EXON COMPANY, U.S.A.

PROTECTION

00 MAY 17 PM 3: 32

EXXONMOBIL • REFINING AND SUPPLY Safety, Health and Environment Environmental Engineering

P.O. Box 4032 • Concord, CA 94524-4032

DARIN L. ROUSE Senior Engineer

(925) 246-8768 (925) 246-8798 Facsimile darin.l.rouse@exxon.com

May 17, 2000

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

RE: 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, First Quarter 2000*, dated May 11, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and details 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.

110

Sincerely

Darin L. Rouse Senior Engineer

Attachment: ERI's Quarterly Groundwater Monitoring Report, First Quarter 2000, dated May 11, 2000.

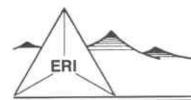
ec: w/ attachment

Mr. Eddy So - California Regional Water Quality Control Board-San Francisco Bay Region

w/o attachment

Mr. James F. Chappell - Environmental Resolutions, Inc.





ENVIRONMENTAL RESOLUTIONS, INC.

May 11, 2000 ERI 243113.R05

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

Subject:

Quarterly Groundwater Monitoring Report, First Quarter 2000, Exxon Service Station

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

Mr. Rouse:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) is reporting the groundwater monitoring and sampling results for the first quarter 2000 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 gradient. Blaine Tech Services, Inc. (Blaine Tech) performed the site field activities at the request of Exxon.

GROUNDWATER MONITORING AND SAMPLING

On March 7, 2000, Blaine Tech measured depth to water (DTW) and coffected groundwater samples from selected monitoring wells for laboratory analysis. Groundwater monitoring and sampling were performed in accordance with Blaine Tech's groundwater sampling protocol (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 extractable petroleum hydrocarbons as diesel (TEPHd), and total purgeable petroleum hydrocarbons as gasoline (TPPHg) 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.

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 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

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

Sincerely,

Environmental Resolutions, Inc.

James F. Chappell Senior Staff Scientist

Mark S. Dockum

R.G. 4412

C.E.G. 1675

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

Exxon Service Station 7-3567 3192 Santa Rita Road Pleasanton, California (Page 1 of 1)

Well ID#	Sampling	SUBJ	DTW	Elev.	TEPHd	TPPHg	MTBE	В	T	E	X
(TOC)	Date	<	feet	>	<	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ug/L			>
MW1	11/17/98	NLPH	21.90	318.96	< 50	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.
(340.86)	3/15/99	NLPH	21.15	319.71	< 50	< 50	< 2.5	< 0.5	< 0.5	< 0.5	< 0.:
	6/25/99	NLPH	20.34	320.52	28	< 50	< 2.0	< 0.5	< 0.5	< 0.5	< 0.
	9/24/99	NLPH	20.42	320.44	< 50	< 50	24.6	< 0.5	< 0.5	< 0.5	< 0.
	12/22/99	NLPH	21.11	319.75	< 61	< 50	< 2	< 0.5	< 0.5	< 0.5	< 0.
	3/7/00	NLPH	14.12	326.74	57	< 50	220	< 0.5	< 0.5	< 0.5	< 0.
MW2	11/17/98	NLPH	20.42	320.19	91	< 50	17/23*	1.5	< 0.5	0.98	2.6
(340.61)	3/15/99	NLPH	28.35	312.26	90	< 50	12/12.5*	0.73	1.1	2.4	2.2
	6/25/99	NLPH	25.20	315.41	a	< 50	< 2.0	< 0.5	< 0.5	< 0.5	< 0.
	9/24/99	NLPH	23.93	316.68	< 50	< 50	3.06	< 0.5	< 0.5	< 0.5	< 0.
	12/22/99	NLPH	23.39	317.22	< 56	< 50	<2	< 0.5	< 0.5	< 0.5	< 0.
	3/7/00	NLPH	17.08	323.53	52	< 50	<2	< 0.5	0.80	< 0.5	< 0.
MW3	11/17/98	NLPH	36.58	306.37	120	< 50	180/220*	< 0.5	< 0.5	< 0.5	< 0.
(342.95)	3/15/99	NLPH	40.01	302.94	180	< 50	290/314*	< 0.5	< 0.5	< 0.5	< 0.
	6/25/99	NLPH	46.83	296.12	a	< 50	107/113*	< 0.5	< 0.5	< 0.5	< 0.
	9/24/99 ^b	NLPH	47.71	295.24							
	12/22/99	NLPH	43.82	299.13	140	< 50	65	< 0.5	< 0.5	< 0.5	< 0.
	3/7/00	NLPH	32.75	310.20	< 50	< 50	82	< 0.5	0.88	< 0.5	< 0
MW4	11/17/98	NLPH	50.20	292.76	72	< 50	4.1/3.5*	< 0.5	< 0.5	< 0.5	<0
(342.96)	3/15/99	NLPH	47.93	295.03	91	< 50	280/260*	< 0.5	< 0.5	< 0.5	< 0
	6/25/99 ^b	NLPH	48.15	294.81	***						
	9/24/99 ^b	NLPH	49.29	293.67	***						
	12/22/99	NLPH	49.33	293.63	ь						
	3/7/00	NLPH	49.05	293.91	190	< 50	710	< 0.5	0.84	< 0.5	< 0

