ExxonMobil Refining & Supply Company

Gene N. Ortega Territory Manager Global Remediation-US Retail

2300 Clayton Road, Suite 1250 P.O. Box 4032 Concord, CA 94524-4032 (925) 246-8747 Telephone (925) 246-8798 Facsimile gene.n.ortega@exxon.com

ExonMobil
Refining & Supply

October 24, 2001

Mr. Scott Seery Alameda County Health Care Services Agency Environmental Health Services Division 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

RE: Former Exxon RAS #7-3567/3192 Santa Rita Road, Pleasanton, California.

Dear Mr. Seery:

Attached for your review and comment is a letter report entitled *Quarterly Groundwater Monitoring Report, Third Quarter 2001*, dated October 24, 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 and sampling activities at the subject site.

If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

Gene N. Ortega Territory Manager

Attachment: ERI's Quarterly Groundwater Monitoring Report, Third Quarter 2001, dated October 24, 2001.

cc: w/ attachment

Mr. Eddy So, 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.



#### ENVIRONMENTAL RESOLUTIONS, INC.

October 24, 2001 ERI 243113.R10

Mr. Gene N. Ortega ExxonMobil Oil Corporation P.O. Box 4032 Concord, California 94524-4032

Subject:

Quarterly Groundwater Monitoring, Third Quarter 2001, Former Exxon Service

Station 7-3567, 3192 Santa Rita Road, Pleasanton, California.

#### Mr. Ortega:

At the request of ExxonMobil Oil Corporation (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) performed the third quarter 2001 groundwater monitoring and sampling event at the subject site. The location of the site is shown on the Site Vicinity Map (Plate 1). The purpose of quarterly monitoring is to evaluate hydrocarbon concentrations in groundwater and groundwater flow direction and hydraulic gradient.

#### GROUNDWATER MONITORING AND SAMPLING

On July 20, 2001, ERI measured depth to water (DTW) and collected groundwater samples from select monitoring wells for laboratory analysis. Work was performed in accordance with ERI's groundwater sampling protocol provided in Attachment A.

The calculated hydraulic gradient and groundwater flow direction for the lower water-bearing zone and upper water-bearing zone are not calculated due to insufficient data. Historical and recent monitoring data are summarized in Table 1.

#### **Laboratory Analyses And Results**

ERI submitted the groundwater samples 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 petroleum hydrocarbons as diesel (TPHd); and total petroleum hydrocarbons as gasoline (TPHg) using the methods listed in the notes in Table 1. The laboratory analysis report and Chain-of-Custody record are attached (Attachment B). Cumulative results of laboratory analyses of groundwater samples are summarized in Table 1. Analytical results of recent groundwater samples are presented on Plate 2.

#### DOCUMENT DISTRIBUTION

ERI recommends forwarding signed copies of this report to:

Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Mr. Eddy So 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

#### 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.

Please call Mr Scott R. Graham, ERI'S assistant project manager for this site, (415) 382-5989 with any questions regarding this project.

Sincerely,

Environmental Resolutions, Inc.

Scott R. Graham

Assistant Project Manager

Britis Albut

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 7-3567 3192 Santa Rita Road Pleasanton, California (Page 1 of 3)

Well ID#	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	В	T	E	X	VOCs
(TOC)	Date		feet									
MW1	11/17/98	NLPH	21.90	318.96	< 50	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	
(340.86)	03/15/99	NLPH	21.15	319.71	< 50	< 50	<2.5	< 0.5	< 0.5	< 0.5	< 0.5	
	06/25/99	NLPH	20.34	320.52	a	< 50	< 2.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	09/24/99	NLPH	20.42	320.44	< 50	< 50	24.6	< 0.5	< 0.5	< 0.5	< 0.5	_
	12/22/99	NLPH	21.11	319.75	<61	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	_
	03/07/00	NLPH	14.12	326.74	57	< 50	220	< 0.5	< 0.5	< 0.5	< 0.5	_
	06/06/00	NLPH	17.79	323.07	< 50	< 50	5.4	< 0.5	< 0.5	< 0.5	< 0.5	
	07/31/00	NLPH	19.02	321.84	< 50	< 50	51/38d	< 0.5	< 0.5	< 0.5	< 0.5	ND**
	10/10/00	NLPH	18.56	322.30	<50	< 50	63	< 0.5	< 0.5	< 0.5	< 0.5	
	01/11/01	NLPH	21.43	319.43	< 50	< 50	110/984	< 0.5	< 0.5	< 0.5	< 0.5	
	04/11/01	NLPH	19.83	321.03	960e	< 50	29/33d	< 0.5	< 0.5	< 0.5	< 0.5	
	07/20/01	NLPH	20.50	320.36	< 50	< 50	27/20d	< 0.5	< 0.5	< 0.5	< 0.5	
MW2	11/17/98	NLPH	20.42	320.19	91	< 50	17/23d	1.5	< 0.5	0.98	2.6	***
(340.61)	03/15/99	NLPH	28.35	312.26	90	< 50	12/12.5d	0.73	1.1	2.4	2.2	
	06/25/99	NLPH	25.20	315.41	a	< 50	< 2.0	< 0.5	< 0.5	< 0.5	< 0.5	
	09/24/99	NLPH	23.93	316.68	<50	<50	3.06	< 0.5	< 0.5	< 0.5	< 0.5	
	12/22/99	NLPH	23.39	317.22	<56	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	
	03/07/00	NLPH	17.08	323.53	52	<50	<2	< 0.5	0.80	< 0.5	< 0.5	
	06/06/00	NLPH	21.01	319.60	< 50	< 50	<2	<0.5	< 0.5	< 0.5	< 0.5	
	07/31/00	NLPH	22.08	318.53	< 50	< 50	6.8/ < 50	< 0.5	< 0.5	< 0.5	< 0.5	ND**
	10/10/00	NLPH	22.35	318.26	<50	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.5	
	01/11/01	NLPH	23.74	316.87	<50	<50	<2	0.54	< 0.5	< 0.5	< 0.5	_
	04/11/01	NLPH	22.34	318.27	760e	< 50	<2	< 0.5	1.4	< 0.5	< 0.5	
	07/20/01	NLPH	23.74	316.87	< 50	< 50	<2	< 0.5	< 0.5	< 0.5	<0.5	
MW3	11/17/98	NLPH	36.58	306.37	120	< 50	180/220d	< 0.5	< 0.5	< 0.5	< 0.5	
(342.95)	03/15/99	NLPH	40.01	302.94	180	< 50	290/314d	< 0.5	< 0.5	< 0.5	< 0.5	
	06/25/99	NLPH	46.83	296.12	a	< 50	107/113d	< 0.5	< 0.5	< 0.5	< 0.5	
	9/24/99 <sup>b</sup>	NLPH	47.71	295.24				_	-	_		
	12/22/99	NLPH	43.82	299.13	140	< 50	65	< 0.5	< 0.5	< 0.5	< 0.5	
	03/07/00	NLPH	32.75	310.20	<50	< 50	82	< 0.5	0.88	< 0.5	< 0.5	
	06/06/00	NLPH	36.05	306.90	<50	< 50	140	< 0.5	< 0.5	0.82	< 0.5	_
	07/31/00	NLPH	36.77	306.18	<50	< 50	230/160d	< 0.5	< 0.5	< 0.5	< 0.5	ND**
	10/10/00	NLPH	35.82	307.13	< 50	< 50	200	< 0.5	< 0.5	< 0.5	< 0.5	
	01/11/01	NLPH	38.08	304.87	< 50	< 50	280/230d	< 0.5	< 0.5	< 0.5	< 0.5	
	04/11/01	NLPH	36.03	306.92	1,000e	< 50	240/2801	< 0.5	< 0.5	< 0.5	< 0.5	***
	07/20/01	NLPH	36.05	306.90	< 50	270	240/1904	< 0.5	< 0.5	< 0.5	< 0.5	

