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

2300 Clayton Road, Suite 1250
P.O. Box 4032
Concord, CA 94524-4032
(925) 246-8768 Telephone
(925) 246-8798 Facsimile
darin.l.rouse@exxon.com

Darin L. Rouse
Senior Engineer
Environmental Remediation

ExxonMobil
Refining & Supply

October 16, 2000

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 ***Soil and Groundwater Investigation and Quarterly Groundwater Monitoring for Third Quarter 2000,*** dated October 9, 2000, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and presents the results of a soil and groundwater investigation, and 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 Soil and Groundwater Investigation and Quarterly Groundwater Monitoring Report for Third Quarter 2000, dated October 9, 2000.

cc: 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.

October 9, 2000
ERI 243103.R02

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

Subject: Soil and Groundwater Investigation and Quarterly Groundwater Monitoring for Third Quarter 2000, Former 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) performed a soil and groundwater investigation, and conducted the third quarter groundwater monitoring event at the subject site. The soil and groundwater investigation was requested in a letter from the Alameda County Health Care Services Agency (the County) dated March 28, 2000 (Attachment A). The purpose of this investigation was to further evaluate the stratigraphy and extent of petroleum hydrocarbons in soil and groundwater underlying the subject site.

BACKGROUND

The site is located on the southeastern corner of Santa Rita Road and Los Positas Boulevard as shown on the Site Vicinity Map (Plate 1). The locations of underground storage tanks (USTs), dispenser islands, and other selected site features are shown on the Generalized Site Plan (Plate 2).

Prior to this investigation, the site contained four on-site groundwater monitoring wells (MW1 through MW4). Based on quarterly groundwater monitoring data, historical depth to water (DTW) measurements have ranged from approximately 14 to 50 feet below ground surface (bgs). Historical and recent monitoring data are summarized in Table 1. The range of DTW values and sediment composition suggests that the monitoring wells are screened in different water-bearing zones. MW1 and MW2 are screened exclusively in a shallow clay zone, which has a historical DTW range of approximately 14 to 28 feet bgs and a corresponding groundwater elevation range from approximately 312 to 327 feet above mean sea level (msl). MW3 and MW4 are screened across a deeper, gravelly sediment, which has a historical DTW range from approximately 32 to 50 feet bgs and a corresponding groundwater elevation range of approximately 292 to 310 feet above msl. Based on the difference in sediment composition and groundwater elevations, ERI concludes that the two water-bearing zones (the shallow clay and deeper gravelly sediments) have limited hydraulic connection. Well construction logs for the groundwater monitoring wells are included in Attachment B. A summary of well information is presented in Table 2.

FIELD INVESTIGATIONS

Scope of Work

The work was performed in accordance with ERI's *Work Plan for Soil and Groundwater Investigation* (Work Plan) and the *Addendum to Work Plan,* dated June 15, 2000, approved by the County in a letter dated June 21, 2000 (Attachment A), and ERI's standard protocol (Attachment C), and a site-specific Health and Safety Plan. Prior to beginning field activities, ERI obtained well installation permits from the Alameda County Zone 7 Water Agency (Attachment D).

Field Investigations

On July 18 and 19, 2000, ERI observed Woodward Drilling Company (Woodward) of Rio Vista, California, drill three soil borings and install three groundwater monitoring wells (MW5, MW6, and MW7) using a hollow-stem auger drill rig. Monitoring well MW5 was set to 30 feet bgs with a screen interval from 20 to 30 feet bgs in a sandy clay layer. Monitoring well MW6 was set to 53 feet bgs, with a screen interval from 43 to 53 feet bgs in a silty sand layer with pebbles. Monitoring well MW7 was set to 49 feet bgs, with a screen interval from 39 to 49 feet bgs in a layer composed of clay, silt, and sand. Locations of existing groundwater monitoring wells and the newly installed groundwater monitoring wells are shown on Plate 2. Boring logs, which illustrate well construction details and descriptions of soil encountered, are included as Attachment E. Cross sections, which show the sub-surface lithology of the site, are included as Plates 3 and 4.

Soil samples were continuously collected and used to evaluate lithologic characteristics at the site. Select soil samples collected from the borings were submitted under Chain of Custody protocol to Southern Petroleum Laboratories, Inc. (SPL), a state-certified laboratory. Analytical laboratory reports and Chain of Custody records are included in Attachment F. Soil samples were analyzed for total extractable hydrocarbons as diesel (TEPHd), total purgeable petroleum hydrocarbons as gasoline (TPPHg), and benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using the laboratory methods listed in Table 3. Results of laboratory analysis of soil samples are presented in Table 3.

Soil generated during drilling was collected, covered with visqueen, and stored on site. ERI collected a composite sample from the stockpiled soil and submitted the sample to SPL for analysis of TPPHg, TEPHd, BTEX, total lead using EPA Method 6010, and halogenated volatile organic compounds (HVOCs) using EPA Method 8010. At the request of ExxonMobil, the soil will be transported to BFI Landfill in Livermore, California, by Dillard Trucking Company (Dillard) of Byron, California.

Monitoring Well Development and Sampling

ERI developed groundwater monitoring wells MW6 and MW7 on July 25, 2000, using a surge-and-pump technique, as outlined in ERI's field protocol (Attachment C). Groundwater monitoring well MW5 was not developed because it did not contain water.

On July 31, 2000, ERI measured depth to water (DTW) and collected groundwater samples from selected monitoring wells for laboratory analysis for the third quarter 2000 event. Groundwater

monitoring and sampling were performed in accordance with ERI's groundwater sampling protocol (Attachment C). Rinsate and purge water generated during well development and sampling were collected and stored on site in nine 55-gallon drums, pending characterization and disposal.

Laboratory Analyses And Results

ERI submitted the groundwater samples to SPL, under Chain of Custody protocol. The samples were analyzed for TEPHd, TPPHg, BTEX, MTBE, and the fuel oxygenates: tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and ethyl tertiary butyl ether (ETBE) using the methods listed in the notes in Table 1. The laboratory analysis report and Chain of Custody record are attached (Attachment F). Cumulative results of laboratory analyses of groundwater samples are summarized in Table 1. Analytical results of recent groundwater samples are presented on Plate 5.

Calculated hydraulic gradient and groundwater flow direction for the deeper gravel water-bearing zone are presented on Plate 6. Because there are only two monitoring wells in the shallow clay unit with groundwater, the hydraulic gradient and groundwater flow direction were not calculated.

CONCLUSIONS

Prior to the recent soil and groundwater investigation, ERI identified two distinct water-bearing zones. To further evaluate hydrocarbon concentrations in groundwater and groundwater flow direction and hydraulic gradient, ERI installed three groundwater monitoring wells. One monitoring well was installed in the first (shallow clay) water-bearing zone, and two were installed in the second (deep gravel) water-bearing zone.

Site Stratigraphy

There is an upper clay layer that extends from the ground surface to approximately 40 feet bgs. This clay layer contains lenses of silts and sands. The clay layer yields water in groundwater monitoring wells MW1 and MW2, but it does not yield water in groundwater monitoring well MW5. Groundwater flow direction and gradient were not calculated due to insufficient data.

Sediment from approximately 40 feet to approximately 50 feet bgs consists of silts and sands. Sediment from 50 feet to approximately 54 feet (the total depth of the investigation) consists of sandy gravel. Wells MW3, MW4, and MW6 are screened in this layer. and MW-7 ?)

Based on the results of this investigation the upper clay and the deeper gravel appear to be separate lithologic units with limited hydraulic connectivity.

Constituent Distribution

Gasoline-range hydrocarbons (TPPHg and BTEX) were not present in detectable concentrations in soil samples collected during this investigation. Diesel-range hydrocarbons (TEPHd) were detected in only one soil sample at a maximum concentration of 3.8 milligrams per Kilogram (mg/Kg). MTBE was detected in only one soil sample at 0.001 mg/Kg.

Based on the results of this investigation, groundwater monitoring wells MW1 and MW2 appear to delineate the MTBE plume in the upper clay in the south and east directions. MTBE has been detected in water samples collected from the upper clay at up to 220 micrograms per liter (ug/L). Groundwater monitoring wells MW6 and MW7 appear to delineate the MTBE plume in the south and east directions in the deeper gravel. Historically, the higher concentrations of MTBE have been detected in water samples collected in the deeper gravel zone at up to 710 ug/L.

