

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

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P.O. Box 4032  
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(925) 246-8768 Telephone  
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darin.l.rouse@exxon.com

**Darin L. Rouse**  
Senior Engineer  
Environmental Remediation

**ExxonMobil**  
*Refining & Supply*

00 JAN - 8 PM 4: 23  
PROTECTION

January 4, 2001

Mr. Don Hwang  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

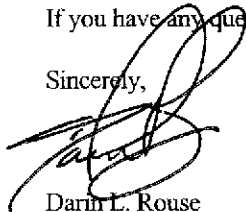
**RE: Former Exxon RAS #7-0235/2225 Telegraph Avenue, Oakland, California.**

Dear Mr. Hwang:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring Report, Fourth Quarter 2000*, dated December 14, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and presents the results of quarterly groundwater monitoring and sampling activities at the subject site.

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

Sincerely,

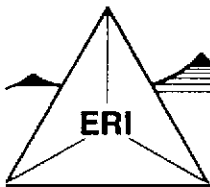


Darin L. Rouse  
Senior Engineer

Attachment: ERI's Quarterly Groundwater Monitoring Report, Fourth Quarter 2000, dated December 14, 2000.

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

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



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**ENVIRONMENTAL RESOLUTIONS, INC.**

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December 14, 2000  
ERI 222913.R12

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

Subject: Quarterly Groundwater Monitoring Report, Fourth Quarter 2000, Former Exxon Service Station 7-0235, 2225 Telegraph Avenue, Oakland, California.

Mr. Rouse:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) performed the fourth quarter 2000 groundwater monitoring and sampling event. The location of the site is shown on the Site Vicinity Map (Plate 1). The purpose of quarterly monitoring is to evaluate concentrations of dissolved hydrocarbons in groundwater and groundwater flow direction and gradient.

#### **GROUNDWATER MONITORING AND SAMPLING**

On October 4 and 5, 2000, ERI measured depth to water (DTW) and collected groundwater samples from select wells for laboratory analyses. Work was performed in accordance with ERI's groundwater sampling protocol provided in Attachment A.

Calculated groundwater gradient and flow direction are presented on Plate 2. Historical and recent monitoring data are summarized in Table 1.

#### **LABORATORY ANALYSES AND RESULTS**

Groundwater samples were submitted to Southern Petroleum Laboratories, Inc. (SPL), a California state-certified laboratory, under Chain of Custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), total purgeable petroleum hydrocarbons as gasoline (TPPHg), and total purgeable hydrocarbons as motor oil (TPHmo) using the methods listed in the notes in Table 1. The laboratory analysis report and Chain of Custody record are provided in Attachment C. Cumulative results of laboratory analyses of groundwater samples are summarized in Table 1. The results of analyses of groundwater samples collected during the recent sampling event are shown on Plate 2.

#### **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:


Mr. Don Hwang  
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

If you have any questions or comments regarding this report, please call Mr. James F. Chappell at (415) 382-4323.

Sincerely,  
Environmental Resolutions, Inc.

  
James F. Chappell  
Assistant Project Manager



  
John B. Bobbitt  
R.G. 4313

Attachments: Table 1: Cumulative Groundwater Monitoring and Sampling Data

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

Attachment A: Groundwater Sampling Protocol  
Attachment B: Laboratory Analysis Report and Chain of Custody Record









TABLE 1  
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-0235

2225 Telegraph Avenue

Oakland, California

(Page 5 of 5)

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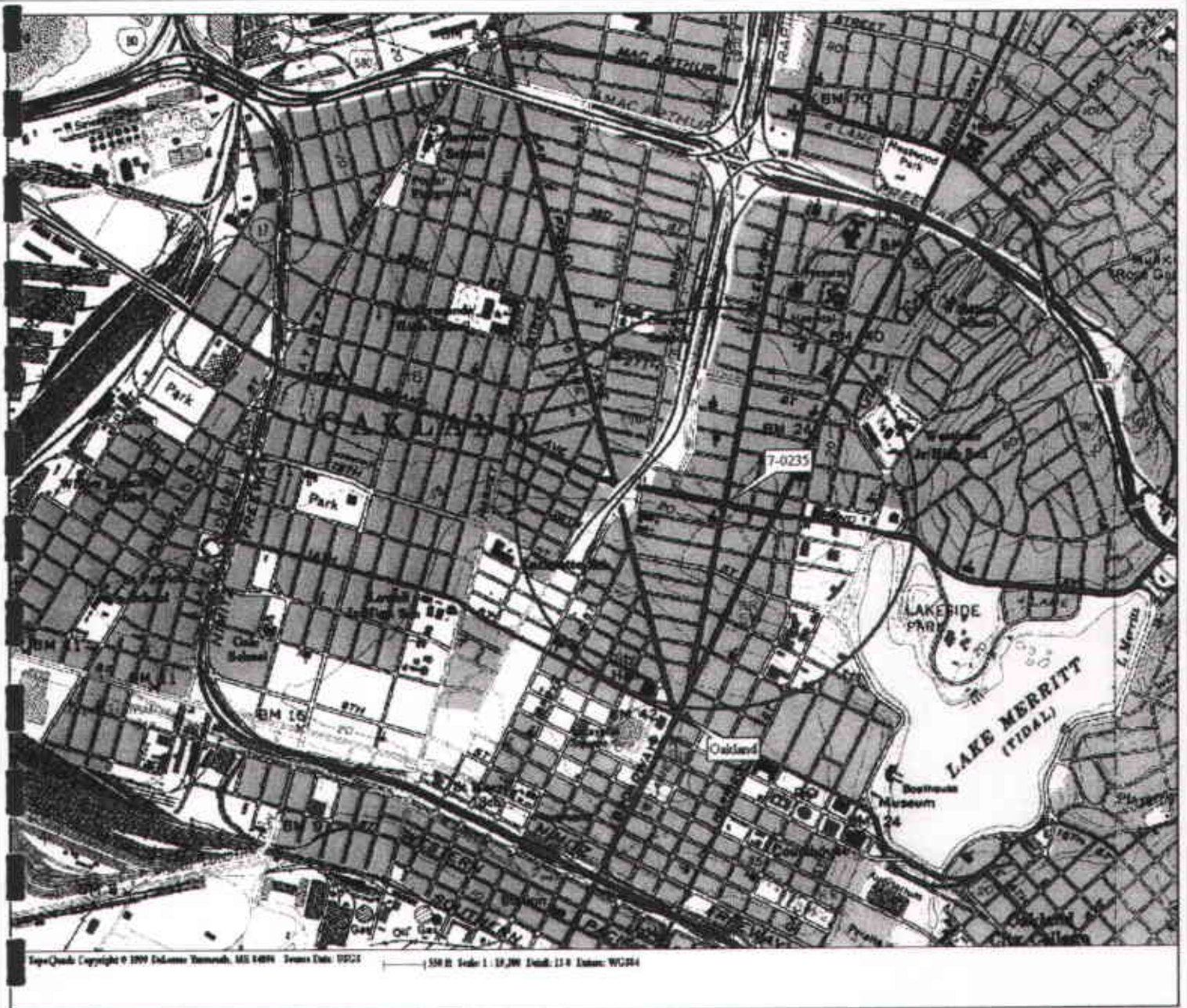
Notes:

SUBJ	=	Results of subjective evaluation.
NLPH	=	No liquid-phase hydrocarbons present in well.
sheen	=	Liquid-phase hydrocarbon present as sheen.
TOC	=	Elevation of top of well casing; relative to mean sea level.
DTW	=	Depth to water.
Elev.	=	Elevation of groundwater surface; relative to mean sea level.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA Method 5030/8015 (modified).
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8021B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
<	=	Less than the indicated detection limit shown by the laboratory.
---	=	Not measured or sampled.
*	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
mg/L	=	Milligrams per liter.
ug/L	=	Micrograms per liter.

Sampling discontinued for wells MW6F, MW6G, and RW1 per Alameda County Health Services Agency letter dated June 1, 1998.

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FN 2229Topo

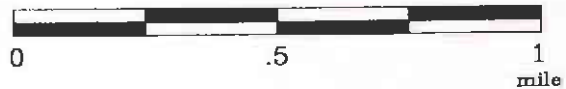
**EXPLANATION**



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 7-0235  
 2225 Telegraph Avenue  
 Oakland, California

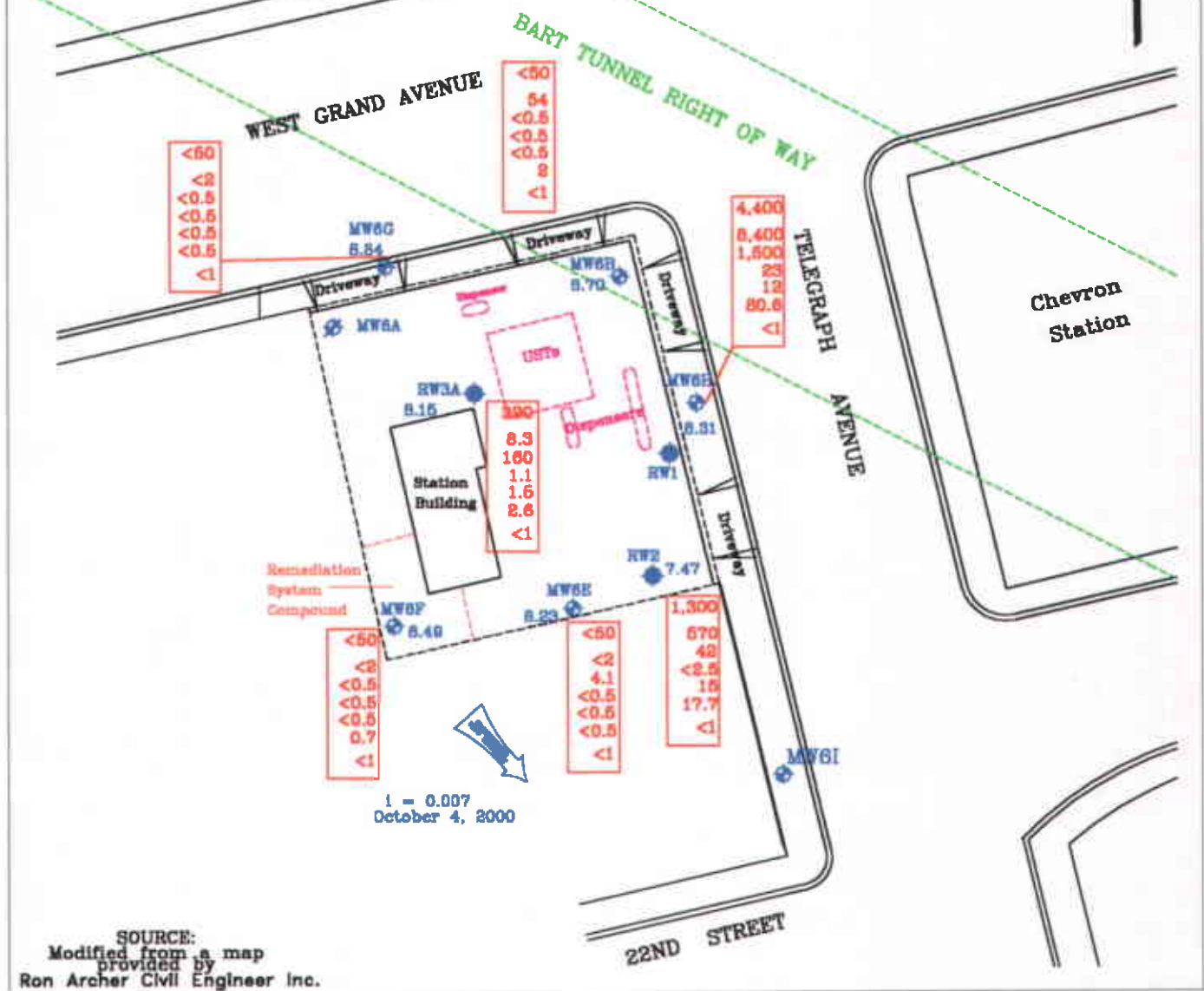
**PROJECT NO.**

2229

**PLATE**

1

APPROXIMATE SCALE



1 = 0.007  
October 4, 2000

SOURCE:  
Modified from a map  
provided by  
Ron Archer Civil Engineer Inc.

