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Refining and Supply Company
Downstream - Safety, Health & Environment
Environmental Remediation
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Gene N. Ortega
Senior Engineer
Environmental Remediation

ExxonMobil
Refining & Supply

March 27, 2001

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

TPT - Diesel detected in 3 of Exxon's
wells, MW-11, MW-3 + MW-8
APR 18 2001 is believed to be from
X-tra oil / Shell site at
1701 Park St.

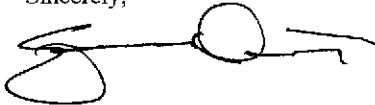
RE: Former Exxon RAS #7-0104/1725 Park Street, Alameda, California.

Dear Ms. Chu:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring and Remediation Status Report, First Quarter 2001*, dated March 19, 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,

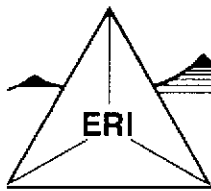


Gene N. Ortega
Senior Engineer

Attachment: ERI's Quarterly Groundwater Monitoring and Remediation Status Report, First Quarter 2001, dated March 19, 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.

March 19, 2001
ERI 250611.R03

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

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

Mr. Ortega:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) performed the first 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 January 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).

During this quarterly monitoring event, diesel-range hydrocarbons were reportedly detected in the groundwater samples. Diesel-range hydrocarbons were also reportedly detected in the bailer blank samples at similar concentrations. ERI considers the analytical results for the diesel-range

OR it could be from the shell ~~at~~ at
1701 Park St, where diesel was
released.

hydrocarbons for this sampling event suspect, and is currently evaluating the validity of the reported detections.

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

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

SUMMARY AND STATUS OF INVESTIGATION

The table below presents the estimated amounts of 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
10/12/00 - 01/09/01	< 65.2	< 10.7
To Date:	< 154.8	< 25.4

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	5

LIMITATIONS

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

ERI recommends forwarding copies of this report to:

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

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

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

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

Sincerely,
 Environmental Resolutions, Inc.

James F. Chappell
 James F. Chappell
 Program Manager

John B. Bobbitt
 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 I
 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	---	1,600 ^a	---	200	1.9	210	6.6	---	
(17.35)	10/01/94	NLPH	7.44	9.91	---	1,400 ^a	---	200	<0.5	160	6.6	---	
	01/13/95	NLPH	5.13	12.22	---	2,100 ^a	---	410 ^b	17	280 ^b	89	---	
	04/27/95	NLPH	6.57	10.78	---	4,700	---	460	41	340	270	---	
	08/03/95	NLPH	7.46	9.89	---	1,900	30	140	<5.0	160	9.9	---	
	10/17/95	NLPH	7.67	9.68	---	280	5.5	6.2	<0.5	13	0.75	---	
	01/24/96	NLPH	6.52	10.83	---	740	440	21	1.4	38	3.1	---	
	04/24/96	NLPH	5.95	11.40	---	7,800	250	200	110	1,000	740	---	
	07/26/96	NLPH	7.60	9.75	---	620	23	8.0	0.99	26	1.0	---	
	10/30/96	NLPH	8.06	9.29	---	700	33	14	2.9	85	3.5	---	
	01/31/97	NLPH	5.12	12.23	---	7,600	<200	420	33	1,400	480	---	
	04/10/97	---	---	---	---	---	---	---	---	---	---	---	
	07/10/97	NLPH	7.54	9.81	---	580	12	10	<0.5	<0.5	<0.5	---	
	10/08/97	---	---	---	---	---	---	---	---	---	---	---	
	01/28/98	NLPH	4.48	12.87	---	820	<2.5 ^c	110	2.8	170	14	---	
	04/14/98	---	4.69	12.66	---	---	---	---	---	---	---	---	
	07/30/98	NLPH	6.19	11.16	---	2,700	41	210	<5.0	550	<5.0	---	
	10/19/98	NLPH	6.72	10.63	---	---	---	---	---	---	---	---	
	01/13/99	NLPH	6.52	10.83	---	491	9.78	8.0	<0.5	<0.5	<0.5	---	
	04/28/99	---	5.37	11.98	---	---	---	---	---	---	---	---	
	07/09/99	NLPH	6.39	10.96	---	1,030	10.6	114	8.07	184	0.644	---	
	10/25/99	NLPH	6.68	10.67	---	---	---	---	---	---	---	---	
	01/21/00	NLPH	6.20	11.15	---	<50	5.1	<1.0	<1.0	<1.0	<1.0	---	
	04/14/00	NLPH	5.18	12.17	---	---	---	---	---	---	---	---	
	07/05/00	NLPH	5.93	11.42	---	88	200	4.3	<0.5	0.61	<0.5	---	
	10/03/00	NLPH	6.51	10.84	---	<50	240	0.72	<0.5	<0.5	<0.5	---	
	01/02/01	NLPH	6.17	11.18	---	<50	68	0.75	<0.5	<0.5	<0.5	---	

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

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

TABLE I
 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 (cont.)	10/17/95	NLPH	7.46	9.65	---	6,100	<5.0	950	29	230	190	---
(17.11)	01/24/96	NLPH	5.83	11.28	---	3,000	<100	730	15	190	110	---
	04/24/96	NLPH	5.38	11.73	---	11,000	<100	1,200	130	1,000	1,400	---
	07/26/96	NLPH	6.80	10.31	---	2,500	250	800	16	24	56	---
	10/30/96	NLPH	7.20	9.91	---	5,200	2,900	1,300	28	170	180	---
	01/31/97	NLPH	4.31	12.80	---	---	---	---	---	---	---	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	---	---	---	---	---	---	---	---	---	---	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	4.03	13.08	---	---	---	---	---	---	---	---
	04/14/98	NLPH	3.80	13.31	---	---	---	---	---	---	---	---
	07/30/98	NLPH	5.84	11.27	---	---	---	---	---	---	---	---
	10/19/98	NLPH	6.25	10.86	---	---	---	---	---	---	---	---
	01/13/99	NLPH	6.14	10.97	---	---	---	---	---	---	---	---
	04/28/99	---	4.95	12.16	---	---	---	---	---	---	---	---
	07/09/99	---	---	---	---	---	---	---	---	---	---	---
	10/25/99	---	---	---	---	---	---	---	---	---	---	---
	01/21/00	---	---	---	---	---	---	---	---	---	---	---
	04/14/00	---	---	---	---	---	---	---	---	---	---	---
	07/05/00	---	---	---	---	---	---	---	---	---	---	---
	10/03/00	---	---	---	---	---	---	---	---	---	---	---
	01/02/01	NLPH	5.78	11.33	560d	2,700	3,100	1300	8.8	11	21.3	---
MW4	09/12/94	NLPH	6.80	10.54	---	5,200 ^a	---	900	57	310	490	---
(17.34)	10/01/94	NLPH	7.09	10.25	---	9,100 ^a	---	1,200	66	360	380	---
	01/13/95	NLPH	4.66	12.68	---	25,000 ^a	---	1,300	200	550	1,000	---
	04/27/95	NLPH	5.54	11.80	---	5,900	---	650	130	350	590	---
	08/03/95	NLPH	6.92	10.42	---	4,200	5,700	1,000	<12	170	140	---
	10/17/95	NLPH	7.50	9.84	---	6,900	1,700	1,300	30	360	380	---
	01/24/96	NLPH	5.81	11.53	---	6,300	830	1,900	46	290	330	---
	04/24/96	NLPH	5.44	11.90	---	5,000	1,600	1,800	<20	190	130	---
	07/26/96	NLPH	7.03	10.31	---	9,100	1,200	1,700	<25	340	280	---
	10/30/96	NLPH	7.57	9.77	---	5,300	1,500	1,100	35	420	300	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
 (Page 4 of 15)

Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date		feet									
			<.....>									ug/L.....>
MW4(cont)	01/31/97	NLPH	4.22	13.12	---	6,500	40,000	1,200	28	490	130	---
(17.34)	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.56	9.78	---	10,000	11,000	1,100	120	470	720	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.70	13.64	---	1,700	4,900 ^a	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	---
MW5	09/12/94	NLPH	7.12	9.59	---	10,000 ^a	---	2,300	17	320	230	---
(16.71)	10/01/94	Sheet	7.06	9.65	---	11,000 ^a	---	2,300	19	220	200	---
	01/13/95	thickness of	4.85	11.86	---	---	---	---	---	---	---	---
	04/27/95	NLPH	6.51	10.20	---	14,000	---	2,200	72	540	350	---
	08/03/95	NLPH	7.24	9.47	---	<10,000	39,000	2,100	<100	210	<100	---
	10/17/95	NLPH	7.80	8.91	---	13,000	38,000	1,800	14	240	170	---
	01/24/96	NLPH	6.66	10.05	---	10,000	20,000	2,400	79	340	190	---
	04/24/96	NLPH	5.80	10.91	---	13,000	33,000	3,700	120	520	170	---
	07/26/96	NLPH	7.67	9.04	---	15,000	140,000	3,400	53	280	76	---
	10/30/96	NLPH	7.77	8.94	---	10,000	110,000 ^b	2,600	76	260	150	---
	01/31/97	NLPH	4.90	11.81	---	10,000	34,000 ^c	2,400	66	430	140	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.65	9.06	---	9,800	36,000/52,000 ^c	1,400	120	190	120	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.95	12.76	---	6,500	15,000 ^c	1,500	34	73	57	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
 (Page 5 of 15)

Well ID #	Sampling (TOC)	SUBJ	DTW <..... feet.....>	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
.....ug/L.....>												
MW5(cont)	04/14/98	---	4.30	12.41	---	---	---	---	---	---	---	---
(16.71)	07/30/98	NLPH	5.86	10.85	---	8,300	4,300	1,700	26	110	66	---
	10/19/98	NLPH	6.20	10.51	---	---	---	---	---	---	---	---
	01/13/99	NLPH	6.37	10.34	---	4,780	3,650	1,240	11.1	<10	<10	---
	04/28/99	---	5.25	11.46	---	---	---	---	---	---	---	---
	07/09/99	NLPH	6.08	10.63	---	4,360	2,360	1,780	18.6	45	<5.0	---
	10/25/99	NLPH	6.46	10.25	---	---	---	---	---	---	---	---
	01/21/00	NLPH	5.79	10.92	---	2,600	3,100	720	4.7	25	11.3	---
	04/14/00	NLPH	4.57	12.14	---	---	---	---	---	---	---	---
	07/05/00	NLPH	5.37	11.34	---	5,100	380	1,800	14	52	34	---
	10/03/00	NLPH	5.93	10.78	---	5,800	630	2,000	8.9	59	21	---
	01/02/01	NLPH	5.68	11.03	---	4,800	1,100	1,600	9.6	38	15	---
MW6	09/12/94	NLPH	6.88	10.68	---	1,500 ^a	---	150	4.4	170	85	---
(17.56)	10/01/94	NLPH	7.15	10.41	---	87 ^a	---	120	<0.5	99	38	---
	01/13/95	NLPH	4.80	12.76	---	9,900 ^a	---	710	220	780	1,100	---
	04/27/95	NLPH	6.14	11.42	---	3,900	---	340	40	460	320	---
	08/03/95	NLPH	6.83	10.73	---	1,100	65	89	<2.5	110	63	---
	10/17/95	NLPH	7.66	9.90	---	8,500	<5.0	410	74	850	110	---
	01/24/96	NLPH	5.86	11.70	---	31,000	<5.0	560	1,500	2,200	7,500	---
	04/24/96	NLPH	5.39	12.17	---	15,000	280	460	570	1,400	3,300	---
	07/26/96	NLPH	6.97	10.59	---	27,000	1,300	270	660	1,600	5,500	---
	10/30/96	NLPH	7.45	10.11	---	28,000	900	490	440	1,800	6,200	---
	01/31/97	NLPH	4.30	13.26	---	7,000	770	190	1,000	380	1,400	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.57	9.99	---	6,800	1,100	200	<50	300	860	---
	10/08/97	NLPH	7.48	10.08	---	51,000	580	870	7,300	2,600	12,000	700 ^b
	01/28/98	NLPH	3.74	13.82	---	15,000	2,400 ^c	650	2,300	900	2,700	---
	04/14/98	NLPH	3.92	13.64	---	25,000	2,100 ^c	850	3,300	1,200	4,300	---
	07/30/98	NLPH	6.09	11.47	---	5,900	910	270	65	500	630	---
	10/19/98	NLPH	6.56	11.00	---	---	---	---	---	---	---	---
	01/13/99	NLPH	6.35	11.21	---	3,150	422	204	107	297	304	---
	04/28/99	NLPH	4.89	12.67	---	15,300	436 ^c	1,270	980	1,100	3,320	436 ^c