TPPHg, BTEX, and MTBE were not detected in soil samples collected during a Baseline Environmental Investigation on December 11 and 12, 1998 (ERI, 1998). TEPHd was detected in three samples at a maximum concentration of 19 mg/Kg at 25 feet bgs.

Based on the results of this investigation and previous investigations, the soil at this site does not appear to be impacted by TPPHg, BTEX, and MTBE.

RECOMMENDATIONS

ERI recommends the re-development of groundwater monitoring well MW4 to ensure that samples collected from this well are representative of groundwater conditions at the site, and the continued groundwater monitoring and sampling of all wells to evaluate groundwater flow direction, hydraulic gradient and hydrocarbon concentrations at the site. ERI recommends discontinuation of analyses for the oxygenates, except MTBE.

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:

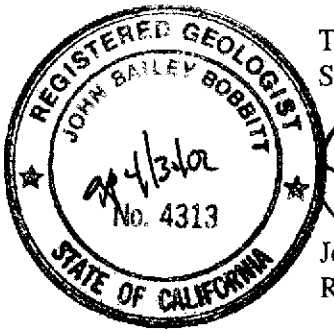
Mr. Scott Seery
Alameda County Health Care Services Agency
Environmental Health Services Division
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

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

Please call Mr. James F. Chappell, ERI's project manager for this site, at (415) 382-4323 if you have any questions regarding this report.

Sincerely,
Environmental Resolutions, Inc.

Thomas D. Culig
Staff Geologist



John B. Bobbitt
R.G. 4313

Attachments:

	Table 1:	Cumulative Groundwater Monitoring and Sampling Data
	Table 2:	Well Information Table
	Table 3:	Analytical Laboratory Results of Soil Samples
	Plate 1:	Site Vicinity Map
	Plate 2:	Generalized Site Plan
	Plate 3	Cross Section A-A'
	Plate 4:	Cross Section B-B'
	Plate 5:	Hydrocarbon Concentration Map
	Plate 6:	Potentiometric Surface Map
	Attachment A:	Alameda County Health Care Services Letters Dated March 28, 2000 and June 21, 2000.
	Attachment B:	Well Construction Logs
	Attachment C:	Field Protocol
	Attachment D:	Well Drilling Permits
	Attachment E:	Unified Soil Classification System Symbol Key and Boring Logs
	Attachment F:	Laboratory Analysis Reports and Chain of Custody Records

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3567
3192 Santa Rita Road
Pleasanton, California

Well ID# (TOC)	Sampling Date	SUBJ	DTW	Elev.	TEPHd	TPPHg	MTBE	B	T	E	X	VOCs
		<	feet	>	<			ug/L				>
MW1	11/17/98	NLPH	21.90	318.96	<50	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
(340.86)	3/15/99	NLPH	21.15	319.71	<50	<50	<2.5	<0.5	<0.5	<0.5	<0.5	---
	6/25/99	NLPH	20.34	320.52	a	<50	<2.0	<0.5	<0.5	<0.5	<0.5	---
	9/24/99	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	---
	3/7/00	NLPH	14.12	326.74	57	<50	220	<0.5	<0.5	<0.5	<0.5	---
	6/6/00	NLPH	17.79	323.07	<50	<50	5.4	<0.5	<0.5	<0.5	<0.5	---
	7/31/00	**NLPH**	**19.02**	**321.84**	**<50**	**<50**	**51/38***	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****
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	<0.5	---
	9/24/99	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	---
	3/7/00	NLPH	17.08	323.53	52	<50	<2	<0.5	0.80	<0.5	<0.5	---
	6/6/00	NLPH	21.01	319.60	<50	<50	<2	<0.5	<0.5	<0.5	<0.5	---
	7/31/00	**NLPH**	**22.08**	**318.53**	**<50**	**<50**	**6.8<5***	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****
MW3	11/17/98	NLPH	36.58	306.37	120	<50	180/220*	<0.5	<0.5	<0.5	<0.5	---
(342.95)	3/15/99	NLPH	40.01	302.94	180	<50	290/314*	<0.5	<0.5	<0.5	<0.5	---
	6/25/99	NLPH	46.83	296.12	a	<50	107/113*	<0.5	<0.5	<0.5	<0.5	---
	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	<0.5	---
	3/7/00	NLPH	32.75	310.20	<50	<50	82	<0.5	0.88	<0.5	<0.5	---
	6/6/00	NLPH	36.05	306.90	<50	<50	140	<0.5	<0.5	0.82	<0.5	---
	7/31/00	**NLPH**	**36.77**	**306.18**	**<50**	**<50**	**230/160***	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****
MW4	11/17/98	NLPH	50.20	292.76	72	<50	4.1/3.5*	<0.5	<0.5	<0.5	<0.5	---
(342.96)	3/15/99	NLPH	47.93	295.03	91	<50	280/260*	<0.5	<0.5	<0.5	<0.5	---
	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	b	---	---	---	---	---	---	---
	3/7/00	NLPH	49.05	293.91	190	<50	710	<0.5	0.84	<0.5	<0.5	---
	6/6/00	NLPH	49.02	293.94	110	<50	460	<0.5	<0.5	<0.5	<0.5	---
	7/31/00	**NLPH**	**49.13**	**293.83**	**<50**	**<50**	**480/490***	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****

TABLE 1
CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA
Former Exxon Service Station 7-3567
3192 Santa Rita Road
Pleasanton, California
(Page 2 of 2)

Well ID# (TOC)	Sampling Date	SUBJ	DTW	Elev.	TEPHd	TPPHg	MTBE	B	T	E	X	VOCs
		<....feet....>			<....ug/L....>							
MW5 (342.87)	**7/31/00**	---	b	---	---	---	---	---	---	---	---	---
MW6 (341.05)	**7/31/00**	**NLPH**	**39.72**	**301.33**	**<50**	**<50**	**<2/<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****
MW7 (341.73)	**7/31/00**	**NLPH**	**24.22**	**317.51**	**150**	**<50**	**13/8***	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**ND****

Notes:

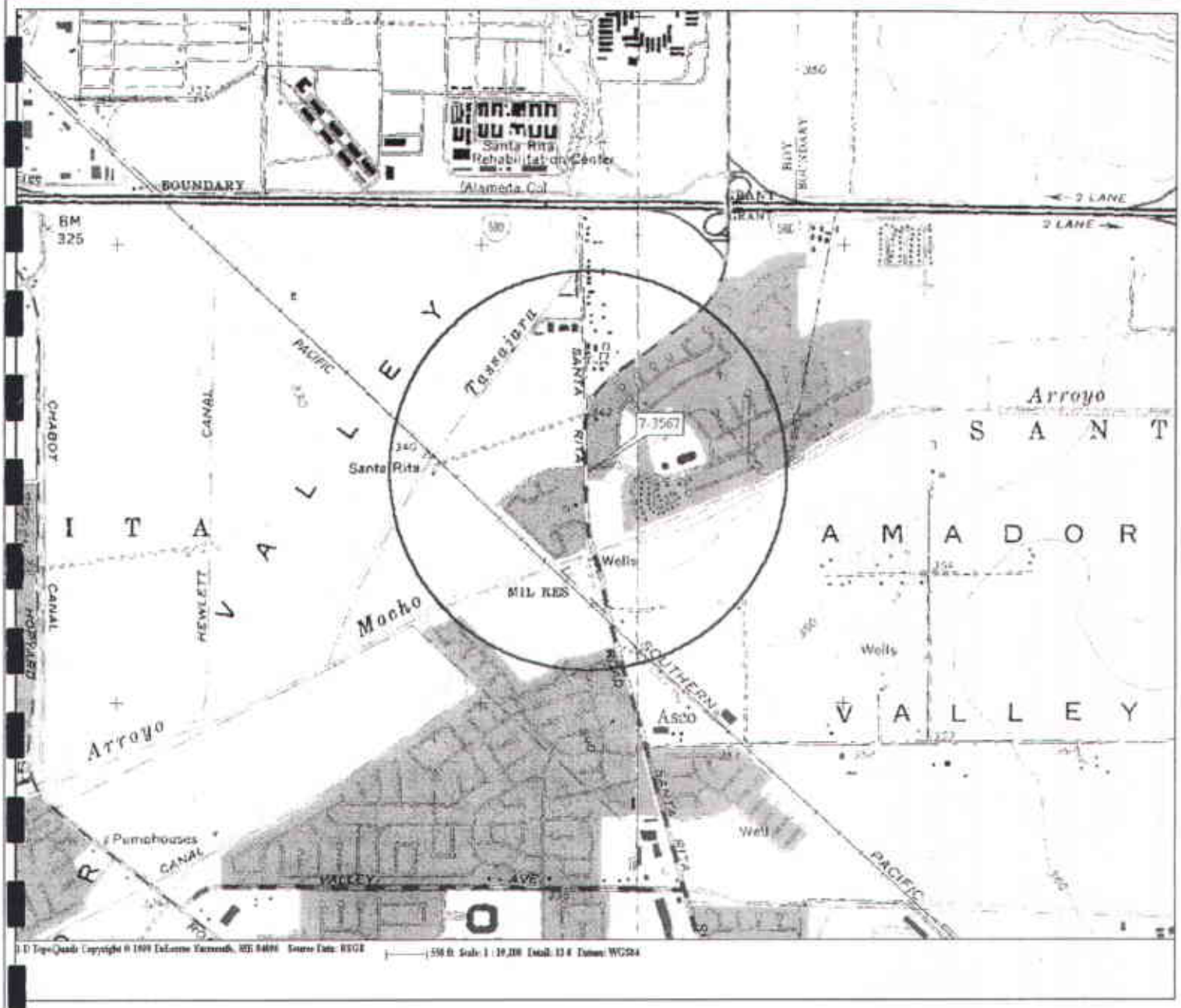
TOC	=	Elevation of top of well casing; in feet above mean sea level.
SUBJ	=	Results of subjective evaluation, liquid-phase hydrocarbon thickness (HT) in feet.
DTW	=	Depth to water.
Elev.	=	Elevation of groundwater in feet above mean sea level.
NLPH	=	No liquid-phase hydrocarbons present in well.
TEPHd	=	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.
VOC's	=	Volatile organic compounds analyzed using EPA Method 8260B.
ug/L	=	Micrograms per liter.
*	=	**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.
<	=	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, Diisopropyl ether, tertiary butyl alcohol, tertiary amyl methyl ether, tertiary butyl ethyl ether.