FN 22290003

EXPLANATION

- MW6I Groundwater Monitoring Well
- Destroyed Groundwater Monitoring Well
- RW3A Groundwater Recovery Well

Groundwater Concentrations in ug/L  
Sampled October 4 and 5, 2000

4,400	Total Purgeable Petroleum Hydrocarbons as gasoline
8,400	Methyl Tertiary Butyl Ether
1,500	Benzene
23	Toluene
12	Ethylbenzene
80.8	Total Xylenes
<1	Total Purgeable Hydrocarbons as Motor Oil (reported in mg/L)
<	Less Than the Stated Laboratory Detection Limit
ug/L	Micrograms per Liter
mg/L	Milligrams per liter



**GENERALIZED SITE PLAN**  
FORMER EXXON SERVICE STATION 7-0235  
2225 Telegraph Avenue  
Oakland, California

PROJECT NO.  
2229  
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 MMC Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from wellhead elevations.

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

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

one well casing volume in gallons =  $\pi r^2 h (7.48)$  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
$\pi$	=	ratio of the circumference of a circle to its diameter

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

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

**ATTACHMENT B**

**LABORATORY ANALYSIS REPORT  
AND CHAIN OF CUSTODY RECORD**



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

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

Certificate of Analysis Number:  
00100256

RECEIVED  
 NOV 06 2000  
 RECEIVED

<p><b>Report To:</b></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><b>Project Name:</b> 2229-13X</p> <p><b>Site:</b> 7-0235,19802887</p> <p><b>Site Address:</b> 2225 Telegraph Ave.          Oakland CA</p> <p><b>PO Number:</b> LWR#20008081</p> <p><b>State:</b> California</p> <p><b>State Cert. No.:</b></p> <p><b>Date Reported:</b> 10/27/00</p>
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Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

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

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

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

*Sonia West*  
 West, Sonia  
 Senior Project Manager

10/27/00

Date



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

EXXON Company U.S.A.

Certificate of Analysis Number:  
00100256

<b>Report To:</b> Environmental Resolution, Inc. Jim Chappell 73 Digital Drive Suite 100  Novato California 94949- ph: (415) 382-9105 fax: (415) 382-1856	<b>Project Name:</b> 2229-13X <b>Site:</b> 7-0235,19802887 <b>Site Address:</b> 2225 Telegraph Ave. Oakland CA <b>PO Number:</b> LWR#20008081 <b>State:</b> California <b>State Cert. No.:</b> <b>Date Reported:</b> 10/27/00
<b>Fax To:</b> Environmental Resolution, Inc. Jim Chappell fax: (415) 382-1856	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
-14-MW6F	00100256-01	Water	10/4/00 2:35:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-11-MW6G	00100256-02	Water	10/4/00 2:41:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-13-MW6E	00100256-03	Water	10/4/00 2:54:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-12-MW6B	00100256-04	Water	10/4/00 3:00:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-13-RW3A	00100256-05	Water	10/4/00 3:09:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-13-RW2	00100256-06	Water	10/4/00 3:15:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-12-MW6H	00100256-07	Water	10/4/00 3:25:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-BB-MW6G	00100256-08	Water	10/4/00 2:48:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-13-MW6F	00100256-09	Water	10/5/00 12:19:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-11-MW6G	00100256-10	Water	10/5/00 12:30:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-13-MW6E	00100256-11	Water	10/5/00 1:22:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-12-MW6B	00100256-12	Water	10/5/00 12:40:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-13-RW3A	00100256-13	Water	10/5/00 12:48:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
W-12-RW2	00100256-14	Water	10/5/00 1:02:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>
-12-MW6H	00100256-15	Water	10/5/00 1:10:00 PM	10/11/00 10:00:00 AM		<input type="checkbox"/>

*Sonia West*

10/27/00

West, Sonia  
 Senior Project Manager

Date

Joel Grice  
 Laboratory Director  
  
 Ted Yen  
 Quality Assurance Officer



Client Sample ID W-14-MW6F Collected: 10/4/00 2:35:00 SPL Sample ID: 00100256-01

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		10/14/00 2:43	DL	434297
Surr: 1,4-Difluorobenzene	97.3	% 62-144	1		10/14/00 2:43	DL	434297
Surr: 4-Bromofluorobenzene	94.3	% 44-153	1		10/14/00 2:43	DL	434297
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		10/17/00 8:40	DL	436071
Ethylbenzene	ND	0.5	1		10/17/00 8:40	DL	436071
Methyl tert-butyl ether	ND	2	1		10/17/00 8:40	DL	436071
Toluene	ND	0.5	1		10/17/00 8:40	DL	436071
m,p-Xylene	0.7	0.5	1		10/17/00 8:40	DL	436071
o-Xylene	ND	0.5	1		10/17/00 8:40	DL	436071
Xylenes,Total	0.7	0.5	1		10/17/00 8:40	DL	436071
Surr: 1,4-Difluorobenzene	99.2	% 72-137	1		10/17/00 8:40	DL	436071
Surr: 4-Bromofluorobenzene	104	% 48-156	1		10/17/00 8:40	DL	436071