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....	feet.....>	<.....	ug/L.....>							
MW6(cont)	07/09/99	NLPH	6.07	11.49	---	1,140	439	121	9.95	160	4.69	---
(17.56)	10/25/99	NLPH	6.11	11.45	---	2,200	3,400	590	<10	22	12.1	---
	01/21/00	NLPH	5.86	11.70	---	1,300	1,000	95	15	94	74	---
	04/14/00	NLPH	4.29	13.27	---	13,000	420	440	630	840	3,000	---
	07/05/00	NLPH	5.39	12.17	---	5,800	830	1,000	13	550	798	---
	10/03/00	NLPH	6.14	11.42	---	490	3,800	61	<0.5	74	12	---
	01/02/01	---	---	---	---	---	---	---	---	---	---	---
MW7	09/12/94	NLPH	6.43	10.69	---	6,000 ^a	---	490	50	280	70	---
(17.12)	10/01/94	NLPH	6.71	10.41	---	8,900 ^b	---	940	670	310	160	---
	01/13/95	NLPH	4.29	12.83	---	20,000 ^c	---	590	780	970	4,200	---
	04/27/95	NLPH	5.00	12.12	---	8,800	---	410	32	410	230	---
	08/03/95	NLPH	6.53	10.59	---	4,900	17,000	390	<50	290	<50	---
	10/17/95	NLPH	7.23	9.89	---	6,700	17,000	530	26	240	25	---
	01/24/96	NLPH	5.26	11.86	---	9,300	60,000	2,000	390	350	230	---
	04/24/96	NLPH	5.06	12.06	---	9,000	360,000	2,400	850	150	130	---
	07/26/96	NLPH	6.62	10.50	---	4,800	86,000	530	25	60	46	---
	10/30/96	NLPH	7.09	10.03	---	3,400	28,000	180	9.8	58	38	---
	01/31/97	NLPH	3.65	13.47	---	3,800	45,000	300	18	48	37	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.44	9.68	---	3,500	18,000	70	<25	<25	<25	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	3.06	14.06	---	100	250 ^d	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	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHlg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....>	<.....>	ug/L							
MW8	09/12/94	NLPH	6.42	9.91	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
(16.33)	10/01/94	NLPH	6.62	9.71	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	01/13/95	NLPH	5.25	11.08	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.00	10.33	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/03/95	NLPH	6.28	10.05	---	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/17/95	NLPH	6.93	9.40	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/24/96	NLPH	5.71	10.62	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	04/24/96	NLPH	5.52	10.81	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	07/26/96	NLPH	6.27	10.06	---	<50	230	<0.5	<0.5	<0.5	<0.5	---
	10/30/96	NLPH	6.69	9.64	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	01/31/97	NLPH	5.18	11.15	---	---	---	---	---	---	---	---
	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	---	---	---	---	---	---	---	---	---	---	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	01/28/98	NLPH	5.11	11.22	---	---	---	---	---	---	---	---
	04/14/98	NLPH	5.02	11.31	---	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	07/30/98	NLPH	5.84	10.49	---	<50	6.6	<0.5	<0.5	<0.5	<0.5	---
	10/19/98	NLPH	6.07	10.26	---	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	01/13/99	NLPH	5.59	10.74	---	<50	<2.0	<0.5	<0.5	<0.5	<0.5	---
	04/28/99	NLPH	5.38	10.95	---	<50	<0.5 ^e	<0.5	<0.5	<0.5	<0.5	ND
	07/09/99	NLPH	5.71	10.62	---	<50	3.01	<0.5	<0.5	<0.5	<0.5	---
	10/25/99	NLPH	6.15	10.18	---	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	01/21/00	NLPH	6.51	9.82	---	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	04/14/00	Brown	5.54	10.79	---	<50	<1	<1	<1	<1	<1	---
	07/05/00	NLPH	5.67	10.66	---	<50	<2	<0.5	<0.5	<0.5	<0.5	---
	10/03/00	NLPH	6.02	10.31	---	<50	<2	<0.5	<0.5	<0.5	<0.5	---
	01/02/01	NLPH	5.95	10.38	140d	<50	<2	<0.5	<0.5	<0.5	<0.5	---
MW9	09/12/94	NLPH	6.84	8.78	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
(15.62)	10/01/94	NLPH	6.97	8.65	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	01/13/95	NLPH	6.18	9.44	---	<50 ^a	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.58	9.04	---	<50	---	<0.5	<0.5	<0.5	<0.5	---
	08/03/95	NLPH	6.72	8.90	---	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Well ID #	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
(TOC)	Date	<.....feet.....>	<.....>	<.....>ug/L.....>							
MW9(cont) (15.62)	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	<0.5 ^c	<0.5	<0.5	<0.5	<0.5	ND
	07/09/99	NLPH	6.24	9.38	---	<50	<2.0	<0.5	<0.5	<0.5	<0.5	---
	10/25/99	NLPH	6.67	8.95	---	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	01/21/00	NLPH	6.93	8.69	---	<50	<1.0	<1.0	<1.0	<1.0	<1.0	---
	04/14/00	Turbid	6.05	9.57	---	<50	<1	<1	<1	<1	<1	<1
	07/05/00	NLPH	6.34	9.28	---	<50	<2	<0.5	<0.5	<0.5	<0.5	---
10/03/00	NLPH	6.52	9.10	---	<50	<2	<0.5	<0.5	<0.5	<0.5	---	
01/02/01	NLPH	6.53	9.09	---	<50	<2	<0.5	<0.5	<0.5	<0.5	<0.5	---
MW10 (16.79)	09/12/94	NLPH	7.04	9.75	---	71 ^a	---	<0.5	<0.5	1.6	<0.5	---
	10/01/94	NLPH	7.30	9.49	---	330 ^b	---	1.1	<0.5	2.8	0.73	---
	01/13/95	NLPH	6.04	10.75	---	90 ^b	---	<0.5	<0.5	<0.5	<0.5	---
	04/27/95	NLPH	6.66	10.13	---	140	---	<0.5	<0.5	5.4	1.3	---
	08/03/95	NLPH	7.23	9.56	---	150	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/17/95	NLPH	7.93	8.86	---	<50	95	<0.5	<0.5	<0.5	<0.5	---
	01/24/96	NLPH	6.43	10.36	---	760	24	1.6	0.52	62	28	---
	04/24/96	NLPH	6.42	10.37	---	110	6.8	<0.5	<0.5	7.1	<0.5	---
	07/26/96	NLPH	7.47	9.32	---	140	<5.0	<0.5	<0.5	12	0.86	---
	10/30/96	NLPH	7.88	8.91	---	<50	5.6	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
 CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Well ID #	Sampling (TOC)	SUBJ	D/TW <.....feet.....>	Elev.	TPHd	TPHg	MTBE	B	T	E	X	Oxygenated Compounds
		ug/L										
MW10(cont)	01/31/97	NLPH	5.88	10.91	---	<50	10	<0.5	<0.5	<0.5	<0.5	---
(16.79)	04/10/97	---	---	---	---	---	---	---	---	---	---	---
	07/10/97	NLPH	7.32	9.47	---	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	10/08/97	---	---	---	---	---	---	---	---	---	---	---
	12/12/97	Well destroyed.			---							
MW11	10/17/95	NLPH	7.72	10.32	---	34,000	890	3,800	150	950	4,500	---
(18.04)	01/24/96	NLPH	5.97	12.07	---	44,000	<500	3,800	1,200	2,100	9,800	---
	04/24/96	NLPH	5.84	12.20	---	34,000	720	2,900	1,400	1,700	8,300	---
	07/26/96	NLPH	6.98	11.06	---	39,000	800	4,600	4,200	950	9,500	---
	10/30/96	NLPH	7.54	10.50	---	53,000	990	4,200	3,600	2,100	9,600	---
	01/31/97	NLPH	5.00	13.04	---	23,000	310 ^c	170	2,500	940	4,300	---
	04/10/97	NLPH	---	---	---	29,000	200	1,200	440	970	6,400	---
	07/10/97	NLPH	7.30	10.74	---	42,000	690	1,700	870	1,900	12,000	---
	10/08/97	NLPH	7.62	10.42	---	42,000	1,100	1,700	2,500	1,400	9,900	1,300 ^d
	01/28/98	NLPH	4.77	13.27	---	35,000	6,800 ^e	2,400	3,500	1,700	7,900	---
	04/14/98	NLPH	4.68	13.36	---	15,000	1,200 ^e	1,700	250	500	2,000	---
	07/30/98	NLPH	6.33	11.71	---	24,000	1,700	1,600	560	1,000	4,300	---
	10/19/98	NLPH	6.65	11.39	---	29,000	1,700	1,200	2,500	920	4,900	---
	01/13/99	NLPH	6.42	11.62	---	50,900	1,920	2,210	6,440	2,030	10,600	---
	04/28/99	NLPH	5.30	12.74	---	59,400	2,390 ^f	3,790	4,260	1,790	2,970	2,390 ^f
	07/09/99	NLPH	6.22	11.82	---	51,500	4,630	5,890	5,340	2,370	12,700	---
	10/25/99	NLPH	6.77	11.27	---	51,000	1,700	3,900	5,800	2,300	12,300	---
	01/21/00	NLPH	6.47	11.57	---	56,000	1,100	2,300	4,600	2,100	11,600	---
	04/14/00	NLPH	5.09	12.95	---	42,000	2,100	3,000	2,600	1,600	8,000	---
	07/05/00	NLPH	5.93	12.11	---	32,000	3,900	3,000	2,700	1,300	6,200	---
	10/03/00	NLPH	6.57	11.47	---	46,000	4,300	2,900	3,600	1,600	7,900	---
	01/02/01	NLPH	6.46	11.58	1,600 ^d	44,000	4,200	3,900	3,600	1,300	6,500	---
MW12	10/17/95	NLPH	6.38	9.92	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
(16.3)	01/24/96	NLPH	4.86	11.44	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---
	04/24/96	NLPH	4.46	11.84	---	<50	<5.0	<0.5	0.68	<0.5	0.72	---
	07/26/96	NLPH	5.90	10.40	---	<50	<5.0	<0.5	<0.5	<0.5	<0.5	---

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0104
1725 Park Street
Alameda, California
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Notes:	
SUBJ	= Results of subjective evaluation, liquid-phase hydrocarbon thickness in feet.
TOC	= Elevation of top of well casing; in feet above mean sea level.
DTW	= Depth to water.
Elev.	= Elevation of groundwater in feet above mean sea level.
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 2)

Date	Sample ID	Hour Meter	FIELD MEASUREMENTS						Analytical Laboratory Results		TPPHg Removal		Benzene Removal		Benzene
			Hours of Operation	Temp F	Vacuum in H ₂ O	Flow lfm	Flow cfm	PID ppmv	TPPHg mg/m ³	Benzene mg/m ³	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds	Emission Rate lbs/day
02/16/98	System startup	---	0	---	---	---	---	---	---	---	---	---	---	---	---
03/24/00	System shutdown pending evaluation 12,001										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	---	---	770.0							
	A-INT							18.1							
	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	< 1.0					
	A-EFF							0.0	< 10	< 1.0					< 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	< 1					
	A-EFF							0.0	< 10	< 1					< 0.002
08/16/00		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	< 1.0					
	A-EFF							0.0	< 10	< 1.0					< 0.01
09/26/00		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
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Date	Sample ID	FIELD MEASUREMENTS							Analytical Laboratory Results		TPPHg Removal		Benzene Removal		Benzene Emission Rate lbs/day
		Hour Meter Operation	Hours of F	Temp in H ₂ O	Vacuum lfn	Flow cfm	PID ppmv	TPPHg mg/m ²	Benzene mg/m ³	Per Period Pounds	Cumulative Pounds	Per Period Pounds	Cumulative Pounds		
10/12/00	System running on arrival and down upon departure for carbon c/o. Samples taken														
	A-INF	13,786	380	67	24	2,400	53	96.4	55	< 1.0	17.64	< 89.6	< 0.25	< 0.46	
	A-INT							72.3	21	< 1.0					
	A-EFF							9.0	< 10	< 1.0					< 0.005
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					
	A-EFF							0.0	< 10	< 1.0					< 0.005
11/08/00	System running on arrival. System down upon departure for carbon changeout.														
	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					
	A-EFF							Stet	< 10	< 1.0					< 0.005
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					
	A-EFF							3.1	< 10	< 1.0					< 0.005
12/27/00	System running on arrival. System down upon departure for carbon changeout.														
	A-INF	14,697	381	56	26	2,600	58	192.1							
	A-INT							4.8							
	A-EFF							0.0							
01/09/01	System running on arrival. System down upon departure for carbon changeout.														
	A-INF	15,012	315	56	25	2,400	54	82.4	32	< 1.0	19.10	< 154.8	< 0.22	< 1.12	
	A-INT							23.2	< 10	< 1.0					
	A-EFF							0.0	< 10	< 1.0					< 0.005
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	System running on arrival. System down upon departure for carbon changeout.														
	A-INF	15,355	2	45	33	1,500	34	10000							
	A-INT							0							
	A-EFF							0							

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

- A-INF = Influent vapor sample collected prior to biofilters.
- A-INT1 = Vapor sample collected after biofilters.
- A-INT2 = Vapor sample collected after 1st carbon vessel.
- A-INT3 = Vapor sample collected after 2nd carbon vessel.
- A-EFF = Vapor sample collected from effluent sample port.
- cfm = Cubic feet per minute.
- ppmv = Parts per million by volume
- mg/M³ = Milligrams per cubic meter.
- = Not sampled/not measured.

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

TABLE 3
 OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
10/10/94	1,331,420		W-INF	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/02/94	1,392,010	0.8	W-INF	65	1.9	0.9	<0.5	2.4	0.03	0.0	0.0006	0.00
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/13/95	1,415,980	0.4	W-INF	1,000	< 0.5	<0.5	<0.5	<0.5	0.11	0.1	0.0002	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
02/23/95	1,494,030	1.3	W-INF	57	< 0.5	<0.5	<0.5	2.7	0.34	0.5	0.0003	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/14/95	---		W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	---	---	---	---
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/14/95	1,513,240	0.3	W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	0.01	0.5	0.0001	0.00
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/18/95	1,714,850	4.1	W-INF	NS	---	---	---	---	---	---	---	
06/30/95	1,847,330	2.1	W-INF	1,700	480	23	66	180	2.44	2.9	0.6685	0.67
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
07/12/95	1,908,730	3.6	W-INF	290	68	<2.0	2.4	5.6	0.51	3.4	0.1128	0.78
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/09/95	2,027,830	3.0	W-INF	6,600	1,700	260	370	550	3.42	6.9	0.8768	1.66
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
 OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
09/06/95	2,158,260	3.2	W-INF	120	17	0.84	1.0	3.0	3.65	10.5	0.9325	2.59
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
10/11/95	2,215,310	1.1	W-INF	160	22	0.97	1.2	4.0	0.07	10.6	0.0093	2.60
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
11/16/95	2,384,880	3.3	W-INF	120	4.9	<0.5	<0.5	5.9	0.20	10.8	0.0190	2.62
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/14/95	2,453,200	1.7	W-INF	450	46	16	4.6	65	0.16	10.9	0.0145	2.63
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/05/96	2,516,900	2.0	W-INF	240	26	2.4	1.2	20	0.18	11.1	0.0191	2.65
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
02/14/96	2,680,160	2.8	W-INF	470	43	5.5	<0.5	55	0.48	11.6	0.0469	2.70
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/12/96	2,767,820	2.3	W-INF	620	60	9.8	3.9	70	0.40	12.0	0.0376	2.74
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/16/96	2,927,390	3.2	W-INF	790	120	27	8.8	120	0.94	12.9	0.1196	2.86
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/07/96	2,971,100	1.4	W-INF	430	66	2.7	5	32	0.22	13.2	0.0339	2.89
			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				