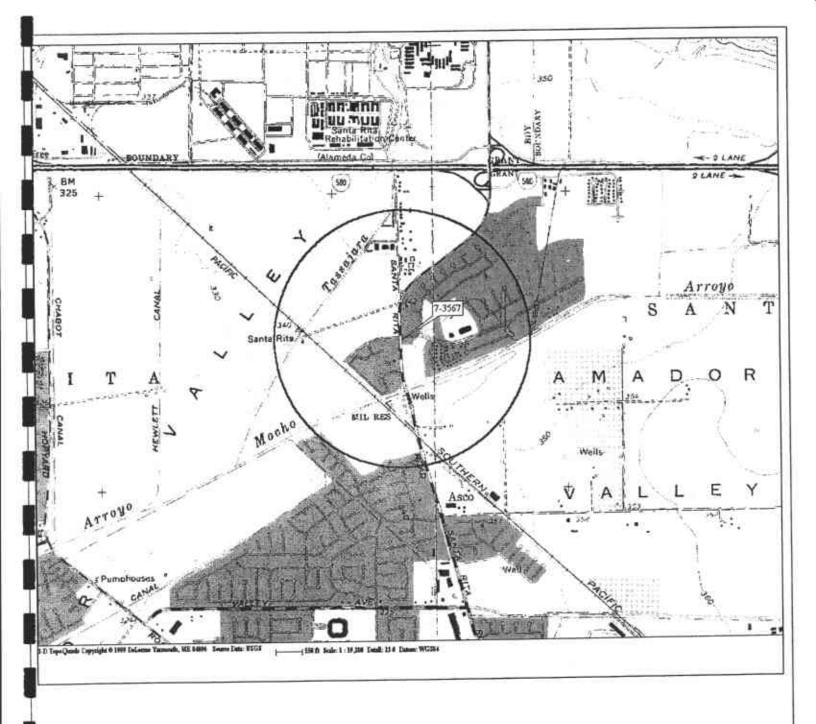
TABLE 1

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Exxon Service Station 7-3567 3192 Santa Rita Road Pleasanton, California

(Page 1 of 1)

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.
TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using modified EPA method 8015.
TPPHg	=	Total purgeable 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.
*	=	MTBE confirmed using EPA method 8260.
a	=	No result because of sample loss during laboratory fire.
b	=	Well contained an insufficient amount of water to collect a sample.
<		Less than the indicated detection limit indicated.



FN 2431Topo

EXPLANATION



1/2-mile radius circle

APPROXIMATE SCALE N 0 .5 1 SOURCE: Modified from a map provided by DeLorme 3-D TopoQuads