TABLE 3
ANALYTICAL LABORATORY RESULTS OF SOIL SAMPLES
Former Exxon Service Station 7-0235
2225 Telegraph Avenue
Oakland, California

Sample ID	Date Sampled	Sample Depth	TEPHd	TPPHg	MTBE	B	T	E	X	Total Lead	HVOCs
			<				mg/Kg				>
S-16-MW5	7/18/00	16	<2	<1	<0.001	<0.001	<0.001	<0.001	<0.001	---	---
S-30-MW5	7/18/00	30	3.8	<1	<0.001	<0.001	<0.001	<0.001	<0.001	---	---
S-18-MW6	7/19/00	18	<2	<1	<0.001	<0.001	<0.001	<0.001	<0.001	---	---
S-30-MW6	7/19/00	30	<2	<1	<0.001	<0.001	<0.001	<0.001	<0.001	---	---
S-15-MW7	7/18/00	15	<2	<1	<0.001	<0.001	<0.001	<0.001	<0.001	---	---
S-21-MW7	7/18/00	21	<2	<1	0.001	<0.001	<0.001	<0.001	0.001	---	---
SP-1 (1-4)	7/19/00	NA	<2	<1	<0.001	<0.001	<0.001	<0.001	<0.001	5.64	0.0023*

Notes:

S-16-MW5	=	Soil sample-depth in feet below ground surface-boring number.
SP-1 (1-4)	=	Stockpile soil sample-depth in feet below ground surface.
TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using EPA Method 8015M.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015M.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8021B.
HVOC's	=	Halogenated volatile organic compounds analyzed using EPA Method 8010B.
Lead	=	Total lead analyzed using EPA Method 6010B.
*	=	Methylene Chloride.
mg/Kg	=	Milligrams per Kilogram.
---	=	Not Analyzed/Not Applicable.



FN 2431Topo

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 .5 1 mile

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

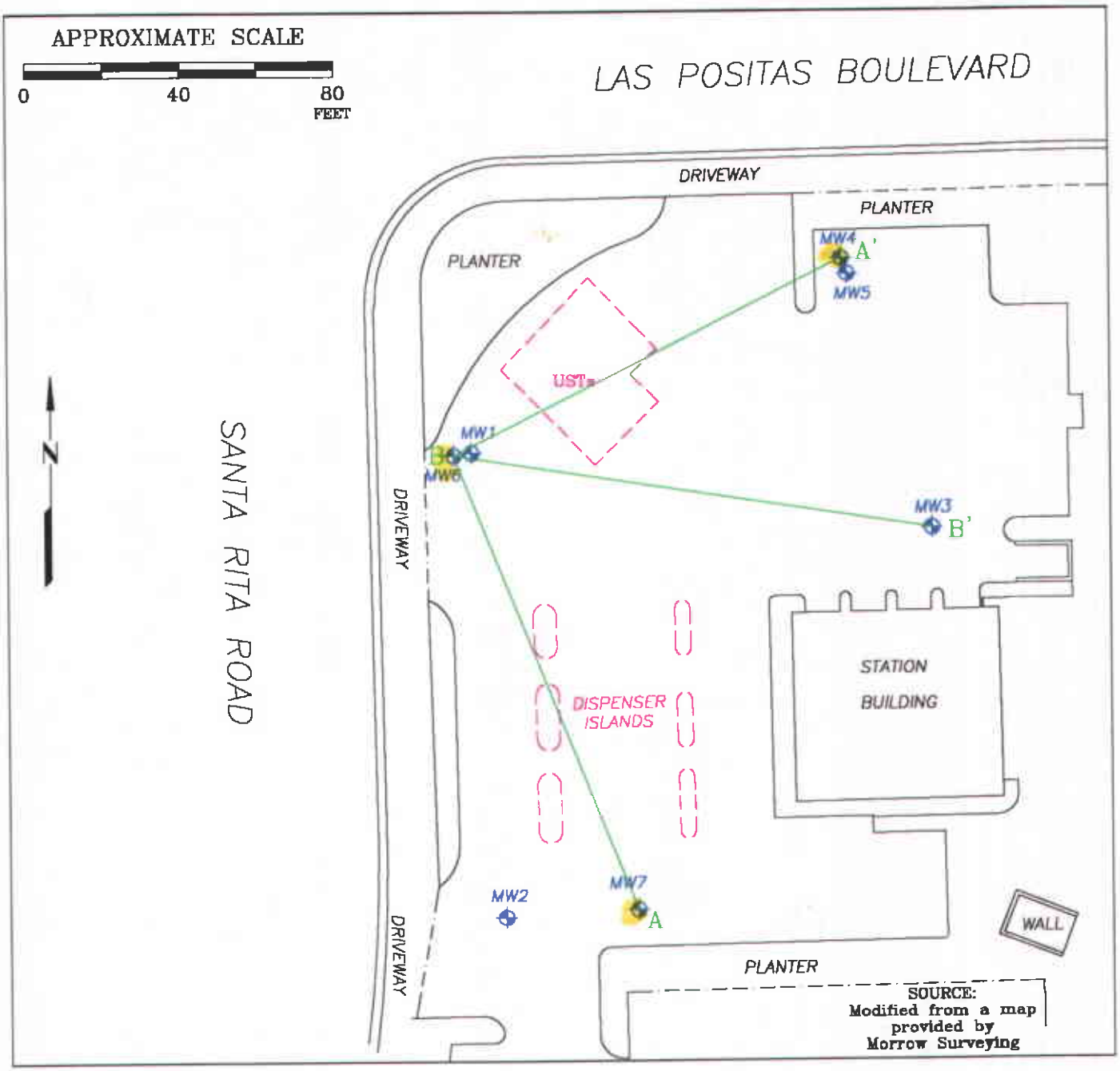
ENVIRONMENTAL RESOLUTIONS, INC.