TABLE 3
**OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM**
 Former Exxon Service Station 7-0104
 1725 Park Street
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg <.....ug/L.....>	B	T	E	X	Per Period <.....lbs.....>	Cumulative <.....lbs.....>	Per Period <.....lbs.....>	Cumulative <.....lbs.....>
07/09/96	3,232,330	3.0	W-INF	490	55	6.2	<0.5	110	1.73	16.8	0.2680	3.47
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/08/96	3,365,060	3.1	W-INF	580	49	4.6	<1.0	75	0.59	17.4	0.0575	3.53
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
09/05/96	---	---	W-INF	740	67	19	10	72	---	---	---	---
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
10/02/96	3,530,230	2.1	W-INF	980	130	39	7.8	130	1.07	18.5	0.1231	3.65
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
11/08/96	3,657,370	2.4	W-INF	480	42	7.1	0.69	79	0.77	19.2	0.0911	3.74
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/09/96	3,735,650	1.8	W-INF	< 50	< 0.5	<0.5	<0.5	<0.5	0.17	19.4	0.0139	3.75
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/21/97	3,735,730	0.0	W-INF	690	69	20	20	91	0.00	19.4	0.0000	3.75
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
 OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
02/10/97	3,735,360	0.0	W-INF	860	100	24	1.4	160	---	---	---	---
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/20/97	3,843,430	2.0	W-INF	86	< 0.5	<0.5	<0.5	5.1	0.43	19.8	0.0452	3.80
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/03/97	3,918,650	3.7	W-INF	690	31	6.1	<5.0	89	0.24	20.1	0.0099	3.81
			W-INT	< 1,000	< 10	<10	<10	<10				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/07/97	4,092,720	3.6	W-INF	1,000	57	29	11	110	1.22	21.3	0.0638	3.87
			W-INT	< 50	1.1	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/11/97	4,144,600	1.0	W-INF	570	66	14	4.7	75	0.34	21.7	0.0266	3.90
			W-INT	< 50	0.57	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/25/97	4,273,310	---	W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5	---	---	---	---
07/24/97	4,363,090	3.5	W-INF	470	25	8.8	3.7	49	0.95	22.6	0.0828	3.98
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/04/97	4,408,100	2.8	W-INF	610	48	18	6.2	69	0.20	22.8	0.0137	4.00
			W-INT	< 50	0.76	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
10/21/97	4,496,810	0.8	W-INF	250	16	5.4	2.3	29	0.32	23.1	0.0236	4.02
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
 OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
 Alameda, California
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
11/04/97	4,553,090	2.8	W-INF	510	22	9.8	13	60	0.18	23.3	0.0089	4.03
			W-INT	< 50	0.82	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/05/97	4,588,340	0.8	W-INF	79	1.5	<0.5	<0.5	53	0.09	23.4	0.0034	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/08/98	4,625,400	0.8	W-INF	83	2.6	0.74	<0.5	5.4	0.03	23.4	0.0006	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	0.58	<0.5	0.81	1.5				
03/03/98	4,662,470	0.5	W-INF	< 50	0.54	<0.5	<0.5	0.88	0.02	23.4	0.0005	4.03
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/02/98	4,702,760	0.9	W-INF	1,100	170	32	12	160	0.19	23.6	0.0286	4.06
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
05/04/98	4,786,330	1.8	W-INF	1,000	140	23	8.5	150	0.73	24.4	0.1079	4.17
			W-INT	< 50	< 0.5	<0.5	<0.5	0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
06/10/98	4,852,030	1.2	W-INF	670	110	16	7.6	74	0.46	24.8	0.0684	4.24
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
07/07/98	4,951,910	2.6	W-INF	690	91	13	6.3	55	0.57	25.4	0.0836	4.32
			W-INT	< 200	< 2.0	<2.0	<2.0	<2.0				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
08/04/98	5,039,980	2.2	W-INF	230	36	6.4	2.5	17	0.34	25.7	0.0466	4.37
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				

TABLE 3
 OPERATION AND PERFORMANCE DATA FOR
 GROUNDWATER REMEDIATION SYSTEM
 Former Exxon Service Station 7-0104
 1725 Park Street
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Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
09/03/98	5,080,850	0.9	W-INF	280	13	2.0	6.4	21	0.09	25.8	0.0083	4.38
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
10/20/98	NM		W-INF	740	43	54	25	110	---	---	---	---
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
11/09/98	5,232,360	1.6	W-INF	300	37	10	8.4	43	0.37	26.2	0.0315	4.41
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
12/08/98	5,284,180	1.2	W-INF	700	82	25	13	100	0.22	26.4	0.0257	4.43
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
01/13/99	5,377,930	1.8	W-INF	1,030	155	46.5	52.7	73.3	0.68	27.1	0.0925	4.53
			W-INT	< 500	< 5.0	<5.0	<5.0	<5.0				
			W-EFF	< 500	< 5.0	<5.0	<5.0	<5.0				
02/08/99	5,441,820	1.7	W-INF	260	31	9.0	2.4	33	0.34	27.4	0.0495	4.58
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
03/08/99	5,509,090	1.7	W-INF	800	87	16	8.5	140	0.30	27.7	0.0331	4.61
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			W-EFF	< 50	< 0.5	<0.5	<0.5	<0.5				
04/05/99	5,571,890	1.6	W-INF	< 500	36.6	12.2	5.84	20.9	0.34	28.0	0.0323	4.64
			W-INT	< 500	< 5.0	<5.0	<5.0	<5.0				
			W-EFF	< 500	< 5.0	<5.0	<5.0	<5.0				
05/06/99	5,621,560	1.1	W-INF	310	45	6.0	0.86	41	0.17	28.2	0.0169	4.66
			W-INT	< 50	< 0.5	<0.5	<0.5	<0.5				
			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

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)

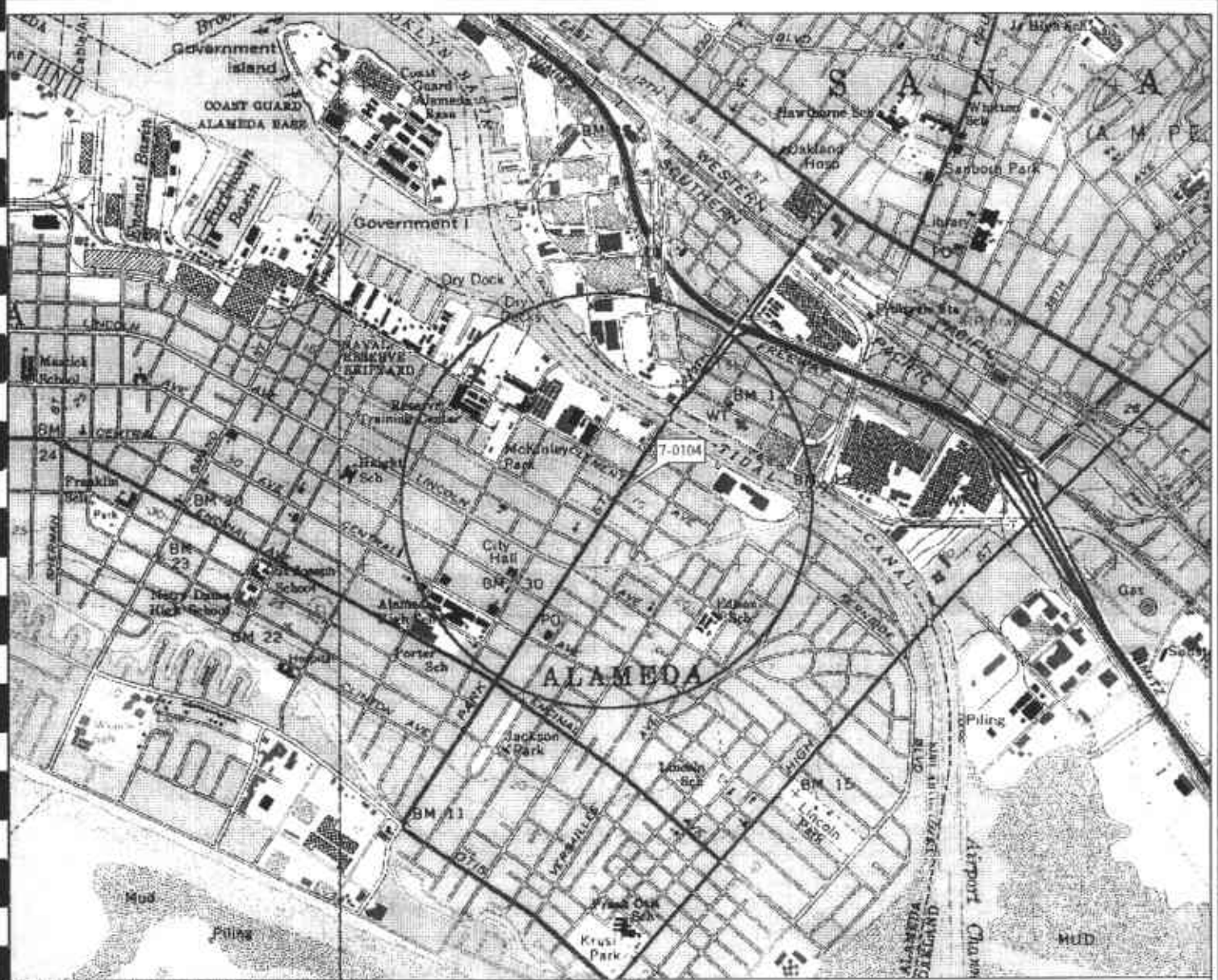
Date	Total Flow gal	Average Flowrate gpm	Sample ID	Laboratory Analytical Results					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
			W-INT	< 100	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 250	< 2.5	<2.5	<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					TPPHg Removal		Benzene Removal	
				TPPHg	B	T	E	X	Per Period	Cumulative	Per Period	Cumulative
				<.....ug/L.....>					<.....lbs.....>		<.....lbs.....>	
01/10/00	6,035,690	0.9	W-INF	120	11	1.5	1.8	14.5	0.06	29.2	0.0070	4.73
			W-INT	< 50	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0				
02/08/00	6,055,000	0.5	W-INF	130	14	<1.0	<1.0	11.9	0.02	29.2	0.3530	5.08
			MID	< 50	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 50	< 1.0	<1.0	<1.0	<1.0				
03/24/00	6,080,125	0.4	System shutdown pending evaluation.									
03/28/00	6,080,360	0.0	W-INF	< 50	< 1.0	<1.0	<1.0	<1.0	0.02	29.2	0.0016	5.08
			MID	< 50	< 1.0	<1.0	<1.0	<1.0				
			W-EFF	< 67	< 1.0	<1.0	<1.0	<1.0				
03/28/00	System shutdown upon departure.											
04/01/00	Environmental Resolutions, Inc. assumed operation of the remediation system.											

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

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



TopoQuads Copyright © 1999 DeLorme, Vermont, ME 0000 Source Data: USGS 1/8" = 100' Scale: 1:12,500 Detail: 1:4 Dates: W/2004

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE



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



SITE VICINITY MAP

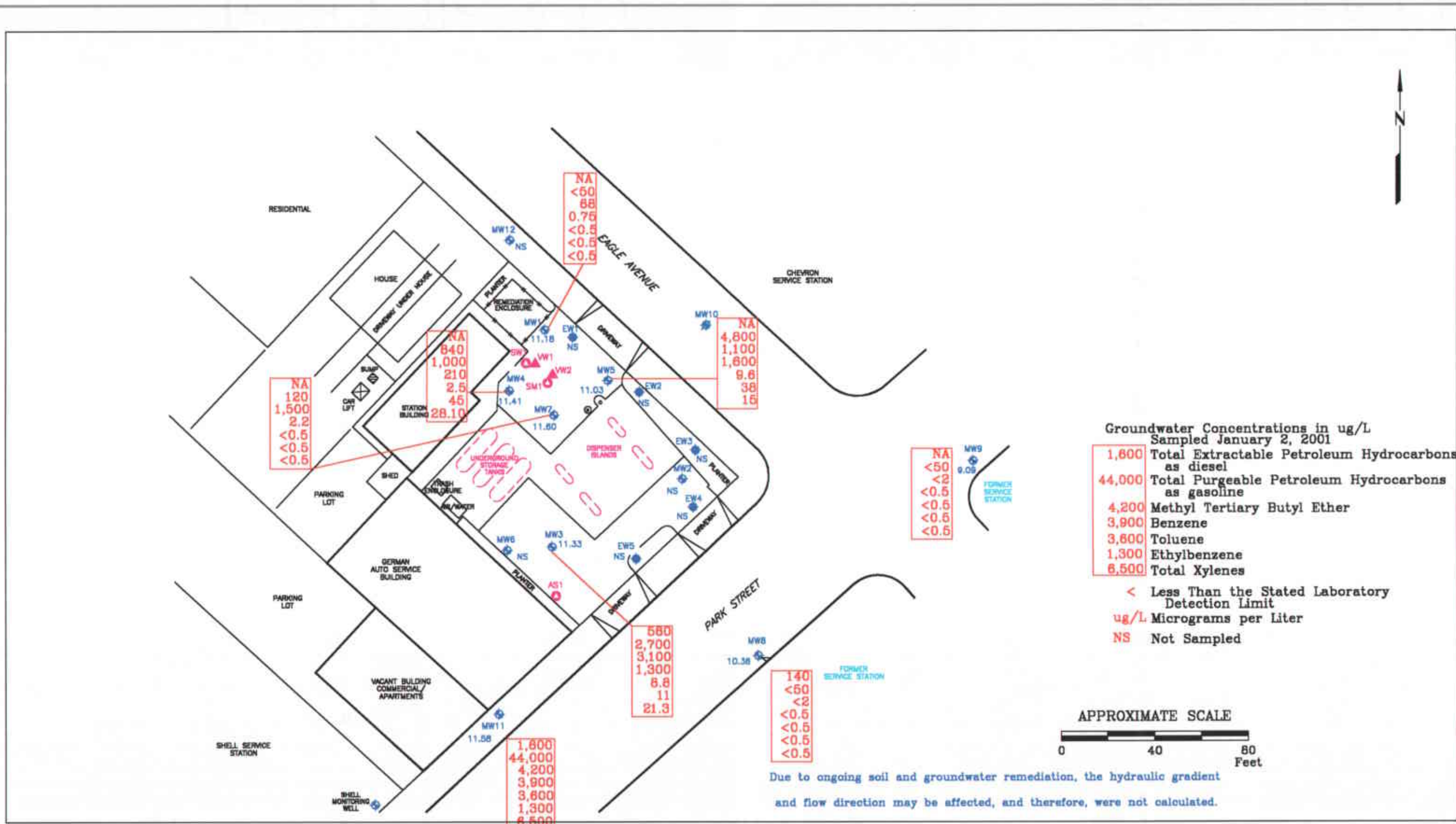
FORMER EXXON SERVICE STATION 7-0104
1725 Park Street
Alameda, California

PROJECT NO.