TABLE 1

#### CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-3567 3192 Santa Rita Road Pleasanton, California (Page 2 of 3)

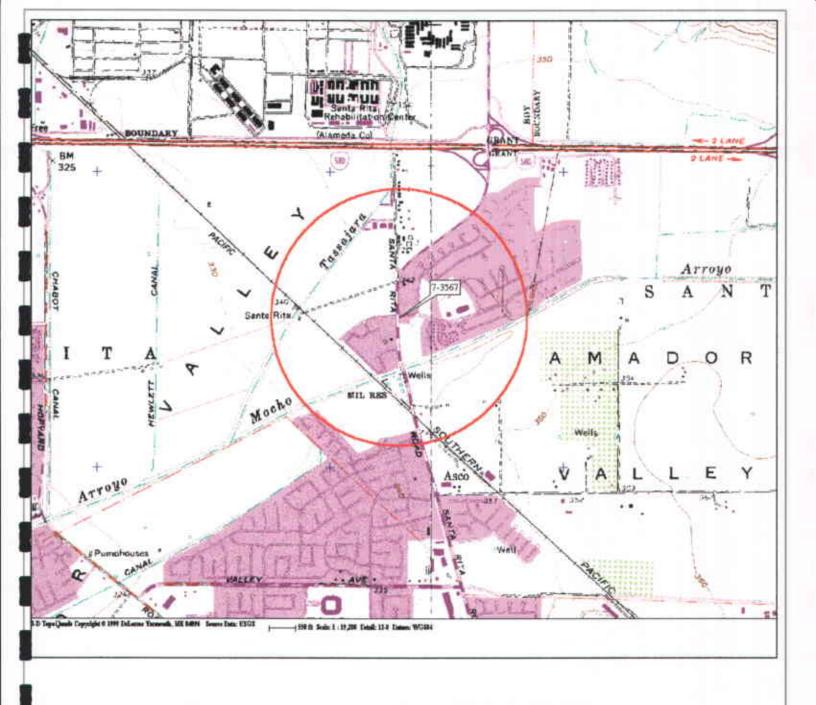
Weli ID#	Sampling	SUBJ	DTW	Elev.	TPHd	TPHg	MTBE	В	T	E	Х	VOC:
(TOC)	Date	<	feet	>	<			ug/L	·			
MW4	11/17/98	NLPH	50.20	292.76	72	< 50	4.1/3.5d	<0.5	< 0.5	< 0.5	< 0.5	
(342.96)	03/15/99	NLPH	47.93	295.03	91	< 50	280/260d	< 0.5	< 0.5	< 0.5	< 0.5	
(512150)	6/25/99 <sup>b</sup>	NLPH	48.15	294.81				***				
	9/24/99 <sup>b</sup>	NLPH	49.29	293.67	<b>4</b>							
	12/22/99	NLPH	49.33	293.63	ь							
	03/07/00	NLPH	49.05	293.91	190	<50	710	< 0.5	0.84	< 0.5	< 0.5	
	06/06/00	NLPH	49.02	293.94	110	< 50	460	< 0.5	< 0.5	< 0.5	< 0.5	
	07/31/00	NLPH	49.13	293.83	< 50	< 50	480/490d	< 0.5	< 0.5	< 0.5	< 0.5	ND*
	10/10/00	NLPH	40.08	302.88	c	С	с	c	c	С	С	c
	01/11/01	NLPH	36.41	306.55	110	< 50	27/21d	< 0.5	< 0.5	< 0.5	< 0.5	
	04/11/01	NLPH	36.43	306.53	870e	< 50	3.6/14d	< 0.5	0.56	< 0.5	< 0.5	
	07/20/01	ŗ	_	_	-	<del></del> -		_		_		
MW5	07/31/00	-	dгу	đry	ъ	ь	ь	b	ъ	ъ	ь	
(342.87)	10/10/00	NLPH	29.12	313.75	150	<50	4.2	< 0.5	< 0.5	< 0.5	< 0.5	
	01/11/01	NLPH	28.89	313.98	ь	b	b	b	ъ	Ъ	Ъ	_
	04/11/01	NLPH	28.23	314.64	b	ь	b	ь	ъ	ь	ь	
	07/20/01	Ø:-			•••		-		_	_	_	
MW6	07/31/00	NLPH	39.72	301.33	< 50	<50	<2/<5	< 0.5	< 0.5	< 0.5	< 0.5	ND*
(341.05)	10/10/00	NLPH	40.12	300.93	<50	c	c	¢	c	c	c	С
	01/11/01	NLPH	46.13	294.92	<50	<50	<2	< 0.5	< 0.5	< 0.5	< 0.5	
	04/11/01	NLPH	45.40	295.65	b	b	b	b	ь	b	b	
	07/20/01	NLPH	41.75	299.30	< 50	< 50	<5	< 0.3	< 0.3	< 0.6	< 0.6	
MW7	07/31/00	NLPH	24.22	317.51	150	<50	13/8d	< 0.5	< 0.5	< 0.5	< 0.5	ND'
(341.73)	10/10/00	NLPH	24.09	317.64	1,500	С	c	c	c	С	С	c
	01/11/01	NLPH	25.86	315.87	330	<50	6.9/7d	0.55	< 0.5	< 0.5	<0.5	_
	04/11/01	NLPH	24.28	317.45	980e	<250	<10	< 2.5	< 2.5	<2.5	< 2.5	
	07/20/01	NLPH	25.52	316.21	300	< 50	8.2/6d	< 0.5	< 0.5	< 0.5	<0.5	
MW8	04/11/01		dry	dry	ь	b	b	b	ь	ь	ь	
(341.44)	07/20/01		dry	dry	ь	b	b	b	b	b	b	

