surr: 1,4-Difluorobenzene	95.7	% 62-144	1		04/06/01 21:44	D_R	630281
Surr: 4-Bromofluorobenzene	100	% 44-153	1		04/06/01 21:44	D_R	630281
<b>PURGEABLE AROMATICS</b>							
Benzene	ND	0.5	1		04/06/01 21:44	D_R	630250
Ethylbenzene	ND	0.5	1		04/06/01 21:44	D_R	630250
Methyl tert-butyl ether	ND	2	1		04/06/01 21:44	D_R	630250
Toluene	ND	0.5	1		04/06/01 21:44	D_R	630250
m,p-Xylene	ND	0.5	1		04/06/01 21:44	D_R	630250
o-Xylene	ND	0.5	1		04/06/01 21:44	D_R	630250
Xylenes,Total	ND	0.5	1		04/06/01 21:44	D_R	630250
Surr: 1,4-Difluorobenzene	98.4	% 72-137	1		04/06/01 21:44	D_R	630250
Surr: 4-Bromofluorobenzene	102	% 48-156	1		04/06/01 21:44	D_R	630250

Sonia West

Sonia West

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

01040099 Page 3

4/16/01 4:35:03 PM



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

Client Sample ID W-BB-MW9      Collected: 4/2/01 3:20:00 P      SPL Sample ID: 01040099-02

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
-----------------	--------	-----------	-------------	------	---------------	---------	--------

<b>DIESEL RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_DRO</b>	<b>Units: ug/L</b>		
Diesel Range Organics	ND	50	1		04/09/01 18:45 AM		632930
Sur: n-Pentacosane	126	% 20-150	1		04/09/01 18:45 AM		632930

Prep Method	Prep Date	Prep Initials
SW3510B	04/06/2001 19:16	G_T

<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		04/06/01 22:12 D_R		630282
Sur: 1,4-Difluorobenzene	99.0	% 62-144	1		04/06/01 22:12 D_R		630282
Sur: 4-Bromofluorobenzene	98.3	% 44-153	1		04/06/01 22:12 D_R		630282

<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		04/06/01 22:12 D_R		630251
Ethylbenzene	ND	0.5	1		04/06/01 22:12 D_R		630251
Methyl tert-butyl ether	ND	2	1		04/06/01 22:12 D_R		630251
Toluene	ND	0.5	1		04/06/01 22:12 D_R		630251
m,p-Xylene	ND	0.5	1		04/06/01 22:12 D_R		630251
o-Xylene	ND	0.5	1		04/06/01 22:12 D_R		630251
Xylenes, Total	ND	0.5	1		04/06/01 22:12 D_R		630251
Sur: 1,4-Difluorobenzene	98.7	% 72-137	1		04/06/01 22:12 D_R		630251
Sur: 4-Bromofluorobenzene	102	% 48-156	1		04/06/01 22:12 D_R		630251

*Sonia West*

Sonia West  
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) 560-0901

Client Sample ID W-6-MW9      Collected: 4/2/01 3:24:00 P      SPL Sample ID: 01040099-03

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	ND	50	1		04/07/01 0:30	D_R	630290
Sur: 1,4-Difluorobenzene	97.7	% 62-144	1		04/07/01 0:30	D_R	630290
Sur: 4-Bromofluorobenzene	101	% 44-153	1		04/07/01 0:30	D_R	630290
<b>PURGEABLE AROMATICS</b>							
Benzene	ND	0.5	1		04/07/01 0:30	D_R	630254
Ethylbenzene	0.57	0.5	1		04/07/01 0:30	D_R	630254
Methyl tert-butyl ether	ND	2	1		04/07/01 0:30	D_R	630254
Toluene	ND	0.5	1		04/07/01 0:30	D_R	630254
m,p-Xylene	0.73	0.5	1		04/07/01 0:30	D_R	630254
o-Xylene	ND	0.5	1		04/07/01 0:30	D_R	630254
Xylenes, Total	0.73	0.5	1		04/07/01 0:30	D_R	630254
Sur: 1,4-Difluorobenzene	98.9	% 72-137	1		04/07/01 0:30	D_R	630254
Sur: 4-Bromofluorobenzene	106	% 48-156	1		04/07/01 0:30	D_R	630254

Sonia West

Sonia West

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

01040099 Page 5

4/16/01 4:35:04 PM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0961

Client Sample ID W-5-MW1

Collected: 4/2/01 3:33:00 P SPL Sample ID: 01040099-04

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL.	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	140	50	1		04/07/01 0:57	D_R	630284
Surrogate: 1,4-Difluorobenzene	116	% 62-144	1		04/07/01 0:57	D_R	630284
Surrogate: 4-Bromofluorobenzene	160MI	% 44-153	1 *		04/07/01 0:57	D_R	630284
<b>PURGEABLE AROMATICS</b>							
Benzene	ND	0.5	1		04/07/01 0:57	D_R	630255
Ethylbenzene	4.1	0.5	1		04/07/01 0:57	D_R	630255
Methyl tert-butyl ether	4.3	2	1		04/07/01 0:57	D_R	630255
Toluene	ND	0.5	1		04/07/01 0:57	D_R	630255
m,p-Xylene	1.1	0.5	1		04/07/01 0:57	D_R	630255
o-Xylene	ND	0.5	1		04/07/01 0:57	D_R	630255
Xylenes, Total	1.1	0.5	1		04/07/01 0:57	D_R	630255
Surrogate: 1,4-Difluorobenzene	99.0	% 72-137	1		04/07/01 0:57	D_R	630255
Surrogate: 4-Bromofluorobenzene	129	% 48-156	1		04/07/01 0:57	D_R	630255

Sonia West

Sonia West  
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



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

Client Sample ID W-4-MW4

Collected: 4/2/01 3:39:00 P SPL Sample ID: 01040099-05

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	1900	250	5		04/07/01 14:16	D_R	630800
Surrogate: 1,4-Difluorobenzene	140	% 62-144	5		04/07/01 14:16	D_R	630800
Surrogate: 4-Bromofluorobenzene	152	% 44-153	5		04/07/01 14:16	D_R	630800
<b>PURGEABLE AROMATICS</b>							
Benzene	340	0.5	1		04/07/01 1:25	D_R	630256
Ethylbenzene	110	0.5	1		04/07/01 1:25	D_R	630256
Methyl tert-butyl ether	320	2	1		04/07/01 1:25	D_R	630256
Toluene	8.5	0.5	1		04/07/01 1:25	D_R	630256
m,p-Xylene	99	0.5	1		04/07/01 1:25	D_R	630256
o-Xylene	17	0.5	1		04/07/01 1:25	D_R	630256
Xylenes, Total	116	0.5	1		04/07/01 1:25	D_R	630256
Surrogate: 1,4-Difluorobenzene	125	% 72-137	1		04/07/01 1:25	D_R	630256
Surrogate: 4-Bromofluorobenzene	220MI	% 48-156	1 *		04/07/01 1:25	D_R	630256

Sonia West

Sonia West  
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

01040099 Page 7

4/16/01 4:35:04 PM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0801

Client Sample ID W-5-MW5      Collected: 4/2/01 3:45:00 P      SPL Sample ID: 01040099-06

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	6800	1200	25		04/07/01 1:52	D_R	630286
Surr: 1,4-Difluorobenzene	111	% 62-144	25		04/07/01 1:52	D_R	630286
Surr: 4-Bromofluorobenzene	122	% 44-153	25		04/07/01 1:52	D_R	630286
<b>PURGEABLE AROMATICS</b>							
Benzene	2000	12	25		04/07/01 1:52	D_R	630257
Ethylbenzene	150	12	25		04/07/01 1:52	D_R	630257
Methyl tert-butyl ether	1500	50	25		04/07/01 1:52	D_R	630257
Toluene	40	12	25		04/07/01 1:52	D_R	630257
m,p-Xylene	49	12	25		04/07/01 1:52	D_R	630257
o-Xylene	ND	12	25		04/07/01 1:52	D_R	630257
Xylenes, Total	49	12	25		04/07/01 1:52	D_R	630257
Surr: 1,4-Difluorobenzene	100	% 72-137	25		04/07/01 1:52	D_R	630257
Surr: 4-Bromofluorobenzene	107	% 48-156	25		04/07/01 1:52	D_R	630257

*Sonia West*

Sonia West  
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  
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HOUSTON, TEXAS 77054  
(713) 560-0901

Client Sample ID W-4-MW7

Collected: 4/2/01 3:51:00 P SPL Sample ID: 01040099-07

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	120	50	1		04/07/01 2:20	D_R	630287
Surr: 1,4-Difluorobenzene	105	% 62-144	1		04/07/01 2:20	D_R	630287
Surr: 4-Bromofluorobenzene	108	% 44-153	1		04/07/01 2:20	D_R	630287
<b>PURGEABLE AROMATICS</b>							
Benzene	0.91	0.5	1		04/07/01 2:20	D_R	630258
Ethylbenzene	ND	0.5	1		04/07/01 2:20	D_R	630258
Methyl tert-butyl ether	1500	20	10		04/07/01 14:44	D_R	630776
Toluene	ND	0.5	1		04/07/01 2:20	D_R	630258
m,p-Xylene	ND	0.5	1		04/07/01 2:20	D_R	630258
o-Xylene	ND	0.5	1		04/07/01 2:20	D_R	630258
Xylenes,Total	ND	0.5	1		04/07/01 2:20	D_R	630258
Surr: 1,4-Difluorobenzene	101	% 72-137	10		04/07/01 14:44	D_R	630776
Surr: 1,4-Difluorobenzene	96.7	% 72-137	1		04/07/01 2:20	D_R	630258
Surr: 4-Bromofluorobenzene	97.6	% 48-156	10		04/07/01 14:44	D_R	630776
Surr: 4-Bromofluorobenzene	95.1	% 48-156	1		04/07/01 2:20	D_R	630258

*Sonia West*

Sonia West  
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) 666-0901

Client Sample ID W-9-MW2

Collected: 4/2/01 3:57:00 P SPL Sample ID: 01040099-08

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	ND	50	1		04/07/01 2:47	D_R	630288
Sur: 1,4-Difluorobenzene	100	% 62-144	1		04/07/01 2:47	D_R	630288
Sur: 4-Bromofluorobenzene	107	% 44-153	1		04/07/01 2:47	D_R	630288
<b>PURGEABLE AROMATICS</b>							
Benzene	3.6	0.5	1		04/07/01 2:47	D_R	630259
Ethylbenzene	ND	0.5	1		04/07/01 2:47	D_R	630259
Methyl tert-butyl ether	680	20	10		04/07/01 15:11	D_R	630777
Toluene	ND	0.5	1		04/07/01 2:47	D_R	630259
m,p-Xylene	ND	0.5	1		04/07/01 2:47	D_R	630259
o-Xylene	ND	0.5	1		04/07/01 2:47	D_R	630259
Xylenes, Total	ND	0.5	1		04/07/01 2:47	D_R	630259
Sur: 1,4-Difluorobenzene	99.4	% 72-137	1		04/07/01 2:47	D_R	630259
Sum: 1,4-Difluorobenzene	101	% 72-137	10		04/07/01 15:11	D_R	630777
Sur: 4-Bromofluorobenzene	97.7	% 48-156	10		04/07/01 15:11	D_R	630777
Sur: 4-Bromofluorobenzene	120	% 48-156	1		04/07/01 2:47	D_R	630259

*Sonia West*  
Sonia West  
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

01040099 Page 10  
4/16/01 4:35:06 PM



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

Client Sample ID W-4-MW6

Collected: 4/2/01 4:07:00 P SPL Sample ID: 01040099-09

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	16000	1200	25		04/07/01 3:15	D_R	630289
Surrogate: 1,4-Difluorobenzene	116	%	62-144	25	04/07/01 3:15	D_R	630289
Surrogate: 4-Bromofluorobenzene	125	%	44-153	25	04/07/01 3:15	D_R	630289
<b>PURGEABLE AROMATICS</b>							
Benzene	370	12	25		04/07/01 15:39	D_R	630778
Ethylbenzene	870	12	25		04/07/01 15:39	D_R	630778
Methyl tert-butyl ether	450	50	25		04/07/01 15:39	D_R	630778
Toluene	690	12	25		04/07/01 15:39	D_R	630778
m,p-Xylene	2700	12	25		04/07/01 15:39	D_R	630778
o-Xylene	500	12	25		04/07/01 15:39	D_R	630778
Xylenes, Total	3200	12	25		04/07/01 15:39	D_R	630778
Surrogate: 1,4-Difluorobenzene	106	%	72-137	25	04/07/01 15:39	D_R	630778
Surrogate: 4-Bromofluorobenzene	107	%	48-156	25	04/07/01 15:39	D_R	630778

  
Sonia West

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



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

Client Sample ID W-4-MW3

Collected: 4/2/01 4:10:00 P SPL Sample ID: 01040099-10

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>DIESEL RANGE ORGANICS</b>							
Diesel Range Organics	620	50	1	CA_DRO	04/09/01 19:24 AM		632931
Surr: n-Pentacosane	110	% 20-150	1		04/09/01 19:24 AM		632931

Prep Method	Prep Date	Prep Initials
SW3510B	04/06/2001 19:16	G.T.