2506

PLATE

1



FN 25080002



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

EXPLANATION

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

PROJECT NO.

2506

PLATE

2

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

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

Gallons of water purged/gallons in 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.

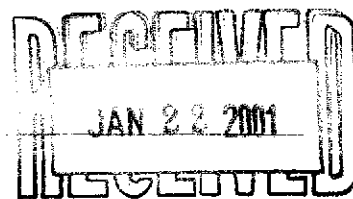
ATTACHMENT B

**LABORATORY ANALYSIS REPORTS
AND CHAIN OF CUSTODY RECORDS**



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

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



Certificate of Analysis Number:
01010057

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250613X Site: 7-0104,20003753 Site Address: PO Number: LWR#21020483 State: California State Cert. No.: Date Reported: 1/17/01
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Please note that your sample "W-BB" (SPL ID: 01010057-01) was detected for Diesel Range Organics. After an internal review was performed it was found that the results are correct.

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
West, Sonia
Senior Project Manager

1/17/01

Date



EXXON Company U.S.A.

Certificate of Analysis Number:
01010057

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

Project Name: 250613X
Site: 7-0104,20003753
Site Address:

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

PO Number: LWR#21020483
State: California
State Cert. No.: 1903

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

Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
W-BB	01010057-01	Water	1/2/01 4:10:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
6-MW8	01010057-02	Water	1/2/01 4:15:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
6-MW9	01010057-03	Water	1/2/01 4:42:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
W-6-MW1	01010057-04	Water	1/2/01 5:00:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
5-MW4	01010057-05	Water	1/2/01 5:15:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
5-MW5	01010057-06	Water	1/2/01 5:33:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
W-5-MW7	01010057-07	Water	1/2/01 5:45:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
W-6-MW11	01010057-08	Water	1/2/01 6:05:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>
5-MW3	01010057-09	Water	1/2/01 6:25:00 PM	1/4/01 10:00:00 AM		<input type="checkbox"/>

Sonia West

1/17/01

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



Water Blank

Client Sample ID W-BB Collected: 1/2/01 4:10:00 P SPL Sample ID: 01010057-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO	Units: ug/L		
Diesel Range Organics	210	50	1		01/08/01 23:37	AM	526036
Surr: n-Pentacosane	93.4 %	20-150	1		01/08/01 23:37	AM	526036

Prep Method	Prep Date	Prep Initials
SW3510B	01/05/2001 13:03	KL

GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		01/08/01 23:44	D_R	526142
Surr: 1,4-Difluorobenzene	88.7 %	62-144	1		01/08/01 23:44	D_R	526142
Surr: 4-Bromofluorobenzene	77.0 %	44-153	1		01/08/01 23:44	D_R	526142

PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		01/08/01 23:44	D_R	526198
Ethylbenzene	ND	0.5	1		01/08/01 23:44	D_R	526198
Methyl tert-butyl ether	ND	2	1		01/08/01 23:44	D_R	526198
Toluene	ND	0.5	1		01/08/01 23:44	D_R	526198
m,p-Xylene	ND	0.5	1		01/08/01 23:44	D_R	526198
o-Xylene	ND	0.5	1		01/08/01 23:44	D_R	526198
Xylenes, Total	ND	0.5	1		01/08/01 23:44	D_R	526198
Surr: 1,4-Difluorobenzene	104 %	72-137	1		01/08/01 23:44	D_R	526198
Surr: 4-Bromofluorobenzene	90.2 %	48-156	1		01/08/01 23:44	D_R	526198

Sonia West

West, Sonia
Project Manager

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



Client Sample ID W-6-MW8

Collected: 1/2/01 4:15:00 P SPL Sample ID: 01010057-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO	Units: ug/L		
Diesel Range Organics	140	50	1		01/09/01 1:33 AM		526038
Surr: n-Pentacosane	50.2 %	20-150	1		01/09/01 1:33 AM		526038

Prep Method	Prep Date	Prep Initials
SW3510B	01/05/2001 13:03	KL

GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		01/09/01 0:09 D_R		526143
Surr: 1,4-Difluorobenzene	89.3 %	62-144	1		01/09/01 0:09 D_R		526143
Surr: 4-Bromofluorobenzene	74.7 %	44-153	1		01/09/01 0:09 D_R		526143

PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		01/09/01 0:09 D_R		526200
Ethylbenzene	ND	0.5	1		01/09/01 0:09 D_R		526200
Methyl tert-butyl ether	ND	2	1		01/09/01 0:09 D_R		526200
Toluene	ND	0.5	1		01/09/01 0:09 D_R		526200
m,p-Xylene	ND	0.5	1		01/09/01 0:09 D_R		526200
o-Xylene	ND	0.5	1		01/09/01 0:09 D_R		526200
Xylenes, Total	ND	0.5	1		01/09/01 0:09 D_R		526200
Surr: 1,4-Difluorobenzene	104 %	72-137	1		01/09/01 0:09 D_R		526200
Surr: 4-Bromofluorobenzene	89.0 %	48-156	1		01/09/01 0:09 D_R		526200

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-6-MW9

Collected: 1/2/01 4:42:00 P SPL Sample ID: 01010057-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		01/09/01 0:35	D_R	526144
Surr: 1,4-Difluorobenzene	88.7	% 62-144	1		01/09/01 0:35	D_R	526144
Surr: 4-Bromofluorobenzene	78.3	% 44-153	1		01/09/01 0:35	D_R	526144
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	ND	0.5	1		01/09/01 0:35	D_R	526202
Ethylbenzene	ND	0.5	1		01/09/01 0:35	D_R	526202
Methyl tert-butyl ether	ND	2	1		01/09/01 0:35	D_R	526202
Toluene	ND	0.5	1		01/09/01 0:35	D_R	526202
m,p-Xylene	ND	0.5	1		01/09/01 0:35	D_R	526202
o-Xylene	ND	0.5	1		01/09/01 0:35	D_R	526202
Xylenes, Total	ND	0.5	1		01/09/01 0:35	D_R	526202
Surr: 1,4-Difluorobenzene	105	% 72-137	1		01/09/01 0:35	D_R	526202
Surr: 4-Bromofluorobenzene	89.3	% 48-156	1		01/09/01 0:35	D_R	526202

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-6-MW1

Collected: 1/2/01 5:00:00 P SPL Sample ID: 01010057-04

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	ND	50	1		01/09/01 1:01	D_R	526145
Surr: 1,4-Difluorobenzene	103	% 62-144	1		01/09/01 1:01	D_R	526145
Surr: 4-Bromofluorobenzene	94.0	% 44-153	1		01/09/01 1:01	D_R	526145
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	0.75	0.5	1		01/09/01 1:01	D_R	526204
Ethylbenzene	ND	0.5	1		01/09/01 1:01	D_R	526204
Methyl tert-butyl ether	68	2	1		01/09/01 1:01	D_R	526204
Toluene	ND	0.5	1		01/09/01 1:01	D_R	526204
m,p-Xylene	ND	0.5	1		01/09/01 1:01	D_R	526204
o-Xylene	ND	0.5	1		01/09/01 1:01	D_R	526204
Xylenes, Total	ND	0.5	1		01/09/01 1:01	D_R	526204
Surr: 1,4-Difluorobenzene	108	% 72-137	1		01/09/01 1:01	D_R	526204
Surr: 4-Bromofluorobenzene	96.5	% 48-156	1		01/09/01 1:01	D_R	526204
VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	67	5	1		01/15/01 18:21	JC	531860
Surr: 1,2-Dichloroethane-d4	104	% 62-119	1		01/15/01 18:21	JC	531860
Surr: 4-Bromofluorobenzene	98.0	% 78-123	1		01/15/01 18:21	JC	531860
Surr: Toluene-d8	94.0	% 74-122	1		01/15/01 18:21	JC	531860

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-5-MW4

Collected: 1/2/01 5:15:00 P SPL Sample ID: 01010057-05

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS							
			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	840	500	10		01/10/01 13:51	CJ	528522
Surr: 1,4-Difluorobenzene	99.1 %	62-144	10		01/10/01 13:51	CJ	528522
Surr: 4-Bromofluorobenzene	89.9 %	44-153	10		01/10/01 13:51	CJ	528522
PURGEABLE AROMATICS							
			MCL	SW8021B	Units: ug/L		
Benzene	210	0.5	1		01/09/01 1:26	D_R	526206
Ethylbenzene	45	0.5	1		01/09/01 1:26	D_R	526206
Methyl tert-butyl ether	1000	20	10		01/10/01 13:51	CJ	528481
Toluene	2.5	0.5	1		01/09/01 1:26	D_R	526206
m,p-Xylene	24	0.5	1		01/09/01 1:26	D_R	526206
o-Xylene	4.1	0.5	1		01/09/01 1:26	D_R	526206
Xylenes,Total	28.1	0.5	1		01/09/01 1:26	D_R	526206
Surr: 1,4-Difluorobenzene	106 %	72-137	10		01/10/01 13:51	CJ	528481
Surr: 1,4-Difluorobenzene	150 %	72-137	1	*	01/09/01 1:26	D_R	526206
Surr: 4-Bromofluorobenzene	155 %	48-156	1		01/09/01 1:26	D_R	526206
Surr: 4-Bromofluorobenzene	96.7 %	48-156	10		01/10/01 13:51	CJ	528481
VOLATILE ORGANICS BY METHOD 8260B							
			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	1200	50	10		01/15/01 18:49	JC	531861
Surr: 1,2-Dichloroethane-d4	102 %	62-119	10		01/15/01 18:49	JC	531861
Surr: 4-Bromofluorobenzene	98.0 %	78-123	10		01/15/01 18:49	JC	531861
Surr: Toluene-d8	96.0 %	74-122	10		01/15/01 18:49	JC	531861

Sonia West

West, Sonia
Project Manager

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



Client Sample ID W-5-MW5

Collected: 1/2/01 5:33:00 P SPL Sample ID: 01010057-06

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	4800	2500	50		01/09/01 1:52	D_R	526146
Surr: 1,4-Difluorobenzene	97.9 %	62-144	50		01/09/01 1:52	D_R	526146
Surr: 4-Bromofluorobenzene	82.5 %	44-153	50		01/09/01 1:52	D_R	526146
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	1600	5	10		01/10/01 14:17	CJ	528482
Ethylbenzene	38	5	10		01/10/01 14:17	CJ	528482
Methyl tert-butyl ether	1100	20	10		01/10/01 14:17	CJ	528482
Toluene	9.6	5	10		01/10/01 14:17	CJ	528482
m,p-Xylene	15	5	10		01/10/01 14:17	CJ	528482
o-Xylene	ND	5	10		01/10/01 14:17	CJ	528482
Xylenes, Total	15	5	10		01/10/01 14:17	CJ	528482
Surr: 1,4-Difluorobenzene	122 %	72-137	10		01/10/01 14:17	CJ	528482
Surr: 4-Bromofluorobenzene	97.5 %	48-156	10		01/10/01 14:17	CJ	528482
VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	1100	50	10		01/15/01 19:17	JC	531862
Surr: 1,2-Dichloroethane-d4	98.0 %	62-119	10		01/15/01 19:17	JC	531862
Surr: 4-Bromofluorobenzene	98.0 %	78-123	10		01/15/01 19:17	JC	531862
Surr: Toluene-d8	94.0 %	74-122	10		01/15/01 19:17	JC	531862

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-5-MW7

Collected: 1/2/01 5:45:00 P SPL Sample ID: 01010057-07

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	120	50	1		01/09/01 2:17	D_R	526147
Surr: 1,4-Difluorobenzene	90.7	% 62-144	1		01/09/01 2:17	D_R	526147
Surr: 4-Bromofluorobenzene	80.0	% 44-153	1		01/09/01 2:17	D_R	526147
PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	2.2	0.5	1		01/09/01 2:17	D_R	526208
Ethylbenzene	ND	0.5	1		01/09/01 2:17	D_R	526208
Methyl tert-butyl ether	1500	20	10		01/10/01 14:42	CJ	528483
Toluene	ND	0.5	1		01/09/01 2:17	D_R	526208
m,p-Xylene	ND	0.5	1		01/09/01 2:17	D_R	526208
o-Xylene	ND	0.5	1		01/09/01 2:17	D_R	526208
Xylenes, Total	ND	0.5	1		01/09/01 2:17	D_R	526208
Surr: 1,4-Difluorobenzene	107	% 72-137	10		01/10/01 14:42	CJ	528483
Surr: 1,4-Difluorobenzene	108	% 72-137	1		01/09/01 2:17	D_R	526208
Surr: 4-Bromofluorobenzene	92.8	% 48-156	10		01/10/01 14:42	CJ	528483
Surr: 4-Bromofluorobenzene	91.0	% 48-156	1		01/09/01 2:17	D_R	526208
VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	1400	120	25		01/15/01 19:44	JC	531863
Surr: 1,2-Dichloroethane-d4	104	% 62-119	25		01/15/01 19:44	JC	531863
Surr: 4-Bromofluorobenzene	96.0	% 78-123	25		01/15/01 19:44	JC	531863
Surr: Toluene-d8	96.0	% 74-122	25		01/15/01 19:44	JC	531863

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-6-MW11

Collected: 1/2/01 6:05:00 P SPL Sample ID: 01010057-08

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO	Units: ug/L		
Diesel Range Organics	1600	50	1		01/09/01 3:28 AM		526041
Surr: n-Pentacosane	68.2 %	20-150	1		01/09/01 3:28 AM		526041

Prep Method	Prep Date	Prep Initials
SW3510B	01/05/2001 13:03	KL

GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	44000	12000	250		01/09/01 2:43 D_R		526148
Surr: 1,4-Difluorobenzene	94.8 %	62-144	250		01/09/01 2:43 D_R		526148
Surr: 4-Bromofluorobenzene	78.7 %	44-153	250		01/09/01 2:43 D_R		526148

PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	3900	12	25		01/10/01 15:08 CJ		528484
Ethylbenzene	1300	12	25		01/10/01 15:08 CJ		528484
Methyl tert-butyl ether	4200	50	25		01/10/01 15:08 CJ		528484
Toluene	3600	12	25		01/10/01 15:08 CJ		528484
m,p-Xylene	4600	12	25		01/10/01 15:08 CJ		528484
o-Xylene	1900	12	25		01/10/01 15:08 CJ		528484
Xylenes, Total	6500	12	25		01/10/01 15:08 CJ		528484
Surr: 1,4-Difluorobenzene	125 %	72-137	25		01/10/01 15:08 CJ		528484
Surr: 4-Bromofluorobenzene	98.9 %	48-156	25		01/10/01 15:08 CJ		528484

VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	4400	250	50		01/15/01 20:10 JC		532317
Surr: 1,2-Dichloroethane-d4	100 %	62-119	50		01/15/01 20:10 JC		532317
Surr: 4-Bromofluorobenzene	96.0 %	78-123	50		01/15/01 20:10 JC		532317
Surr: Toluene-d8	96.0 %	74-122	50		01/15/01 20:10 JC		532317

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID W-5-MW3 Collected: 1/2/01 6:25:00 P SPL Sample ID: 01010057-09

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO	Units: ug/L		
Diesel Range Organics	560	50	1		01/09/01 4:07 AM		526042
Surr: n-Pentacosane	79.2 %	20-150	1		01/09/01 4:07 AM		526042

Prep Method	Prep Date	Prep Initials
SW3510B	01/05/2001 13:03	KL

GASOLINE RANGE ORGANICS			MCL	CA_GRO	Units: ug/L		
Gasoline Range Organics	2700	500	10		01/10/01 15:33	CJ	528523
Surr: 1,4-Difluorobenzene	106 %	62-144	10		01/10/01 15:33	CJ	528523
Surr: 4-Bromofluorobenzene	93.0 %	44-153	10		01/10/01 15:33	CJ	528523

PURGEABLE AROMATICS			MCL	SW8021B	Units: ug/L		
Benzene	1300	5	10		01/10/01 15:33	CJ	528485
Ethylbenzene	11	5	10		01/10/01 15:33	CJ	528485
Methyl tert-butyl ether	3100	20	10		01/10/01 15:33	CJ	528485
Toluene	8.8	5	10		01/10/01 15:33	CJ	528485
m,p-Xylene	16	5	10		01/10/01 15:33	CJ	528485
o-Xylene	5.3	5	10		01/10/01 15:33	CJ	528485
Xylenes, Total	21.3	5	10		01/10/01 15:33	CJ	528485
Surr: 1,4-Difluorobenzene	119 %	72-137	10		01/10/01 15:33	CJ	528485
Surr: 4-Bromofluorobenzene	95.6 %	48-156	10		01/10/01 15:33	CJ	528485

VOLATILE ORGANICS BY METHOD 8260B			MCL	SW8260B	Units: ug/L		
Methyl tert-butyl ether	3100	120	25		01/15/01 20:38	JC	531865
Surr: 1,2-Dichloroethane-d4	104 %	62-119	25		01/15/01 20:38	JC	531865
Surr: 4-Bromofluorobenzene	96.0 %	78-123	25		01/15/01 20:38	JC	531865
Surr: Toluene-d8	96.0 %	74-122	25		01/15/01 20:38	JC	531865

Diesel

Sonia West

West, Sonia
 Project Manager

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

Quality Control Documentation



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

Analysis: Diesel Range Organics
 Method: CA_DRO

WorkOrder: 01010057
 Lab Batch ID: 9502

Method Blank

Samples In Analytical Batch:

RunID: HP_V_010108A-526028 Units: mg/L
 Analysis Date: 01/08/2001 18:28 Analyst: AM
 Preparation Date: 01/05/2001 13:03 Prep By: KL Method SW3510B

Lab Sample ID	Client Sample ID
01010057-01B	W-BB
01010057-02B	W-6-MW8
01010057-08B	W-6-MW11
01010057-09B	W-5-MW3

Analyte	Result	Rep Limit
Diesel Range Organics	ND	0.050
Surr: n-Pentacosane	91.4	20-150

Laboratory Control Sample (LCS)

RunID: HP_V_010108A-526027 Units: mg/L
 Analysis Date: 01/08/2001 17:49 Analyst: AM
 Preparation Date: 01/05/2001 13:03 Prep By: KL Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.3	91	21	175

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

Sample Spiked: 01010057-02
 RunID: HP_V_010108A-526039 Units: mg/L
 Analysis Date: 01/09/2001 2:11 Analyst: AM
 Preparation Date: 01/05/2001 13:03 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	0.14	2.5	1.6	59.1	2.5	1.2	40.7	6.9 *	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.

250613X

Analysis: Gasoline Range Organics
Method: CA_GRO

WorkOrder: 01010057
Lab Batch ID: R27353

Method Blank

Samples in Analytical Batch:

RunID: HP_R_010108A-526133 Units: mg/L
Analysis Date: 01/08/2001 12:14 Analyst: D_R

Lab Sample ID	Client Sample ID
01010057-01A	W-BB
01010057-02A	W-6-MW8
01010057-03A	W-6-MW9
01010057-04A	W-6-MW1
01010057-06A	W-5-MW5
01010057-07A	W-5-MW7
01010057-08A	W-6-MW11

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	93.7	62-144
Surr: 4-Bromofluorobenzene	82.3	44-153

Laboratory Control Sample (LCS)

RunID: HP_R_010108A-526132 Units: mg/L
Analysis Date: 01/08/2001 11:48 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.79	79	70	130

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

Sample Spiked: 01010036-05
RunID: HP_R_010108A-526139 Units: mg/L
Analysis Date: 01/08/2001 18:57 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	0.74	82.7	0.9	0.54	59.9	32.0	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.



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

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 01010057
 Lab Batch ID: R27356

Method Blank

Samples in Analytical Batch:

RunID: HP_R_010108B-526182 Units: ug/L
 Analysis Date: 01/08/2001 12:14 Analyst: D_R

Lab Sample ID	Client Sample ID
01010057-01A	W-BB
01010057-02A	W-6-MW8
01010057-03A	W-6-MW9
01010057-04A	W-6-MW1
01010057-05A	W-5-MW4
01010057-07A	W-5-MW7

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	105.2	72-137
Surr: 4-Bromofluorobenzene	89.4	48-156

Laboratory Control Sample (LCS)

RunID: HP_R_010108B-526181 Units: ug/L
 Analysis Date: 01/08/2001 11:22 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	57	113	70	130
Ethylbenzene	50	50	100	70	130
Methyl tert-butyl ether	50	49	97	70	130
Toluene	50	51	101	70	130
m,p-Xylene	100	98	98	70	130
o-Xylene	50	49	98	70	130
Xylenes, Total	150	147	98	70	130

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

Sample Spiked: 01010036-04
 RunID: HP_R_010108B-526193 Units: ug/L
 Analysis Date: 01/08/2001 18:06 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	17	82.2	20	19	94.8	14.3	21	32	164
Ethylbenzene	ND	20	14	69.4	20	16	80.2	14.4	19	52	142
Methyl tert-butyl ether	ND	20	21	103	20	23	113	9.15	20	39	150

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.
 250613X

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 01010057
 Lab Batch ID: R27520

Method Blank

Samples in Analytical Batch:

RunID: HP_R_010110A-528469 Units: ug/L
 Analysis Date: 01/10/2001 2:46 Analyst: CJ

Lab Sample ID	Client Sample ID
01010057-05A	W-5-MW4
01010057-06A	W-5-MW5
01010057-07A	W-5-MW7
01010057-08A	W-6-MW11
01010057-09A	W-5-MW3

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	104.8	72-137
Surr: 4-Bromofluorobenzene	94.1	48-156

Laboratory Control Sample (LCS)

RunID: HP_R_010110A-528468 Units: ug/L
 Analysis Date: 01/10/2001 1:56 Analyst: CJ

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	53	107	70	130
Ethylbenzene	50	48	95	70	130
Methyl tert-butyl ether	50	54	108	70	130
Toluene	50	48	95	70	130
m,p-Xylene	100	94	94	70	130
o-Xylene	50	47	93	70	130
Xylenes, Total	150	141	94	70	130

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

Sample Spiked: 01010095-12
 RunID: HP_R_010110A-529435 Units: ug/L
 Analysis Date: 01/11/2001 14:56 Analyst: CJ

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	7.1	20	27	101	20	27	99.0	1.64	21	32	164
Ethylbenzene	10	20	28	89.0	20	28	87.0	2.27	19	52	142
Methyl tert-butyl ether	ND	20	23	111	20	21	105	6.45	20	39	150

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.
 250613X

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 01010057
 Lab Batch ID: R27356

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

Sample Spiked: 01010036-04
 RunID: HP_R_0101088-526193 Units: ug/L
 Analysis Date: 01/08/2001 18:06 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	14	72.2	20	17	83.8	14.8	20	38	159
m-Xylene	ND	40	27	68.2	40	32	79.2	15.0	17	53	144
o-Xylene	ND	20	14	72.1	20	17	83.7	14.8	18	53	143
Aromatics, Total	ND	60	41	68.3	60	49	81.7	17.8	18	53	144

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.
 250613X

Analysis: Purgeable Aromatics
 Method: SW8021B

WorkOrder: 01010057
 Lab Batch ID: R27520

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

Sample Spiked: 01010095-12
 RunID: HP_R_010110A-529435 Units: ug/L
 Analysis Date: 01/11/2001 14:56 Analyst: CJ

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	19	93.9	20	19	91.9	2.11	20	38	159
m-Xylene	5.6	40	42	90.3	40	41	88.4	2.05	17	53	144
o-Xylene	0.72	20	19	89.5	20	18	88.0	1.69	18	53	143
Xylenes, Total	6.3	60	61	91.1	60	59	87.8	3.73	18	53	144

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.
 250613X

Analysis: Gasoline Range Organics
 Method: CA_GRO

WorkOrder: 01010057
 Lab Batch ID: R27522

Method Blank

Samples in Analytical Batch:

RunID: HP_R_010110B-528508 Units: mg/L
 Analysis Date: 01/10/2001 2:46 Analyst: CJ

Lab Sample ID **Client Sample ID**
 01010057-05A W-5-MW4
 01010057-09A W-5-MW3

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	91.7	62-144
Surr: 4-Bromofluorobenzene	75.0	44-153

Laboratory Control Sample (LCS)

RunID: HP_R_010110B-528507 Units: mg/L
 Analysis Date: 01/10/2001 2:21 Analyst: CJ

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.76	76	70	130

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

Sample Spiked: 01010095-13
 RunID: HP_R_010110B-528520 Units: mg/L
 Analysis Date: 01/10/2001 12:29 Analyst: CJ

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	0.48	53.1	0.9	0.43	48.3	9.43	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.



Quality Control Report

EXXON Company U.S.A.

250613X

Analysis: Volatile Organics by Method 8260B
 Method: SW8260B

WorkOrder: 01010057
 Lab Batch ID: R27686

Method Blank

RunID: K_010115A-531249 Units: ug/L
 Analysis Date: 01/15/2001 10:35 Analyst: JC

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	5.0
Surr: 1,2-Dichloroethane-d4	100.0	62-119
Surr: 4-Bromofluorobenzene	98.0	78-123
Surr: Toluene-d8	98.0	74-122

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
01010057-04A	W-6-MW1
01010057-05A	W-5-MW4
01010057-06A	W-5-MW5
01010057-07A	W-5-MW7
01010057-08A	W-6-MW11
01010057-09A	W-5-MW3

Laboratory Control Sample (LCS)

RunID: K_010115A-531248 Units: ug/L
 Analysis Date: 01/15/2001 9:40 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	49	98	61	145
Benzene	50	46	92	76	127
Chlorobenzene	50	50	100	75	130
Toluene	50	46	92	76	125
Trichloroethene	50	49	98	71	120

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

Sample Spiked: 01010205-01
 RunID: K_010115A-531256 Units: ug/L
 Analysis Date: 01/15/2001 14:13 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	50	52	104	50	54	108	4	14	38	172
Benzene	ND	50	47	94	50	48	96	2	11	66	134
Chlorobenzene	ND	50	50	100	50	51	102	2	13	67	115
Toluene	ND	50	47	94	50	47	94	0	13	59	125
Trichloroethene	ND	50	50	100	50	53	106	6	14	61	134

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



Sample Receipt Checklist

Workorder: 01010057
Date and Time Received: 1/4/01 10:00:00 AM
Temperature: 3

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

-
- | | | | |
|---|---|-----------------------------|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input 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 checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
-



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

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

Certificate of Analysis Number:
 00100414

RECEIVED
 OCT 31 2000
 11595012

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

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

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

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

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

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

Sonia West
 West, Sonia
 Senior Project Manager

10/26/00
 Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00100414

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008236 State: California State Cert. No.: Date Reported:
From 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	00100414-01	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
A-INT	00100414-02	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>
A-EFF	00100414-03	Air	10/12/00 9:00:00 AM	10/16/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

10/26/00

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

 Ted Yen
 Quality Assurance Officer



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00100414

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

Client Sample ID: A-EFF

SPL Sample ID: 00100414-03A

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

Client Sample ID: A-INF

SPL Sample ID: 00100414-01A

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



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00100414

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

Client Sample ID: A-INT

SPL Sample ID: 00100414-02A

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



Client Sample ID A-INF

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

Site: 7-0104,20003753

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

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID A-INT

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

Site: 7-0104,20003753

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

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID A-EFF

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

Site: 7-0104,20003753

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

Sonia West

West, Sonia
 Project Manager

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



Quality Control Documentation



Quality Control Report

EXXON Company U.S.A.