SITE VICINITY MAP

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

PROJECT NO. 2431

PLATE 1



FN 24310003

EXPLANATION

MW4 Groundwater Monitoring Well

B—B' Cross Section Line

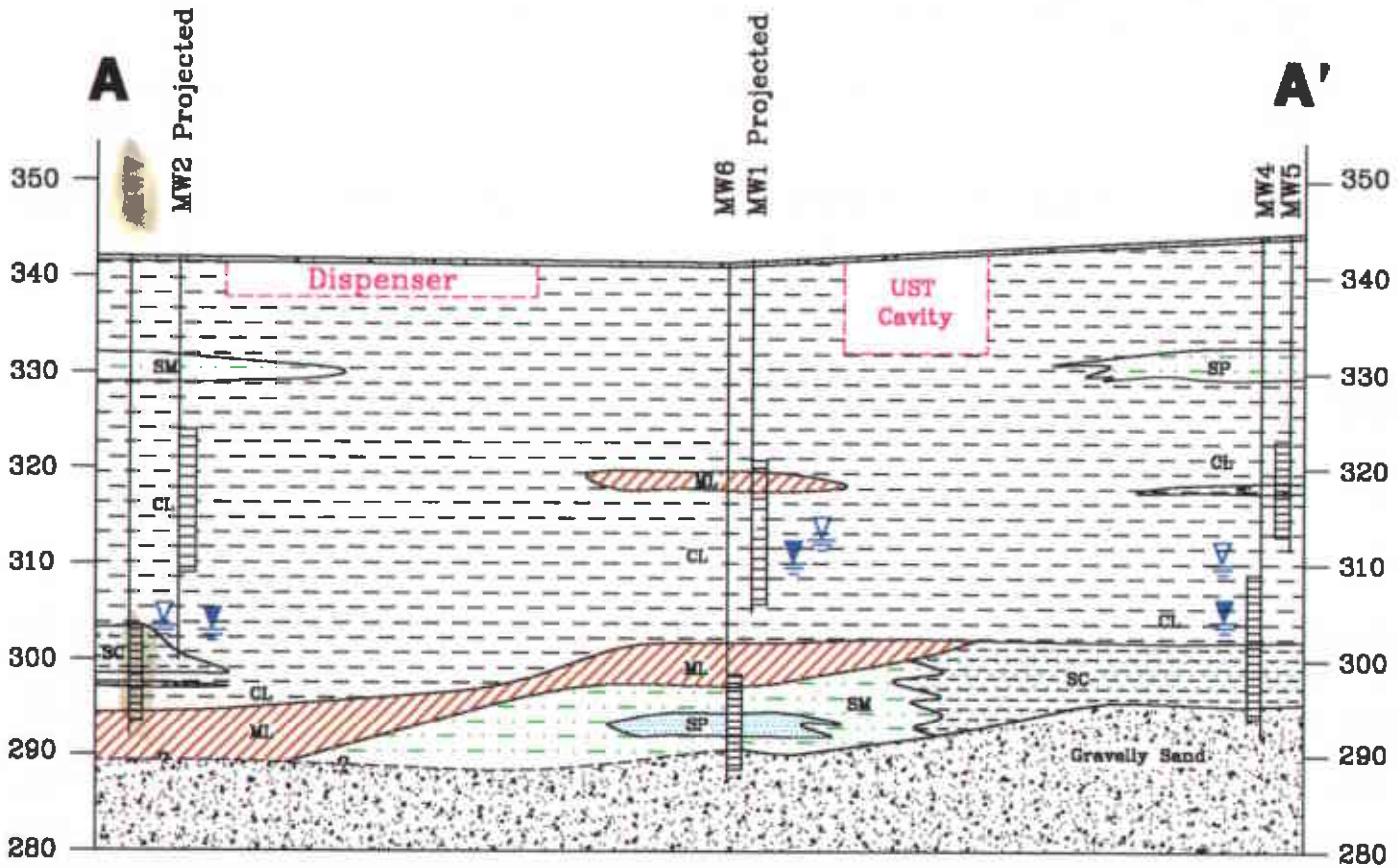
ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

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

PROJECT NO. 2431

PLATE 2



Vertical Exaggeration = 2x

FN 24231SXAA

ERI ENVIRONMENTAL RESOLUTIONS, INC.

CROSS-SECTION A-A'

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

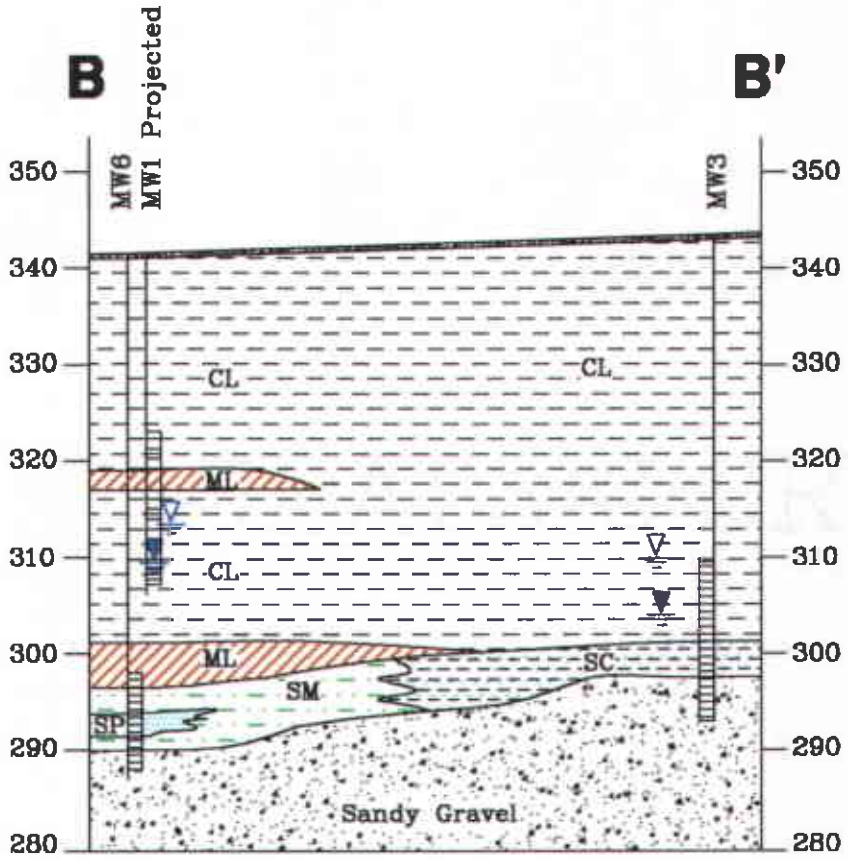
EXPLANATION

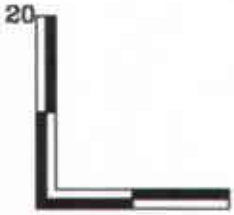
- Clay
- Silty Sand
- Sand
- Gravelly Sand
- Sandy/Clayey Silt
- Clayey Sand
- Static Groundwater
- First Encountered Groundwater
- Screened Interval of Well

PROJECT NO. 2431

PLATE 3

August 21, 2000





Vertical Exaggeration = 2x

FN 2431SXBB

EXPLANATION

- Clay
- Sandy/Clayey Silt
- Clayey Sand
- Silty Sand
- Gravelly Sand
- Sand
- Static Groundwater
- First Encountered Groundwater
- Screened Interval of Well

ENVIRONMENTAL RESOLUTIONS, INC.