GASOLINE RANGE ORGANICS	MCL	CA_GRO	Units: ug/L	
Gasoline Range Organics	3700	250	5	04/07/01 17:02 D_R 630801
Surr: 1,4-Difluorobenzene	141	% 62-144	5	04/07/01 17:02 D_R 630801
Surr: 4-Bromofluorobenzene	144	% 44-153	5	04/07/01 17:02 D_R 630801

PURGEABLE AROMATICS	MCL	SW8021B	Units: ug/L	
Benzene	1400	2.5	5	04/07/01 17:02 D_R 630781
Ethylbenzene	36	2.5	5	04/07/01 17:02 D_R 630781
Methyl tert-butyl ether	1400	10	5	04/07/01 17:02 D_R 630781
Toluene	11	2.5	5	04/07/01 17:02 D_R 630781
m,p-Xylene	21	2.5	5	04/07/01 17:02 D_R 630781
o-Xylene	ND	2.5	5	04/07/01 17:02 D_R 630781
Xylenes, Total	21	2.5	5	04/07/01 17:02 D_R 630781
Surr: 1,4-Difluorobenzene	111	% 72-137	5	04/07/01 17:02 D_R 630781
Surr: 4-Bromofluorobenzene	115	% 48-156	5	04/07/01 17:02 D_R 630781

Sonia West

Sonia West  
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

Client Sample ID W-5-MW11

Collected: 4/2/01 4:21:00 P SPL Sample ID: 01040099-11

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>DIESEL RANGE ORGANICS</b>							
Diesel Range Organics	2000	50	1		04/09/01 20:02 AM		632932
Sur: n-Pentacosane	120	% 20-150	1		04/09/01 20:02 AM		632932
Prep Method	Prep Date	Prep Initials					
SW3510B	04/06/2001 19:16	G T					
<b>GASOLINE RANGE ORGANICS</b>							
Gasoline Range Organics	39000	5000	100		04/07/01 17:29 D_R		630802
Sur: 1,4-Difluorobenzene	108	% 62-144	100		04/07/01 17:29 D_R		630802
Sur: 4-Bromofluorobenzene	102	% 44-153	100		04/07/01 17:29 D_R		630802
<b>PURGEABLE AROMATICS</b>							
Benzene	2600	50	100		04/07/01 17:29 D_R		630782
Ethylbenzene	1500	50	100		04/07/01 17:29 D_R		630782
Methyl tert-butyl ether	3100	200	100		04/07/01 17:29 D_R		630782
Toluene	3600	50	100		04/07/01 17:29 D_R		630782
m,p-Xylene	5300	50	100		04/07/01 17:29 D_R		630782
$\alpha$ -Xylene	2200	50	100		04/07/01 17:29 D_R		630782
Xylenes, Total	7500	50	100		04/07/01 17:29 D_R		630782
Sur: 1,4-Difluorobenzene	102	% 72-137	100		04/07/01 17:29 D_R		630782
Sur: 4-Bromofluorobenzene	103	% 48-156	100		04/07/01 17:29 D_R		630782

*Sonia West*  
Sonia West

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

01040099 Page 13

4/16/01 4:35:07 PM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 669-0901

Client Sample ID W-9-MW6

Collected: 4/2/01 3:51:00 P SPL Sample ID: 01040099-12

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>DIESEL RANGE ORGANICS</b>							
Diesel Range Organics	400	50	1		04/13/01 5:51 AM		638352
Surr: n-Pentacosane	47.6	% 20-150	1		04/13/01 5:51 AM		638352

Prep Method	Prep Date	Prep Initials
SW3510B	04/09/2001 11:31	KL

Sonia West

Sonia West  
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.**

2506-13X

<b>Analysis:</b>	<b>Diesel Range Organics</b>	<b>WorkOrder:</b>	<b>01040099</b>
<b>Method:</b>	<b>CA_DRO</b>	<b>Lab Batch ID:</b>	<b>11421</b>

<b>Method Blank</b>			<b>Samples in Analytical Batch:</b>	
RunID:	HP_V_010409A-632928	Units:	mg/L	<b>Lab Sample ID</b>
Analysis Date:	04/09/2001 17:28	Analyst:	AM	01040099-02B
Preparation Date:	04/06/2001 19:16	Prep By:	G_T Method SW3510B	01040099-10B 01040099-11B
				<b>Client Sample ID</b>
				W-BB-MW9 W-4-MW3 W-5-MW11

Analyte	Result	Rep Limit
Diesel Range Organics	ND	0.050
Sur: n-Pentacosane	129.8	20-150

**Laboratory Control Sample (LCS)**

RunID:	HP_V_010409A-632929	Units:	mg/L
Analysis Date:	04/09/2001 18:06	Analyst:	AM
Preparation Date:	04/06/2001 19:16	Prep By:	G_T Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.8	113	21	175

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

Sample Spiked:	01040127-03		
RunID:	HP_V_010409A-632935	Units:	mg/L
Analysis Date:	04/09/2001 21:58	Analyst:	AM
Preparation Date:	04/06/2001 19:16	Prep By:	G_T Method SW3510B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics	0.39	2.5	1.8	56.2	2.5	2.6	87.4	3.5 *	20	21	175

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

**Quality Control Report**

EXXON Company U.S.A.

2506-13X

Analysis:	Diesel Range Organics	WorkOrder:	01040099
Method:	CA_DRO	Lab Batch ID:	11456

<u>Method Blank</u>			Samples in Analytical Batch:	
RunID:	HP_V_010413A-638350	Units:	mg/L	<u>Lab Sample ID</u>
Analysis Date:	04/13/2001 4:34	Analyst:	AM	01040099-12A
Preparation Date:	04/09/2001 11:31	Prep By:	KL	Client Sample ID W-9-MW6
			Method SW3510B	

Analyte	Result	Rep Limit
Diesel Range Organics	ND	0.050
Sur. n-Pentacosane	69.8	20-150

**Laboratory Control Sample (LCS)**

RunID:	HP_V_010413A-638351	Units:	mg/L
Analysis Date:	04/13/2001 5:12	Analyst:	AM
Preparation Date:	04/09/2001 11:31	Prep By:	KL Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.1	85	21	175

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

Sample Spiked:	01040099-12		
RunID:	HP_V_010413A-638353	Units:	mg/L
Analysis Date:	04/13/2001 6:30	Analyst:	AM
Preparation Date:	04/09/2001 11:31	Prep By:	KL Method SW3510B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics	0.40	1.25	2.1	134	1.25	1.8	113	16.7	20	21	175

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

**Quality Control Report**

**EXXON Company U.S.A.**

2506-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 01040099  
Lab Batch ID: R33004

**Method Blank**

RunID: HP\_R\_010406A-630238 Units: ug/L  
Analysis Date: 04/06/2001 15:12 Analyst: D\_R

**Samples in Analytical Batch:**

Lab Sample ID	Client Sample ID
01040099-01A	TB
01040099-02A	W-BB-MW9
01040099-03A	W-6-MW9
01040099-04A	W-5-MW1
01040099-05A	W-4-MW4
01040099-06A	W-5-MW5
01040099-07A	W-4-MW7
01040099-08A	W-9-MW2

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	98.9	72-137
Surr: 4-Bromofluorobenzene	102.2	48-156

**Laboratory Control Sample (LCS)**

RunID: HP\_R\_010406A-630237 Units: ug/L  
Analysis Date: 04/06/2001 14:17 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	49	99	70	130
Ethylbenzene	50	50	101	70	130
Methyl tert-butyl ether	50	47	95	70	130
Toluene	50	50	99	70	130
m,p-Xylene	100	100	101	70	130
o-Xylene	50	50	100	70	130
Xylenes,Total	150	150	100	70	130

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

Sample Spiked: 01040099-03  
RunID: HP\_R\_010406A-630252 Units: ug/L  
Analysis Date: 04/06/2001 22:39 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	121	20	24	116	4.08	21	32	164
Ethylbenzene	0.57	20	24	118	20	24	116	1.40	19	52	142
Methyl tert-butyl ether	ND	20	23	116	20	23	117	1.54	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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

Quality Control Report

EXXON Company U.S.A.

2506-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 01040099  
Lab Batch ID: R33004

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

Sample Spiked: 01040099-03  
RunID: HP\_R\_010406A-630252 Units: ug/L  
Analysis Date: 04/06/2001 22:39 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
Toluene	ND	20	24	121	20	24	119	1.40	20	38	159
m,p-Xylene	0.73	40	47	116	40	46	114	2.17	17	53	144
o-Xylene	ND	20	24	120	20	24	118	1.81	18	53	143
Xylenes, Total	0.73	60	71	117	60	70	115	1.43	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  
MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 680-0901

## Quality Control Report

EXXON Company U.S.A.

2506-13X

Analysis: Gasoline Range Organics WorkOrder: 01040099  
Method: CA\_GRO Lab Batch ID: R33006

### Method Blank

RunID: HP\_R\_010406C-630279 Units: mg/L  
Analysis Date: 04/06/2001 15:12 Analyst: D\_R

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
01040099-01A	TB
01040099-02A	W-BB-MW9
01040099-03A	W-6-MW9
01040099-04A	W-5-MW1
01040099-06A	W-5-MW5
01040099-07A	W-4-MW7
01040099-08A	W-9-MW2
01040099-09A	W-4-MW6

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	100.3	62-144
Surr: 4-Bromofluorobenzene	101.7	44-153

### Laboratory Control Sample (LCS)

RunID: HP\_R\_010406C-630278 Units: mg/L  
Analysis Date: 04/06/2001 14:44 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.81	81	70	130

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

Sample Spiked: 01040099-02  
RunID: HP\_R\_010406C-630716 Units: mg/L  
Analysis Date: 04/07/2001 12:36 Analyst: D\_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	1	113	0.9	1	113	0.463	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  
MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

**Quality Control Report**

**EXXON Company U.S.A.**

2506-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 01040099  
Lab Batch ID: R33024

**Method Blank**

RunID: HP\_R\_010407A-630774 Units: ug/L  
Analysis Date: 04/07/2001 12:03 Analyst: D\_R

**Samples in Analytical Batch:**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>
01040099-07A	W-4-MW7
01040099-08A	W-9-MW2
01040099-09A	W-4-MW6
01040099-10A	W-4-MW3
01040099-11A	W-5-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
Sur: 1,4-Difluorobenzene	98.5	72-137
Sur: 4-Bromofluorobenzene	103.0	48-156

**Laboratory Control Sample (LCS)**

RunID: HP\_R\_010407A-630773 Units: ug/L  
Analysis Date: 04/07/2001 11:08 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	48	96	70	130
Ethylbenzene	50	50	99	70	130
Methyl tert-butyl ether	50	48	96	70	130
Toluene	50	49	97	70	130
m,p-Xylene	100	99	99	70	130
o-Xylene	50	49	98	70	130
Xylenes, Total	150	148	99	70	130

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

Sample Spiked: 01040175-01  
RunID: HP\_R\_010407A-630785 Units: ug/L  
Analysis Date: 04/07/2001 19:47 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	25	115	20	24	114	0.623	21	32	164
Ethylbenzene	5.4	20	29	116	20	28	113	2.56	19	52	142
Methyl tert-butyl ether	8900	20	8900	15.0 *	20	8900	-75.0 *	300 *	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  
MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



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8880 INTERCHANGE DRIVE  
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(713) 660-0901

## Quality Control Report

EXXON Company U.S.A.