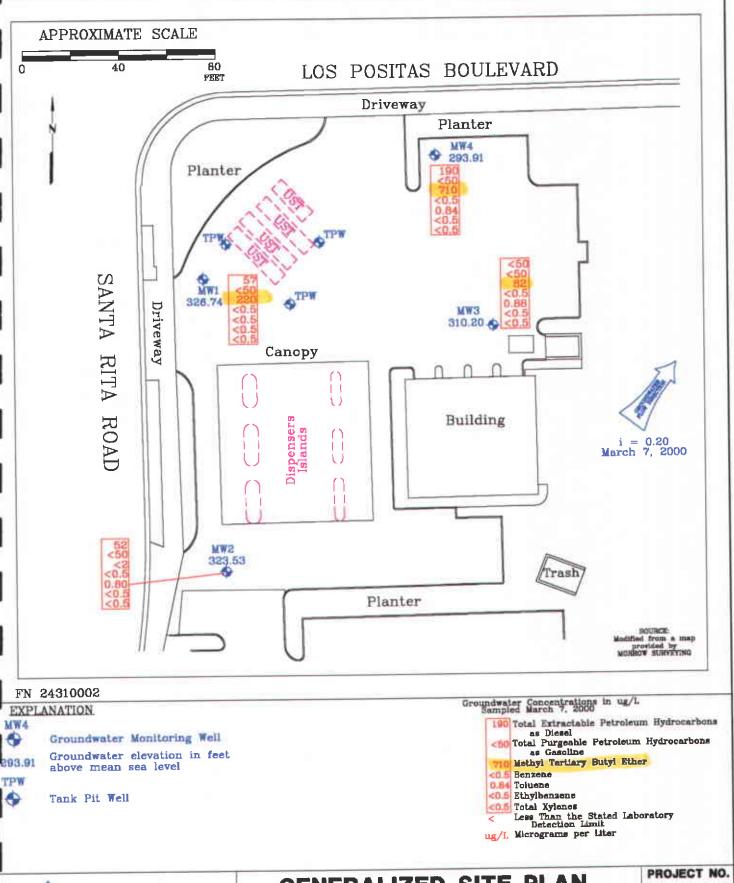
SITE VICINITY MAP

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

2431

PLATE

1





GENERALIZED SITE PLAN

EXXON SERVICE STATION 7-3567 3192 Santa Rita Road Pleasanton, California

2431

PLATE 2

ATTACHMENT A GROUNDWATER SAMPLING PROTOCOL

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT EXXON STATIONS

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for Exxon comply with Exxon's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Exxon site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist. Each wellcap is removed prior to gauging to allow the water level to equilibrate for at least 15 minutes.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). If sheen or product is found in a well, the Project Coordinator notifies the appropriate party (e.g. Exxon employee or consultant).

No samples are collected from a well containing sheen or product.

EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading documentation to a

Blaine Tech Services, Inc. facility before being transported to an Exxon approved disposal facility (e.g. Romic Environmental Technologies Corporation in East Palo Alto, California).

SAMPLE COLLECTION DEVICES

All samples are collected using a disposable bailer.

SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

TRIP BLANKS

A Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is detuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 58 or equivalent YSI meter). These meters are equipped with a YSI stirring device that enables them to collect accurate in-situ readings. The probe/stirring devices are modified to allow downhole measurements to be taken from wells as small as two-inch diameter.

The probe and reel is decontaminated between wells as described above. The meter is calibrated between wells as per the instructions in the operating manual. The probe and stirrer is lowered into the water column allowed to stabilize before use.

OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

ATTACHMENT B LABORATORY ANALYSIS REPORT AND CHAIN OF CUSTODY RECORD





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

Certificate of Analysis Number:

00030318

Report To:

Environmental Resolution, Inc.

Jim Chappell

73 Digital Drive Suite 100

Novato

California

94949-

ph: (415) 382-9105

fax: (415) 382-1856

Project Name:

Site:

State:

2431

7-3567,19908560

Site Address:

3192 Santa Rita Rd.

Pleasanton EWR#20003141 CA

PO Number:

California

State Cert. No.:

Date Reported: 3/24/00

This report has been revised to correctly report BTEX and MTBE by 8021 for your sample "MW-4" (SPL ID: 00030318-04). Please insert the chain of custody from your original report into this revised report. SPL apologizes for any inconvenience this error may have caused you or your company.

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

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

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

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





EXXON Company U.S.A.

Certificate of Analysis Number:

00030318

Report To: Environmental Resolution, Inc.

Jim Chappeil

73 Digital Drive Suite 100

Environmental Resolution, Inc.

Novato

California 94949-

ph: (415) 382-9105

fax: (415) 382-1856

Jim Chappell

pell fax: (

fax: (415) 382-1856

Project Name: 2431

THUITIC. ETC.