*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 W-11-MW6G

Collected: 10/4/00 2:41:00

SPL Sample ID: 00100256-02

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		10/14/00 3:08	DL	434298
Surr: 1,4-Difluorobenzene	96.7 %	62-144	1		10/14/00 3:08	DL	434298
Surr: 4-Bromofluorobenzene	92.7 %	44-153	1		10/14/00 3:08	DL	434298
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		10/14/00 3:08	DL	434207
Ethylbenzene	ND	0.5	1		10/14/00 3:08	DL	434207
Methyl tert-butyl ether	ND	2	1		10/14/00 3:08	DL	434207
Toluene	ND	0.5	1		10/14/00 3:08	DL	434207
m,p-Xylene	ND	0.5	1		10/14/00 3:08	DL	434207
o-Xylene	ND	0.5	1		10/14/00 3:08	DL	434207
Xylenes, Total	ND	0.5	1		10/14/00 3:08	DL	434207
Surr: 1,4-Difluorobenzene	96.4 %	72-137	1		10/14/00 3:08	DL	434207
Surr: 4-Bromofluorobenzene	103 %	48-156	1		10/14/00 3:08	DL	434207

*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-13-MW6E

Collected: 10/4/00 2:54:00

SPL Sample ID: 00100256-03

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		10/13/00 22:54	DL	434279
Surr: 1,4-Difluorobenzene	101	% 62-144	1		10/13/00 22:54	DL	434279
Surr: 4-Bromofluorobenzene	94.7	% 44-153	1		10/13/00 22:54	DL	434279
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	4.1	0.5	1		10/13/00 22:54	DL	434195
Ethylbenzene	ND	0.5	1		10/13/00 22:54	DL	434195
Methyl tert-butyl ether	ND	2	1		10/13/00 22:54	DL	434195
Toluene	ND	0.5	1		10/13/00 22:54	DL	434195
m,p-Xylene	ND	0.5	1		10/13/00 22:54	DL	434195
o-Xylene	ND	0.5	1		10/13/00 22:54	DL	434195
Xylenes, Total	ND	0.5	1		10/13/00 22:54	DL	434195
Surr: 1,4-Difluorobenzene	100	% 72-137	1		10/13/00 22:54	DL	434195
Surr: 4-Bromofluorobenzene	103	% 48-156	1		10/13/00 22:54	DL	434195

*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 W-12-MW6B Collected: 10/4/00 3:00:00 SPL Sample ID: 00100256-04

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		10/13/00 23:20	DL	434282
Surr: 1,4-Difluorobenzene	99.3	% 62-144	1		10/13/00 23:20	DL	434282
Surr: 4-Bromofluorobenzene	92.3	% 44-153	1		10/13/00 23:20	DL	434282
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		10/13/00 23:20	DL	434197
Ethylbenzene	ND	0.5	1		10/13/00 23:20	DL	434197
Methyl tert-butyl ether	54	2	1		10/13/00 23:20	DL	434197
Toluene	ND	0.5	1		10/13/00 23:20	DL	434197
m,p-Xylene	1.5	0.5	1		10/13/00 23:20	DL	434197
o-Xylene	0.5	0.5	1		10/13/00 23:20	DL	434197
Xylenes, Total	2	0.5	1		10/13/00 23:20	DL	434197
Surr: 1,4-Difluorobenzene	99.7	% 72-137	1		10/13/00 23:20	DL	434197
Surr: 4-Bromofluorobenzene	102	% 48-156	1		10/13/00 23:20	DL	434197

*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-13-RW3A

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

SPL Sample ID: 00100256-05

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	390	50	1		10/13/00 23:45	DL	434285
Surr: 1,4-Difluorobenzene	102	% 62-144	1		10/13/00 23:45	DL	434285
Surr: 4-Bromofluorobenzene	97.3	% 44-153	1		10/13/00 23:45	DL	434285
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	160	0.5	1		10/13/00 23:45	DL	434199
Ethylbenzene	1.5	0.5	1		10/13/00 23:45	DL	434199
Methyl tert-butyl ether	8.3	2	1		10/13/00 23:45	DL	434199
Toluene	1.1	0.5	1		10/13/00 23:45	DL	434199
m,p-Xylene	2.6	0.5	1		10/13/00 23:45	DL	434199
o-Xylene	ND	0.5	1		10/13/00 23:45	DL	434199
Xylenes, Total	2.6	0.5	1		10/13/00 23:45	DL	434199
Surr: 1,4-Difluorobenzene	111	% 72-137	1		10/13/00 23:45	DL	434199
Surr: 4-Bromofluorobenzene	105	% 48-156	1		10/13/00 23:45	DL	434199

*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-13-RW2

Collected: 10/4/00 3:15:00

SPL Sample ID: 00100256-06

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	1300	250	5		10/14/00 1:52	DL	434292
Surr: 1,4-Difluorobenzene	140	% 62-144	5		10/14/00 1:52	DL	434292
Surr: 4-Bromofluorobenzene	112	% 44-153	5		10/14/00 1:52	DL	434292
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	42	2.5	5		10/16/00 19:32	DL	436050
Ethylbenzene	15	2.5	5		10/16/00 19:32	DL	436050
Methyl tert-butyl ether	570	10	5		10/16/00 19:32	DL	436050
Toluene	ND	2.5	5		10/16/00 19:32	DL	436050
m,p-Xylene	15	2.5	5		10/16/00 19:32	DL	436050
o-Xylene	2.7	2.5	5		10/16/00 19:32	DL	436050
Xylenes, Total	17.7	2.5	5		10/16/00 19:32	DL	436050
Surr: 1,4-Difluorobenzene	108	% 72-137	5		10/16/00 19:32	DL	436050
Surr: 4-Bromofluorobenzene	109	% 48-156	5		10/16/00 19:32	DL	436050