250611X

Analysis: Purgeable Aromatics in Air
 Method: SW8020A

WorkOrder: 00100414
 Lab Batch ID: R22818

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001016A-439906 Units: mg/m³
 Analysis Date: 10/16/2000 14:24 Analyst: TM

Lab Sample ID	Client Sample ID
00100414-01A	A-INF
00100414-02A	A-INT
00100414-03A	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	104.0	20-150
Surr: 4-Bromofluorobenzene	88.2	58-139

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

RunID: HP_P_001016A-439904 Units: mg/m³
 Analysis Date: 10/16/2000 13:25 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	61	96	64	65	101	5.1	34	37	117
Ethylbenzene	88	73	83	88	80	90	8.5	35	56	115
Toluene	80	69	87	80	74	92	5.8	30	25	113
m,p-Xylene	88	72	81	88	78	89	9.1	35	12	114
o-Xylene	88	72	81	88	79	90	9.6	35	15	109
Xylenes, Total	176	144	82	176	157	89	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

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



Quality Control Report

EXXON Company U.S.A.
 250611X

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00100414
 Lab Batch ID: R22819

Method Blank

RunID: HP_P_001016B-439923 Units: mg/m³
 Analysis Date: 10/16/2000 14:24 Analyst: TM

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00100414-01A	A-INF
00100414-02A	A-INT
00100414-03A	A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	95.8	62-144
Surr: 4-Bromofluorobenzene	87.3	44-153

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

RunID: HP_P_001016B-439921 Units: mg/m³
 Analysis Date: 10/16/2000 13:25 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	520	68	770	550	72	6.1	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

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

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. 00100414

Page 1 of 1

Exxon Engineer: Darin Rouse Phone: 1925 246 8768
 Consultant Co. Name: EPR Contact: Jim Chaparral
 Address: 23 Digital Drive Fax: 1415 382 1956
Suite 100 Novato CA 94949
 RAS #: 2-0104 Facility/State ID # (TN Only): _____
 AFE # (Terminal Only): _____ Consultant Project #: 2506 UX
 Location: 1725 Park Street (City) Alameda (State) CA
 EE C&M SDT
 Consultant Work Release #: 20003753
 Sampled By: Carl Minkick

ANALYSIS REQUEST:
(CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC	BTEX	MTBE	OXYGENATES (7)	O&G	VOL	SEMI-VOL	PNA/PAH	PCB/PEST	TCLP FULL	METALS, TOTAL	LEAD TOTAL	LEAD DISSOLVED	REACTIVITY	PURGEABLE HYDROCARBON	TPH/IR	TOX/TOH					
		8015 DRO <input type="checkbox"/>	602 <input type="checkbox"/>	8020 <input type="checkbox"/>	8260 <input type="checkbox"/>	8260 <input type="checkbox"/>	IR 413.1 <input type="checkbox"/>	GRAV 413.2 <input type="checkbox"/>	624 <input type="checkbox"/>	625 <input type="checkbox"/>	8270 <input type="checkbox"/>	8310 <input type="checkbox"/>	8270 <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	PESTID HERBID <input type="checkbox"/>	SEMIVOL <input type="checkbox"/>	METALS, TCLP <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD, TCLP <input type="checkbox"/>	LEAD TOTAL <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	8010 <input type="checkbox"/>	601 <input type="checkbox"/>
1	15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
1	15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
1	15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					

RUSH

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:

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

LAB USE ONLY Lot # 120 Storage Location _____
 WORK ORDER # 00100414 LAB WORK RELEASE #:

CUSTODY RECORD

Relinquished By Sampler: [Signature]
 Relinquished: _____
 Relinquished: _____

Date Time
10-13-00 1500
 Date Time

 Date Time
10-16-00 1000

Received By: _____
 Received By: _____
 Received By: [Signature]
 Way Bill #: _____ Cooler Temp: Ambient



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

Sample Receipt Checklist

Workorder: 00100414
Date and Time Received: 10/16/00 10:00:00 AM
Temperature: ambient

Received by: Turnell, Randy
Carrier name: FedEx

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



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

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

Certificate of Analysis Number:
 00110009

NOV 13 2000

<p>Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008692 State: California State Cert. No.: Date Reported:</p>
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Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

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

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.

[Handwritten Signature]
 West, Sonia
 Senior Project Manager

11/7/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00110009

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address:
	PO Number: LWR#20008692 State: California State Cert. No.: Date Reported:

Client Sample ID: A-EFF

SPL Sample ID: 00110009-03A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	1.4	1.0	0.32	0.23
m,p-Xylene	1.1	1.0	0.25	0.23
o-Xylene	1.8	1.0	0.41	0.23
Xylenes, Total	2.9	1.0	0.66	0.23
TPH Air	ND	10	ND	2.8

Client Sample ID: A-INF

SPL Sample ID: 00110009-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	15	5.0	4.6	1.5
Toluene	53	5.0	14	1.3
Ethylbenzene	16	5.0	3.6	1.1
m,p-Xylene	18	5.0	4.1	1.1
o-Xylene	18	5.0	4.1	1.1
Xylenes, Total	36	5.0	8.2	1.1
TPH Air	1700	50	480	14



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--	--

Client Sample ID: A-INT

SPL Sample ID: 00110009-02A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	1.1	1.0	0.25	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	1.4	1.0	0.32	0.23
Xylenes, Total	1.4	1.0	0.32	0.23
TPH Air	ND	10	ND	2.8



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Certificate of Analysis Number:
00110009

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#20008692 State: California State Cert. No.: Date Reported:
For 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	00110009-01	Air	10/30/00 11:45:00 AM	11/1/00 10:00:00 AM		<input type="checkbox"/>
A-T	00110009-02	Air	10/30/00 11:45:00 AM	11/1/00 10:00:00 AM		<input type="checkbox"/>
A-LFF	00110009-03	Air	10/30/00 11:45:00 AM	11/1/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

11/7/00

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

 Ted Yen
 Quality Assurance Officer



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

Client Sample ID A-INF

Collected: 10/30/00 11:45:0 SPL Sample ID: 00110009-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	15	5.0	5		11/01/00 18:33	TM	458151
Toluene	53	5.0	5		11/01/00 18:33	TM	458151
Ethylbenzene	16	5.0	5		11/01/00 18:33	TM	458151
m,p-Xylene	18	5.0	5		11/01/00 18:33	TM	458151
o-Xylene	18	5.0	5		11/01/00 18:33	TM	458151
Xylenes, Total	36	5.0	5		11/01/00 18:33	TM	458151
Surr: 1,4-Difluorobenzene	93.5	% 20-150	5		11/01/00 18:33	TM	458151
Surr: 4-Bromofluorobenzene	97.2	% 58-139	5		11/01/00 18:33	TM	458151
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	1700	50	5		11/01/00 18:33	TM	458167
Surr: 1,4-Difluorobenzene	83.6	% 62-144	5		11/01/00 18:33	TM	458167
Surr: 4-Bromofluorobenzene	77.3	% 44-153	5		11/01/00 18:33	TM	458167

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID A-INT

Collected: 10/30/00 11:45:0 SPL Sample ID: 00110009-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		11/01/00 19:03	TM	458152
Toluene	ND	1.0	1		11/01/00 19:03	TM	458152
Ethylbenzene	1.1	1.0	1		11/01/00 19:03	TM	458152
m,p-Xylene	ND	1.0	1		11/01/00 19:03	TM	458152
o-Xylene	1.4	1.0	1		11/01/00 19:03	TM	458152
Xylenes, Total	1.4	1.0	1		11/01/00 19:03	TM	458152
Surr: 1,4-Difluorobenzene	97.1	% 20-150	1		11/01/00 19:03	TM	458152
Surr: 4-Bromofluorobenzene	105	% 58-139	1		11/01/00 19:03	TM	458152
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		11/01/00 19:03	TM	458174
Surr: 1,4-Difluorobenzene	97.7	% 62-144	1		11/01/00 19:03	TM	458174
Surr: 4-Bromofluorobenzene	93.8	% 44-153	1		11/01/00 19:03	TM	458174

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID A-EFF

Collected: 10/30/00 11:45:0 SPL Sample ID: 00110009-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		11/01/00 19:32	TM	458153
Toluene	ND	1.0	1		11/01/00 19:32	TM	458153
Ethylbenzene	1.4	1.0	1		11/01/00 19:32	TM	458153
m,p-Xylene	1.1	1.0	1		11/01/00 19:32	TM	458153
o-Xylene	1.8	1.0	1		11/01/00 19:32	TM	458153
Xylenes, Total	2.9	1.0	1		11/01/00 19:32	TM	458153
Surr: 1,4-Difluorobenzene	94.4	% 20-150	1		11/01/00 19:32	TM	458153
Surr: 4-Bromofluorobenzene	95.7	% 58-139	1		11/01/00 19:32	TM	458153
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		11/01/00 19:32	TM	458180
Surr: 1,4-Difluorobenzene	94.4	% 62-144	1		11/01/00 19:32	TM	458180
Surr: 4-Bromofluorobenzene	86.5	% 44-153	1		11/01/00 19:32	TM	458180

Sonia West

West, Sonia
 Project Manager

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

Quality Control Documentation



Quality Control Report
 EXXON Company U.S.A.
 250611X

Analysis: Purgeable Aromatics in Air
 Method: SW8020A

WorkOrder: 00110009
 Lab Batch ID: R23723

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001101A-458150 Units: mg/m³
 Analysis Date: 11/01/2000 18:03 Analyst: TM

Lab Sample ID Client Sample ID
 00110009-01A A-INF
 00110009-02A A-INT
 00110009-03A 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	94.8	20-150
Surr: 4-Bromofluorobenzene	100.0	58-139

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

RunID: HP_P_001101A-458148 Units: mg/m³
 Analysis Date: 11/01/2000 17:04 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	66	104	64	61	95	9.1	34	37	117
Ethylbenzene	88	86	98	88	78	88	10.0	35	56	115
Toluene	80	77	96	80	70	88	8.7	30	25	113
m,p-Xylene	88	83	94	88	76	86	9.3	35	12	114
o-Xylene	88	82	93	88	77	87	5.9	35	15	109
Xylenes, Total	176	165	94	176	153	87	7.5	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

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



Quality Control Report
 EXXON Company U.S.A.
 250611X

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00110009
 Lab Batch ID: R23725

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001101B-458160 Units: mg/m³
 Analysis Date: 11/01/2000 18:03 Analyst: TM

Lab Sample ID	Client Sample ID
00110009-01A	A-INF
00110009-02A	A-INT
00110009-03A	A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	95.9	62-144
Surr: 4-Bromofluorobenzene	90.8	44-153

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

RunID: HP_P_001101B-458155 Units: mg/m³
 Analysis Date: 11/01/2000 17:04 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	580	76	770	540	71	7.0	30	40	140

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

*Chain of Custody
And
Sample Receipt Checklist*

EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. _____

Page 1 of 1

Exxon Engineer: DAVID ROVSE Phone: 1 (925) 246-8768
 Consultant Co. Name: ERE Contact: JIM CHAPPEL
 Address: 73 DIGITAL DRIVE Fax: 1 (415) 392 1856
SUITE 100, NOVATO CA 94949
 RAS #: 7-0104 Facility/State ID # (TN Only): _____
 AFE # (Terminal Only): _____ Consultant Project #: 2506 LIX
 Location: 1725 PARK STREET (City) ALAMOGA (State) CA
 EE C&M SDT
 Consultant Work Release #: 2000 3753
 Sampled By: [Signature]

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO OF CONTAINERS	CONTAINER SIZE	TPHGC 8015 GR0	8015 DRO	BTEX 8020	602	MTBE 8020	8260	OXYGENATES (7) 8260	O&G	IR 413 1	GRAV 413.2	VOL 8260	624	SEMI-VOL 8270	625	PNAPAH 8100	8310	8270	PCB/PEST 8081/8082	PCB ONLY	TCLP FULL VOL SEMI-VOL PEST HERB	METALS, TOTAL	METALS, TCLP	LEAD, TOTAL 299.1	7421	LEAD, TCLP	LEAD, DISSOLVED	LEAD TOTAL	REACTIVITY	CORROSION	FLASH POINT	PURGEABLE HYDROCARBON 8010	801	TPHIR 418 1	TOX/TOH
		1	15	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

RUSH

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

**EXXON UST
 CONTRACT NO.
 C41483**

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

REMARKS: 8204 2566 8983 SO
5105 @
 LAB USE ONLY Lot # _____ Storage Location _____
@ 125
 WORK ORDER #: 00110009 LAB WORK RELEASE #: _____

CUSTODY RECORD

Relinquished By Sampler:	<u>[Signature]</u> / <u>RRI</u>	Date:	<u>10/30/00</u>	Time:	<u>1900</u>	Received By:	
Relinquished:		Date:		Time:		Received By:	
Relinquished:		Date:		Time:		Received By:	<u>[Signature]</u>

Way Bill #: _____ Cooler Temp: 11/1000



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

Sample Receipt Checklist

Workorder: 00110009
Date and Time Received: 11/1/00 10:00:00 AM
Temperature: Ambient

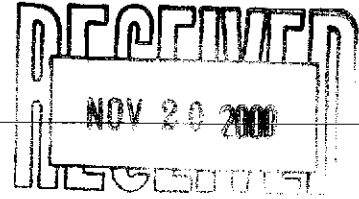
Received by: Stelly, D'Anna
Carrier name: FedEx

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



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

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



Certificate of Analysis Number:
00110314

<p><u>Report To:</u></p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p><u>Project Name:</u> 250611X</p> <p><u>Site:</u> 7-0104, 20003753</p> <p><u>Site Address:</u></p> <p><u>PO Number:</u> LWR#20008869</p> <p><u>State:</u> California</p> <p><u>State Cert. No.:</u></p> <p><u>Date Reported:</u></p>
---	--

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

Sonia West
 West, Sonia
 Senior Project Manager

11/14/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00110314

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104, 20003753 Site Address: PO Number: LWR#20008869 State: California State Cert. No.: Date Reported:
Fax To: Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
Inf	00110314-01	Air	11/8/00 3:45:00 PM	11/10/00 10:00:00 AM		<input type="checkbox"/>
Int	00110314-02	Air	11/8/00 3:45:00 PM	11/10/00 10:00:00 AM		<input type="checkbox"/>
A-Eff	00110314-03	Air	11/8/00 3:45:00 PM	11/10/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

11/14/00

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00110314

Report To:

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

Novato
 California
 94949-

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

Project Name: 250611X
 Site: 7-0104, 20003753
 Site Address:

PO Number: LWR#20008869
 State: California
 State Cert. No.:
 Date Reported:

Client Sample ID: A-Eff

SPL Sample ID: 00110314-03A

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

Client Sample ID: A-Inf

SPL Sample ID: 00110314-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	1.2	1.0	0.31	0.26
Ethylbenzene	1.3	1.0	0.30	0.23
m,p-Xylene	1.7	1.0	0.39	0.23
o-Xylene	1.8	1.0	0.41	0.23
Xylenes, Total	3.5	1.0	0.80	0.23
TPH Air	29	10	8.1	2.8



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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00110314

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--	---

Client Sample ID: A-Int

SPL Sample ID: 00110314-02A

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



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 (713) 860-0901

Client Sample ID A-Inf

Collected: 11/8/00 3:45:00

SPL Sample ID: 00110314-01

Site: 7-0104, 20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		11/10/00 14:53	TM	470517
Toluene	1.2	1.0	1		11/10/00 14:53	TM	470517
Ethylbenzene	1.3	1.0	1		11/10/00 14:53	TM	470517
m,p-Xylene	1.7	1.0	1		11/10/00 14:53	TM	470517
o-Xylene	1.8	1.0	1		11/10/00 14:53	TM	470517
Xylenes, Total	3.5	1.0	1		11/10/00 14:53	TM	470517
Surr: 1,4-Difluorobenzene	95.0 %	20-150	1		11/10/00 14:53	TM	470517
Surr: 4-Bromofluorobenzene	104 %	58-139	1		11/10/00 14:53	TM	470517
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	29	10	1		11/10/00 14:53	TM	470534
Surr: 1,4-Difluorobenzene	94.9 %	62-144	1		11/10/00 14:53	TM	470534
Surr: 4-Bromofluorobenzene	91.5 %	44-153	1		11/10/00 14:53	TM	470534

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



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

Client Sample ID A-Int

Collected: 11/8/00 3:45:00

SPL Sample ID: 00110314-02

Site: 7-0104, 20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		11/10/00 15:23	TM	470518
Toluene	ND	1.0	1		11/10/00 15:23	TM	470518
Ethylbenzene	ND	1.0	1		11/10/00 15:23	TM	470518
m,p-Xylene	ND	1.0	1		11/10/00 15:23	TM	470518
o-Xylene	ND	1.0	1		11/10/00 15:23	TM	470518
Xylenes, Total	ND	1.0	1		11/10/00 15:23	TM	470518
Surr: 1,4-Difluorobenzene	95.6	% 20-150	1		11/10/00 15:23	TM	470518
Surr: 4-Bromofluorobenzene	100	% 58-139	1		11/10/00 15:23	TM	470518
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		11/10/00 15:23	TM	470536
Surr: 1,4-Difluorobenzene	97.1	% 62-144	1		11/10/00 15:23	TM	470536
Surr: 4-Bromofluorobenzene	91.5	% 44-153	1		11/10/00 15:23	TM	470536

Sonia West

West, Sonia
 Project Manager

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



Client Sample ID A-Eff

Collected: 11/8/00 3:45:00

SPL Sample ID: 00110314-03

Site: 7-0104, 20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		11/10/00 15:52	TM	470519
Toluene	ND	1.0	1		11/10/00 15:52	TM	470519
Ethylbenzene	ND	1.0	1		11/10/00 15:52	TM	470519
m,p-Xylene	ND	1.0	1		11/10/00 15:52	TM	470519
o-Xylene	ND	1.0	1		11/10/00 15:52	TM	470519
Xylenes, Total	ND	1.0	1		11/10/00 15:52	TM	470519
Surr: 1,4-Difluorobenzene	96.5	% 20-150	1		11/10/00 15:52	TM	470519
Surr: 4-Bromofluorobenzene	102	% 58-139	1		11/10/00 15:52	TM	470519
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		11/10/00 15:52	TM	470538
Surr: 1,4-Difluorobenzene	96.5	% 62-144	1		11/10/00 15:52	TM	470538
Surr: 4-Bromofluorobenzene	89.1	% 44-153	1		11/10/00 15:52	TM	470538

Sonia West

West, Sonia
 Project Manager

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

Quality Control Documentation



Quality Control Report

EXXON Company U.S.A.

250611X

Analysis: Purgeable Aromatics in Air
 Method: SW8020A

WorkOrder: 00110314
 Lab Batch ID: R24396

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001110A-470513 Units: mg/m³
 Analysis Date: 11/10/2000 10:58 Analyst: TM

Lab Sample ID	Client Sample ID
00110314-01A	A-Inf
00110314-02A	A-Int
00110314-03A	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	91.8	20-150
Surr: 4-Bromofluorobenzene	93.6	58-139

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

RunID: HP_P_001110A-470515 Units: mg/m³
 Analysis Date: 11/10/2000 13:55 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	63	98	6.6	34	37	117
Ethylbenzene	88	84	95	88	77	87	8.7	35	56	115
Toluene	80	75	94	80	70	87	7.6	30	25	113
m,p-Xylene	88	81	92	88	75	85	7.5	35	12	114
o-Xylene	88	80	90	88	76	86	4.8	35	15	109
Xylenes, Total	176	161	91	176	151	86	6.4	35	12	114

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



Quality Control Report

EXXON Company U.S.A.

250611X

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 00110314
 Lab Batch ID: R24397

Method Blank

Samples in Analytical Batch:

RunID: HP_P_0011108-470530 Units: mg/m³
 Analysis Date: 11/10/2000 10:58 Analyst: TM

Lab Sample ID	Client Sample ID
00110314-01A	A-Inf
00110314-02A	A-Int
00110314-03A	A-Eff

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	93.5	62-144
Surr: 4-Bromofluorobenzene	81.2	44-153

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

RunID: HP_P_0011108-470532 Units: mg/m³
 Analysis Date: 11/10/2000 13:55 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	560	73	770	540	70	3.6	30	40	140

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

Chain of Custody
And
Sample Receipt Checklist



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

Sample Receipt Checklist

Workorder: 00110314

Received by: Estrada, Ruben

Date and Time Received: 11/10/00 10:00:00 AM

Carrier name: FedEx

Temperature: AMBIENT

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



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

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

Certificate of Analysis Number:
00120462

RECEIVED
 DEC 17 2000
 HOUSTON

<p>Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 2506-11x Site: 7-0104,20003753 Site Address:</p> <p>PO Number: LWR#20009513 State: California State Cert. No.: 1903 Date Reported:</p>
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Your air samples were received expired. Per the request of Jim Chappell on December 15, 2000, via phone conversation, SPL continued with analytical analyses.

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
 West, Sonia
 Senior Project Manager



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00120462

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11x Site: 7-0104,20003753 Site Address:
	PO Number: LWR#20009513 State: California State Cert. No.: 1903 Date Reported:

Client Sample ID: A-Eff

SPL Sample ID: 00120462-03A

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

Client Sample ID: A-Inf

SPL Sample ID: 00120462-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	2.1	1.0	0.65	0.31
Toluene	6.8	1.0	1.8	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	1.6	1.0	0.36	0.23
o-Xylene	1.5	1.0	0.34	0.23
Xylenes, Total	3.1	1.0	0.70	0.23
TPH Air	240	10	67	2.8



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

EXXON Company U.S.A.

Certificate of Analysis Number:
00120462

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 2506-11x Site: 7-0104,20003753 Site Address: PO Number: LWR#20009513 State: California State Cert. No.: 1903 Date Reported:
--	--

Client Sample ID: A-Int

SPL Sample ID: 00120462-02A

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



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

EXXON Company U.S.A.

Certificate of Analysis Number:

00120462

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: 7-0104,20003753
Site Address:

PO Number: LWR#20009513
State: California
State Cert. No.: 1903

Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
A-Inf	00120462-01	Air	12/11/00 11:30:00 AM	12/14/00 10:00:00 AM		<input type="checkbox"/>
A-Int	00120462-02	Air	12/11/00 11:30:00 AM	12/14/00 10:00:00 AM		<input type="checkbox"/>
A-Eff	00120462-03	Air	12/11/00 11:30:00 AM	12/14/00 10:00:00 AM		<input type="checkbox"/>

Sonia West

12/18/00

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



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

Client Sample ID A-Inf

Collected: 12/11/00 11:30:0 SPL Sample ID: 00120462-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	2.1	1.0	1		12/15/00 0:31	TM	507464
Toluene	6.8	1.0	1		12/15/00 0:31	TM	507464
Ethylbenzene	ND	1.0	1		12/15/00 0:31	TM	507464
m,p-Xylene	1.6	1.0	1		12/15/00 0:31	TM	507464
o-Xylene	1.5	1.0	1		12/15/00 0:31	TM	507464
Xylenes, Total	3.1	1.0	1		12/15/00 0:31	TM	507464
Surr: 1,4-Difluorobenzene	92.0	% 20-150	1		12/15/00 0:31	TM	507464
Surr: 4-Bromofluorobenzene	92.4	% 58-139	1		12/15/00 0:31	TM	507464
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	240	10	1		12/15/00 0:31	TM	507498
Surr: 1,4-Difluorobenzene	80.6	% 62-144	1		12/15/00 0:31	TM	507498
Surr: 4-Bromofluorobenzene	69.8	% 44-153	1		12/15/00 0:31	TM	507498

Sonia West

West, Sonia

Project Manager

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



Client Sample ID A-Int

Collected: 12/11/00 11:30:0 SPL Sample ID: 00120462-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		12/14/00 16:17	TM	507462
Toluene	ND	1.0	1		12/14/00 16:17	TM	507462
Ethylbenzene	ND	1.0	1		12/14/00 16:17	TM	507462
m,p-Xylene	ND	1.0	1		12/14/00 16:17	TM	507462
o-Xylene	ND	1.0	1		12/14/00 16:17	TM	507462
Xylenes, Total	ND	1.0	1		12/14/00 16:17	TM	507462
Surr: 1,4-Difluorobenzene	96.1	% 20-150	1		12/14/00 16:17	TM	507462
Surr: 4-Bromofluorobenzene	99.5	% 58-139	1		12/14/00 16:17	TM	507462
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		12/14/00 16:17	TM	507491
Surr: 1,4-Difluorobenzene	93.8	% 62-144	1		12/14/00 16:17	TM	507491
Surr: 4-Bromofluorobenzene	81.5	% 44-153	1		12/14/00 16:17	TM	507491

Sonia West

West, Senia

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-Eff

Collected: 12/11/00 11:30:0 SPL Sample ID: 00120462-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		12/14/00 17:15	TM	507463
Toluene	ND	1.0	1		12/14/00 17:15	TM	507463
Ethylbenzene	ND	1.0	1		12/14/00 17:15	TM	507463
m,p-Xylene	ND	1.0	1		12/14/00 17:15	TM	507463
o-Xylene	ND	1.0	1		12/14/00 17:15	TM	507463
Xylenes,Total	ND	1.0	1		12/14/00 17:15	TM	507463
Surr: 1,4-Difluorobenzene	97.1	% 20-150	1		12/14/00 17:15	TM	507463
Surr: 4-Bromofluorobenzene	101	% 58-139	1		12/14/00 17:15	TM	507463
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		12/14/00 17:15	TM	507494
Surr: 1,4-Difluorobenzene	91.2	% 62-144	1		12/14/00 17:15	TM	507494
Surr: 4-Bromofluorobenzene	79.2	% 44-153	1		12/14/00 17:15	TM	507494

Sonia West

West, Sonia
 Project Manager

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

Quality Control Documentation



Quality Control Report

EXXON Company U.S.A.

2506-11x

Analysis: Purgeable Aromatics in Air
Method: SW8020A

WorkOrder: 00120462
Lab Batch ID: R26235

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001214A-507461 Units: mg/m³
Analysis Date: 12/14/2000 15:19 Analyst: TM

Lab Sample ID	Client Sample ID
00120462-01A	A-Inf
00120462-02A	A-Int
00120462-03A	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	93.6	20-150
Surr: 4-Bromofluorobenzene	101.2	58-139

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

RunID: HP_P_001214A-507459 Units: mg/m³
Analysis Date: 12/14/2000 14:21 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	110	64	67	105	4.9	34	37	117
Ethylbenzene	88	90	102	88	86	98	4.0	35	56	115
Toluene	80	82	102	80	79	98	3.9	30	25	113
m,p-Xylene	88	92	104	88	88	100	4.2	35	12	114
o-Xylene	88	89	101	88	88	100	1.5	35	15	109
Xylenes, Total	176	181	103	176	176	100	2.8	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
 Method: SW8015B

WorkOrder: 00120462
 Lab Batch ID: R26237

Method Blank

Samples in Analytical Batch:

RunID: HP_P_001214B-507489 Units: mg/m³
 Analysis Date: 12/14/2000 15:19 Analyst: TM

Lab Sample ID	Client Sample ID
00120462-01A	A-Inf
00120462-02A	A-Int
00120462-03A	A-Eff

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	91.3	62-144
Surr: 4-Bromofluorobenzene	79.4	44-153

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

RunID: HP_P_001214B-507485 Units: mg/m³
 Analysis Date: 12/14/2000 14:21 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	540	70	770	540	70	0.7	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*

EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. 00120400

Page 1 of 1

Exxon Engineer: Darin Ruus 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): _____ Consultant Project #: 2506-11X
 Location: 1725 Park Street (City) Alameda (State) CA
 EE C&M SDT
 Consultant Work Release #: 20003753
 Sampled By: Corey Weiland

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)														OTHER			
		TPH/GC 8015 DRO	BTEX 8020	MTBE 8020	OXYGENATES (7) 8260	O&G IR 413.1	VOL. 8260	SEMI-VOL 8270	PNA/PAH 8100	PCB/PEST 8081/8082	TOP FULV 8040	SEMIVOL PEST 8080	METALS, TOTAL	LEAD, TOTAL 238.1	LEAD, DISSOLVED	REACTIVITY	PURGEABLE HYDROCARBON 8010	TPH/IR 418.1	TOX/TOH
1	1L	X	X																
1	1L	X	X																
1	1L	X	X																

RUSH

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE
					H ₂ O	SOIL	AIR		
A- INF	12/11/00	1130		✓			X		-
A- INT	12/11/00	1130		✓			X		-
A- EFF	12/11/00	1130		✓			X		-

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

EXXON UST CONTRACT NO. C41483

Standard CLP Other QA/QC Level

SPECIAL DETECTION LIMITS (Specify)