Site: 7-3567,19908560

Site Address: 3192

3192 Santa Rita Rd.

Pleasanton

CA

PO Number: EWR#20903141

State:

California

State Cert. No.:

Date Reported: 3/24/00

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
rW-1	00030318-01	Water	3/7/00 01:53:00 PM	3/10/00 10:00:00 AM		
(Visit	00030318-02	Water	3/7/00 02:14:00 PM	3/10/00 10:00:00 AM		
(1/2)	00030318-03	Water	3/7/00 03:17:00 PM	3/10/00 10:00:00 AM		
1W-4	00030318-04	Water	3/7/00 02:32:00 PM	3/10/00 10:00:00 AM		
rip Blank	00030318-05	Water	3/7/00	3/10/00 10:00:00 AM		

Sonia West

5/10/00

Date

West, Sonia Seasor Project Manager

> Joel Grice Laboratory Director

Ted Yen
Quality Assurance Officer





Surr: 4-Bromofluorobenzene

00030318-01 SPL Sample ID: Client Sample ID MW-1 Collected: 3/7/00 01:53:00 Site: 7-3567,19908560 Date Analyzed Analyst Seq.# Dil. Factor QUAL Analyses/Method Result Rep.Limit **DIESEL RANGE ORGANICS** MCL SW8015B <u>Units: ug/L</u> Diesel Range Organics 57 03/21/00 17:27 RR 225964 50 1 03/21/00 17:27 RR 225964 1 18-120 Surr: Pentacosane 60.2 % Run ID/Seq #: HP_V_000316A-225964 Prep Method Prep Date Prep Initials SW3510B 03/12/2000 14:35 KL CA GRO Units: ua/L **GASOLINE RANGE ORGANICS** MCL. 217225 50 03/13/00 19:48 WR ND 1 Gasoline Range Organics 62-144 03/13/00 19:48 WR 217225 Surr: 1,4-Difluorobenzene 103 % 217225 03/13/00 19:48 WR 1 Surr: 4-Bromofluorobenzene 102 % 44-153 **PURGEABLE AROMATICS** MCL SW8021B Units: ug/L 03/13/00 19:48 WR 217190 ND 0.5 1 Benzene 217190 03/13/00 19:48 WR 1 Ethylbenzene ND 0.5 217190 Methyl tert-butyl ether 220 2 1 03/13/00 19:48 217190 1 03/13/00 19:48 WR Toluene ND 0.5 217190 ND 0.5 1 03/13/00 19:48 WR m,p-Xylene 217190 ND 03/13/00 19:48 WR o-Xylene 0.5 1 217190 1 03/13/00 19:48 WR ND 0.5 Xylenes, Total Surr: 1,4-Difluorobenzene 1 217190 108 % 72-137 03/13/00 19:48 WR

1

03/13/00 19:48 WR

Sonia West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

100

%

48-156

- * 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

217190





Client Sample ID MW-2 Collected: 3/7/00 02:14:00 SPL Sample ID: 00030318-02 Site: 7-3567,19908560 Analyses/Method Result Rep.Limit Dil. Factor QUAL Date Analyzed Analyst Seq.# DIESEL RANGE ORGANICS MCL SW8015B Units: ug/L 52 50 Diesel Range Organics 03/21/00 18:05 RR 225965 1 Surr: Pentacosane 18-120 1 03/21/00 18:05 RR 225965 73.0 % Run ID/Seq #: HP_V_000316A-225965 Prep Method Prep Date Prep Initials SW3510B 03/12/2000 14:35 KL **GASOLINE RANGE ORGANICS** MCL <u>Units: ug/L</u> CA GRO ND 217234 Gasoline Range Organics 50 03/13/00 20:13 WR Surr: 1,4-Difluorobenzene 62-144 1 217234 94.3 % 03/13/00 20:13 WR Surr: 4-Bromofluorobenzene 103 % 44-153 1 03/13/00 20:13 WR 217234 PURGEABLE AROMATICS MCL SW8021B Units: ug/L 217191 ND 0.5 Benzene 1 03/13/00 20:13 WR Ethylbenzene ND 0.5 1 03/13/00 20:13 WR 217191 217191 Methyl tert-butyl ether ND 2 1 03/13/00 20:13 WR Toluene 8.0 0.5 1 03/13/00 20:13 WR 217191 m,p-Xylene ND 0.5 1 03/13/00 20:13 WR 217191 o-Xylene ND 0.5 1 03/13/00 20:13 WR 217191