#### TABLE 1

#### CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Former Exxon Service Station 7-3567 3192 Santa Rita Road Pleasanton, California (Page 3 of 3)

Notes:		
TOC	=	Elevation of top of well casing; in feet above mean sea level.
SUBJ	=	Results of subjective evaluation, liquid-phase hydrocarbon thickness (HT) in feet.
DTW	=	Depth to water.
Elev.	=	Elevation of groundwater in feet above mean sea level.
NLPH	=	No liquid-phase hydrocarbons present in well.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using modified EPA Method 8015.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 5030/8015 (modified).
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
MTBE	_	Methyl tertiary butyl ether analyzed using EPA Method 8021B.
VOCs	=	Volatile organic compounds analyzed using EPA Method 8260B.
ug/L	=	Micrograms per liter.
a	=	No result because of sample loss during laboratory fire.
b	=	Well contained an insufficient amount of water to collect a sample.
c	=	Samples were damaged during transportation to laboratory.
đ	=	MTBE confirmed using EPA Method 8260.
e	=	Diesel-range hydrocarbons detected in bailer blank; result is suspect.
f	=	Well inacessable.
<	=	Not detected at or above the stated laboratory method detection limit.
ND	=	Not detected at or above the stated laboratory method detection limit for the following constituents: 1,2-Dibromoethane, 1,2-Dichloroethane, 2-Nitropropane, Di-isopropyl ether, tertiary butyl alcohol, tertiary amyl methyl ether, tertiary butyl ether.
	=	Not analyzed/Not applicable.



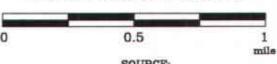
FN 2431Topo

#### **EXPLANATION**



1/2-mile radius circle

# APPROXIMATE SCALE



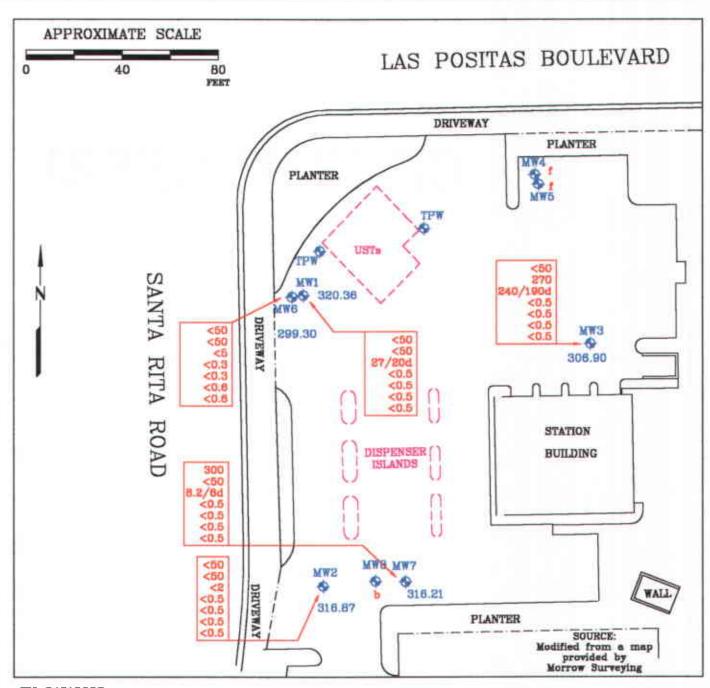
SOURCE: Modified from a map provided by DeLorme 3-D TopoQuads



## SITE VICINITY MAP

FORMER EXXON SERVICE STATION 7-3567 3192 Santa Rita Road Pleasanton, California PROJECT NO. 2431

PLATE



FN 24310003

#### **EXPLANATION**

MW7

Groundwater Monitoring Well

316.21 Groundwater elevation in feet, datum is mean sea level

TPW

Tank Pit Well

Groundwater Concentrations in ug/L Sampled July 20, 2001

300 Total Petroleum Hydrocarbons
as Diesel
Total Petroleum Hydrocarbons

as Gasoline 8.2/6d Methyl Tertiary Butyl Ether

<0.5 Benzene <0.5 Toluene <0.5 Ethylbenzene

Total Xylenes
 Less Than the Stated Laboratory
 Detection Limit
 Micrograms per Liter

- Well contained insufficient amount of water to collect a sample
- d MTBE confirmed using EPA Method 8260
- # Well inacessible



## **GENERALIZED SITE PLAN**

FORMER EXXON SERVICE STATION 7-3567 3192 Santa Rita Road Pleasanton, California PROJECT NO.

2431

PLATE

# ATTACHMENT A GROUNDWATER SAMPLING PROTOCOL

#### GROUNDWATER SAMPLING PROTOCOL

The static water level and separate-phase product level, if present, in each well that contains water and/or separate-phase product are measured with an 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:

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

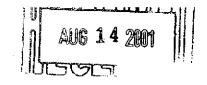
After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples are collected with a new, disposable 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 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:

#### 01070822

Report To:

Environmental Resolution, Inc.