*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-12-MW6H

Collected: 10/4/00 3:25:00

SPL Sample ID: 00100256-07

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	4400	250	5		10/14/00 2:17	DL	434296
Surr: 1,4-Difluorobenzene	154	% 62-144	5	*	10/14/00 2:17	DL	434296
Surr: 4-Bromofluorobenzene	105	% 44-153	5		10/14/00 2:17	DL	434296
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	1500	2.5	5		10/14/00 2:17	DL	434205
Ethylbenzene	12	2.5	5		10/14/00 2:17	DL	434205
Methyl tert-butyl ether	8400	100	50		10/16/00 19:58	DL	436052
Toluene	23	2.5	5		10/14/00 2:17	DL	434205
m,p-Xylene	72	2.5	5		10/14/00 2:17	DL	434205
o-Xylene	8.6	2.5	5		10/14/00 2:17	DL	434205
Xylenes, Total	80.6	2.5	5		10/14/00 2:17	DL	434205
Surr: 1,4-Difluorobenzene	102	% 72-137	50		10/16/00 19:58	DL	436052
Surr: 1,4-Difluorobenzene	131	% 72-137	5		10/14/00 2:17	DL	434205
Surr: 4-Bromofluorobenzene	102	% 48-156	50		10/16/00 19:58	DL	436052
Surr: 4-Bromofluorobenzene	110	% 48-156	5		10/14/00 2:17	DL	434205

*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



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Client Sample ID W-BB-MW6G Collected: 10/4/00 2:48:00 SPL Sample ID: 00100256-08

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA_GRO</b>	<b>Units: ug/L</b>		
Gasoline Range Organics	ND	50	1		10/14/00 0:10	DL	434287
Surr: 1,4-Difluorobenzene	96.3	% 62-144	1		10/14/00 0:10	DL	434287
Surr: 4-Bromofluorobenzene	94.0	% 44-153	1		10/14/00 0:10	DL	434287
<b>PURGEABLE AROMATICS</b>			<b>MCL</b>	<b>SW8021B</b>	<b>Units: ug/L</b>		
Benzene	ND	0.5	1		10/14/00 0:10	DL	434200
Ethylbenzene	ND	0.5	1		10/14/00 0:10	DL	434200
Methyl tert-butyl ether	ND	2	1		10/14/00 0:10	DL	434200
Toluene	ND	0.5	1		10/14/00 0:10	DL	434200
m,p-Xylene	ND	0.5	1		10/14/00 0:10	DL	434200
o-Xylene	ND	0.5	1		10/14/00 0:10	DL	434200
Xylenes, Total	ND	0.5	1		10/14/00 0:10	DL	434200
Surr: 1,4-Difluorobenzene	97.3	% 72-137	1		10/14/00 0:10	DL	434200
Surr: 4-Bromofluorobenzene	104	% 48-156	1		10/14/00 0:10	DL	434200

*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



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Client Sample ID W-13-MW6F Collected: 10/5/00 12:19:00 SPL Sample ID: 00100256-09

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 4:07 AM		439996
Surr: n-Pentacosane	58.6 %	18-120	1		10/19/00 4:07 AM		439996

Run ID/Seq #: HP\_V\_001018D-439996

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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-11-MW6G Collected: 10/5/00 12:30:00 SPL Sample ID: 00100256-10

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 4:46 AM		439997
Surr: n-Pentacosane	46.8 %	18-120	1		10/19/00 4:46 AM		439997

Run ID/Seq #: HP\_V\_001018D-439997

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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



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Client Sample ID W-13-MW6E

Collected: 10/5/00 1:22:00 SPL Sample ID: 00100256-11

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 5:24 AM		439998
Surr: n-Pentacosane	45.2 %	18-120	1		10/19/00 5:24 AM		439998

Run ID/Seq #: HP\_V\_001018D-439998

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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-12-MW6B

Collected: 10/5/00 12:40:00 SPL Sample ID: 00100256-12

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 6:03 AM		439999
Surr: n-Pentacosane	68.8	% 18-120	1		10/19/00 6:03 AM		439999

Run ID/Seq #: HP\_V\_001018D-439999

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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-13-RW3A

Collected: 10/5/00 12:48:00 SPL Sample ID: 00100256-13

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 7:59 AM		440001
Surr: n-Pentacosane	55.8	% 18-120	1		10/19/00 7:59 AM		440001

Run ID/Seq #: HP\_V\_001018D-440001

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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



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Client Sample ID W-12-RW2 Collected: 10/5/00 1:02:00 SPL Sample ID: 00100256-14

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 8:37 AM		440002
Surr: n-Pentacosane	55.6 %	18-120	1		10/19/00 8:37 AM		440002

Run ID/Seq #: HP\_V\_001018D-440002

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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



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Client Sample ID W-12-MW6H Collected: 10/5/00 1:10:00 SPL Sample ID: 00100256-15

Site: 7-0235,19802887

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE HYDROCARBONS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>		
Motor Oil (C28-C40)	ND	1	1		10/19/00 9:16 AM		440003
Surr: n-Pentacosane	38.6 %	18-120	1		10/19/00 9:16 AM		440003

Run ID/Seq #: HP\_V\_001018D-440003

Prep Method	Prep Date	Prep Initials
SW3510B	10/13/2000 8:18	DB

*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

7883a

Analysis: Semivolatile Hydrocarbons  
 Method: SW8015B

Method Blank

Samples in Analytical Batch:

RunID: HP\_V\_001018D-440885 Units: mg/L  
 Analysis Date: 10/18/2000 16:30 Analyst: AM  
 Preparation Date: 10/13/2000 8:18 Prep By: DB Method SW3510B