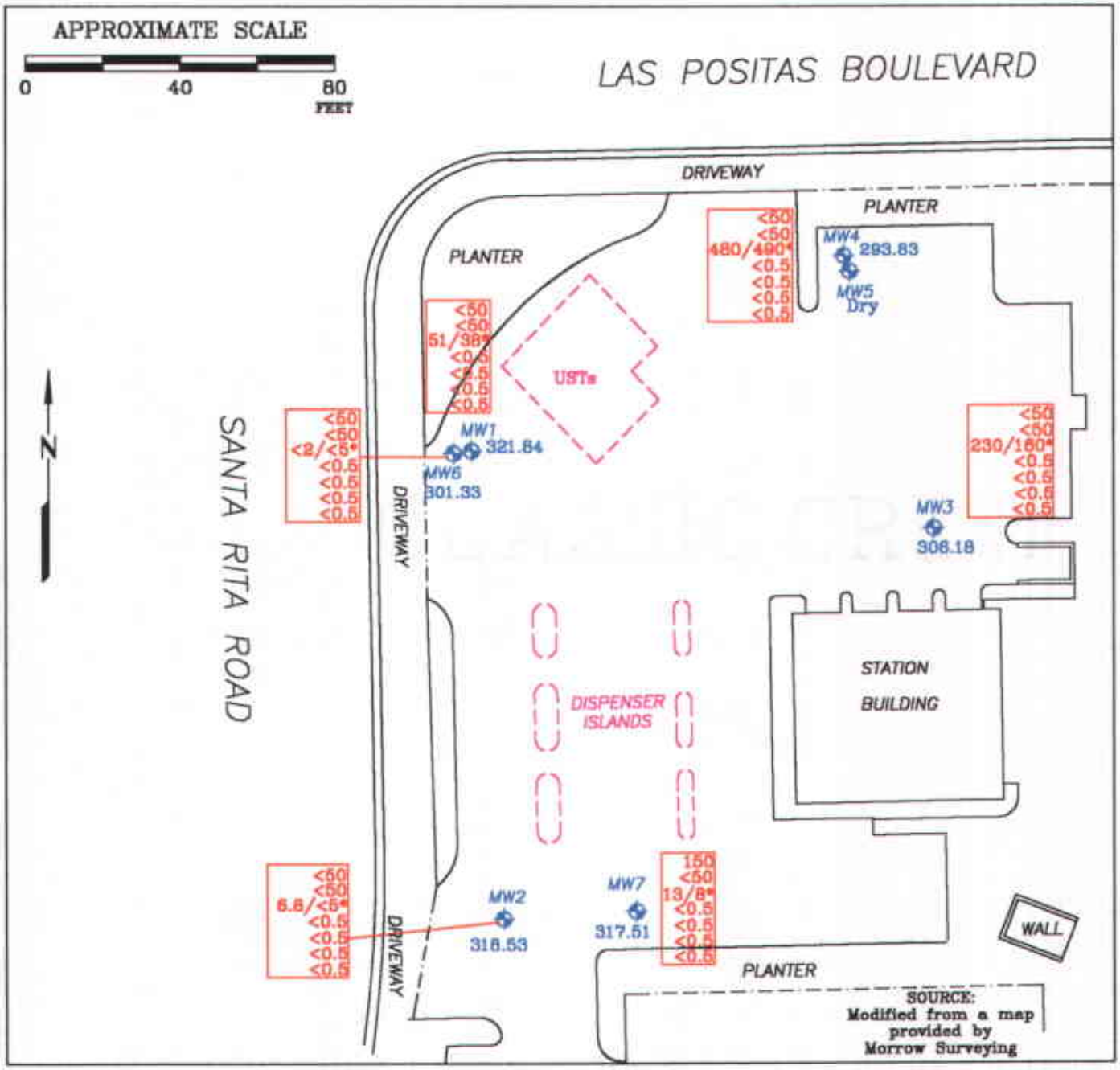
CROSS-SECTION B-B'

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

PROJECT NO. 2431

PLATE 4

August 22, 2000



FN 24310003

EXPLANATION

MW4 — Groundwater Monitoring Well

293.83 — Groundwater elevation in feet above mean sea level

i = Interpreted Groundwater Gradient

Groundwater Concentrations in ug/L
Sampled July 31, 2000

<50	Total Extractable Petroleum Hydrocarbons as Diesel
<50	Total Purgeable Petroleum Hydrocarbons as Gasoline
480/490*	Methyl Tertiary Butyl Ether
<0.5	Benzene
<0.5	Toluene
<0.5	Ethylbenzene
<0.5	Total Xylenes
<	Less Than the Stated Laboratory Detection Limit
ug/L	Micrograms per Liter

* MTBE confirmed using EPA Method 8260B.

ENVIRONMENTAL RESOLUTIONS, INC.

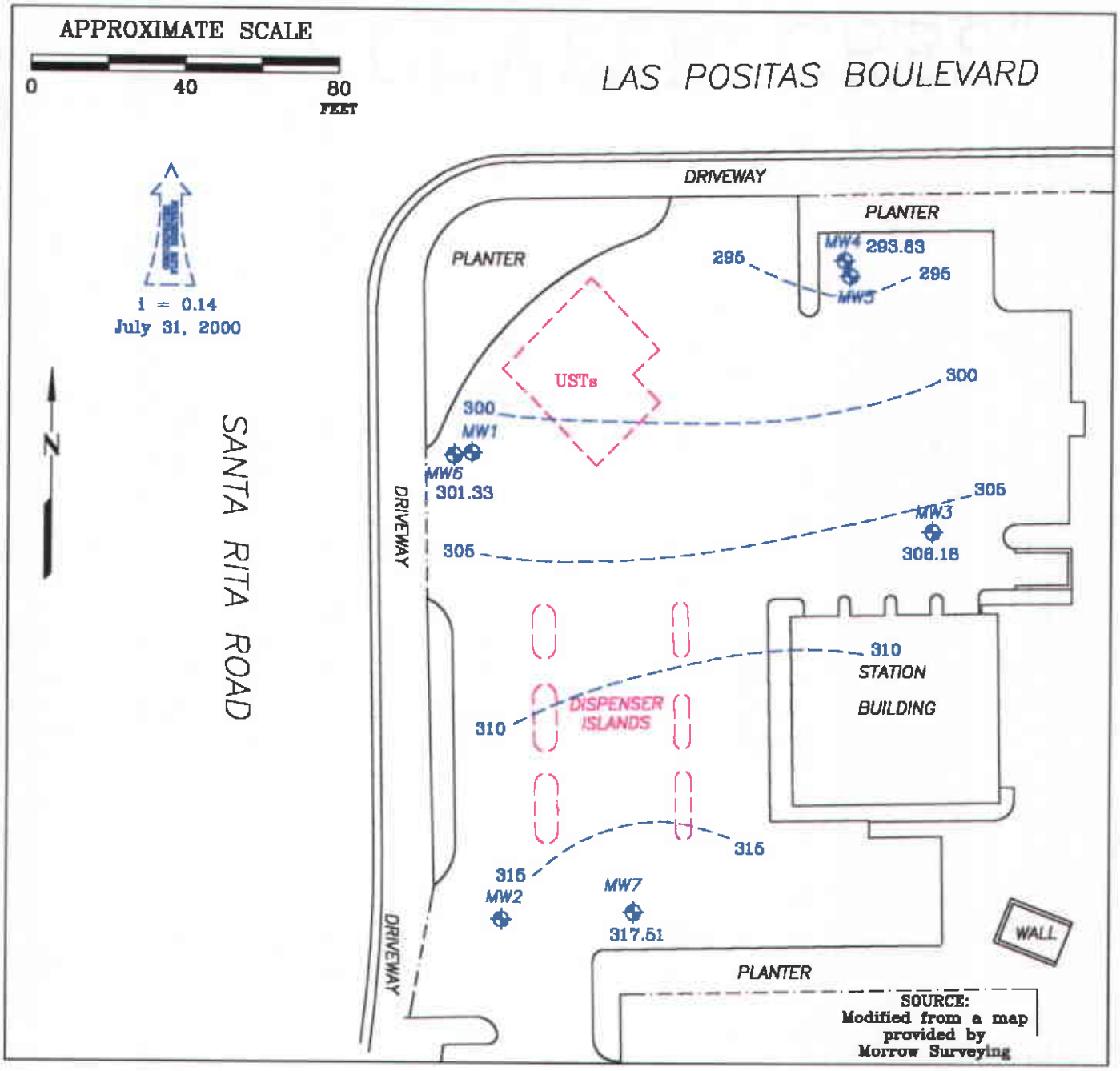
HYDROCARBON CONCENTRATION MAP

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

PROJECT NO. 2431

PLATE 5

August 28, 2000



FN 24310003

EXPLANATION

MW4 Groundwater Monitoring Well

ENVIRONMENTAL RESOLUTIONS, INC.

POTENTIOMETRIC SURFACE MAP
LOWER WATER-BEARING ZONE

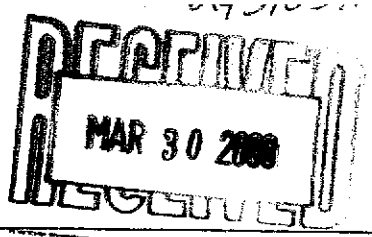
FORMER EXXON SERVICE STATION 7-3567
3192 Santa Rita Road
Pleasanton, California

PROJECT NO.
2431
PLATE
6

ATTACHMENT A

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY LETTERS DATED MARCH, 28, 2000 AND JUNE 21, 2000

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 28, 2000

STID 1932

Mr. Darin Rouse
Exxon Company, U.S.A.
P.O. Box 4032
Concord, CA 94524-4032

RE: Exxon Service Station #7-3567, 3192 Santa Rita Road, Pleasanton

Dear Mr. Rouse:

As you have been made aware recently, the environmental investigation case for the subject site has been reopened after consultation with representatives of both Zone 7 Water Agency (Zone 7) and Regional Water Quality Control Board (RWQCB). The reopening of this case was due strictly to the occurrence of methyl tert-butyl ether (MtBE) in shallow groundwater sampled from wells at the site, and the site's relative proximity to municipal water supply wells. The Alameda County Department of Environmental Health (ACDEH) will oversee the renewed assessment of the site in consultation with both Zone 7 and RWQCB.