0.5

72-137

48-156

1

1

1

03/13/00 20:13

03/13/00 20:13 WR

03/13/00 20:13 WR

WR

217191

217191

217191

Sonia West

West, Sonia Project Manager

Xylenes, Total

Surr: 1,4-Difluorobenzene

Surr: 4-Bromofluorobenzene

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

ND

104

103

%

%

- * 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





Surr: 4-Bromofluorobenzene

00030318-03 Client Sample ID MW-3 Collected: 3/7/00 03:17:00 SPL Sample ID: Site: 7-3567,19908560 Analyses/Method Result Rep.Limit Dil. Factor QUAL Date Analyzed Analyst Seq.# **DIESEL RANGE ORGANICS** MCL SW8015B Units: ug/L 03/21/00 18:43 RR Diesel Range Organics ND 50 1 225966 1 03/21/00 18:43 RR 225966 % 18-120 Surr: Pentacosane 45.0 Run ID/Seq #: HP V 000316A-225966 Prep Initials Prep Date Prep Method SW3510B 03/12/2000 14:35 **GASOLINE RANGE ORGANICS** MCL CA GRO Units: ua/L 03/13/00 20:38 WR 217235 ND 50 Gasoline Range Organics 1 217235 Surr: 1,4-Difluorobenzene 95.6 62-144 03/13/00 20:38 WR 03/13/00 20:38 WR 217235 1 Surr: 4-Bromofluorobenzene % 44-153 104 MCL SW8021B Units: ua/L **PURGEABLE AROMATICS** 217192 ND 0.5 03/13/00 20:38 WR Benzene 217192 03/13/00 20:38 WR 0.5 1 Ethylbenzene ND 217192 03/13/00 20:38 WR Methyl tert-butyl ether 82 2 1 217192 0.88 0.5 1 03/13/00 20:38 WR Toluene 03/13/00 20:38 WR 217192 ND 0.5 1 m,p-Xylene 217192 ND 0.5 1 03/13/00 20:38 WR o-Xylene 217192 0.5 1 03/13/00 20:38 WR ND Xylenes,Total 217192 WR Surr: 1,4-Difluorobenzene 104 72-137 1 03/13/00 20:38

48-156

98.5

%

1

03/13/00 20:38 WR

Sonia West

West, Sonla Project Manager

Qualiflers:

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

217192





 Client Sample ID MW-4
 Collected: 3/7/00 02:32:00
 SPL Sample ID: 00030318-04

Site: 7-3567,19908560

1

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1

1

03/13/00 21:03 WR

03/13/00 21:03 WR

03/13/00 21:03 WR

03/13/00 21:03 WR

217193

217193

217193

217193

				Site	: 7-3	567,19908560			
Analyses/Method		Result		Rep.Limit		Dil. Factor QUAL	Date Analyzed	Analyst	Seq.#
DIESEL RANGE OR	GANICS				MCL	SW8015B	Units: ug	ı/L	
Diesel Range Organic	S	190		50		1	03/21/00 21:54	RR	225962
Surr: Pentacosane		52.4	%	18-120		1	03/21/00 21:54	RR	225962
Run ID/Seq #: H	P V 000316A-	225962							
Prep Method	Prep Date			Prep Initials					
SW3510B	03/12/2000	14:35		KL					
GASOLINE RANGE	ORGANICS				MCL	CA GRO	Units: ug	ı/L	
Gasoline Range Orga	nics	ND		50		1	03/13/00 21:03	WR	217236
Surr: 1,4-Difluorobe	nzene	97.8	%	62-144		1	03/13/00 21:03	WR	217236
Surr: 4-Bromofluoro	benzene	104	%	44-153		1	03/13/00 21:03	WR	217236
PURGEABLE AROM	ATICS				MCL	SW8021B	Units: ug	ı/L	
Benzene		ND		0.5		1	03/13/00 21:03	WR	217193
Ethylbenzene		ND		0.5		1	03/13/00 21:03	WR	217193
Methyl tert-butyl ether		710		10		5	03/14/00 11:43	WR	217258
Toluene		0.84		0.5		1	03/13/00 21:03	WR	217193
m,p-Xylene		ND		0.5		1	03/13/00 21:03	WR	217193