<u>Lab Sample ID</u>	<u>Client Sample ID</u>
00100256-09A	W-13-MW6F
00100256-10A	W-11-MW6G
00100256-11A	W-13-MW6E
00100256-12A	W-12-MW6B
00100256-13A	W-13-RW3A
00100256-14A	W-12-RW2
00100256-15A	W-12-MW6H

Analyte	Result	Rep Limit
Diesel #2 (C8-C23)	ND	1.0
Motor Oil (C28-C40)	ND	1.0
Surr. n-Pentacosane	86.6	18-120

Laboratory Control Sample (LCS)

RunID: HP\_V\_001018D-440886 Units: mg/L  
 Analysis Date: 10/18/2000 17:09 Analyst: AM  
 Preparation Date: 10/13/2000 8:18 Prep By: DB Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel #2 (C8-C23)	2.5	2.2	88	60	140

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

Sample Spiked: 00100302-02  
 RunID: HP\_V\_001018D-440888 Units: mg/L  
 Analysis Date: 10/18/2000 18:26 Analyst: AM  
 Preparation Date: 10/13/2000 8:18 Prep By: Method

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 #2 (C8-C23)	ND	1.25	0.91	70.5	2.5	2.2	85.6	19.3	39	13	130





Quality Control Report

EXXON Company U.S.A.

2229-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 00100256  
Lab Batch ID: R22443

Method Blank

Samples in Analytical Batch:

RunID: HP\_U\_001013A-433323 Units: ug/L  
Analysis Date: 10/13/2000 10:54 Analyst: DL

Lab Sample ID	Client Sample ID
00100256-02A	W-11-MW6G
00100256-03A	W-13-MW6E
00100256-04A	W-12-MW6B
00100256-05A	W-13-RW3A
00100256-07A	W-12-MW6H
00100256-08A	W-BB-MW6G

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	97.0	72-137
Surr: 4-Bromofluorobenzene	104.3	48-156

Laboratory Control Sample (LCS)

RunID: HP\_U\_001013A-433322 Units: ug/L  
Analysis Date: 10/13/2000 10:03 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	50	100	70	130
Ethylbenzene	50	52	104	70	130
Methyl tert-butyl ether	50	46	92	70	130
Toluene	50	51	103	70	130
m,p-Xylene	100	100	105	70	130
o-Xylene	50	51	103	70	130
Xylenes, Total	150	151	101	70	130

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

Sample Spiked: 00100228-01  
RunID: HP\_U\_001013A-434184 Units: ug/L  
Analysis Date: 10/13/2000 13:47 Analyst: DL

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	92.9	20	19	97.1	4.42	21	32	164
Ethylbenzene	ND	20	19	93.4	20	20	98.2	4.98	19	52	142
Methyl tert-butyl ether	91	20	110	77.7	20	110	88.8	13.3	20	39	150

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

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



Quality Control Report

EXXON Company U.S.A.  
 2229-13X

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00100256  
 Lab Batch ID: R22443

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

Sample Spiked: 00100228-01  
 RunID: HP\_U\_001013A-434184 Units: ug/L  
 Analysis Date: 10/13/2000 13:47 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
luene	ND	20	18	92.2	20	19	97.1	5.16	20	38	159
m,p-Xylene	ND	40	37	93.1	40	39	98.0	5.12	17	53	144
o-Xylene	ND	20	19	93.6	20	20	98.0	4.59	18	53	143
lenes,Total	ND	60	56	93.3	60	59	98.3	5.22	18	53	144

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



Quality Control Report  
EXXON Company U.S.A.  
2229-13X

Analysis: Gasoline Range Organics  
Method: CA\_GRO

WorkOrder: 00100256  
Lab Batch ID: R22444

Method Blank

Samples in Analytical Batch:

RunID: HP\_U\_001013B-433329 Units: mg/L  
Analysis Date: 10/13/2000 10:29 Analyst: DL

Lab Sample ID	Client Sample ID
00100256-01A	W-14-MW6F
00100256-02A	W-11-MW6G
00100256-03A	W-13-MW6E
00100256-04A	W-12-MW6B
00100256-05A	W-13-RW3A
00100256-06A	W-13-RW2
00100256-07A	W-12-MW6H
00100256-08A	W-BB-MW6G

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Sum: 1,4-Difluorobenzene	96.3	62-144
Sum: 4-Bromofluorobenzene	92.7	44-153

Laboratory Control Sample (LCS)

RunID: HP\_U\_001013B-433328 Units: mg/L  
Analysis Date: 10/13/2000 9:38 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.92	92	70	130

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

Sample Spiked: 00100228-02  
RunID: HP\_U\_001013B-434265 Units: mg/L  
Analysis Date: 10/13/2000 14:38 Analyst: DL

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	0.92	97.6	0.9	0.92	97.5	0.125	36	36	160

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

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



Quality Control Report

EXXON Company U.S.A.

2229-13X

Analysis: Purgeable Aromatics  
Method: SW8021B

WorkOrder: 00100256  
Lab Batch ID: R22594

Method Blank

Samples in Analytical Batch:

RunID: HP\_U\_001016A-436033 Units: ug/L  
Analysis Date: 10/16/2000 13:12 Analyst: DL

Lab Sample ID	Client Sample ID
00100256-01A	W-14-MW6F
00100256-06A	W-13-RW2
00100256-07A	W-12-MW6H

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50
Xylenes, Total	ND	0.50
Surr: 1,4-Difluorobenzene	98.8	72-137
Surr: 4-Bromofluorobenzene	100.6	48-156

Laboratory Control Sample (LCS)

RunID: HP\_U\_001016A-436032 Units: ug/L  
Analysis Date: 10/16/2000 12:21 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	47	94	70	130
Ethylbenzene	50	50	99	70	130
Methyl tert-butyl ether	50	42	84	70	130
Toluene	50	48	97	70	130
m,p-Xylene	100	99	99	70	130
o-Xylene	50	49	97	70	130
Xylenes, Total	150	148	99	70	130

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

Sample Spiked: 00100261-02  
RunID: HP\_U\_001016A-436034 Units: ug/L  
Analysis Date: 10/16/2000 13:35 Analyst: DL

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	20	99.5	20	20	102	2.63	21	32	164
Ethylbenzene	ND	20	21	102	20	21	106	3.37	19	52	142
Methyl tert-butyl ether	14	20	31	85.0	20	33	93.8	9.83	20	39	150

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

\* - Recovery Outside Advisable QC Limits

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

MI - Matrix Interference



Quality Control Report

EXXON Company U.S.A.