Scott Graham

73 Digital Drive Suite 100

Novato California

94949-

ph: (415) 382-9105

fax: (415) 382-1856

Project Name:

243113X

Site: 7-3567

Site Address: 3192

3192 Santa Rita Rd.

Pleasanton

CA

PO Number:

EWR#21040350

State:

California

State Cert. No.:

1903

**Date Reported:** 

8/7/01

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

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

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

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

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

01070822 Page 1

8/7/01

Some West

Senior Project Manager

Date





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

Certificate of Analysis Number:

01070822

Environmental Resolution, Inc. Report To:

Scott Graham

73 Digital Drive Suite 100

Novato

California

94949-

ph: (415) 382-9105

fax: (415) 382-1856

Scott Graham

Environmental Resolution, Inc. fax: (415) 382-1856 Project Name:

243113X

Site:

7-3567

Site Address:

3192 Santa Rita Rd.

Pleasanton

CA

PO Number:

EWR#21040350

State:

California

State Cert. No.:

Date Reported:

8/8/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
		J	7100104	7/24/01 10:00:00 AM		
B	01070822-01	Water	7/20/01	<u> </u>		!-
WEB-MW6	01070822-02	Water	7/20/01 5:00:00 PM	7/24/01 10:00:00 AM		
1-MW6	01070822-03	Water	7/20/01 1:23:00 PM	7/24/01 10:00:00 AM		
V-23-MW2	01070822-04	Water	7/20/01 2:05:00 PM	7/24/01 10:00:00 AM		🗆
V-25-MW7	01070822-05	Water	7/20/01 2:20:00 PM	7/24/01 10:00:00 AM		
v D-MW1	01070822-06	Water	7/20/01 1:39:00 PM	7/24/01 10:00:00 AM		
V-96-MW3	01070822-07	Water	7/20/01 2:35:00 PM	7/24/01 10:00:00 AM		

Sonia West

8/8/01

Date

West, Sonia

nior Project Manager

Joel Grice **Laboratory Director** 

Ted Yen Quality Assurance Officer





Client Sample ID: TB Collected: 7/20/01 SPL Sample ID: 01070822-01

Site: 7-356

Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed Analy	rst Seq. #
GASOLINE RANGE ORGANICS				MCL	CA_GRO	Units: ug/L	
Gasoline Range Organics, LA County	ND		50		1	07/25/01 15:33 D_R	758966
Surr: 1,4-Difluorobenzene	102	%	62-144	•	1	07/25/01 15:33 D_R	758966
Surr: 4-Bromofluorobenzene	107	%	44-153		1	07/25/01 15:33 D_R	758966
PURGEABLE AROMATICS			···	MCL	SW8021B	Units: ug/L	
Benzene	ND		0.5		1	07/25/01 15:33 D_R	758927
Ethylbenzene	ND		0.5		1	07/25/01 15:33 D_R	758927
Methyl tert-butyl ether	ND		2		1	07/25/01 15:33 D_R	758927
Toluene	ND		0.5		1	07/25/01 15:33 D_R	758927
Xylenes,Total	ND		0.5	-	1	07/25/01 15:33 D_R	758927
Surr. 1,4-Difluorobenzene	96.8	%	72-137		1	07/25/01 15:33 D_R	758927
Surr: 4-Bromoffuorobenzene	97.5	%	48-156		1	07/25/01 15:33 D R	758927

Sonia West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference





Client Sample ID: W-BB-MW6			Colle	ected:	7/20/01 5:00:00	SPL Sample II	D: 0107	0822-02
			Site:	7-3	567			_
Analyses/Method	Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	CA_DRO	Units: ug	/L	
Diesel Range Organics	ND		50		1	08/04/01 0:18	AM	777865
Surr: n-Pentacosane	65.6	%	20-150		1	08/04/01 0:18	AM	777865
Run ID/Seq #: HP_V_010803D-7	77865						<del></del>	
Prep Method Prep Date	-		Prep Initials					
SW3510B 07/25/2001 9:	38		KL					
GASOLINE RANGE ORGANICS				MCL	CA GRO	Units: ug	/L	
Gasoline Range Organics, LA County	ND		50		1	07/25/01 15:06	D_R	758965
Surr: 1.4-Difluorobenzene	107	%	62-144		1	07/25/01 15:06	D_R	758965
Surr: 4-Bromofluorobenzene	112	%	44-153		1	07/25/01 15:06	D_R	758965
PURGEABLE AROMATICS				MCL	SW8021B	Units: ug	/L	
Benzene	ND		0.3		1	07/25/01 15:06	D_R	758925
Ethylbenzene	ND		0.6		1	07/25/01 15:06	D_R	758925
Methyl tert-butyl ether	ND		. 5		1	07/25/01 15:06	D_R	758925
Toluene	ND		0.3		1	07/25/01 15:06	D_R	758925
Xylenes,Total	ND		0.6		1	07/25/01 15:06	D_R	758925
Surr: 1,4-Difluorobenzene	98.1	%	72-137		1	07/25/01 15:06	D_R	758925
Surr: 4-Bromofluorobenzene	99.2	%	48-156		1	07/25/01 15:06	D_R	758925
SILICA GEL CLEANUP				MCL	SW3630C	Units:		
Date Performed	7/27/01		0		1	07/27/01 12:00	KL	768404

Sonia West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

Mi - Matrix Interference





01070822-03 SPL Sample ID: 7/20/01 1:23:00 Client Sample ID: W-41-MW6 Collected: Site: 7-3567 Dil. Factor QUAL Date Analyzed Analyst Seq. # Rep.Limit Anaiyses/Method Result Units: ug/L MCL CA\_DRO **DIESEL RANGE ORGANICS** 08/04/01 3:30 AM 777869 ND 50 1 **Diesel Range Organics** 777869 08/04/01 3:30 AM 1 67.2 % 20-150 Surr: n-Pentacosane Run ID/Seq #: HP\_V\_010803D-777869 Prep Initials Prep Method Prep Date 07/25/2001 9:38 SW3510B CA\_GRO Units: ug/L GASOLINE RANGE ORGANICS MCL. 758979 07/25/01 23:43 D\_R 50 Gasoline Range Organics, LA County ND 758979 1 07/25/01 23:43 D\_R Surr: 1,4-Difluorobenzene 105 % 62-144 758979 07/25/01 23:43 D\_R 1 104 % 44-153 Surr: 4-Bromofluorobenzene SW8021B Units: ug/L MCL PURGEABLE AROMATICS 07/26/01 12:16 D\_R 759521 ND Benzene 0.3 759521 07/26/01 12:16 D\_R 1 ND 0.6 Ethylbenzene 759521 1 07/26/01 12:16 D\_R 5 Methyl tert-butyl ether ND 759521 1 07/26/01 12:16 D\_R ND 0.3 Toluene 07/26/01 12:16 D\_R 759521 ND 0.6 1 Xylenes, Total 759521 07/26/01 12:16 D\_R % 1 102 72-137 Surr: 1,4-Diffuorobenzene 759521 07/26/01 12:16 D\_R 92.1 % 48-156 Surr: 4-Bromofluorobenzene