0.5

0.5

72-137

48-156

Sonia West

West, Sonia Project Manager

Qualifiers:

o-Xylene

Xylenes,Total

Surr: 1,4-Difluorobenzene

Surr: 4-Bromofluorobenzene

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

ND

ND

107

102

%

- * 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





Client Sample ID Trip Blank Collected: 3/7/00 SPL Sample ID: 00030318-05

			Site	: 7-3	567,199085	60			
Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			· · · · · · · · · · · · · · · · · · ·	MCL	CA	GRO	Units: ug	ı/L	
Gasoline Range Organics	ND		50		1		03/13/00 18:08	WR	217221
Surr: 1,4-Difluorobenzene	102	%	62-144		1		03/13/00 18:08	WR	217221
Surr: 4-Bromofluorobenzene	94.0	%	44-153		1		03/13/00 18:08	WR	217221
PURGEABLE AROMATICS				MCL	SW8	021B	Units: ug	/L	
Benzene	ND		0.5		1		03/13/00 18:08	WR	217185
Ethylbenzene	ND		0.5		1		03/13/00 18:08	WR	217185
Methyl tert-butyl ether	ND		2		1		03/13/00 18:08	WR	217185
Toluene	ND		0.5		1		03/13/00 18:08	WR	217185
m,p-Xylene	ND		0.5		1		03/13/00 18:08	WR	217185
o-Xylene	ND		0.5		1		03/13/00 18:08	WR	217185
Xylenes,Total	ND		0.5		1		03/13/00 18:08	WR	217185
Surr: 1,4-Diffuorobenzene	106	%	72-137		1		03/13/00 18:08	WR	217185
Surr: 4-Bromofluorobenzene	103	%	48-156		1		03/13/00 18:08	WR	217185

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





EXXON Company U.S.A.

2431

nalysis Date:

reparation Date:

Diesel Range Organics

SW8015B

WorkOrder:

Samples in Analytical Batch:

00030318

Lab Batch ID:

3635

Method Blank

HP_V_000316A-220311 03/16/2000 11:34

03/12/2000 14:35

Units: Prep By:

Analyst: RR

mg/L

KL

Lab Sample ID

Client Sample ID

00030318-01B

00030318-02B

MVV-1 MW-2

00030318-03B

MW-3

00030318-04B

MW-4

Analyte	Result	Rep Limit
Diesel Range Organics	, ND	0.050
Surr. Pentacosane	66.4	18-120

Laboratory Control Sample (LCS)

RunID:

HP_V_000316A-220312

Method SW3510B

Units:

mg/L

Analysis Date:

03/16/2000 12:12

Analyst: RR

Preparation Date: 03/12/2000 14:35

Prep By: KL

Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.3	92	44	141

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

Sample Spiked:

00030294-02

RuniD:

HP_V_000316A-220315

Units:

mg/L

Analysis Date:

03/16/2000 14:07

RR Analyst:

Preparation Date: 03/12/2000 14:35

Prep By: KL

Method SW3510B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
ties <u>el</u> Range Organics	0.24	2.5	2.1	75.2	2.5	2.7	97.6	25.9	39	13	130

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



EXXON Company U.S.A.

2431

\nalysis Date:

Purgeable Aromatics

SW8021B

WorkOrder:

00030318

Lab Batch ID:

R10593

Method Blank

HP_U_000313A-217169

03/13/2000 10:31

Units:

ug/L

WR

Analyst:

Lab Sample ID

Samples in Analytical Batch:

Client Sample ID

00030318-01A

MW-1

00030318-02A

MW-2

00030318-03A

MW-3

00030318-04A

MW-4

00030318-05A

Trip Blank

Analyte	Result	Rep Limit
Benzene	ND	0.50
Ethylbenzene	ND ND	0.50
Methyl tert-butyl ether	ND	2.0
Toluene	ND.	0.50
m.p-Xviene	ND	0.50
o-Xylene	ND	0,50
Xvienes Total	ND	0.50
Surr: 1.4-Difluorobenzene	104.3	72-137
Surr. 4-Bromofluorphenzene	96.3	48-156

Laboratory Control Sample (LCS)