2506-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 01040099  
Lab Batch ID: R33024

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

Sample Spiked: 01040175-01  
RunID: HP\_R\_010407A-630785 Units: ug/L  
Analysis Date: 04/07/2001 19:47 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
luene	ND	20	23	116	20	23	114	1.60	20	38	159
m,p-Xylene	8.1	40	53	114	40	52	110	3.01	17	53	144
o-Xylene	1.8	20	25	116	20	24	113	2.47	18	53	143
enes, Total	9.9	60	78	114	60	76	110	2.98	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  
MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

01040099 Page 22  
4/16/01 4:35:14 PM



## Quality Control Report

EXXON Company U.S.A.

2506-13X

Analysis:	Gasoline Range Organics	WorkOrder:	01040099
Method:	CA_GRO	Lab Batch ID:	R33025

### Method Blank

### Samples in Analytical Batch:

RunID:	HP_R_010407B-630817	Units:	mg/L	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date:	04/07/2001 12:03	Analyst:	D_R	01040099-05A	W-4-MW4
				01040099-10A	W-4-MW3
				01040099-11A	W-5-MW11

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Sum: 1,4-Difluorobenzene	99.3	62-144
Sum: 4-Bromofluorobenzene	104.0	44-153

### Laboratory Control Sample (LCS)

RunID: HP\_R\_010407B-630798 Units: mg/L  
 Analysis Date: 04/07/2001 11:36 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.81	81	70	130

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

Sample Spiked: 01040175-03  
 RunID: HP\_R\_010407B-630805 Units: mg/L  
 Analysis Date: 04/07/2001 20:42 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	0.91	101	0.9	0.88	97.8	3.48	36	36	160

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist*  
*And*  
*Chain of Custody*



HOUSTON LABORATORY  
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(713) 660-0901

Sample Receipt Checklist

Workorder:	01040099	Received By:	NB
Date and Time Received:	4/4/01 10:00:00 AM	Carrier name:	FedEx
Temperature:	4	Chilled by:	Water Ice

- |                                                                   |                                         |                             |                                                 |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| <b>1.</b> Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| <b>2.</b> Custody seals intact on shipping container/cooler?      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| <b>3.</b> Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| <b>4.</b> Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>5.</b> Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>6.</b> Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>7.</b> Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>8.</b> Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>9.</b> Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>10.</b> All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>11.</b> Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| <b>12.</b> Water - VOA vials have zero headspace?                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |
| <b>13.</b> Water - pH acceptable upon receipt?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

SPL Representative: West, Sonia

Contact Date & Time: 4/9/01 4:21:00 PM

Client Name Contacted: Jim Chappell

Non Conformance Issues: RECEIVED 2-CONTAINERS FOR DRO NOT WRITTEN ON COC ID#W-9-MW6 4/2/01 15:51.DID NOT RECEIVE 2-CONTAINERS FOR ID#W-4-MW6 BUT IS WRITTEN ON COC.

Client Instructions: Report as W-9-MW6

## EXXON COMPANY, USA.

(West Coast)

Exxon Engineer: Gene Ortega

Phone: (925) 246-8747

Consultant Co. Name: ERIContact: Jim ChappellAddress: 75 Digital Dr. Suite 100  
Novato CA 94949 Fax: (415) 382-1856RAS #: 7-0104

Facility/State ID # (TN Only):

AFE # (Terminal Only):

Consultant Project #: 2506-13XLocation: 1725 Park St.(City) Alameda(State) CA EE C&M SDT

Consultant Work Release #:

2101110Sampled By: Dan Glaze

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H <sub>2</sub> O	SOIL	AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)	OTHER
TB	3/1	-		X				HCl		2/0	X		
W-BB-MW9	4/2	1520								3/1	X		
W- 6 - MW9		1524								3/0			
W- 5 - MW1		1533								1			
W- 4 - MW4		1539											
W- 5 - MW5		1545											
W- 4 - MW7		1551											
W- 9 - MW2		1557											
W- 4 - MW6		1607								3/2	X		
W- 4 - MW3	↓	1610								3/2	X	V	
												V	

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)

REMARKS:

# Diesel 8015 DRO

No Diesel on samples W-6-mw9 to W-9-mw2

Standard  CLP  Other 

QA/QC Level

SPECIAL REPORTING REQUIREMENTS (Specify)

LAB USE ONLY Lot #

Storage Location

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

WORK ORDER #:

LAB WORK RELEASE #:

CUSTODY  
RECORD

Relinquished By Sampler:

Relinquished:

Relinquished:

Date  
4/3/01 10930

Time

Received By:

Date

Time

Received By:

Way Bill #

Name: Manu Bhatia Cooler Temp: 4/4/01 2004c



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

Environmental  
Assessment  
Division  
Hazardous  
Substances  
Section

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01020412

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: 7-0104,21011100  
Site Address:  
  
PO Number: LWR#2101512  
State: California  
State Cert. No.: 1903  
Date Reported: 2/19/01

This Report Contains A Total Of 10 Pages

Excluding This Page

And

Chain Of Custody

2/19/01

Date



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

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

Certificate of Analysis Number:

**01020412**

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: 7-0104,21011100  
Site Address:  
  
PO Number: LWR#2101512  
State: California  
State Cert. No.: 1903  
Date Reported: 2/19/01

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

West, Sonia  
Senior Project Manager

01020412 Page 1

2/19/01

Date



HOUSTON LABORATORY  
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HOUSTON, TEXAS 77054  
(713) 660-0901

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01020412

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

Project Name: 2506-11X  
Site: 7-0104,21011100  
Site Address:

Novato  
California  
94949-  
ph: (415) 382-9105      fax: (415) 382-1856

PO Number: LWR#2101512  
State: California  
State Cert. No.: 1903  
Date Reported: 2/19/01

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
A-INF		01020412-01	Air	2/13/01 4:30:00 PM	2/15/01 10:00:00 AM		<input type="checkbox"/>
NT		01020412-02	Air	2/13/01 4:30:00 PM	2/15/01 10:00:00 AM		<input type="checkbox"/>
A-EFF		01020412-03	Air	2/13/01 4:30:00 PM	2/15/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

2/19/01

Date

West, Sonia  
Senior Project Manager

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer



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HOUSTON, TEXAS 77054  
(713) 660-0901

EXXON Company U.S.A.

Certificate of Analysis Number:

01020412

<u>Report To:</u>	<u>Project Name:</u>	2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<u>Site:</u>	7-0104,21011100
	<u>Site Address:</u>	
Novato California 94949-	<u>PO Number:</u>	LWR#2101512
ph: (415) 382-9105      fax: (415) 382-1856	<u>State:</u>	California
	<u>State Cert. No.:</u>	1903
	<u>Date Reported:</u>	2/19/01

Client Sample ID: A-INF

SPL Sample ID: 01020412-01A

Analyte	mg/m <sup>3</sup>		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	1.1	1.0	0.29	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	31	10	8.7	2.8

Client Sample ID: A-INT

SPL Sample ID: 01020412-02A

Analyte	mg/m <sup>3</sup>		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



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(713) 660-0901

EXXON Company U.S.A.

Certificate of Analysis Number:

01020412

<u>Report To:</u>	<u>Project Name:</u>	2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<u>Site:</u>	7-0104,21011100
Novato California 94949-	<u>Site Address:</u>	
ph: (415) 382-9105      fax: (415) 382-1856	<u>PO Number:</u>	LWR#2101512
	<u>State:</u>	California
	<u>State Cert. No.:</u>	1903
	<u>Date Reported:</u>	2/19/01

Client Sample ID: A-EFF

SPL Sample ID: 01020412-03A

Analyte	mg/m³		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



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Client Sample ID A-INF

Collected: 2/13/01 4:30:00 SPL Sample ID: 01020412-01

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0	MCL	SW8020A	Units: mg/m³		
Toluene	1.1	1.0		1	02/15/01 16:45	FB	569481
Ethylbenzene	ND	1.0		1	02/15/01 16:45	FB	569481
m,p-Xylene	ND	1.0		1	02/15/01 16:45	FB	569481
o-Xylene	ND	1.0		1	02/15/01 16:45	FB	569481
Xylenes, Total	ND	1.0		1	02/15/01 16:45	FB	569481
Surr: 1,4-Difluorobenzene	95.2	% 20-150		1	02/15/01 16:45	FB	569481
Surr: 4-Bromofluorobenzene	104	% 58-139		1	02/15/01 16:45	FB	569481
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	31	10	MCL	SW8015B	Units: mg/m³		
Surr: 1,4-Difluorobenzene	109	% 62-144		1	02/15/01 16:45	FB	569488
Surr: 4-Bromofluorobenzene	115	% 44-153		1	02/15/01 16:45	FB	569488

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

01020412 Page 3

2/19/01 1:54:12 PM



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

Client Sample ID A-INT

Collected: 2/13/01 4:30:00 SPL Sample ID: 01020412-02

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	02/15/01 17:15	FB	569482
Toluene	ND	1.0		1	02/15/01 17:15	FB	569482
Ethylbenzene	ND	1.0		1	02/15/01 17:15	FB	569482
m,p-Xylene	ND	1.0		1	02/15/01 17:15	FB	569482
o-Xylene	ND	1.0		1	02/15/01 17:15	FB	569482
Xylenes,Total	ND	1.0		1	02/15/01 17:15	FB	569482
Surr: 1,4-Difluorobenzene	96.8	% 20-150		1	02/15/01 17:15	FB	569482
Surr: 4-Bromofluorobenzene	94.9	% 58-139		1	02/15/01 17:15	FB	569482
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10		1	02/15/01 17:15	FB	569489
Surr: 1,4-Difluorobenzene	113	% 62-144		1	02/15/01 17:15	FB	569489
Surr: 4-Bromofluorobenzene	114	% 44-153		1	02/15/01 17:15	FB	569489

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

01020412 Page 4

2/19/01 1:54:15 PM



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HOUSTON, TEXAS 77054  
(713) 660-0901

Client Sample ID A-EFF

Collected: 2/13/01 4:30:00 SPL Sample ID: 01020412-03

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	MCL	SW8020A	Units: mg/m³	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	02/15/01 17:44	FB	569483
Toluene	ND	1.0		1	02/15/01 17:44	FB	569483
Ethylbenzene	ND	1.0		1	02/15/01 17:44	FB	569483
m,p-Xylene	ND	1.0		1	02/15/01 17:44	FB	569483
o-Xylene	ND	1.0		1	02/15/01 17:44	FB	569483
Xylenes, Total	ND	1.0		1	02/15/01 17:44	FB	569483
Surr: 1,4-Difluorobenzene	93.8	% 20-150		1	02/15/01 17:44	FB	569483
Surr: 4-Bromofluorobenzene	100	% 58-139		1	02/15/01 17:44	FB	569483
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10	MCL	SW8015B	Units: mg/m³		569490
Surr: 1,4-Difluorobenzene	110	% 62-144		1	02/15/01 17:44	FB	569490
Surr: 4-Bromofluorobenzene	115	% 44-153		1	02/15/01 17:44	FB	569490

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

01020412 Page 5

2/19/01 1:54:16 PM

# *Quality Control Documentation*

Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis:	Purgeable Aromatics in Air	WorkOrder:	01020412
Method:	SW8020A	Lab Batch ID:	R29723