Assessment reports submitted on behalf of Exxon by Environmental Resolutions, Inc. (ERI) were reviewed. The cited ERI reports document the November 1998 installation and continued monitoring of four (4) monitoring wells located about the site. Boring logs, in concert with initial and stabilized depth-to-water and water elevation measurements, appear to demonstrate the occurrence of perhaps three distinct shallow water bearing zones to the depths explored. Each zone is impacted by MtBE to some degree. Site stratigraphy and hydrogeology, and the distribution of MtBE beneath and beyond the site require further investigation.

In conformance with provisions of Article 11, Title 23, California Code of Regulations, Exxon is directed to submit a *Soil and Water Investigation (SWI)* workplan. The SWI workplan shall present a proposal to further evaluate the extent and factors controlling the dispersal of the release at the site, among other relevant objectives.

Please ensure that the SWI workplan provides for an appropriate number of continuously-cored, strategically-located borings to facilitate stratigraphic interpretation. Further, in addition to MtBE, other fuel oxygenates - tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), and ethyl tertiary butyl ether (ETBE) - are to be sought in collected samples submitted for laboratory analysis. Because the ether oxygenates and TBA are not included in the standard list of analytes for EPA Method 8260B or 8020/8021, these additional compounds must be specifically requested when submitting samples to the laboratory for analysis.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 21, 2000

STID 1932

Mr. Darin Rouse
Exxon Company, U.S.A.
P.O. Box 4032
Concord, CA 94524-4032

RE: Exxon Service Station #7-3567, 3192 Santa Rita Road, Pleasanton

Dear Mr. Rouse:

We are in receipt of the May 11, 2000 Environmental Resolutions, Inc. (ERI) workplan proposing the installation of additional wells at the subject site, as submitted under Exxon cover dated May 17, 2000. Following my consultation with Zone 7's Matt Katen, ERI was requested to submit a workplan addendum that would modify the location and screen interval of one of the proposed wells. ERI submitted a workplan addendum in response dated June 15, 2000.

The cited ERI workplan, as amended, has been accepted with the following change:

- Proposed well MW-7 should be relocated ~40' due east of its proposed location so that it lies directly south of the dispenser drive pad

Please contact me at (510) 567-6783 when field work has been scheduled.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Steve Cusenza, Pleasanton Public Works Department
Chuck Headlee, RWQCB
Matt Katen, Zone 7
Danielle Stefani, Livermore-Pleasanton Fire Department
Jim Chappell, Environmental Resolutions, Inc.
73 Digital Drive, Ste. 100, Novato, CA 94949-5791

The SWI workplan is due within 60 days of the date of this letter.

For your information, Senate Bill (SB) 989 was signed into law by Governor Davis on October 8, 1999. SB 989 directs the State Water Resources Control Board (SWRCB) to identify areas most vulnerable to releases of MtBE, prioritize resources, and develop investigation and cleanup guidelines. The SWRCB MtBE cleanup guidelines have now been drafted, and prescribe the step-wise process in development of a *Site Conceptual Model* (SCM). A SCM, now required for all MtBE release sites, is the progressive assemblage of information regarding the distribution of chemicals at a site, its hydrologic setting, geology, surrounding land use, well locations, and existing and projected water use patterns. The SCM functions as the framework for the investigation, remediation, and ultimately the closure of the site. Each phase of an investigation should seek to fill any data gaps that may remain from previous phases. Once the source area and receptor pathways have been adequately characterized, an appropriate remedial alternative can be selected and implemented.

Attached to this letter you will find a copy of Appendix C, derived from the referenced SWRCB MtBE guidance. Appendix C provides a format for your consultant to follow when putting together the SCM for this site. You are requested to ensure that your consultant adheres to this format when submitting the report documenting this phase, and subsequent phases, of work at your site.

Please call me at (510) 567-6783 should you have any questions.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Attachment – Appendix C

cc: Steve Cusenza, Pleasanton Public Works Department
Chuck Headlee, RWQCB
Matt Katen, Zone 7
Danielle Stefani, Livermore-Pleasanton Fire Department
Jim Chappell, Environmental Resolutions, Inc. **(w/ attachment)**
73 Digital Drive, Ste. 100, Novato, CA 94949-5791

Appendix C

Site Conceptual Model Reports

The Site Conceptual Model (SCM) is a written or graphical representation of the release scenario, site characteristics (geology, hydrogeology, etc.) and the likely distribution of chemicals at the site. It links potential sources to potential receptors through transport of chemicals in air, soil, and water. It also provides a framework for the entire project and a communication tool for regulators, responsible parties, and other stakeholders. The goals of the conceptual model are listed below:

- Identify how the distribution of chemicals is changing in space and time
- Identify potential current and future receptors
- Identify environmental issues that need to be addressed

Reporting

Reports submitted to regulatory agencies are by necessity specific to the type of information they are presenting. They may contain a summary of activities, backup data to support conclusions, etc. A report that attempts to convey a representation of a SCM needs to meet the goals listed above. To meet these goals, investigation reports usually, at a minimum, contain the following elements:

Text

1. Site Description, Land Use, and Water Use
2. Chronology of Events
3. Site Stratigraphy and Hydrogeology
4. Well and Conduit Study
5. Estimation of Release Mass (if available)
6. Source Removal Activities
7. Remediation Activities

Figures

1. Site Location Map
2. Site Vicinity Map with Receptor Wells
3. Site Map with Groundwater Gradients, Cross Section Lines, and any known preferential pathways
4. Site Map with Isoconcentration Contours
5. Cross Section - long axis of plume
6. Cross Section - short axis of plume
7. Cross Section of Regional Geology (optional)
8. Concentration vs. Time Plots for Each Well
9. Concentration vs. Distance (optional)

Tables

1. Groundwater Elevation Data
2. Groundwater Analytical Data
3. Soil Analytical Data

ATTACHMENT B

WELL COLLECTION LOGS

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: ~~B3~~/MW1 Plate: APPENDIX

Site: Exxon Station 7-3567 Date: 11/12/96

Drill Contractor: Woodward

Sample Method: Split Spoon Geologist: STEVE M. ZIGAN

Drill Rig: B-57 Bore Hole Diameter: 8" Signature: Steve M Zigan

Location: Western corner of underground tank field Registration: R.G. 4333

Logged by: Dave Arndal

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						6" concrete	
					CL	Clay with some silt, black, slightly damp, medium plasticity	
5							
10	17	0					
15	22	0				trace of organic material	
20	27	0					
25	29	0				trace fine gravel, grayish-brown, wet, poor plasticity	
						damp, medium plasticity, no gravel	
30	22	0				trace fine gravel, dark gray, poor plasticity	
35	44	0					
						Total Depth = 36 1/2 feet Groundwater encountered at 25 feet	
40							

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: B4/MW2 Plate: APPENDIX
Site: Exxon Station 7-3567 Date: 11/12/98
Drill Contractor: Woodward
Sample Method: Split Spoon Geologist: STEVE M. ZIGAN
Drill Rig: B-57 Bore Hole Diameter: 8" Signature:
Location: Southwestern corner of dispenser island canopy Registration: R.G. 4333
Logged by: Dave Arndal

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						FILL	
5	7	0					
					CL	Clay with trace silt, very dark gray, moist, medium plasticity, areas of mottled oxidation with organics, poor plasticity	
10	16	0					
15	23	0					
20	23	0				caliche nodules	
25		0 ▼					
		0				damp, medium plasticity	
30							
35	46	0				grayish-brown	
						light olive-brown	
40						Total Depth = 41 1/2 feet Groundwater encountered at 26 1/2 feet	

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No: 2431 Boring: B1/MW3 Plate: 1 OF 2
Site: Exxon Station 7-3567 Date: 11/11/98
Drill Contractor: Woodward
Sample Method: Split Spoon Geologist: STEVE M. ZIGAN
Drill Rig: B-57 Bore Hole Diameter: 8" Signature: Steve M Zigan
Location: North of eastern half of station building Registration: R.G. 4333
Logged by: Dave Arndal

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						6" concrete	
					CL	Clay with some silt, dark olive-brown, slightly damp, low plasticity	
5	34	0					
10	15	0				olive-gray, high plasticity	
15	31	0				very dark grayish brown, medium plasticity	
20	28	0				slightly mottled, very dark grayish-brown and light gray, low plasticity	
25	29	0				trace small organics (roots)	
30	51	0				no organics	
35	36	0				olive-brown, caliche nodules up to 1/4", trace organics	
40							

(Continued downward on next page.)