MCL

0

Sonia West

West, Sonia Project Manager

SILICA GEL CLEANUP

Date Performed

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

7/27/01

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

SW3630C

Units:

KL

07/27/01 12:00





01070822-04 Collected: 7/20/01 2:05:00 SPL Sample ID: Client Sample ID: W-23-MW2 7-3567 Site: Dil. Factor QUAL Date Analyzed Analyst Seq. # Rep.Limit Analyses/Method Result CA\_DRO Units: ug/L MCL DIESEL RANGE ORGANICS 777870 08/04/01 4:08 AM 50 1 ND Diesel Range Organics 777870 08/04/01 4:08 AM 1 73.0 % 20-150 Surr: n-Pentacosane Run ID/Seq #: HP\_V\_010803D-777870 Preo Initials Prep Date Prep Method 07/25/2001 9:38 SW3510B CA\_GRO Units: ug/L MCL **GASOLINE RANGE ORGANICS** 07/25/01 18:16 D\_R 758969 Gasoline Range Organics, LA County ND 50 758969 07/25/01 18:16 D\_R 1 Surr: 1,4-Difluorobenzene 106 62-144 % 758969 07/25/01 18:16 D\_R 1 105 % 44-153 Surr: 4-Bromofluorobenzene SW8021B Units: ug/L MCL **PURGEABLE AROMATICS** 758930 07/25/01 18:16 D\_R 0.5 ND Benzene 758930 07/25/01 18:16 D\_R 1 0.5 ND Ethylbenzene 758930 07/25/01 18:16 D\_R 1 Methyl tert-butyl ether 2 ND 758930 1 07/25/01 18:16 D\_R ND 0.5 Toluene 758930 07/25/01 18:16 D\_R 1 ND 0.5 Xylenes, Total 758930 07/25/01 18:16 D\_R 72-137 1 98.2 % Surr: 1,4-Difluorobenzene 758930 07/25/01 18:16 D\_R 1 100 48-156 Surr: 4-Bromofluorobenzene

MCL

0

Sonia West

West, Sonia Project Manager

SILICA GEL CLEANUP

**Date Performed** 

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

7/27/01

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

SW3630C

1

Units:

07/27/01 12:00 KL





SPL Sample ID: 01070822-05 7/20/01 2:20:00 Collected: Client Sample ID: W-25-MW7 7-3567 Site: Dil. Factor QUAL **Analyst** Seq. # Date Analyzed Result Rep.Limit Analyses/Method Units: ug/L MCL. CA\_DRO **DIESEL RANGE ORGANICS** 777871 08/04/01 4:47 AM 300 Diesel Range Organics 777871 08/04/01 4:47 AM Surr: n-Pentacosane 73.2 % 20-150 Run ID/Seq #: HP\_V\_010803D-777871 Prep Date Prep Initials Prep Method 07/25/2001 9:38 KL SW3510B CA\_GRO Units: ug/L MCL **GASOLINE RANGE ORGANICS** 758970 07/25/01 18:43 D\_R 50 ND Gasoline Range Organics, LA County 07/25/01 18:43 D R 758970 1 104 % 62-144 Surr: 1,4-Difluorobenzene 758970 07/25/01 18:43 D\_R 1 % 44-153 111 Surr: 4-Bromofluorobenzene MCL SW8021B Units: ug/L **PURGEABLE AROMATICS** 758931 07/25/01 18:43 D\_R ND 0.5 Benzene 758931 1 07/25/01 18:43 D\_R ND 0.5 Ethylbenzene 07/25/01 18:43 D\_R 758931 1 2 8.2 Methyl tert-butyl ether 758931 07/25/01 18:43 D\_R 1 ND 0.5 Toluene 758931 07/25/01 18:43 D R 1 ND 0.5 Xylenes, Total 758931 1 07/25/01 18:43 D\_R 72-137 98.9 Surr: 1,4-Difluorobenzene 758931 07/25/01 18:43 D\_R 1 % 100 48-156 Surr: 4-Bromofluorobenzene Units: SW3630C MCL SILICA GEL CLEANUP 768407 07/27/01 12:00 7/27/01 0 Date Performed Units: ug/L MCL SW8260B VOLATILE ORGANICS BY METHOD 8260B 766880 07/29/01 16:11 2 Methyl tert-butyl ether 07/29/01 16:11 JC 766880 1 100 % 62-119 Surr: 1,2-Dichloroethane-d4 766880 07/29/01 16:11 JC 1 78-123 84.0 % Surr: 4-Bromofluorobenzene