<u>Method Blank</u>			<u>Samples in Analytical Batch:</u>	
RunID:	HP_P_010215A-569480	Units:	mg/m³	
Analysis Date:	02/15/2001 16:16	Analyst:	FB	
			<u>Lab Sample ID</u>	<u>Client Sample ID</u>
			01020412-01A	A-INF
			01020412-02A	A-INT
			01020412-03A	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	94.2	20-150
Surr: 4-Bromofluorobenzene	98.7	58-139

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

RunID:	HP_P_010215A-569479	Units:	mg/m³
Analysis Date:	02/15/2001 15:17	Analyst:	FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Lower Limit	Lower Limit	Upper Limit	Upper Limit
Benzene	64	53	83	64	54	84	0.8	34	37	117	
Ethylbenzene	88	64	73	88	56	64	13.7	35	56	115	
Toluene	80	60	75	80	56	70	8.1	30	25	113	
m,p-Xylene	88	63	71	88	57	65	9.3	35	12	114	
Xylene	88	63	72	88	55	63	12.7	35	15	109	
Xylenes, Total	176	126	72	176	112	64	11.8	35	12	114	

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Total Petroleum Product in Air      WorkOrder: 01020412  
Method: SW8015B      Lab Batch ID: R29724

Method Blank

Samples in Analytical Batch:

RunID:	HP_P_010215B-569487	Units:	mg/m <sup>3</sup>	Lab Sample ID	Client Sample ID
Analysis Date:	02/15/2001 16:16	Analyst:	FB	01020412-01A	A-INF
				01020412-02A	A-INT
				01020412-03A	A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Sur.: 1,4-Difluorobenzene	108.3	62-144
Sur.: 4-Bromofluorobenzene	111.2	44-153

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

RunID: HP\_P\_010215B-569486      Units: mg/m<sup>3</sup>  
Analysis Date: 02/15/2001 15:17      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	610	79	770	540	70	12.4	30	40	140

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

01020412 Page 8  
2/19/01 1:54:20 PM

*Sample Receipt Checklist*  
*And*  
*Chain of Custody*



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

Sample Receipt Checklist

Workorder: 01020412 Received by: Estrada, Ruben

Date and Time Received: 2/15/01 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 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"/>	

## EXXON COMPANY, USA.

(West Coast)

01020412

Exxon Engineer: DARIN ROUSE Phone: (925) 246-8768  
 Consultant Co. Name: ERI Contact: Tim CHAPPEL  
 Address: 73 DIGITAL DR, SUITE 100 Fax: (415) 382-1856  
NOVATO, CA 94949  
 RAS #: 7-0104 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 2506-11X  
 Location: 1725 PARK STREET (City) ALAMEDA (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 21011100  
 Sampled By: COREY WEIAND

CHAIN OF CUSTODY RECORD NO. \_\_\_\_\_

Page 1 of 1ANALYSIS REQUEST:  
(CHECK APPROPRIATE BOX)

OTHER

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE	NO OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)												
					H <sub>2</sub> O	SOIL	AIR					ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)												
A-INF	2/13/01	1630		X		X		-	-	1	1L	X	X	TPH/GC	8015 GRO	8015 DRO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A-INT	1	1630		X		X		-	-	1	1L	X	X	BTX	8020	602	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
A-EFF	1ew	1630		X		X		-	-	1	1L	X	X	MTBE	8020	8260	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														OXYGENATES (7)	8260	8260	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														O&G	IR 413.1	GRAV.	413.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
														VOL	8260	624	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														SEMIVOL	8270	625	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														PAH/PAH	8100	8310	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														PCB/PEST	8081/8082	PCB ONLY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														TOP/FULL LOAD	SEMILOAD	PEST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														LEAD, TOTAL	239.1	7421	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														LEAD, DISSOLVED	L	LEAD TOTAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														REACTIVITY	<input type="checkbox"/>	CORROSIVITY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														PURGEABLE HYDROCARBON	8010	601	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
														TPH/IR	418.1									
														TOXIC/TOTAL										

TAT

24 HR. \* 72 HR. \*

48 HR. \* 96 HR. \*

8 Business \* Contact US Prior to Sending Sample

Other \_\_\_\_\_

EXXON UST  
CONTRACT NO.  
C41483QA/QC Level  
Standard  CLP  Other 

SPECIAL DETECTION LIMITS (Specify)

REMARKS:

SPECIAL REPORTING REQUIREMENTS (Specify)

LAB USE ONLY Lot #

Storage Location

PDF  EDD FAX  FAX C-O-C W/REPORT WORK ORDER # 01020412 LAB WORK RELEASE #:**CUSTODY  
RECORD**

Relinquished By Sampler:

*ERI*Date 12/14/01 Time 0800

Received By:

Relinquished:

Date 2-15-01 Time 1000

Received By:

Relinquished:

Date 2-15-01 Time 1000

Received By:

Way Bill #: RJH Cooler Temp: AMBIENT



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

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

Certificate of Analysis Number:  
**01030453**

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: 7-0104,21011100  
Site Address:  
PO Number: LWR#21012120  
State: California  
State Cert. No.: 1903  
Date Reported: 3/22/01

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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*  
Sonia West  
Senior Project Manager

01030453 Page 1

3/22/01

Date



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

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01030453

Report To: Environmental Resolution, Inc.

Jim Chappell  
73 Digital Drive Suite 100

Project Name: 2506-11X

Site: 7-0104,21011100

Site Address:

Novato  
California  
94949-  
ph: (415) 382-9105      fax: (415) 382-1856

PO Number: LWR#21012120

State: California

State Cert. No.: 1903

Date Reported: 3/22/01

Fax To: Environmental Resolution, Inc.

Jim Chappell      fax : (415) 382-1856

	<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>COC ID</u>	<u>HOLD</u>
A-INF		01030453-01	Air	3/13/01 11:30:00 AM	3/15/01 10:00:00 AM		<input type="checkbox"/>
INT		01030453-02	Air	3/13/01 11:30:00 AM	3/15/01 10:00:00 AM		<input type="checkbox"/>
EFF		01030453-03	Air	3/13/01 11:30:00 AM	3/15/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

3/22/01

Sonia West  
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:

01030453

<u>Report To:</u>		<u>Project Name:</u>	2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100		<u>Site:</u>	7-0104,21011100
Novato California 94949-		<u>Site Address:</u>	
ph: (415) 382-9105	fax: (415) 382-1856	<u>PO Number:</u>	LWR#21012120
		<u>State:</u>	California
		<u>State Cert. No.:</u>	1903
		<u>Date Reported:</u>	3/22/01

Client Sample ID: A-INF

SPL Sample ID: 01030453-01A

Analyte	mg/m <sup>3</sup>		ppm(v)	
	Result	PQL	Result	PQL
Benzene	6.1	5.0	1.9	1.5
Toluene	15	5.0	3.9	1.3
Ethylbenzene	ND	5.0	ND	1.1
m,p-Xylene	ND	5.0	ND	1.1
o-Xylene	ND	5.0	ND	1.1
Xylenes, Total	ND	5.0	ND	1.1
TPH Air	1300	50	360	14

Client Sample ID: A-INT

SPL Sample ID: 01030453-02A

Analyte	mg/m <sup>3</sup>		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	16	10	4.5	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01030453

<u>Report To:</u>	<u>Project Name:</u>	2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<u>Site:</u>	7-0104,21011100
Novato California 94949-	<u>Site Address:</u>	
ph: (415) 382-9105      fax: (415) 382-1856	<u>PO Number:</u>	LWR#21012120
	<u>State:</u>	California
	<u>State Cert. No.:</u>	1903
	<u>Date Reported:</u>	3/22/01

Client Sample ID: A-EFF

SPL Sample ID: 01030453-03A

Analyte		mg/m <sup>3</sup>		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	11	10	3.1	2.8



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

Client Sample ID A-INF Collected: 3/13/01 11:30:00 SPL Sample ID: 01030453-01

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	6.1	5.0		5	03/15/01 18:01	FB	602726
Toluene	15	5.0		5	03/15/01 18:01	FB	602726
Ethylbenzene	ND	5.0		5	03/15/01 18:01	FB	602726
m,p-Xylene	ND	5.0		5	03/15/01 18:01	FB	602726
o-Xylene	ND	5.0		5	03/15/01 18:01	FB	602726
Xylenes, Total	ND	5.0		5	03/15/01 18:01	FB	602726
Surr: 1,4-Difluorobenzene	93.3	% 20-150		5	03/15/01 18:01	FB	602726
Surr: 4-Bromofluorobenzene	93.4	% 58-139		5	03/15/01 18:01	FB	602726
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	1300	50	MCL	SW8020A	Units: mg/m³		
Surr: 1,4-Difluorobenzene	106	% 62-144		5	03/15/01 18:01	FB	602802
Surr: 4-Bromofluorobenzene	106	% 44-153		5	03/15/01 18:01	FB	602802

  
Sonia West

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



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

Client Sample ID A-INT

Collected: 3/13/01 11:30:00 SPL Sample ID: 01030453-02

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	MCL	SW8020A	Units: mg/m³	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	03/15/01 18:31	FB	602728
Toluene	ND	1.0		1	03/15/01 18:31	FB	602728
Ethylbenzene	ND	1.0		1	03/15/01 18:31	FB	602728
m,p-Xylene	ND	1.0		1	03/15/01 18:31	FB	602728
o-Xylene	ND	1.0		1	03/15/01 18:31	FB	602728
Xylenes, Total	ND	1.0		1	03/15/01 18:31	FB	602728
Surr: 1,4-Difluorobenzene	94.1	% 20-150		1	03/15/01 18:31	FB	602728
Surr: 4-Bromofluorobenzene	95.4	% 58-139		1	03/15/01 18:31	FB	602728
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	16	10	MCL	SW8015B	Units: mg/m³		602803
Surr: 1,4-Difluorobenzene	112	% 62-144		1	03/15/01 18:31	FB	602803
Surr: 4-Bromofluorobenzene	118	% 44-153		1	03/15/01 18:31	FB	602803

*Sonia West*

Sonia West  
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

Client Sample ID A-EFF

Collected: 3/13/01 11:30:00 SPL Sample ID: 01030453-03

Site: 7-0104,21011100

Analyses/Method	Result	Rep.Limit	MCL	SW8020A	Units: mg/m³	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>								
Benzene	ND	1.0		1	03/15/01 19:00	FB	602729	
Toluene	ND	1.0		1	03/15/01 19:00	FB	602729	
Ethylbenzene	ND	1.0		1	03/15/01 19:00	FB	602729	
m,p-Xylene	ND	1.0		1	03/15/01 19:00	FB	602729	
o-Xylene	ND	1.0		1	03/15/01 19:00	FB	602729	
Xylenes,Total	ND	1.0		1	03/15/01 19:00	FB	602729	
Surr: 1,4-Difluorobenzene	93.5	% 20-150		1	03/15/01 19:00	FB	602729	
Surr: 4-Bromofluorobenzene	98.1	% 58-139		1	03/15/01 19:00	FB	602729	
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>								
TPH Air	11	10	MCL	SW8015B	Units: mg/m³			
Surr: 1,4-Difluorobenzene	119	% 62-144		1	03/15/01 19:00	FB	602804	
Surr: 4-Bromofluorobenzene	121	% 44-153		1	03/15/01 19:00	FB	602804	

*Sonia West*

Sonia West

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.**

2506-11X

Analysis: Purgeable Aromatics in Air  
Method: SW8020A

WorkOrder: 01030453  
Lab Batch ID: R31425

**Method Blank**

**Samples in Analytical Batch:**

RunID:	HP_P_010314A-601303	Units:	mg/m <sup>3</sup>	Lab Sample ID	Client Sample ID
Analysis Date:	03/14/2001 14:47	Analyst:	FB	01030453-01A	A-INF
				01030453-02A	A-INT
				01030453-03A	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
Surr: 1,4-Difluorobenzene	93.5	20-150
Surr: 4-Bromofluorobenzene	101.1	58-139