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: B1/MW3 Plate: 2 OF 2
Site: Exxon Station 7-3567 Date: 11/11/98
Drill Contractor: Woodward
Sample Method: Split Spoon Geologist: STEVE M. ZIGAN
Drill Rig: B-57 Bore Hole Diameter: 8" Signature:
Location: North of eastern half of station building Registration: R.G. 4333
Logged by: Dave Arndal

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION (Continued downward from previous page.)	WELL DESIGN
40		0			CL	Clay with some silt, olive-brown, caliche nodules up to 1/4", trace organics	
					SC	Clayey sand, fine-grained, dark yellowish-brown, wet	
45	76	0			GP	Sandy gravel, gravel up to 3/4", fine-grained sand, dark yellowish-brown, wet	
50	76/8"					Total Depth = 51 1/2 feet Groundwater encountered at 41 1/2 feet	
55							
60							
65							
70							
75							
80							

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: B2/MW4 Plate: 1 OF 2
Site: Exxon Station 7-3567 Date: 11/11/98
Drill Contractor: Woodward
Sample Method: Split Spoon Geologist: STEVE M. ZIGAN
Drill Rig: B-57 Bore Hole Diameter: 8" Signature:
Location: Central northern property line Registration: R.G. 4338
Logged by: Jen Schulte

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	USCS	GEOLOGIC DESCRIPTION
				6" concrete
			CL	Clay with some silt, very dark gray, damp, medium plasticity
5	23	0		
			SC	Clayey sand, dark gray, damp, low plasticity
10	14	0		
15	8	0		
			CL	Clay with some silt, dark gray, moist, medium plasticity
20	24	0		caliche nodules, trace organics/woody fiber
25	16	0		gray with mottled oxidation
			SC	Clayey sand, gray, damp, low plasticity
			CL	Clay with trace silt, very dark gray, moist, medium plasticity
30	31	0		
35	25	0		dark grayish-brown, trace organics and mottled oxidation
				light olive-brown, caliche areas
40	42			(Continued downward on next page.)

WELL DESIGN

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: B2/MW4 Plate: 2 OF 2
Site: Exxon Station 7-3567 Date: 11/11/98
Drill Contractor: Woodward
Sample Method: Split Spoon Geologist: STEVE M. ZIGAN
Drill Rig: B-57 Bore Hole Diameter: 8" Signature:
Location: Central northern property line Registration: R.G. 4333
Logged by: Jen Schulte

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION (Continued downward from previous page.)	WELL DESIGN
40	42	0			CL	Clay with trace silt, light olive-brown, moist, medium plasticity	
					SC	Clayey sand, fine-grained, light olive-brown, moist	
45	28	0				with grayish-brown areas	
					SW	Gravelly sand, gravel up to 1", fine-grained, light olive-brown, wet	
50	74/10"	▼ 0					
						Total Depth = 51 1/2 feet	
						Groundwater encountered at 50 feet	
55							
60							
65							
70							
75							
80							

Casing Diameter: 2", Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ATTACHMENT C

FIELD PROTOCOL AND GROUNDWATER SAMPLING PROTOCOL

FIELD PROTOCOL

Site Safety Plan

Field work will be performed by ERI personnel in accordance with a Site Safety Plan developed for the site. This plan describes the basic safety requirements for the subsurface investigation and the drilling of soil borings at the work site. The Site Safety Plan is applicable to personnel and subcontractors of ERI. Personnel at the site are informed of the contents of the Site Safety Plan before work begins. A copy of the Site Safety Plan is kept at the work site and is available for reference by appropriate parties during the work. The ERI geologist will act as the Site Safety Officer.

Drilling of Soil Borings

Prior to the drilling of soil borings, ERI will acquire necessary permits from the appropriate agency(ies). ERI will also contact Underground Service Alert (USA) and a private underground utility locator (per ExxonMobil protocol) before drilling to help locate public utility lines at the site. ERI will clear the proposed locations to a depth of approximately 4 or 8 feet (depending on the location), before drilling to reduce the risk of damaging underground structures.

The soil borings will be drilled with a B57 (or similar) drill rig with hollow-stem auger. Auger flights and sampling equipment will be steam-cleaned before use to minimize the possibility of crosshole contamination. The rinsate will be containerized and stored on site. ERI will coordinate with ExxonMobil for appropriate disposal of the rinsate.

Drilling will be performed under the observation of a field geologist, and the earth materials in the boring will be identified using visual and manual methods, and classified as drilling progresses using the Unified Soil Classification System. The wells will be drilled to approximately 35 feet bgs and 50 feet bgs respectively.

During drilling, soil samples will be continuously collected. Samples will be collected with a California-modified, split-spoon sampler equipped with laboratory-cleaned brass sleeves. Samples will be collected by advancing the auger to a point just above the sampling depth and driving the sampler into the soil. The sampler will be driven 18 inches with a standard 140-pound hammer repeatedly dropped 30 inches. The number of blows required to drive the sampler each successive 6-inch interval will be counted and recorded to give an indication of soil consistency.

Soil samples will be monitored with a photoionization detector (PID), which measures hydrocarbon concentrations in the ambient air or headspace above the soil sample. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect concentrations of hydrocarbons with the same precision as laboratory analyses. Soil samples selected for possible chemical analysis will be sealed promptly with Teflon® tape and plastic caps. The samples will be labeled and placed in iced storage for transport to the laboratory. Chain of Custody Records will be initiated by the geologist in the field, updated throughout handling of the samples, and sent with the samples to the laboratory. Copies of these records will be in the final report. Cuttings generated during drilling will be placed on plastic sheeting and covered and left at the site. ERI will coordinate with ExxonMobil for the soil to be removed to an appropriate disposal facility.

during drilling will be placed on plastic sheeting and covered and left at the site. ERI will coordinate with Exxon for the soil to be removed to an appropriate disposal facility.

Well Construction

The monitoring wells will be constructed in the boring using thread-jointed, 2-inch inner diameter, Schedule 40 polyvinyl chloride (PVC) casing. The recovery well will be constructed of 6" stainless steel, continuous wrap casing. No chemical cements, glues, or solvents will be used in well construction. The screened portion of the wells will consist of factory-perforated casing with 0.020-inch wide slots. If unconfined aquifer conditions exist, the well screen will be installed from the total depth of each well to approximately 5 feet above the uppermost water-bearing unit. If confined conditions exist, the uppermost water-bearing unit will be screened exclusively. Unperforated casing will be installed from the top of each screen to the ground surface. The annular space in the wells will be packed with number 2/12 sand to approximately one foot above the slotted interval and a surged and refilled bentonite plug will be added above the sand pack to prevent cement from entering the well pack. The remaining annulus will be backfilled to grade with a slurry of cement and bentonite powder.

The monitoring and recovery wells will be protected with a locking cap and a traffic-rated, cast-steel utility box equipped with a steel skirt. The box has a watertight seal to protect against surface-water infiltration.

Well Development and Sampling

ERI will wait a minimum of 24 hours before development of the wells to allow the grout to set. The wells will be developed with a surge block and pump. Well development will continue until the discharge water is clear of silt and sand. Clay-size sediments derived from the screened portion of the formation cannot be eliminated by well development. After the wells have been allowed to stabilize, the wells will be checked for separate phase hydrocarbons using an interface probe. The thickness of any free phase hydrocarbons detected in the wells will be recorded. If free phase hydrocarbons are encountered in a well, the well will not be purged, and the water will not be sampled for chemical analysis.

If no free phase hydrocarbons are detected after development, the groundwater monitoring wells will be purged of stagnant water and a sample will be collected for laboratory analysis. The wells will be purged of approximately 3 to 5 well volumes of water with a submersible pump, or until pH, conductivity, and temperature of the purged water have stabilized. Water purged from the wells will be transported by ERI for disposal at Romic, Inc., of East Palo Alto, California.