74-122

94.0

%

Sonia West

West, Sonia Project Manager

Sum: Toluene-d8

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

07/29/01 16:11

JC

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

1



JC



01070822-06 Collected: 7/20/01 1:39:00 SPL Sample ID: Client Sample ID: W-20-MW1 7-3567 Site: Seq. # Dil, Factor QUAL Date Analyzed **Analyst** Result Rep.Limit Analyses/Method MCL CA\_DRO Units: ug/L **DIESEL RANGE ORGANICS** 777872 1 08/04/01 5:25 AM 50 ND Diesel Range Organics 08/04/01 5:25 AM 777872 1 20-150 93.4 % Surr: n-Pentacosane Run ID/Seq #: HP\_V\_010803D-777872 Prep Initials Prep Date Prep Method KL 07/25/2001 9:38 SW3510B CA\_GRO Units: ug/L MCL **GASOLINE RANGE ORGANICS** 758980 07/26/01 0:10 D\_R Gasoline Range Organics, LA County ND 50 758980 07/26/01 0:10 D\_R 62-144 103 % Surr: 1,4-Difluorobenzene 758980 07/26/01 0:10 D\_R 1 Surr: 4-Bromofluorobenzene 106 44-153 SW8021B Units: ug/L MCL **PURGEABLE AROMATICS** 758941 07/26/01 0:10 D\_R ND 0.5 Benzene 07/26/01 0:10 D R 758941 1 ND 0.5 Ethylbenzene 758941 1 07/26/01 0:10 D\_R 2 Methyl tert-butyl ether 27 758941 07/26/01 0:10 D\_R 0.5 1 ND Toluene 758941 1 07/26/01 0:10 D\_R ND 0.5 Xyienes, Total 758941 07/26/01 0:10 D\_R 1 97.5 72-137 Surr: 1,4-Difluorobenzene 07/26/01 0:10 D R 758941 1 48-156 97.7 Surr: 4-Bromofluorobenzene Units: SW3630C MCL SILICA GEL CLEANUP 768408 07/27/01 12:00 KL 7/27/01 0 **Date Performed** Units: ug/L MCL SW8260B **VOLATILE ORGANICS BY METHOD 8260B** 766881 07/29/01 16:39 JC 2 Methyl tert-butyl ether 20 1 766881 07/29/01 16:39 JC 102 62-119 1 Surr: 1,2-Dichloroethane-d4 766881 07/29/01 16:39 JC 1 78-123 Surr: 4-Bromofluorobenzene 82.0 07/29/01 16:39 766881

Soma West

West, Sonla Project Manager

Surr: Toluene-d8

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

94.0

%

74-122

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference





01070822-07 SPL Sample ID: Client Sample ID: W-36-MW3 Collected: 7/20/01 2:35:00 Site: 7-3567 Date Analyzed Analyst Seq. # Dil. Factor QUAL Rep.Limit Result Analyses/Method MCL CA\_DRO Units: ug/L **DIESEL RANGE ORGANICS** 777873 08/04/01 6:03 AM 1 ND 50 Diesel Range Organics 777873 08/04/01 6:03 AM 1 84.4 % 20-150 Surr: n-Pentacosane Run ID/Seq #: HP\_V\_010803D-777873 Prep Initials Prep Method Prep Date 07/25/2001 9:38 KL SW3510B CA\_GRO Units: ug/L MCL **GASOLINE RANGE ORGANICS** 07/26/01 0:38 D\_R 758981 50 270 Gasoline Range Organics, LA County 758981 07/26/01 0:38 D R 1 % Surr: 1,4-Difluorobenzene 62-144 112 758981 07/26/01 0:38 D\_R 1 44-153 109 Surr: 4-Bromofluorobenzene SW8021B Units: ug/L MCL PURGEABLE AROMATICS 758942 07/26/01 0:38 D\_R ND 0.5 1 Benzene 07/26/01 0:38 D\_R 758942 1 0.5 ND Ethylbenzene 758942 07/26/01 0:38 D\_R 1 2 Methyl tert-butyl ether 240 758942 07/26/01 0:38 D\_R 1 ND 0.5 Toluene 758942 07/26/01 0:38 D R 1 ND 0.5 Xylenes, Total 07/26/01 0:38 D\_R 758942 1 72-137 99.5 Surr: 1,4-Difluorobenzene 07/26/01 0:38 D R 758942 1 98.7 48-156 Surr: 4-Bromofluorobenzene Units: SW3630C MCL SILICA GEL CLEANUP 768409 07/27/01 12:00 KL 7/27/01 0 Date Performed SW8260B Units: ug/L MCL **VOLATILE ORGANICS BY METHOD 8260B** 766882 07/29/01 17:06 JC 2 4 Methyl tert-butyl ether 766882 JC 07/29/01 17:06 100 62-119 2 Surr: 1,2-Dichloroethane-d4 % 766882 JC 2 07/29/01 17:06 81.0 % 78-123 Surr: 4-Bromofluorobenzene

Sonia West

West, Sonia Project Manager

Surr: Toluene-d8

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

%

92.0

74-122

- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

07/29/01 17:06

JC

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

2

# Quality Control Documentation



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

#### **Quality Control Report**

#### **EXXON Company U.S.A.** 243113X

Silica Gel Cleanup

SW3630C

WorkOrder:

01070822

Lab Batch ID:

R40315

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
01070822-02B	W-BB-MW6
01070822-038	W-41-MW6
01070822-04B	W-23-MW2
01070822-05B	W-25-MW7
01070822-06B	W-20-MW1
01070822-07B	W-36-MW3

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





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

243113X

nalysis Date:

reparation Date:

**Diesel Range Organics** 

CA\_DRO

WorkOrder:

Samples in Analytical Batch:

01070822

Lab Batch ID:

13696

**Method Blank** 

HP\_V\_010803D-777855 08/03/2001 18:34

Units:

Analyst:

Prep By:

mg/L

AM ΚL

01070822-02B

Lab Sample ID

Client Sample ID W-BB-MW6

01070822-03B

W-41-MW6

01070822-04B 01070822-05B W-23-MW2

01070822-06B

W-25-MW7

Analyte Diesel Range Organics Surr: n-Pentacosane

07/25/2001 9:38

Result Rep Limit ND 0.050 89.8 20-150

01070822-07B

W-20-MW1 W-36-MW3

#### Laboratory Control Sample (LCS)

Method SW3510B

RunID:

HP V 010803D-777856

Units:

mg/L AM Analyst:

Analysis Date: Preparation Date:

08/03/2001 19:12 07/25/2001 9:38

Prep By: KL

Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.4	95	21	175

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

Sample Spiked:

01070851-01

RunID:

HP\_V\_010803D-777858

Units: mg/L

Analysis Date:

08/03/2001 20:29

AM Analyst:

Preparation Date:

07/25/2001 9:38

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	Limit	
iesel Range Organics	ND	5	2.1	41.8	5	2.3	45.2	7.72	20	21	175

lifiers:

ND/U - Not Detected at the Reporting Limit

J - Estimated value between MDL and PQL

B - Analyte detected in the associated Method Blank

\* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution

MI - Matrix Interference

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





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

243113X

hod:

nałysis Date:

**Purgeable Aromatics** 

SW8021B

07/25/2001 13:00

WorkOrder:

01070822

Lab Batch ID:

R39913

Method Blank

HP\_S\_010725A-758921

Units:

Analyst:

ug/L D\_R

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

01070822-01A

TB

01070822-02A 01070822-04A W-BB-MW6

01070822-05A

W-23-MW2 W-25-MW7

01070822-06A 01070822-07A W-20-MW1 W-36-MW3

Analyte	Result	Rep Limit
Benzene	ND	0.30
Ethylbenzene	ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND	0.30
Xylenes,Total	ND	0.50
Surr: 1,4-Difluorobenzene	97.4	72-137
Surr: 4-Bromofluorobenzene	97.6	48-156

#### Laboratory Control Sample (LCS)

RunID:

HP\_S\_010725A-758920

Units:

ug/L

Analysis Date:

07/25/2001 11:39

Analyst:

D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bertzene	50	53	106	70	130
Ethylbenzene	50	54	107	70	130
Methyl tert-butyl ether	50	53	107	70	130
Toluene	50	54	107	70	130
Xylenes,Total	150	163	109	70	130

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

Sample Spiked:

01070822-04

RunID:

HP\_S\_010725A-758928

Units:

Analysis Date:

07/25/2001 16:00

ug/L D\_R Analyst:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD		Low Limit	High Limit
ene	ND	20	27	135	20	29	147	8.55	21	32	164
in benzene	ND	20	27	133	20	29	145*	8.52	19	52	↓
lethyl tert-butyl ether	0.90	20	28	134	20	29	142	6.50	20	39	150
eme	ND	20	27	133	20	29	143	7.06	20	38	159
nes,Total	ND	60	79	132	60	86	143	8.48	18	53	144

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





# EXXON Company U.S.A. 243113X

Nethod:

\nalysis Date:

Gasoline Range Organics

CA\_GRO

07/25/2001 13:00

WorkOrder:

Samples in Analytical Batch:

01070822

Lab Batch ID:

R39916

HP\_S\_010725C-758988

Method Blank

Units:

Analyst:

.mg/L :: D\_R

Lab Sample ID 01070822-01A

Client Sample ID
TB

01070822-02A

W-BB-MW6

01070822-03A

W-41-MW6 W-23-MW2

01070822-04A 01070822-05A 01070822-06A

W-25-MW7

W-20-MW1

01070822-07A

W-36-MW3

Analyte Result Rep Limit
Gasoline Range Organics, LA County ND 0.050
Surr. 1,4-Difluorobenzene 105.0 62-144
Surr. 4-Bromofluorobenzene 104.7 44-153

#### Laboratory Control Sample (LCS)

RunID:

HP\_S\_010725C-758987

Units:

mg/L

Analysis Date:

07/25/2001 12:06

Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics, LA County	1	1.2	117	70	130

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

Sample Spiked:

01070822-05

RunID:

HP\_S\_010725C-758967

Units:

mg/L

Analysis Date:

07/25/2001 16:54

Analyst: D\_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit		High Limit
3 pline Range Organics, LA County	ND	0.9	1	116	0.9	1.1	117	0.447	36	36	160

taliflers:

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





#### **EXXON Company U.S.A.** 243113X

**Purgeable Aromatics** 

HP\_R\_010726A-759515

SW8021B

WorkOrder:

01070822

Lab Batch ID:

R39936

Method Blank

Units: ug/L Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

nalysis Date: 07/26/2001 4:41

Analyst: D\_R 01070822-03A

W-41-MW6

Analyte	Result	Rep Limit
Benzene	ND	0,30
Ethylbenzene	ND	0.60
Methyl tert-butyl ether	ND	5.0
Toluene	ND	0.30
Xylenes, Total	ND	0.60
Surr. 1,4-Difluorobenzene	101.8	72-137
Surr. 4-Bromofluorobenzene	96.0	48-156

#### **Laboratory Control Sample (LCS)**

RunID:

HP\_R\_010726A-759514

Units:

ug/L

Analysis Date:

07/26/2001 3:56

Analyst:

 $D_R$ 

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	48	96	70	130
Ethylbenzene	50	48	97	70	130
Methyl tert-butyl ether	50	55	110	70	130
Toluene	50	49	97	70	130
Xylenes, Total	150	145	97	70	130

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

Sample Spiked:

01070769-01

RunID:

HP\_R\_010726A-759518

Units:

ug/L

Analysis Date:

07/26/2001 5:04

Analyst: D\_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD		Low Limit	High Limit
ene	ND	20	25	126	20	25	127	1.07	21	32	164
hylbenzene	ND	20	22	108	20	20	102	5.98	19	52	142
ethyl tert-butyl ether	ND	20	29	143	20	27	137	4.15	20	39	150
ene	ND	20	22	112	20	21	107	3.68	20	38	159
Mes,Total	ND	60	49	81.7	60	43	71.7	13.0	18	53	144

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Recovery Outside Advisable QC Limits

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

MI - Matrix Interference

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.





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

243113X

nalysis Date:

Volatile Organics by Method 8260B

SW8260B

N\_010729A-766865

07/29/2001 10:09

WorkOrder:

01070822

Lab Batch ID:

R40236

**Method Blank** 

Units: ug/L

JC

Analyst:

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

01070822-05C

W-25-MW7

01070822-06C

W-20-MW1

01070822-07C

W-36-MW3

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	2.0
Surr. 1,2-Dichloroethane-d4	108.0	62-119
Surr. 4-Bromofluorobenzene	84.0	78-123
Surr: Toluene-d8	92.0	74-122

#### Laboratory Control Sample (LCS)

RunID:

N\_010729A-766864

Units:

ug/L

Analysis Date:

07/29/2001 9:14

Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	46	92	61	145
Benzene	50	49	98	76	127
Chlorobenzene	50	50	100	75	130
Toluene	50	52	104	76	125
Trichloroethene	50	45	90	71	120

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

Sample Spiked:

01070658-01

RuniD:

N\_010729A-766866

Units:

Analysis Date:

07/29/2001 11:04

ug/L 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-Dichloroethene	ND	500	460	92	500	470	94	2	14	38	172
enzene	ND	500	510	99	500	520	101	2	11	66	134
hobenzene	ND	500	500	100	500	510	102	2	13	67	115
ouene	ND	500	520	101	500	540	105	4	13	59	125
richloroethene	ND	500	450	90	500	470	94	4	14	61	134

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

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

J - Estimated value between MDL and PQL 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.