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

RunID: HP\_P\_010314A-601300 Units: mg/m<sup>3</sup>  
Analysis Date: 03/14/2001 13:47 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Lower Limit	Lower Limit	Upper Limit
Benzene	64	65	101	64	61	95	6.2	34	37	117
Ethylbenzene	88	83	94	88	76	86	8.9	35	56	115
Methyl tert-butyl ether	364	460	126	364	500	138	8.9	30	30	175
Toluene	80	75	94	80	71	89	5.3	30	25	113
m,p-Xylene	88	82	93	88	76	86	8.1	35	12	114
o-Xylene	88	80	91	88	76	86	5.4	35	15	109
Xylenes, Total	176	162	92	176	152	86	6.4	35	12	114

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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Total Petroleum Product in Air WorkOrder: 01030453  
Method: SW8015B Lab Batch ID: R31428

Method Blank

Samples In Analytical Batch:

RunID:	HP_P_010314B-601361	Units:	mg/m <sup>3</sup>	Lab Sample ID	Client Sample ID
Analysis Date:	03/14/2001 14:47	Analyst:	FB	01030453-01A	A-INF
				01030453-02A	A-INT
				01030453-03A	A-EFF

Analyte	Result	Rep Limit	
		ND	10
TPH Air			
Surr: 1,4-Difluorobenzene	110.1	62-144	
Surr: 4-Bromofluorobenzene	114.5	44-153	

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

RunID: HP\_P\_010314B-601359 Units: mg/m<sup>3</sup>  
Analysis Date: 03/14/2001 13:47 Analyst: FB

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD	Lower Limit	Upper Limit
TPH Air	770		670	88.		770	690		89	1.8

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist*  
*And*  
*Chain of Custody*

## EXXON COMPANY, USA.

(West Coast)

CHU 26415

Page \_\_\_\_\_ of \_\_\_\_\_

Exxon Enginee DA V. ROUSE Phone: (925) 246-8768  
 Consultant Co. Name ERI Contact: JIM CHAPPEL  
 Address: 73 DIGITAL DR SUITE 100 Fax: (415) 382-1856  
NOVATO, CA 94949

RAS #: 7-0184 Facility/State ID # (TN Only):

AFE # (Terminal Only):  Consultant Project #: 2506-11X

Location: 1725 PARK ST. (City) ALAMEDA (State) CA  
 EE  C&M  SDT

Consultant Work Release #: 21011100

Sampled By: COREY WEILAND

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX H <sub>2</sub> O	MATRIX SOIL	MATRIX AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)	OTHER
A-INF	<u>3/13/01</u>		<u>1130</u>		X		X		-	1	1L	TPH/GC 8015 GRO <input checked="" type="checkbox"/> 8015 DRO <input type="checkbox"/>	
A-INT	<u></u>		<u></u>		X		X		-	1	1L	BITEX 8020 <input checked="" type="checkbox"/> 602 <input type="checkbox"/>	
A-EFF	<u>1W 1W</u>		<u></u>		X		X		-	1	1L	MTBE 8020 <input type="checkbox"/> 8260 <input type="checkbox"/>	
												OXYGENATES (7) 6260 <input type="checkbox"/>	
												ORG IR 4131 <input type="checkbox"/> GRAV. 4132 <input type="checkbox"/>	
												VOL 8280 <input type="checkbox"/> 624 <input type="checkbox"/>	
												SEMI-VOL 8270 <input type="checkbox"/> 625 <input type="checkbox"/>	
												PNPAH 8100 <input type="checkbox"/> 8310 <input type="checkbox"/> 8270 <input type="checkbox"/>	
												PCB/PEST 8081/8082 <input type="checkbox"/> PCB ONLY <input type="checkbox"/>	
												TOP FLD <input type="checkbox"/> VOID <input type="checkbox"/> SEMI-VAC <input type="checkbox"/> PEST <input type="checkbox"/> HERB <input type="checkbox"/>	
												METALS, TOTAL <input type="checkbox"/> METALS, TCPL <input type="checkbox"/>	
												LEAD, TOTAL 23911 <input type="checkbox"/> 7421 <input type="checkbox"/> LEAD, TCPL <input type="checkbox"/>	
												LEAD DISSOLVED <input type="checkbox"/> LEAD TOTAL <input type="checkbox"/>	
												REACTIVITY <input type="checkbox"/> CORROSITY <input type="checkbox"/> FLASH POINT <input type="checkbox"/>	
												PURGEABLE HYDROCARBON 8010 <input type="checkbox"/> 801 <input type="checkbox"/>	
												TPH/IR 418.1 <input type="checkbox"/>	
												TOXIC/T <input type="checkbox"/>	

RUSH

TAT	24 HR. * <u>72 HR. *</u>	SPECIAL DETECTION LIMITS (Specify)	REMARKS:
48 HR. * <u>96 HR. *</u>	<i>Amber</i>		
8 Business <input checked="" type="checkbox"/> * <u>Contact US Prior to Sending Sample</u>	EXXON UST CONTRACT NO. <u>C41483</u>	SPECIAL REPORTING REQUIREMENTS (Specify)	LAB USE ONLY Lot #
Other _____	PDF <input type="checkbox"/> FAX <input type="checkbox"/>	EDD <input type="checkbox"/> FAX C-O-C W/REPORT <input type="checkbox"/>	<i>150</i> <i>10</i> WORK ORDER # <u>01030453</u> LAB WORK RELEASE #
QA/QC Level Standard <input type="checkbox"/> CLP <input type="checkbox"/> Other <input type="checkbox"/>			Storage Location

Relinquished By Sampler: <u>SD</u> CR1	Date <u>3/14/01</u>	Time <u>07:30</u>	Received By: _____
Relinquished: _____	Date	Time	Received By: _____
Relinquished: _____	Date	Time	Received By: _____

CUSTODY RECORD

Triplicate:

Original • White

Lab's Copy • Green

Client Copy • Yellow

Cooler Temp: Am3/15/01 1000



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

Sample Receipt Checklist

Workorder: 01030453 Received By: RE  
Date and Time Received: 3/15/01 10:00:00 AM Carrier name: FedEx  
Temperature: AMBIENT Chilled by: Not Chilled

- |                                                                   |                                         |                             |                                                    |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------|----------------------------------------------------|
| <b>1.</b> Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2.</b> Custody seals intact on shipping container/cooler?      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>3.</b> Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4.</b> Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>5.</b> Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>6.</b> Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>7.</b> Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>8.</b> Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>9.</b> Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>10.</b> All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>11.</b> Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>12.</b> Water - VOA vials have zero headspace?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |
| <b>13.</b> Water - pH acceptable upon receipt?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

SPL Representative:

Client Name Contacted:

Non Conformance  
Issues:

Client Instructions:

Contact Date & Time:



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

EXXON Company U.S.A.

INFORMER

Certificate of Analysis Number:

01040787

MAY 0 2001

INVESTIGATION

<u>Report To:</u>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<u>Project Name:</u> 2506.41X  <u>Site:</u> 7-0104 <u>Site Address:</u> 1725 Park Street Almeda CA  <u>PO Number:</u> EWR#21040341 <u>State:</u> California <u>State Cert. No.:</u> 1903 <u>Date Reported:</u> 4/30/01
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This Report Contains A Total Of 10 Pages

Excluding This Page

And

Chain Of Custody

4/30/01

Date



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0801

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

Certificate of Analysis Number:  
**01040787**

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X <b>Site:</b> 7-0104 <b>Site Address:</b> 1725 Park Street Alameda CA <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> <b>Date Reported:</b> 4/30/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Please note that your sample "A-EFF" was detected for Total Petroleum Hydrocarbons (TPH) by 8015B. However, your sample "A-INF" was not detected for TPH. The laboratory checked all sample containers and found that they were correctly labeled within the laboratory.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

West, Sonia  
Senior Project Manager

5/1/01

Date



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

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01040787

Report To: Environmental Resolution, Inc.

Jim Chappell  
73 Digital Drive Suite 100

Novato  
California  
94949-  
ph: (415) 382-9105      fax: (415) 382-1856

Fax To:

Environmental Resolution, Inc.  
Jim Chappell      fax: (415) 382-1856

Project Name: 2506-11X

Site: 7-0104

Site Address: 1725 Park Street

Almeda      CA

PO Number: EWR#21040341

State: California

State Cert. No.: 1903

Date Reported: 4/30/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
A-INF	01040787-01	Air	4/26/01 1:30:00 PM	4/26/01 9:30:00 AM		<input type="checkbox"/>
ANT	01040787-02	Air	4/26/01 1:30:00 PM	4/26/01 9:30:00 AM		<input type="checkbox"/>
EFF	01040787-03	Air	4/26/01 1:30:00 PM	4/26/01 9:30:00 AM		<input type="checkbox"/>

*Sonia West*

4/30/01

Date

Sonia West  
Senior Project Manager

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer

01040787 Page 2

4/30/01 3:38:45 PM



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01040787

<u>Report To:</u>		<u>Project Name:</u>	2506-11X
Environmental Resolution, Inc.		<u>Site:</u>	7-0104
Jim Chappell		<u>Site Address:</u>	1725 Park Street
73 Digital Drive Suite 100			Almeda CA
Novato		<u>PO Number:</u>	EWR#21040341
California		<u>State:</u>	California
94949-		<u>State Cert. No.:</u>	1903
ph: (415) 382-9105	fax: (415) 382-1856	<u>Date Reported:</u>	4/30/01

Client Sample ID: A-INF

SPL Sample ID: 01040787-01A

Analyte	mg/m <sup>3</sup>		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-INT

SPL Sample ID: 01040787-02A

Analyte	mg/m <sup>3</sup>		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

EXXON Company U.S.A.

Certificate of Analysis Number:

01040787

<b>Report To:</b>	<b>Project Name:</b> 2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<b>Site:</b> 7-0104
Novato California 94949-	<b>Site Address:</b> 1725 Park Street Almeda CA
ph: (415) 382-9105      fax: (415) 382-1856	<b>PO Number:</b> EWR#21040341
	<b>State:</b> California
	<b>State Cert. No.:</b> 1903
	<b>Date Reported:</b> 4/30/01

Client Sample ID: A-EFF

SPL Sample ID: 01040787-03A

Analyte	mg/m <sup>3</sup>		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	26	10	7.3	2.8



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-9901

Client Sample ID A-INF

Collected: 4/25/01 1:30:00 SPL Sample ID: 01040787-01

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	04/26/01 16:05	TM	652714
Toluene	ND	1.0		1	04/26/01 16:05	TM	652714
Ethylbenzene	ND	1.0		1	04/26/01 16:05	TM	652714
m,p-Xylene	ND	1.0		1	04/26/01 16:05	TM	652714
o-Xylene	ND	1.0		1	04/26/01 16:05	TM	652714
Xylenes, Total	ND	1.0		1	04/26/01 16:05	TM	652714
Surr: 1,4-Difluorobenzene	96.9	% 20-150		1	04/26/01 16:05	TM	652714
Surr: 4-Bromofluorobenzene	96.9	% 58-139		1	04/26/01 16:05	TM	652714
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10		1	04/26/01 16:05	TM	652875
Surr: 1,4-Difluorobenzene	110	% 62-144		1	04/26/01 16:05	TM	652875
Surr: 4-Bromofluorobenzene	111	% 44-153		1	04/26/01 16:05	TM	652875

Sonia West

Sonia West

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

01040787 Page 3

4/30/01 3:38:47 PM



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

Client Sample ID A-INT

Collected: 4/25/01 1:30:00 SPL Sample ID: 01040787-02

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0	1	04/26/01 16:35	TM	652715	
Toluene	ND	1.0	1	04/26/01 16:35	TM	652715	
Ethylbenzene	ND	1.0	1	04/26/01 16:35	TM	652715	
m,p-Xylene	ND	1.0	1	04/26/01 16:35	TM	652715	
o-Xylene	ND	1.0	1	04/26/01 16:35	TM	652715	
Xylenes, Total	ND	1.0	1	04/26/01 16:35	TM	652715	
Surr: 1,4-Difluorobenzene	96.6	% 20-150	1	04/26/01 16:35	TM	652715	
Surr: 4-Bromofluorobenzene	105	% 58-139	1	04/26/01 16:35	TM	652715	
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10	1	04/26/01 16:35	TM	652876	
Surr: 1,4-Difluorobenzene	111	% 62-144	1	04/26/01 16:35	TM	652876	
Surr: 4-Bromofluorobenzene	113	% 44-153	1	04/26/01 16:35	TM	652876	