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

REMARKS:
Ambient

LAB USE ONLY Lot # _____ Storage Location _____

WORK ORDER #: 00120400 LAB WORK RELEASE #: _____

CUSTODY RECORD

Relinquished By Sampler: <u>[Signature]</u>	Date: <u>12/11/00</u> Time: <u>4:00</u>	Received By:
Relinquished:	Date: _____ Time: _____	Received By:
Relinquished:	Date: _____ Time: _____	Received By: <u>[Signature]</u> <u>12/11/00</u> Cooler Temp. <u>1000</u>



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

Sample Receipt Checklist

Workorder: 00120462
Date and Time Received: 12/14/00 10:00:00 AM
Temperature: Ambient

Received by: Barrera, Nancy
Carrier name: FedEx

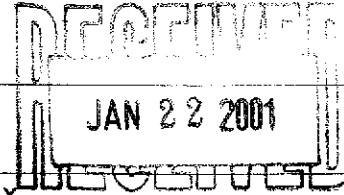
-
- | | | | |
|---|---|--|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/>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



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

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

Certificate of Analysis Number:
01010249



<p>Report To:</p> <p>Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100</p> <p>Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856</p>	<p>Project Name: 250611X</p> <p>Site: 7-0104,20003753</p> <p>Site Address:</p> <p>PO Number: LWR#21010274</p> <p>State: California</p> <p>State Cert. No.: 1903</p> <p>Date Reported:</p>
---	--

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
 West, Sonia
 Senior Project Manager



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01010249

Report To:

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

Novato
California
94949-

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

Project Name: 250611X
Site: 7-0104,20003753
Site Address:

PO Number: LWR#21010274

State: California

State Cert. No.: 1903

Date Reported:

Client Sample ID: A-INF

SPL Sample ID: 01010249-01A

Analyte	mg/m ³		ppm(v)	
	Result	PQL	Result	PQL
Benzene	ND	1.0	ND	0.31
Toluene	ND	1.0	ND	0.26
Ethylbenzene	ND	1.0	ND	0.23
m,p-Xylene	ND	1.0	ND	0.23
o-Xylene	ND	1.0	ND	0.23
Xylenes,Total	ND	1.0	ND	0.23
TPH Air	32	10	9.0	2.8

Client Sample ID: A-INT

SPL Sample ID: 01010249-02A

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



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01010249

Report To: Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100 Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	Project Name: 250611X Site: 7-0104,20003753 Site Address: PO Number: LWR#21010274 State: California State Cert. No.: 1903 Date Reported:
--	---

Client Sample ID: A-EFF

SPL Sample ID: 01010249-03A

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



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

EXXON Company U.S.A.

Certificate of Analysis Number:

01010249

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

Project Name: 250611X
Site: 7-0104,20003753
Site Address:

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

PO Number: LWR#21010274
State: California
State Cert. No.: 1903

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

Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
HNF	01010249-01	Air	1/9/01 11:30:00 AM	1/11/01 10:39:59 AM		<input type="checkbox"/>
HNT	01010249-02	Air	1/9/01 11:30:00 AM	1/11/01 10:39:59 AM		<input type="checkbox"/>
A-EFF	01010249-03	Air	1/9/01 11:30:00 AM	1/11/01 10:39:59 AM		<input type="checkbox"/>

Sonia West

1/16/01

West, Sonia
 Senior Project Manager

Date

Joel Grice
 Laboratory Director

Ted Yen
 Quality Assurance Officer



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

Client Sample ID A-INF

Collected: 1/9/01 11:30:00 SPL Sample ID: 01010249-01

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		01/11/01 22:31	TM	530296
Toluene	ND	1.0	1		01/11/01 22:31	TM	530296
Ethylbenzene	ND	1.0	1		01/11/01 22:31	TM	530296
m,p-Xylene	ND	1.0	1		01/11/01 22:31	TM	530296
o-Xylene	ND	1.0	1		01/11/01 22:31	TM	530296
Xylenes, Total	ND	1.0	1		01/11/01 22:31	TM	530296
Surr: 1,4-Difluorobenzene	95.6	% 20-150	1		01/11/01 22:31	TM	530296
Surr: 4-Bromofluorobenzene	110	% 58-139	1		01/11/01 22:31	TM	530296
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	32	10	1		01/11/01 22:31	TM	530311
Surr: 1,4-Difluorobenzene	110	% 62-144	1		01/11/01 22:31	TM	530311
Surr: 4-Bromofluorobenzene	122	% 44-153	1		01/11/01 22:31	TM	530311

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



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

Client Sample ID A-INT

Collected: 1/9/01 11:30:00

SPL Sample ID: 01010249-02

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		01/11/01 23:01	TM	530297
Toluene	ND	1.0	1		01/11/01 23:01	TM	530297
Ethylbenzene	ND	1.0	1		01/11/01 23:01	TM	530297
m,p-Xylene	ND	1.0	1		01/11/01 23:01	TM	530297
o-Xylene	ND	1.0	1		01/11/01 23:01	TM	530297
Xylenes, Total	ND	1.0	1		01/11/01 23:01	TM	530297
Surr: 1,4-Difluorobenzene	98.2 %	20-150	1		01/11/01 23:01	TM	530297
Surr: 4-Bromofluorobenzene	107 %	58-139	1		01/11/01 23:01	TM	530297
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		01/11/01 23:01	TM	530312
Surr: 1,4-Difluorobenzene	113 %	62-144	1		01/11/01 23:01	TM	530312
Surr: 4-Bromofluorobenzene	119 %	44-153	1		01/11/01 23:01	TM	530312

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



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

Client Sample ID A-EFF

Collected: 1/9/01 11:30:00 SPL Sample ID: 01010249-03

Site: 7-0104,20003753

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS IN AIR			MCL	SW8020A	Units: mg/m³		
Benzene	ND	1.0	1		01/11/01 23:30	TM	530298
Toluene	ND	1.0	1		01/11/01 23:30	TM	530298
Ethylbenzene	ND	1.0	1		01/11/01 23:30	TM	530298
m,p-Xylene	ND	1.0	1		01/11/01 23:30	TM	530298
o-Xylene	ND	1.0	1		01/11/01 23:30	TM	530298
Xylenes, Total	ND	1.0	1		01/11/01 23:30	TM	530298
Surr: 1,4-Difluorobenzene	97.3	% 20-150	1		01/11/01 23:30	TM	530298
Surr: 4-Bromofluorobenzene	109	% 58-139	1		01/11/01 23:30	TM	530298
TOTAL PETROLEUM PRODUCT IN AIR			MCL	SW8015B	Units: mg/m³		
TPH Air	ND	10	1		01/11/01 23:30	TM	530313
Surr: 1,4-Difluorobenzene	113	% 62-144	1		01/11/01 23:30	TM	530313
Surr: 4-Bromofluorobenzene	119	% 44-153	1		01/11/01 23:30	TM	530313

Sonia West

West, Sonia
 Project Manager

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

Quality Control Documentation



Quality Control Report
 EXXON Company U.S.A.
 250611X

Analysis: Purgeable Aromatics in Air
 Method: SW8020A

WorkOrder: 01010249
 Lab Batch ID: R27637

Method Blank

Samples in Analytical Batch:

RunID: HP_P_010111A-530291 Units: mg/m³
 Analysis Date: 01/11/2001 18:36 Analyst: TM

Lab Sample ID	Client Sample ID
01010249-01A	A-INF
01010249-02A	A-INT
01010249-03A	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	94.1	20-150
Surr. 4-Bromofluorobenzene	98.7	58-139

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

RunID: HP_P_010111A-530289 Units: mg/m³
 Analysis Date: 01/11/2001 17:37 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	55	86	64	58	91	4.9	34	37	117
Ethylbenzene	88	67	76	88	68	77	1.1	35	56	115
Toluene	80	64	79	80	66	83	3.9	30	25	113
m,p-Xylene	88	65	74	88	68	77	5.0	35	12	114
o-Xylene	88	64	72	88	69	78	7.7	35	15	109
Xylenes, Total	176	129	73	176	137	78	6.0	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.
 250611X

Analysis: Total Petroleum Product in Air
 Method: SW8015B

WorkOrder: 01010249
 Lab Batch ID: R27638

Method Blank

Samples in Analytical Batch:

RunID: HP_P_010111B-530306 Units: mg/m³
 Analysis Date: 01/11/2001 18:36 Analyst: TM

Lab Sample ID Client Sample ID
 01010249-01A A-INF
 01010249-02A A-INT
 01010249-03A A-EFF

Analyte	Result	Rep Limit
TPH Air	ND	10
Surr: 1,4-Difluorobenzene	111.1	62-144
Surr: 4-Bromofluorobenzene	109.1	44-153

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

RunID: HP_P_010111B-530304 Units: mg/m³
 Analysis Date: 01/11/2001 17:37 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	610	79	770	680	88	10.9	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.

*Sample Receipt Checklist
And
Chain of Custody*



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

Sample Receipt Checklist

Workorder: 01010249
Date and Time Received: 1/11/01 10:39:59 AM
Temperature: ambient

Received by: Barrera, Nancy
Carrier name: FedEx

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

ATTACHMENT C
AS/SVE SYSTEM OPERATION DATA
PROVIDED BY PREVIOUS CONSULTANTS

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

Date	Sample ID	FIELD MEASUREMENTS			Laboratory Analytical Results		TPPHg Removal	
		Hour Meter	Hours of Operation	Flow cfm	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds
2/16/98	System startup	1,583	0	---				
2/19/98	A-INF A-INT A-EFF	1,652	69	48	< 2.4 < 2.4 < 2.4	< 0.031 < 0.031 < 0.031	<	< 0.1
3/3/98	A-INF A-INT A-EFF	1,828	176	50	< 2.4 < 2.4 < 2.4	< 0.031 < 0.031 < 0.031	<	< 0.2
4/2/98	A-INF A-INT A-EFF	2,184	356	52	< 2.4 < 2.4 < 2.4	< 0.031 < 0.031 < 0.031	<	< 0.5
5/4/98	A-INF A-INT A-EFF	2,538	354	131	17 < 2.4 < 2.4	0.44 < 0.031 < 0.031		< 5.8
6/10/98	A-INF A-INT A-EFF	2,940	402	131	12 4.2 < 2.4	0.047 < 0.031 < 0.031		< 10.0
7/7/99	A-INF A-INT A-EFF	2,940	0	131	76 --- < 2.4	2.6 --- < 0.031		< 10.0
8/4/98	A-INF A-INT A-EFF	3,248	308	131	34 8.8 10	0.94 0.27 < 0.031		< 19.1
10/20/98	A-INF A-INT A-EFF	3,249	1	131	210 < 2.4 < 2.4	6.0 < 0.031 < 0.031		< 19.3
11/9/98	A-INF A-INT A-EFF	3,464	215	131	13 < 2.4 < 2.4	0.056 < 0.031 < 0.031		< 21.7
12/8/98	A-INF A-INT A-EFF	3,798	334	131	3.1 < 2.4 < 2.4	0.034 < 0.031 < 0.031		< 22.7
1/13/99	A-INF A-INT A-EFF	4,264	466	131	12 5.6 < 2.4	< 0.031 < 0.031 < 0.031		< 27.5
2/8/99	A-INF A-INT A-EFF	4,600	336	131	< 12.1 < 12.1 < 12.1	< 0.16 < 0.16 < 0.16	<	< 31.1
3/8/99	A-INF A-INT	4,919	319	131	2.7 < 2.4	< 0.031 < 0.031		< 31.8

**OPERATIONAL DATA FOR
SOIL VAPOR EXTRACTION SYSTEM**

Former Exxon Service Station 7-0104

1725 Park Street

Alameda, California

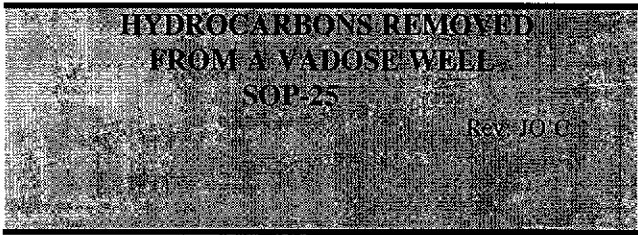
(Page 2 of 2)

Date	Sample ID	FIELD MEASUREMENTS			Laboratory Analytical Results		TPPHg Removal	
		Hour Meter	Hours of Operation	Flow cfm	TPPHg ppmv	Benzene ppmv	Per Period Pounds	Cumulative Pounds
	A-EFF				< 2.4	< 0.031		
4/5/99	A-INF	4,957	38	131	42.6	0.474		< 33.3
	A-INT				4.6	< 0.0314		
	A-EFF				< 2.84	< 0.0314		
5/6/99	A-INF	5,470	513	131	11.84	0.0872		< 38.6
	A-INT				4.20	< 0.0314		
	A-EFF				4.71	< 0.0314		
5/26/99	A-INF	5,799	329	131	---	---		< 42.0
	A-INT				18.03	< 0.031		
	A-EFF				11.98	< 0.031		
8/9/99	A-INF	5,799	0	118	240	1.60		< 42.0
	A-INT				< 2.84	< 0.0314		
	A-EFF				< 2.84	< 0.0314		
9/7/99	A-INF	6,275	476	109	10.6	0.0403		< 45.7
	A-INT				6.23	< 0.0314		
	A-EFF				3.74	< 0.0314		
10/12/99	A-INF	6,638	363	122	15	< 0.31		< 50.1
	A-INT				< 2.8	< 0.31		
	A-EFF				< 2.8	< 0.31		
12/9/99	A-INF	6,686	48	109	82	1.0		< 53.0
	A-INT				< 2.8	< 0.31		
	A-EFF				< 2.8	< 0.31		
2/8/00	A-INF	7,030	344	109	31	0.59		< 60.8
	A-INT				< 2.8	< 0.31		
	A-EFF				< 2.8	< 0.31		
3/24/00	System shutdown pending evaluation							
4/1/00	Environmental Resolutions Inc., assumed operation of the system.							

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

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

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



Rev. 4/29/97

POUNDS OF HYDROCARBON IN AN VAPOR STREAM

INPUT DATA:

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

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

ASSUMPTIONS:

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

SAMPLE DATA AND CALCULATIONS

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

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

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

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

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

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

cumulative lbs. (the running total) = the sum of all the previous periods.

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