MI - Matrix Interference

# Sample Receipt Checklist And Chain of Custody

	••••							-		77	<u>)</u> {	52	2		•		•	
EXXON COMPANY, U	SA.	(West Coast)	СН	AIN O	F CUS	TODY	RECO	RD NO.						f	Page	1	_ of	<u> </u>
Exxon Engineer: Gene Orlega Pi Consultant Co. Name Zer ECT Co	one: (925)246-1	8747 -len			t		(C	ANAL HECK /		REQUI OPRIA		X)					отн	ER
Address: 73 Dry Hulby. Facility/State ID#  AFE # (Terminal Only): Co  Location: 3192 Santa (Life Rd (City)  DEE D C&M	85 G		1	1 8015 DRO J	- X	80 D8	624 D	625 0	PNA/PAH 8100 □ 8310 □ 8270 □.	PCB/PEST BOB/BOBZ () PCB ONLY ()	METALS, TCLP []	7421 CLEAD, TCLP C	LEAD TOTAL O	CORROSAITY   PLASH PONT	ARBON 8010 □ 601 □			
Consultant Work Release #: 21040350 Sampled By:			DF CONTAINERS	CONTAINER SIZE	GC 8015 GROX	MTBE 9020 8260X	OXYGENATES (7) 8250 [	O&G IR 413.1 IJ	I-VOL 8270 □	PAH 8100 □	PEST BOBYBO	METALS, TOTAL	LEAD, TOTAL 239.1	LEAD, DISSOLVED D	REACTIVITY (2) CONNOC	PURGEABLE HYDROCARBON	IR 418.1 🗆	тохлон 🗆
	COMP. GRAB MATRIX	AIR	Į <u>ĕ</u>	1		<del></del>	Š	S	SEM	PNA		MET	E	LEAD	<u>8</u>	PUR	TPH/IR	, Š
TB 5/17 -		HC) HCYTCE	3/	42ml	<u> </u>	<u> </u>	$\vdash$	+			$\dashv$	+	$\vdash$	ļ				
W-BB-MW6 7/20 170 W-41-MW6 132		77506		4021 4021	+	H	-+	+		$\vdash$	-	+	$\vdash$	-				
W-23-MW2 140			3/,	1	+	$\dagger\dagger$	H	+	$\Box$		$\dashv$	+-	-					
W-25-MW7 142	<del>                                     </del>		3/1		11	$\prod$	$\Box$											
W-20-MW1 /33			72		#	$\prod$					4							
W- 36-MW3 V 143			3/1	V	1	11												
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			<u> </u>		_	-						-	_					
TAT	SPECIAL DETECTION L	IMITS (Specify)	į		-	REMAR	KS:	·					<u> </u>					
24 HR* 72 HR* 48 HR* 96 HR* EXXON UST						7	k ad	d s)	loca M	gel tree	6y Clas	mp	ر کۍ ک	) )	se (			
8 Business Contact US Prior to Sending Sample CONTRACT NO.	SPECIAL REPORTING F	REQUIREMENTS (Sp	ecify)					Y Lo								ge Lo	cation	)
Other	PDF 🗆 🗆 EI	DD.					(	A	W									
Standard CLP Other D	   FAX	AX C-O-C W/REPOR	:Т			WORK	ORDE	X# /	187	n9.2	<u> </u>	AR W	ORK	R£! £	EASE	#2	104	6357
Relinquished By Sampler:	1/1	Da / s			Time	)		ved By:	<u>,                                    </u>	- ///	Z'		J. (1)			· • • • • • • • • • • • • • • • • • • •		
CUSTODY Relinquished:	Kahn	7/2 Da	70	1 1	40.		Recei	/ed By:										
RECORD			,							$\sim 1$	/			_/		/.	<u>.                                    </u>	
Relinquished:		Da	ite		Time	,	Recei	/ed/By: /ij/#/	n	X	<u>ر</u>	j	Coo	oler Te	<b>9</b> 7/ emp:	40	7	000





#### Sample Receipt Checklist

	order:			Receive	_	E idEx	
N	and Time Received: perature:	7/24/01 10:00:00 AM 4		Carrier :		ater Ice	
<u> </u>	<del> </del>	ooler in good condition?	Yes 🗹	No 🗆	Not Present		
2. <sup>c</sup>	ustody seals intact o	on shippping container/cooler?	Yes 🗌	No 🗌	Not Present	$ \checkmark $	
3. c	sustody seals intact o	on sample bottles?	Yes 🗌	No 🗀	Not Present	✓	
4. <sup>c</sup>	hain of custody pres	sent?	Yes 🗹	No 🗀			
5. <sup>C</sup>	hain of custody sign	ed when relinquished and received?	Yes 🗹	No 🗌			
6. <sup>C</sup>	hain of custody agre	es with sample labels?	Yes 🗹	No 🗆			
7. s	amples in proper co	ntainer/bottle?	Yes 🗹	No 🗀			
8. S	ample containers int	tact?	Yes 🗹	No 🗆			
9. s	ufficient sample volu	ume for indicated test?	Yes 🗹	No 🗆			
10. A	<b>il sam</b> ples received t	within holding time?	Yes 🗹	No 🗆			
11. °	ontainer/Temp Blanl	k temperature in compliance?	Yes 🗹	No 🗆			
12. <sup>v</sup>	Vater - VOA vials hav	e zero headspace?	Yes 🗹	No 🗆	Not Applicat	ole 🗌	
13. <sup>v</sup>	Vater - pH acceptable	e upon receipt?	Yes 🗹	No 🗆	Not Applicat	ole 🗌	
•	SPL Representation  Client Name Contacts		Contact Date	te & Itme:			
?	on Conformance Issues:						
CI	lient Instructions:						