*Sonia West*

Sonia West  
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

Client Sample ID A-EFF      Collected: 4/25/01 1:30:00      SPL Sample ID: 01040787-03

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	04/26/01 17:04	TM	652716
Toluene	ND	1.0		1	04/26/01 17:04	TM	652716
Ethylbenzene	ND	1.0		1	04/26/01 17:04	TM	652716
m,p-Xylene	ND	1.0		1	04/26/01 17:04	TM	652716
o-Xylene	ND	1.0		1	04/26/01 17:04	TM	652716
Xylenes,Total	ND	1.0		1	04/26/01 17:04	TM	652716
Surr: 1,4-Difluorobenzene	94.3	% 20-150		1	04/26/01 17:04	TM	652716
Surr: 4-Bromofluorobenzene	99.6	% 58-139		1	04/26/01 17:04	TM	652716
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	26	10		1	04/26/01 17:04	TM	652878
Surr: 1,4-Difluorobenzene	110	% 62-144		1	04/26/01 17:04	TM	652878
Surr: 4-Bromofluorobenzene	113	% 44-153		1	04/26/01 17:04	TM	652878

Sonia West

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

## Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Purgeable Aromatics in Air  
Method: SW8020A

WorkOrder: 01040787  
Lab Batch ID: R34176

### Method Blank

### Samples in Analytical Batch:

RunID: HP\_P\_010426A-652708 Units: mg/m<sup>3</sup>

Lab Sample ID

Client Sample ID

Analysis Date: 04/26/2001 12:39 Analyst: TM

01040787-01A

A-INF

01040787-02A

A-INT

01040787-03A

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
Sur. 1,4-Difluorobenzene	95.6	20-150
Sur. 4-Bromofluorobenzene	97.5	58-139

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

RunID: HP\_P\_010426A-652706 Units: mg/m<sup>3</sup>

Analysis Date: 04/26/2001 11:41 Analyst: TM

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	67	104	64	64	100	4.4	34	37	117
Ethylbenzene	88	81	92	88	78	88	4.0	35	56	115
Toluene	80	77	96	80	69	87	10.0	30	25	113
m,p-Xylene	88	82	93	88	77	87	5.8	35	12	114
o-Xylene	88	79	90	88	76	86	4.3	35	15	109
Xylenes, Total	176	161	91	176	153	87	5.1	35	12	114

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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

01040787 Page 7  
4/30/01 3:38:55 PM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 630-0901

## Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Total Petroleum Product in Air  
Method: SW8015B

WorkOrder: 01040787  
Lab Batch ID: R34181

### Method Blank

### Samples in Analytical Batch:

RunID: HP\_P\_010426B-652836 Units: mg/m<sup>3</sup>

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 04/26/2001 12:39 Analyst: TM

01040787-01A

A-INF

01040787-02A

A-INT

01040787-03A

A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr. 1,4-Difluorobenzene	106.7	62-144
Surr. 4-Bromofluorobenzene	107.8	44-153

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

RunID: HP\_P\_010426B-652832 Units: mg/m<sup>3</sup>  
Analysis Date: 04/26/2001 11:41 Analyst: TM

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	710	92	770	700	90.	2.1	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  
MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist  
And  
Chain of Custody*



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

Sample Receipt Checklist

Workorder:	01040787	Received By:	RT
Date and Time Received:	4/26/01 9:30:00 AM	Carrier name:	FedEx
Temperature:	Ambient	Chilled by:	Not Chilled

- |                                                                   |                                         |                             |                                                    |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------|----------------------------------------------------|
| <b>1.</b> Shipping container/coolier in good condition?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2.</b> Custody seals intact on shipping container/coolier?     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>3.</b> Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4.</b> Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>5.</b> Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>6.</b> Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>7.</b> Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>8.</b> Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>9.</b> Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>10.</b> All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>11.</b> Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>12.</b> Water - VOA vials have zero headspace?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |
| <b>13.</b> Water - pH acceptable upon receipt?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

SPL Representative: \_\_\_\_\_

Contact Date & Time: \_\_\_\_\_

Client Name Contacted: \_\_\_\_\_

Non Conformance  
Issues: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

## EXXON COMPANY, USA.

(West Coast)

Exxon Engineer: DARIN ROUSE Phone: (925) 246-8768  
 Consultant Co. Name ERI Contact: JIM CHAPPEL  
 Address: 73 DIGITAL DR. SUITE 100 Fax: (415) 382-1856  
NOVATO, CA 94949  
 RAS #: 7-0104 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): 1725 PARK ST. Consultant Project #: 2506-11X  
 Location: 1725 PARK ST. (City) ALAMEDA (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 21011100  
 Sampled By: COREY WEIAND

CHAIN OF CUSTODY RECORD NO. \_\_\_\_\_ Page 1 of 1ANALYSIS REQUEST:  
(CHECK APPROPRIATE BOX)

OTHER

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX H <sub>2</sub> O   SOIL   AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO <input checked="" type="checkbox"/>	8015 DRO <input type="checkbox"/>	BTEX <input checked="" type="checkbox"/>	602 <input type="checkbox"/>	MTBE <input type="checkbox"/>	8020 <input type="checkbox"/>	8260 <input type="checkbox"/>	OXYGENATES (7) <input type="checkbox"/>	8260 <input type="checkbox"/>	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"/>	PCB/EST 808/8082 <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TCP/FULVOAC <input type="checkbox"/>	SEMIVAPOR/ESTO <input type="checkbox"/>	LEAD TOTAL 239.1 <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD TCPL <input type="checkbox"/>	LEAD DISSOLVED <input type="checkbox"/>	LEAD TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/>	CORROSIVITY <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/>	SOI <input type="checkbox"/>	TPH/VIR 416.1 <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>
A- INF	9/25/01	1330		X		X	-	1	1L	X X																														
A- INT	/	/		X		X	-	1	1L	X X																														
A- EFF	/v	/v		X		X	-	1	1L	X X																														

**RUSH**

TAT	24 HR. <input type="checkbox"/> * 72 HR. <input type="checkbox"/> *	48 HR. <input type="checkbox"/> * 96 HR. <input type="checkbox"/> *	SPECIAL DETECTION LIMITS (Specify)			REMARKS:		
-----	---------------------------------------------------------------------	---------------------------------------------------------------------	------------------------------------	--	--	----------	--	--

8 Business <input checked="" type="checkbox"/> * Contact US Prior to Sending Sample	EXXON UST CONTRACT NO. <u>C41483</u>			SPECIAL REPORTING REQUIREMENTS (Specify)			LAB USE ONLY <input type="checkbox"/> Lot # <u>1040787</u>	Storage Location <u>N</u>
Other <input type="checkbox"/>	QA/QC Level	PDF <input type="checkbox"/>	EDD <input type="checkbox"/>	FAX <input type="checkbox"/>	FAX C-O-C W/REPORT <input type="checkbox"/>	WORK ORDER # <u>01040787</u>	LAB WORK RELEASE #:	

CUSTODY RECORD	Relinquished By Sampler: <u>ERI</u>	Date <u>4-26-01</u>	Time <u>0930</u>	Received By: <u>R. H. H. / Ambient</u>
	Relinquished: <u> </u>	Date <u> </u>	Time <u> </u>	Received By: <u> </u>
	Relinquished: <u> </u>	Date <u> </u>	Time <u> </u>	Received By: <u> </u>



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

DEPARTMENT

EXXON Company U.S.A.

Certificate of Analysis Number:

01050344

<u>Report To:</u>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<u>Project Name:</u> 2506-11X  <u>Site:</u> 7-0104 <u>Site Address:</u> 1725 Park Street Almeda                                  CA  <u>PO Number:</u> EWR#21040341 <u>State:</u> California <u>State Cert. No.:</u> 1903 <u>Date Reported:</u> 5/15/01
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This Report Contains A Total Of 10 Pages

Excluding This Page

And

Chain Of Custody

5/15/01

Date



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

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

Certificate of Analysis Number:

**01050344**

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949. ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X <b>Site:</b> 7-0104 <b>Site Address:</b> 1725 Park Street Alameda CA <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 5/15/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

01050344 Page 1

5/15/01

Date

*Sonia West*  
Sonia West  
Senior Project Manager



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

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01050344

<u>Report To:</u>	Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<u>Project Name:</u>	2506-11X
		<u>Site:</u>	7-0104
	Novato California 94949-	<u>Site Address:</u>	1725 Park Street Almeda CA
	ph: (415) 382-9105      fax: (415) 382-1856	<u>PO Number:</u>	EWR#21040341
<u>Fax To:</u>	Environmental Resolution, Inc. Jim Chappell      fax : (415) 382-1856	<u>State:</u>	California
		<u>State Cert. No.:</u>	1903
		<u>Date Reported:</u>	5/15/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
A-INF	01050344-01	Air	5/9/01 2:00:00 PM	5/11/01 10:00:00 AM		<input type="checkbox"/>
A-INT	01050344-02	Air	5/9/01 2:00:00 PM	5/11/01 10:00:00 AM		<input type="checkbox"/>
A-EFF	01050344-03	Air	5/9/01 2:00:00 PM	5/11/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

5/15/01

Date

Sonia West  
Senior Project Manager

Joel Grice  
Laboratory Director

Ted Yen  
Quality Assurance Officer

01050344 Page 2

5/15/01 9:42:16 AM



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01050344

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X <b>Site:</b> 7-0104 <b>Site Address:</b> 1725 Park Street Almeda CA <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 5/15/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Client Sample ID: A-INF

SPL Sample ID: 01050344-01A

Analyte	mg/m <sup>3</sup>		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-INT

SPL Sample ID: 01050344-02A

Analyte	mg/m <sup>3</sup>		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



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01050344

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X  <b>Site:</b> 7-0104 <b>Site Address:</b> 1725 Park Street Alameda CA <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 5/15/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Client Sample ID: A-EFF

SPL Sample ID: 01050344-03A

Analyte	mg/m <sup>3</sup>		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) 680-0901

Client Sample ID A-INF

Collected: 5/9/01 2:00:00 P SPL Sample ID: 01050344-01

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0	1	1	05/11/01 14:28	TM	669648
Toluene	ND	1.0	1	1	05/11/01 14:28	TM	669648
Ethylbenzene	ND	1.0	1	1	05/11/01 14:28	TM	669648
m,p-Xylene	ND	1.0	1	1	05/11/01 14:28	TM	669648
$\alpha$ -Xylene	ND	1.0	1	1	05/11/01 14:28	TM	669648
Xylenes, Total	ND	1.0	1	1	05/11/01 14:28	TM	669648
Surr: 1,4-Difluorobenzene	94.6	% 20-150		1	05/11/01 14:28	TM	669648
Surr: 4-Bromofluorobenzene	102	% 58-139		1	05/11/01 14:28	TM	669648
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10	1	1	05/11/01 14:28	TM	669769
Surr: 1,4-Difluorobenzene	110	% 62-144		1	05/11/01 14:28	TM	669769
Surr: 4-Bromofluorobenzene	113	% 44-153		1	05/11/01 14:28	TM	669769