2229-13X

Analysis: Purgeable Aromatics  
 Method: SW8021B

WorkOrder: 00100256  
 Lab Batch ID: R22594

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

Sample Spiked: 00100261-02  
 RunID: HP\_U\_001016A-436034 Units: ug/L  
 Analysis Date: 10/16/2000 13:35 Analyst: DL

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	20	100	20	21	104	4.13	20	38	159
m,p-Xylene	ND	40	41	102	40	43	106	3.26	17	53	144
o-Xylene	ND	20	20	99.7	20	21	104	3.76	18	53	143
Xylenes, Total	ND	60	61	102	60	64	107	4.80	18	53	144

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

*Chain of Custody  
And  
Sample Receipt Checklist*

00100256

# EXXON COMPANY, USA.

(West Coast)

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

Page 1 of 2

Exxon Engineer: Darin Rouse Phone: (925) 246-8768  
 Consultant Co. Name: ERI Contact: Jim Chappell  
 Address: 73 Capital Drive Novato, CA, 94949 Fax: (415) 382-1856  
 RAS #: 7-0235 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 222913X  
 Location: 2225 Telegraph Ave. (City) Oakland (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 19802889  
 Sampled By: Tom Celig

### ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST (CHECK APPROPRIATE BOX)																	OTHER																				
		TPH/GC 8015 GRO <input checked="" type="checkbox"/>	8015 DRO <input type="checkbox"/>	BTEX 8020 <input checked="" type="checkbox"/>	602 <input type="checkbox"/>	MTBE 8020 <input checked="" type="checkbox"/>	8260 <input type="checkbox"/>	OXYGENATES (?) 8260 <input type="checkbox"/>	O&G IR 413.1 <input type="checkbox"/>	GRAV. 413.2 <input type="checkbox"/>	VOL. 8260 <input type="checkbox"/>	624 <input type="checkbox"/>	SEMI-VOL 8270 <input type="checkbox"/>	625 <input type="checkbox"/>	PNAPAH B100 <input type="checkbox"/>	8310 <input type="checkbox"/>	8270 <input type="checkbox"/>	PCBIPEST 8081/8082 <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TCLP FULL <input type="checkbox"/>	VOCs SEMI-VOCs PESTs HERBIC <input type="checkbox"/>	METALS, TOTAL <input type="checkbox"/>	METALS, TCLP <input type="checkbox"/>	LEAD, TOTAL 239.1 <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD, TCLP <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD, DISSOLVED <input type="checkbox"/>	LEAD TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/>	CORROSIIVITY <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/>	601 <input type="checkbox"/>	TPHIR 418.1 <input type="checkbox"/>	TOX/TOH <input type="checkbox"/>			
3	40	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																	

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OTHER	PRESERVATIVE
					H <sub>2</sub> O	SOIL	AIR		
U-14-MW6F	10-4-00	14:35			<input checked="" type="checkbox"/>				HCL
U-11-MW6G		14:41							
U-13-MW6E		14:54							
U-12-MW6B		15:00							
U-13-RW3A		15:09							
U-13-RW2		15:15							
U-12-MW6H		15:25							

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:  
3°  
See Revised COC @ 10-16-00  
 LAB USE ONLY Lot # \_\_\_\_\_ Storage Location \_\_\_\_\_  
500  
 WORK ORDER # 00100256 LAB WORK RELEASE #: \_\_\_\_\_

## CUSTODY RECORD

Relinquished By Sampler:	Date	Time	Received By:
Relinquished:	Date	Time	Received By:
Relinquished:	Date	Time	Received By: <u>Danna</u>

Way Bill #: \_\_\_\_\_ Cooler Temp: 100C

# EXXON COMPANY, USA.

(West Coast)

CHAIN OF CUSTODY RECORD NO. Page 2 of 2

Exxon Engineer: Darin Rouse Phone: (925) 246-8768  
 Consultant Co. Name: ERI Contact: Jim Choppell  
 Address: 73 Digital Dr. suite 100 Fax: (415) 382-1856

RAS #: 7-0235 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 222913X  
 Location: 2225 Telegraph Ave. (City) Oakland (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 19802889  
 Sampled By: Tom Colig

ANALYSIS REQUEST:  
(CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO	8015 DRO	BTEX 8020	602	MTBE 8020	8280	OXYGENATES (?) 8280	O&G IR 413.1	GRAY 413.2	VOL. 8280	624	SEMI-VOL 8270	625	8270	PNAPAH 8100	8310	8270	PCB/PEST 8081/8082	PCB ONLY	TCLP RLL 80A0	SEMI-VOL 80A0	PEST 80A0	HERB	METALS: TOTAL	METALS: TCLP	LEAD: TOTAL 299.1	7421	LEAD: TCLP	LEAD: DISSOLVED	LEAD TOTAL	REACTIVITY	CORROSIONITY	FLASHPOINT	PURGEABLE HYDROCARBON 8010	801	TPH 418.1	TOX/TOH	PH-MO 8015														
2	1L																																													X							

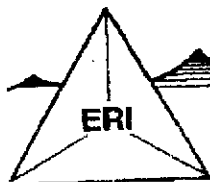
SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX			OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE
					H <sub>2</sub> O	SOIL	AIR				
W-13-MW6F	10-5-00	12:19			X				none	2	1L
W-11-MW6G		12:30									
W-13-MW6E		13:22									
W-12-MW6B		12:40									
W-13-RW3A		12:48									
W-12-RW2		13:02									
W-12-MW6H		13:10									