RunID:

HP_U_000313A-217168

Units:

ug/L

Analysis Date:

03/13/2000 09:41

Analyst: WR

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	52	105	61	119
Ethylbenzene	50	53	106	70	118
Methyl tert-butyl ether	50	42	84	72	128
Toluene	50	52	104	65	125
m,p-Xylene	100	100	105	72	116
o-Xylene	50	52	105	72	117
Xylenes,Total	150	152	101	72	117

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

Sample Spiked:

00030299-03

RunID:

HP_U_000313A-217183

Units:

ug/L

Analysis Date:

03/13/2000 16:04

WR 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	23	116	20	23	114	1.73	21	32	164
hyibenzene	ND	20	23	115	20	23	113	2.33	19	52	142
ethyl tert-butyl ether	ND	20	20	100	20	20	100	0.155	20	39	150
ne	ND	20	23	117	20	23	115	1.96	20	38.	159

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





EXXON Company U.S.A.

2431

Purgeable Aromatics

SW8021B

WorkOrder:

00030318

Lab Batch ID:

R10593

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

Sample Spiked:

Analysis Date:

00030299-03

RunID:

HP_U_000313A-217183

03/13/2000 16:04

Units:

ug/L

Analyst: WR

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
n,p-Xylene	ND	40	45	113	40	44	111	1.77	17	53	144
- ene	ND	20	22	112	20	22	110	1.62	18	53	143
(y es,Total	ND	60	67	112	60	66	110	1.50	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





EXXON Company U.S.A.

2431

Inalysis Date:

Gasoline Range Organics

CA_GRO

WorkOrder:

00030318

Lab Batch ID:

R10597

Method Blank

HP_U_000313B-217206

03/13/2000 10:31

Units:

mg/L Analyst: WR

Lab Sample JD

Samples in Analytical Batch:

Client Sample ID

00030318-01A

MW-1

00030318-02A

MW-2

00030318-03A

MW-3 MW-4

00030318-04A 00030318-05A

Trip Blank

Analyte	Result	Rep Limit
Gasoline Rance Organics	ND.	0.050
Surr. 1.4-Diffuorobenzene	102.0	62-144
Surr. 4-Bromofluorobenzene	91.7	44-153

Laboratory Control Sample (LCS)

RunID:

HP_U_0003138-217205

Units:

mg/L

Analysis Date: 03/13/2000 10:06 Analyst: WR

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.	0.83		64	131

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

Sample Spiked:

00030299-02

RunID:

HP_U_000313B-217208

Units:

mg/L WR

Analysis Date:

03/13/2000 16:53

Analyst:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery		RPD Limit	Low Limit	High Limit
3a line Range Organics	ND	0.9	1.2	130	0.9	1.1	127	2.74	36	36	160

B - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

Chain of Custody And Sample Receipt Checklist

EXXON C	OMPA	NY,	US	A.	N	$\gamma \wedge$	2	7	219	7	CH	IAIN	OF (DUS.	יםסד	/ RE	COF	RD N	0.0	w3	57/	レーコ	}		age		/	_ 01	
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Sample Receipt Checklist

Workorder:	00030318		Received by:		Stelly, D'Anna
Date and Time Received:	3/10/00 10:00:00 AM		Carrier name:		<u>FedEx</u>
Temperature:	3				
Shipping container/cooler in	good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on ship	opping container/cooler?	Yes 🗌	No 🗆	Not Present	☑
Custody seals intact on san	nple bottles?	Yes 🗌	No 🗆	Not Present	$ \mathbf{Z} $
Chain of custody present?		Yes 🗹	No 🗀		
Chain of custody signed wh	en relinquished and received?	Yes 🗹	No 🗀		
Chain of custody agrees wit	h sample labels?	Yes 🗹	No 🗌		
Samples in proper container	r/bottle?	Yes 🗹	No 🗆		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume fo	r indicated test?	Yes 🗹	No 🗌		
All samples received within	holding time?	Yes 🗹	No 🗌		
Container/Temp Blank temp	perature in compliance?	Yes 🗹	No 🗌		
Water - VOA vials have zero	o headspace?	Yes 🗹	No 🗌	Not Present	
Water - pH acceptable upon	receipt?	Yes 🗹	No 🗆		