Sonia West

Sonia West

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

01050344 Page 3

5/15/01 9:42:27 AM



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

Client Sample ID A-INT

Collected: 5/9/01 2:00:00 P SPL Sample ID: 01050344-02

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0	1		05/11/01 14:57	TM	669649
Toluene	ND	1.0	1		05/11/01 14:57	TM	669649
Ethylbenzene	ND	1.0	1		05/11/01 14:57	TM	669649
m,p-Xylene	ND	1.0	1		05/11/01 14:57	TM	669649
o-Xylene	ND	1.0	1		05/11/01 14:57	TM	669649
Xylenes, Total	ND	1.0	1		05/11/01 14:57	TM	669649
Surr: 1,4-Difluorobenzene	94.3	% 20-150	1		05/11/01 14:57	TM	669649
Surr: 4-Bromofluorobenzene	100	% 58-139	1		05/11/01 14:57	TM	669649
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10	1		05/11/01 14:57	TM	669770
Surr: 1,4-Difluorobenzene	110	% 62-144	1		05/11/01 14:57	TM	669770
Surr: 4-Bromofluorobenzene	113	% 44-153	1		05/11/01 14:57	TM	669770

Sonia West

Sonia West  
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

01050344 Page 4

5/16/01 9:42:28 AM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 669-0921

Client Sample ID A-EFF

Collected: 5/9/01 2:00:00 P SPL Sample ID: 01050344-03

Site: 7-0104

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0	1		05/11/01 15:27	TM	669650
Toluene	ND	1.0	1		05/11/01 15:27	TM	669650
Ethylbenzene	ND	1.0	1		05/11/01 15:27	TM	669650
m,p-Xylene	ND	1.0	1		05/11/01 15:27	TM	669650
<i>o</i> -Xylene	ND	1.0	1		05/11/01 15:27	TM	669650
Xylenes, Total	ND	1.0	1		05/11/01 15:27	TM	669650
Surr: 1,4-Difluorobenzene	94.8	% 20-150		1	05/11/01 15:27	TM	669650
Surr: 4-Bromofluorobenzene	102	% 58-139		1	05/11/01 15:27	TM	669650
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10	1		05/11/01 15:27	TM	669771
Surr: 1,4-Difluorobenzene	110	% 62-144		1	05/11/01 15:27	TM	669771
Surr: 4-Bromofluorobenzene	113	% 44-153		1	05/11/01 15:27	TM	669771

Sonia West  
Sonia West  
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*



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

## Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Purgeable Aromatics in Air  
Method: SW8020A

WorkOrder: 01050344  
Lab Batch ID: R35104

### Method Blank

### Samples in Analytical Batch:

RunID: HP\_P\_010511A-669643 Units: mg/m<sup>3</sup>

Lab Sample ID

Client Sample ID

Analysis Date: 05/11/2001 11:30 Analyst: TM

01050344-01A

A-INF

01050344-02A

A-INT

01050344-03A

A-EFF

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	1.0
c-Xylene	ND	1.0
Xylenes, Total	ND	1.0
Sur: 1,4-Difluorobenzene	94.8	20-150
Sur: 4-Bromofluorobenzene	97.0	58-139

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

RunID: HP\_P\_010511A-669641 Units: mg/m<sup>3</sup>  
Analysis Date: 05/11/2001 10:30 Analyst: TM

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	57	90	4.3	34	37	117
Ethylbenzene	88	73	83	88	67	76	8.2	35	56	115
Toluene	80	68	85	80	64	80	6.2	30	25	113
m,p-Xylene	88	74	84	88	67	76	10.5	35	12	114
c-Xylene	88	72	81	88	67	76	6.9	35	15	109
Xylenes, Total	176	146	83	176	134	76	8.6	35	12	114

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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



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

## Quality Control Report

EXXON Company U.S.A.

2506-11X

Analysis: Total Petroleum Product in Air  
Method: SW8015B

WorkOrder: 01050344  
Lab Batch ID: R35113

### Method Blank

### Samples in Analytical Batch:

RunID: HP\_P\_010511B-669764 Units: mg/m<sup>3</sup>

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 05/11/2001 11:30 Analyst: TM

01050344-01A

A-INF

01050344-02A

A-INT

01050344-03A

A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surrogate: 1,4-Difluorobenzene	106.8	62-144
Surrogate: 4-Bromofluorobenzene	108.4	44-153

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

RunID: HP\_P\_010511B-669762 Units: mg/m<sup>3</sup>

Analysis Date: 05/11/2001 10:30 Analyst: TM

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	650	84	770	600	78	7.8	30	40	140

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

B - Analyte detected in the associated Method Blank  
J - Estimated value between MDL and PQL

D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

01050344 Page 8  
5/15/01 9:42:44 AM

*Sample Receipt Checklist  
And  
Chain of Custody*



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

Sample Receipt Checklist

Workorder:	01050344	Received By:	RE
Date and Time Received:	5/11/01 10:00:00 AM	Carrier name:	FedEx
Temperature:	AMBIENT	Chilled by:	Not Chilled

- |                                                                   |                                         |                             |                                                    |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------|----------------------------------------------------|
| <b>1.</b> Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2.</b> Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>3.</b> Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4.</b> Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>5.</b> Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>6.</b> Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>7.</b> Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>8.</b> Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>9.</b> Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>10.</b> All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>11.</b> Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>12.</b> Water - VOA vials have zero headspace?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |
| <b>13.</b> Water - pH acceptable upon receipt?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:	<input type="text"/>
Client Instructions:	<input type="text"/>

## EXXON COMPANY, USA.

(West Coast)

01050344

Page 1 of 1

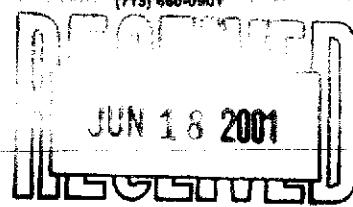
Exxon Engineer: DARIN ROUSE Phone: (925) 246-8768  
 Consultant Co. Name:  Contact: Jim CHAPPEL  
 Address: 73 DIGITAL DR SUITE 100 Fax: (415) 382-1856  
NOVATO, CA 94949  
 RAS #: 7-0104 Facility/State ID # (TN Only):   
 AFE # (Terminal Only):  Consultant Project #: 2506-11X  
 Location: 1725 PARK ST (City) ALAMEDA (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 21011100  
 Sampled By: COREY WEIAND

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX H <sub>2</sub> O	SOIL	AIR	OTHER	PRESERVATIVE
<u>A - INF</u>	<u>5/9/01</u>	<u>1400</u>		<u>X</u>		<u>X</u>			-
<u>A - INT</u>	<u>/</u>	<u>/</u>		<u>X</u>		<u>X</u>			-
<u>A - EFF</u>	<u>/m</u>	<u>/m</u>		<u>X</u>		<u>X</u>			-

TAT	24 HR. <input type="checkbox"/>	72 HR. <input type="checkbox"/>	48 HR. <input type="checkbox"/>	96 HR. <input type="checkbox"/>	8 Business <input checked="" type="checkbox"/> *Contact US Prior to Sending Sample	EXXON UST CONTRACT NO. <u>C41483</u>	SPECIAL DETECTION LIMITS (Specify)	REMARKS:	SO 51b 823061156294 REC
Other <input type="checkbox"/>							SPECIAL REPORTING REQUIREMENTS (Specify)	LAB USE ONLY <input type="checkbox"/> Lot # <u>①</u>	Storage Location <u>Amherst</u>
Standard <input checked="" type="checkbox"/> CLP <input type="checkbox"/> Other <input type="checkbox"/> QA/QC Level							FAX <input type="checkbox"/> PDF <input type="checkbox"/> EDD	WORK ORDER # <u>01050344</u>	LAB WORK RELEASE #:
CUSTODY RECORD		Relinquished By Sampler: <u>ERI</u>				Date <u>5/9/01</u>	Time <u>16:00</u>	Received By: <u></u>	
		Relinquished:				Date	Time	Received By:	
		Relinquished:				Date	Time	Received By: <u>W. Way Bill #:</u>	Cooler Temp: <u>5/11/01 1000</u>



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 666-0901



EXXON Company U.S.A.

Certificate of Analysis Number:

01060173

<u>Report To:</u>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<u>Project Name:</u> 2506-11X <u>Site:</u> 7-0104, <u>Site Address:</u>  <u>PO Number:</u> EWR#21040341 <u>State:</u> California <u>State Cert. No.:</u> 1903 <u>Date Reported:</u> 6/8/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

This Report Contains A Total Of 10 Pages

Excluding This Page

And

Chain Of Custody

6/8/01

Date



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

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

Certificate of Analysis Number:

**01060173**

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X  <b>Site:</b> 7-0104, <b>Site Address:</b>  <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 6/8/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other 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.

01060173 Page 1

6/8/01

Date

Sonia West  
Senior Project Manager



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 669-0901

## EXXON Company U.S.A.

### Certificate of Analysis Number:

01060173

Report To: Environmental Resolution, Inc.

Jim Chappell  
73 Digital Drive Suite 100

Project Name: 2506-11X

Site: 7-0104,  
Site Address:

Novato  
California  
94949-  
ph: (415) 382-9105      fax: (415) 382-1856

PO Number: EWR#21040341

State: California

State Cert. No.: 1903

Fax To:

Environmental Resolution, Inc.

Jim Chappell      fax : (415) 382-1856

Date Reported: 6/8/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
INF	01060173-01	Air	6/4/01 11:00:00 AM	6/6/01 10:00:00 AM		<input type="checkbox"/>
INT	01060173-02	Air	6/4/01 11:00:00 AM	6/6/01 10:00:00 AM		<input type="checkbox"/>
A-EFF	01060173-03	Air	6/4/01 11:00:00 AM	6/6/01 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

6/8/01

Date

Sonia West  
Senior Project Manager

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:

01060173

<b>Report To:</b>  Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105      fax: (415) 382-1856	<b>Project Name:</b> 2506-11X  <b>Site:</b> 7-0104, <b>Site Address:</b>  <b>PO Number:</b> EWR#21040341 <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 6/8/01
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Client Sample ID: A-INF

SPL Sample ID: 01060173-01A

Analyte	mg/m <sup>3</sup>		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	280	10	78	2.8

Client Sample ID: A-INT

SPL Sample ID: 01060173-02A

Analyte	mg/m <sup>3</sup>		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

EXXON Company U.S.A.

Certificate of Analysis Number:

01060173

<u>Report To:</u>	<u>Project Name:</u> 2506-11X
Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100	<u>Site:</u> 7-0104,
Novato California 94949-	<u>Site Address:</u>
ph: (415) 382-9105      fax: (415) 382-1856	<u>PO Number:</u> EWR#21040341
	<u>State:</u> California
	<u>State Cert. No.:</u> 1903
	<u>Date Reported:</u> 6/8/01

Client Sample ID: A-EFF

SPL Sample ID: 01060173-03A

Analyte	mg/m³		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: 6/4/01 11:00:00		SPL Sample ID: 01060173-01			
Site: 7-0104,							
Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>			<b>MCL</b>	<b>SW8020A</b>	<b>Units: mg/m³</b>		
Benzene	ND	1.0	1	1	06/06/01 20:36	TM	696540
Toluene	ND	1.0	1	1	06/06/01 20:36	TM	696540
Ethylbenzene	ND	1.0	1	1	06/06/01 20:36	TM	696540
m,p-Xylene	ND	1.0	1	1	06/06/01 20:36	TM	696540
o-Xylene	ND	1.0	1	1	06/06/01 20:36	TM	696540
Xylenes, Total	ND	1.0	1	1	06/06/01 20:36	TM	696540
Sur: 1,4-Difluorobenzene	92.8	% 20-150		1	06/06/01 20:36	TM	696540
Sur: 4-Bromofluorobenzene	97.9	% 58-139		1	06/06/01 20:36	TM	696540
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/m³</b>		
TPH Air	280	10	1	1	06/06/01 20:36	TM	696600
Sur: 1,4-Difluorobenzene	94.5	% 62-144		1	06/06/01 20:36	TM	696600
Sur: 4-Bromofluorobenzene	93.4	% 44-153		1	06/06/01 20:36	TM	696600