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

CUSTODY RECORD		Relinquished By Sampler:	Date	Time	Received By:
		Relinquished:	Date	Time	Received By:
		Relinquished:	Date	Time	Received By:

Way Bill #: Danna Seely 10/11/00 Order Temp. 1000



60100256  
000-**ENVIRONMENTAL RESOLUTIONS, INC.**

## FACSIMILE COVER SHEET

TO: Sonia West

COMPANY: SPL

PHONE:

FAX: (713) 660-8975

FROM: TOM D. CULIG  
COMPANY: ENVIRONMENTAL RESOLUTIONS, INC.  
PHONE: (415) 382-4325  
FAX: (415) 382-1856

DATE: 10-16-00

PAGES (Including Cover): 2

SUBJECT: C.O.C. adjustment

COMMENTS:

Forgot to put B.B. sample on C.O.C. Not exactly sure what B.B. was labeled. Hope this is correct. Please call me w/ any questions.

# EXXON COMPANY, USA.

(West Coast)

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

Page 1 of 2

Exxon Engineer: Darin Rouse Phone: (925) 246-8768  
 Consultant Co. Name: ERI Contact: Jim Chappell  
 Address: 73 Digital Drive with Fax: (415) 382-1856  
Novato, CA, 94949  
 RAS #: 7-0235 Facility/State ID # (TN Only): \_\_\_\_\_  
 AFE # (Terminal Only): \_\_\_\_\_ Consultant Project #: 222913X  
 Location: 2225 Telegraph Ave. (City) Oakland (State) CA  
 EE  C&M  SDT  
 Consultant Work Release #: 19802889  
 Sampled By: Tom Clog

### ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

NO. OF CONTAINERS	CONTAINER SIZE	TPH/HC 8015 GPO <input checked="" type="checkbox"/>	8015 DRO <input type="checkbox"/>	BTX 8020 <input checked="" type="checkbox"/>	802 <input type="checkbox"/>	MTBE 8020 <input checked="" type="checkbox"/>	8260 <input type="checkbox"/>	OXYGENATES (?) 8260 <input type="checkbox"/>	OKG IR 413.1 <input type="checkbox"/>	GRAV. 4-3.2 <input type="checkbox"/>	VOL 8260 <input type="checkbox"/>	624 <input type="checkbox"/>	SEMI-VOL 8270 <input type="checkbox"/>	825 <input type="checkbox"/>	PINAPAH 8100 <input type="checkbox"/>	8310 <input type="checkbox"/>	8270 <input type="checkbox"/>	POB/PEST 808/8082 <input type="checkbox"/>	PCB ONLY <input type="checkbox"/>	TCP FULL <input type="checkbox"/>	VON <input type="checkbox"/>	SEMI-VOL PEST <input type="checkbox"/>	HEB <input type="checkbox"/>	METALS, TOTAL <input type="checkbox"/>	METALS, TOLP <input type="checkbox"/>	LEAD, TOTAL 2881 <input type="checkbox"/>	7421 <input type="checkbox"/>	LEAD, TOLP <input type="checkbox"/>	LEAD, DISSOLVED <input type="checkbox"/>	LEAD, TOTAL <input type="checkbox"/>	REACTIVITY <input type="checkbox"/>	CORROSION <input type="checkbox"/>	FLASH POINT <input type="checkbox"/>	PURGEABLE HYDROCARBON 8010 <input type="checkbox"/>	801 <input type="checkbox"/>	TPH/IR 418.1 <input type="checkbox"/>	TOTAL <input type="checkbox"/>
-------------------	----------------	---	-----------------------------------	--	------------------------------	---	-------------------------------	--	---------------------------------------	--------------------------------------	-----------------------------------	------------------------------	--	------------------------------	---------------------------------------	-------------------------------	-------------------------------	--	-----------------------------------	-----------------------------------	------------------------------	--	------------------------------	--	---------------------------------------	---	-------------------------------	-------------------------------------	--	--------------------------------------	-------------------------------------	------------------------------------	--------------------------------------	---	------------------------------	---------------------------------------	--------------------------------

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX			OT4:R	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/HC 8015 GPO	BTX 8020	MTBE 8020	OXYGENATES (?) 8260	OKG IR 413.1	GRAV. 4-3.2	VOL 8260	SEMI-VOL 8270	825	PINAPAH 8100	8310	8270	POB/PEST 808/8082	PCB ONLY	TCP FULL	VON	SEMI-VOL PEST	HEB	METALS, TOTAL	METALS, TOLP	LEAD, TOTAL 2881	7421	LEAD, TOLP	LEAD, DISSOLVED	LEAD, TOTAL	REACTIVITY	CORROSION	FLASH POINT	PURGEABLE HYDROCARBON 8010	801	TPH/IR 418.1	TOTAL							
					H <sub>2</sub> O	SOIL	AIR																																											
W-14-MW6F	10-9-00	14:35			X				HCL	3	40	X	X	X																																				
W-11-MW6G		14:41																																																
W-13-MW6E		14:54																																																
W-12-MW6B		15:00																																																
W-13-RW3A		15:09																																																
W-13-RW2		15:15																																																
W-12-MW6H		15:25																																																
W-DB-MW6G	X	?			X					X	2	X	X	X	X																																			

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

<b>CUSTODY RECORD</b>	Relinquished By Sampler:	Date	Time	Received By:
	Relinquished:	Date	Time	Received By:
	Relinquished:	Date	Time	Received By:
				Way Bill #: _____ Cooler Temp: _____



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

Sample Receipt Checklist

Workorder: 00100256  
Date and Time Received: 10/11/00 10:00:00 AM  
Temperature: 3

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

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