*Sonia West*

Sonia West  
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

Client Sample ID A-INT Collected: 6/4/01 11:00:00 SPL Sample ID: 01060173-02

Site: 7-0104,

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	06/06/01 21:06	TM	696544
Toluene	ND	1.0		1	06/06/01 21:06	TM	696544
Ethylbenzene	ND	1.0		1	06/06/01 21:06	TM	696544
m,p-Xylene	ND	1.0		1	06/06/01 21:06	TM	696544
o-Xylene	ND	1.0		1	06/06/01 21:06	TM	696544
Xylenes,Total	ND	1.0		1	06/06/01 21:06	TM	696544
Surr: 1,4-Difluorobenzene	91.9	% 20-150		1	06/06/01 21:06	TM	696544
Surr: 4-Bromofluorobenzene	97.0	% 58-139		1	06/06/01 21:06	TM	696544
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10		1	06/06/01 21:06	TM	696601
Surr: 1,4-Difluorobenzene	104	% 62-144		1	06/06/01 21:06	TM	696601
Surr: 4-Bromofluorobenzene	114	% 44-153		1	06/06/01 21:06	TM	696601

  
Sonia West  
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

01060173 Page 4  
6/8/01 8:27:36 AM



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

Client Sample ID A-EFF      Collected: 6/4/01 11:00:00      SPL Sample ID: 01060173-03

Site: 7-0104,

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>PURGEABLE AROMATICS IN AIR</b>							
Benzene	ND	1.0		1	06/06/01 23:49	TM	696551
Toluene	ND	1.0		1	06/06/01 23:49	TM	696551
Ethylbenzene	ND	1.0		1	06/06/01 23:49	TM	696551
m,p-Xylene	ND	1.0		1	06/06/01 23:49	TM	696551
o-Xylene	ND	1.0		1	06/06/01 23:49	TM	696551
Xylenes, Total	ND	1.0		1	06/06/01 23:49	TM	696551
Surr: 1,4-Difluorobenzene	96.3	% 20-150		1	06/06/01 23:49	TM	696551
Surr: 4-Bromofluorobenzene	108	% 58-139		1	06/06/01 23:49	TM	696551
<b>TOTAL PETROLEUM PRODUCT IN AIR</b>							
TPH Air	ND	10		1	06/06/01 23:49	TM	696603
Surr: 1,4-Difluorobenzene	109	% 62-144		1	06/06/01 23:49	TM	696603
Surr: 4-Bromofluorobenzene	122	% 44-153		1	06/06/01 23:49	TM	696603

Sonia West

Sonia West  
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*



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

## Quality Control Report

### EXXON Company U.S.A.

2506-11X

Analysis: Purgeable Aromatics in Air  
Method: SW8020A

WorkOrder: 01060173  
Lab Batch ID: R36624

#### Method Blank

#### Samples in Analytical Batch:

RunID: HP\_P\_010606A-696513 Units: mg/m<sup>3</sup>

Lab Sample ID

Client Sample ID

Analysis Date: 06/06/2001 15:40 Analyst: TM

01060173-01A

A-INF

01060173-02A

A-INT

01060173-03A

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
Surr. 1,4-Difluorobenzene	91.1	20-150
Surr. 4-Bromofluorobenzene	98.3	58-139

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

RunID: HP\_P\_010606A-696511 Units: mg/m<sup>3</sup>  
Analysis Date: 06/06/2001 14:41 Analyst: TM

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	70	109	64	66	103	5.6	34	37	117
Ethylbenzene	88	88	100	88	83	94	6.0	35	56	115
Methyl tert-butyl ether	364	550	152	364	570	155	1.9	30	30	175
Toluene	80	82	102	80	77	96	6.4	30	25	113
m,p-Xylene	88	87	99	88	81	92	6.7	35	12	114
o-Xylene	88	86	97	88	81	92	5.7	35	15	109
Xylenes,Total	176	173	98	176	162	92	6.6	35	12	114

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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

**Quality Control Report**

**EXXON Company U.S.A.**

2506-11X

**Analysis:** Total Petroleum Product in Air  
**Method:** SW8015B

**WorkOrder:** 01060173  
**Lab Batch ID:** R36626

**Method Blank**

**Samples in Analytical Batch:**

RunID: HP\_P\_010606B-696591 Units: mg/m<sup>3</sup>

**Lab Sample ID**

**Client Sample ID**

Analysis Date: 06/06/2001 15:40 Analyst: TM

01060173-01A

A-INF

01060173-02A

A-INT

01060173-03A

A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Sur: 1,4-Difluorobenzene	105.4	62-144
Sur: 4-Bromofluorobenzene	109.3	44-153

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

RunID: HP\_P\_010606B-696589 Units: mg/m<sup>3</sup>

Analysis Date: 06/06/2001 14:41 Analyst: TM

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Lower Limit	Lower Limit	Upper Limit	Upper Limit
TPH Air	770	780	101	770	720	93	7.6	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

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

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist  
And  
Chain of Custody*



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

Sample Receipt Checklist

Workorder:	01060173	Received By:	RE
Date and Time Received:	6/6/01 10:00:00 AM	Carrier name:	FedEx
Temperature:	AMBIENT	Chilled by:	Not Chilled

- |                                                                   |                                         |                             |                                                    |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------|----------------------------------------------------|
| <b>1.</b> Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| <b>2.</b> Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>3.</b> Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| <b>4.</b> Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>5.</b> Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>6.</b> Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>7.</b> Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>8.</b> Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>9.</b> Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>10.</b> All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>11.</b> Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                    |
| <b>12.</b> Water - VOA vials have zero headspace?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |
| <b>13.</b> Water - pH acceptable upon receipt?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance  
Issues:

Client Instructions:

2040173

## EXXON COMPANY, USA.

(West Coast)

Exxon Engineer: Darin Rouse Phone: (915) 242-8765  
 Consultant Co. Name: ERI Contact: Tim Shaffer  
 Address: 73 Digital Dr Fax: (415) 382-1856  
Suite 100 Novato CA 94945  
 RAS #: 7-0104 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 2606-11x  
 Location: 1725 Park St (City) Alameda (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 21040349  
 Sampled By: Green

CHAIN OF CUSTODY RECORD NO. \_\_\_\_\_

Page 1 of 1ANALYSIS REQUEST:  
(CHECK APPROPRIATE BOX)

OTHER

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX			PRESERVATIVE	NO OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)														
					H <sub>2</sub> O	SOIL	AIR				ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)														
A-INF	6/4/01	11:00		X		X		-	1	15L	TPH/GC 8015 GRO <input checked="" type="checkbox"/>	8015 DRO <input type="checkbox"/>	PNA/PAH 8100 <input type="checkbox"/>	8310 <input type="checkbox"/>	8270 <input type="checkbox"/>	LEAD DISSOLVED <input type="checkbox"/>	LEAD TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/>	CORROSIVITY <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/>	601 <input type="checkbox"/>			
A-ENT				X		X		-	1	5L	BTEX 8020 <input checked="" type="checkbox"/>	802 <input type="checkbox"/>	TCP FULL VOL <input type="checkbox"/>	SEMAO <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	PCB/PEST 8081/8082 <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TOX FNU <input type="checkbox"/>	SEMAO <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TOX/IR 418.1 <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>			
A-EFF				X		X		-	1	3L	MTBE 8020 <input type="checkbox"/>	8260 <input type="checkbox"/>	OXYGENATES (7) 8260 <input type="checkbox"/>	8260 <input type="checkbox"/>	LEAD TOTAL 239.1 <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD, TCCLP <input type="checkbox"/>	LEAD TOTAL 239.1 <input type="checkbox"/>	LEAD DISSOLVED <input type="checkbox"/>	LEAD TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/>	CORROSIVITY <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/>	601 <input type="checkbox"/>
											Q&G IR 413.1 <input type="checkbox"/>	GRAV. 413.2 <input type="checkbox"/>	VOL 8260 <input type="checkbox"/>	624 <input type="checkbox"/>	SEMIVOL 8270 <input type="checkbox"/>	625 <input type="checkbox"/>	PCP FULL VOL <input type="checkbox"/>	SEMAO <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TOX FNU <input type="checkbox"/>	SEMAO <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TOX/IR 418.1 <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>	

RUSH

TAT	24 HR. <input type="checkbox"/>	72 HR. <input type="checkbox"/>	SPECIAL DETECTION LIMITS (Specify)	REMARKS:		
48 HR. <input type="checkbox"/>	96 HR. <input type="checkbox"/>	Ambient				
8 Business <input checked="" type="checkbox"/>	*Contact US Prior to Sending Sample	EXXON UST CONTRACT NO. C41483	SPECIAL REPORTING REQUIREMENTS (Specify)	LAB USE ONLY Lot # <u>TD</u>	Storage Location	
Other <input type="checkbox"/>	PDF <input type="checkbox"/> EDD <input type="checkbox"/>					
Standard <input checked="" type="checkbox"/> CLP <input type="checkbox"/> Other <input type="checkbox"/> QA/QC Level	FAX <input type="checkbox"/> FAX C-O-C W/REPORT <input type="checkbox"/>			WORK ORDER # <u>01040349</u>	LAB WORK RELEASE # <u>21040349</u>	
CUSTODY RECORD		Relinquished By Sampler: <u>Green Clifford</u>		Date <u>6/5/01 19:00</u>	Time	Received By: _____
Relinquished:				Date	Time	Received By: _____
Relinquished:				Date	Time	Received By: <u>Wade Billie</u> Cooler Temp: <u>6/6/01 1000</u>

**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	FIELD MEASUREMENTS			Laboratory Analytical Results		TPHg Removal		
		ID	Hour Meter	Hours of Operation	Flow cfm	TPHg 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)

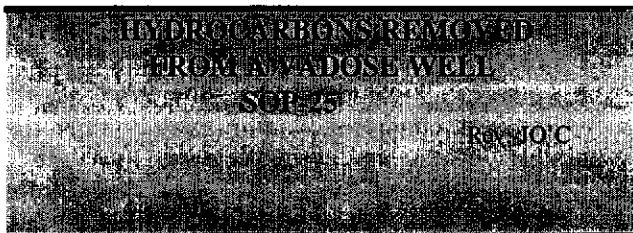
Date	Sample ID	FIELD MEASUREMENTS			Laboratory Analytical Results		TPHg Removal	
		Hour Meter	Hours of Operation	Flow cfm	TPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds
	A-EFF				< 2.4	< 0.031		
4/5/99	A-INF	4,957	38	131	42.6	0.474	< 33.3	
	A-INT				4.6	< 0.0314		
	A-EFF				< 2.84	< 0.0314		
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 H<sub>2</sub>O) (use {-} for vacuum)
- 3) Vapor temperature at the flow measuring device.
- 4) Hydrocarbon content of vapor (usually in mg/M<sup>3</sup>) 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 <sub>2</sub> O	HC conc mg/M <sup>3</sup> acfm	Vapor flow lb. rem.	Calc.
1/6/95	11:00	70	-46	2000	120	
1/7/95	13:00	55	-50	1350	90	
1/8/95	10:00	80	-13	750	100	7.4

Calculate the pounds of hydrocarbon removed from the system during the basis period from 13:00 (1:00 pm) on the 7th to 10 am on the 8th. Pressure and temperature of the measurements (at the flow meter) must be corrected to the P and T used to report the HC concentration (which are P = 1 atm and T = 70 deg F). 1 atm = 14.7 psia, 760 mm Hg, or 407 in H<sub>2</sub>O. T<sub>abs</sub> = 460 + T deg F

Hours of operation = 21, T = 80, P = -13, HC = (1350+750)/2 = 1050 mg/M<sup>3</sup>. Flow = 95

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

$$\begin{array}{ccccccccc} \text{hr} & \text{min} & \text{cu ft} & & M^3 & g & lb & lb \\ \text{---} & \text{x} \text{---} & \text{x} \text{---} & \text{x} & \text{x} & \text{x} & \text{x} & \text{basis} \\ \text{basis} & \text{hr} & \text{min} & T_{\text{corr}} & P_{\text{corr}} & \text{cu ft} & M^3 & g \end{array}$$

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

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/M<sup>3</sup>. ppmv x molecular wt. /24.1 = mg/M<sup>3</sup>. (Use 102 for gasoline)