The wells will be allowed to recover to at least 80 percent of static conditions, and a sample of the formation water will be collected with a Teflon® bailer cleaned with a laboratory-grade detergent and deionized water. The water will be transferred slowly from the bailer to laboratory-cleaned, 1 liter amber bottles and 40-milliliter glass vials for analyses by the laboratory. The glass vials will contain hydrochloric acid as a preservative. The sampler will check to see if headspace is present. If headspace is present, the sampler will collect more samples until none is present. Chain of Custody Records will be initiated in the field by the sampler, updated throughout handling of the samples, and sent along with the samples to the laboratory. Copies of Chain of Custody Records will be included in our final report.

Quality Assurance/Quality Control

The sampling and analysis procedures employed by ERI for groundwater monitoring and sampling follow regulatory guidance documents for quality assurance/quality control (QA/QC). Quality control is maintained by site-specific field protocols and quality control checks performed by the laboratory. Laboratory and field handling of samples may be monitored by including QC samples for analysis. QC samples may include any combination of the following. The number and types of QC samples are selected and analyzed on a project-specific basis.

Trip Blanks - Trip blanks are sent to the project site, and travel with samples collected from the project site to the laboratory. They are not opened, and are returned from the project site with the samples for analysis.

Bailer Blank – Bailer blank samples are collected from the disposable bailer prior to sample collection to verify that the sampling equipment and methods being used are not introducing any chemical constituents analyzed for, into the samples.

GROUNDWATER SAMPLING PROTOCOL

The static water level and separate-phase product level, if present, in each well that contained water and/or separate-phase product are measured with a ORS Interface Probe, which is accurate to the nearest 0.01 foot. To calculate groundwater elevations and evaluate groundwater gradient, depth to water (DTW) levels are subtracted from top of casing elevations.

Groundwater samples collected for subjective evaluation are collected by gently lowering approximately half the length of a clean Teflon® or polypropylene bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples are checked for measurable free-phase hydrocarbons or sheen. If appropriate, free-phase hydrocarbons are removed from the well.

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

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

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

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

After purging, each well is allowed to recharge to at least 80% of the initial water level. Water samples from wells that do not recover at least 80% (due to slow recharging of the well) between purging and sampling are considered to be "grab samples". Water samples are collected with a new, disposable Teflon® or polypropylene bailer. The groundwater is carefully poured into selected sample containers (40-milliliter (ml) glass vials, 1,000 ml glass amber bottles, etc.), which are filled so as to produce a positive meniscus.

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

Each vial and glass amber bottle is sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace, which would allow volatilization to occur. The samples are promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.

ATTACHMENT D

ZONE 7 WATER AGENCY DRILLING PERMIT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588-5127 ♦ PHONE (925) 484-2600 FAX (925) 462-3914

July 10, 2000

Mr. Tom Culig
Environmental Resolutions, Inc.
73 Digital Drive, Suite 100
Novato, CA 94949-5791

Dear Mr. Culig:

Enclosed is drilling permit 20113 for a monitoring well construction project at 3192 Santa Rita Road in Pleasanton for Exxon/Mobil Refining and Supply. Also enclosed are current drilling permit applications for your files.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 235 or Matt Katen at extension 234.

Sincerely,

Wyman Hong

Wyman Hong
Water Resources Technician II

Enc.

P:\WRE\GPOs\GPO1\GPO1.MONITORING.wpd

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Former Exxon Service Station 7-3567
3192 Santa Rita Road
Pleasanton, CA 94566

CLIENT
Name ExxonMobil Refining and Supply
Address P.O. Box 4032 Voice (925) 246-8790
City Concord Zip

APPLICANT
Name Environmental Resolutions, Inc.
Fax (415) 382-1856
Address 73 Digital Drive suite 100 Voice (415) 382-9105
City Novato Zip 94949

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	
Monitoring	X	Well Destruction	

PROPOSED WATER SUPPLY WELL USE

Domestic		Industrial		Other	
Municipal		Irrigation			

DRILLING METHOD:

Mud Rotary		Air Rotary		Auger	X
Cable		Other			

DRILLER'S LICENSE NO. C57 710079

WELL PROJECTS

Drill Hole Diameter	2	in.	Maximum	(35)	
Casing Diameter	0.020	in.	Depth	50	ft.
Surface Seal Depth	33 (18)	ft.	Number	MW6, MW7 (MW5)	

GEOTECHNICAL PROJECTS

Number of Borings			Maximum		
Hole Diameter		in.	Depth		ft.

ESTIMATED STARTING DATE 7-18-00
ESTIMATED COMPLETION DATE 7-19-00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tom Hegi Date 6-26-00

FOR OFFICE USE

PERMIT NUMBER 20113
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 7/6/00
Wyman Hong

91992

ATTACHMENT E

UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL KEY AND BORING LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		LTR	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel sand mixture, little or no fines
		GM	Silty gravels, gravel-sand-clay mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS	SILTS AND CLAYS LL<50	ML	Inorganic silts and very fine-grained sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silt-clays of low plasticity
	SILTS AND CLAYS LL>50	MH	Inorganic silts, micaceous or diatomaceous fine-grained sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

DEPTH THROUGH WHICH SAMPLER IS DRIVEN

RELATIVELY UNDISTURBED SAMPLE

MISSED SAMPLE

GROUNDWATER LEVEL OBSERVED FROM FIRST WET SOIL SAMPLE IN BORING

STATIC GROUNDWATER LEVEL

OVM — ORGANIC VAPOR METER READING IN PARTS PER MILLION

PID — PHOTO-IONIZATION DETECTOR READING IN PARTS PER MILLION

WELL DESIGN

SAND PACK

BENTONITE ANNULAR SEAL

NEAT CEMENT ANNULAR SEAL

BLANK PVC

MACHINE-SLOTTED PVC

S-10 — SAMPLE LOCATION

NR — NOT RECORDED

NA — NOT ANALYZED

BLOW/FT. REPRESENTS THE NUMBER OF BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES TO DRIVE THE SAMPLER THROUGH THE LAST 12 INCHES OF AN 18-INCH OR 24-INCH PENETRATION.

DASHED LINES SEPARATING UNITS ON THE LOG REPRESENT APPROXIMATE BOUNDARIES ONLY. ACTUAL BOUNDARIES MAY BE GRADUAL. LOGS REPRESENT SUBSURFACE CONDITIONS AT THE BORING LOCATION AT THE TIME OF DRILLING ONLY.

ENVIRONMENTAL RESOLUTIONS, INC.

PROJECT 2431

UNIFIED SOIL CLASSIFICATION SYSTEM AND LOG OF BORINGS SYMBOL KEY

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

ATTACHMENT E

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: MW5 Plate: APPENDIX
Site: Former Exxon Service Station 7-3567 Date: 7/18/00
Drill Contractor: Woodward Drilling
Sample Method: Continuous Geologist: JOHN B. ROBBIT
Drill Rig: B57 Bore Hole Diameter: 8" Signature:
Location: 4 Feet South of MW4 Registration: R.G. 4313
85 Feet North of Station Building Logged by: Tom Culig

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						6" concrete	
						Clay, gray, wet, high plasticity	
5					CL		
						iron oxidation	
10						Silty sand, gray, damp	
					SM		
						wet	
						Silty clay, gray, medium plasticity, dry	
15							
						calcium carbonate nodules	
					CL		
20							
25					SC	Clayey sand with silt, light gray, high plasticity, damp, low density	
						Sandy clay, gray, low plasticity, high density	
					CL		
30							
						Total depth at 31 feet. No groundwater encountered.	
35							

Casing Diameter: 2" Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

2431MW05

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: MW6 Plate: 1 OF 2
Site: Former Exxon Service Station 7-3567 Date: 7/19/00
Drill Contractor: Woodward Drilling
Sample Method: Continuous Geologist: JOHN B. BOBBITT
Drill Rig: B57 Bore Hole Diameter: 8" Signature: J B Bobbitt
Location: 4 Feet West of MW1 Registration: R.G. 4313
25 Feet East of Santa Rita Road Logged by: Tom Culig

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						6" concrete	
						Clayey sand, brown, wet	
5					SC		
					CL	Sandy clay, brown, moist, high plasticity	
10					SC	Clayey sand, brown, wet	
						Sandy clay	
						silty clay, dark gray, high plasticity	
15					CL		
						small nodules of calcium carbonate, medium plasticity, very dense	
20							
						Clayey silt, light gray, moist, high plasticity	
					ML		
25						Clay with trace of silt, dark gray, little mottled iron oxidation, moderate plasticity, high density	
						trace of small gravel	
30						no gravel, up to 1/4" nodules of calcium carbonate	
		▼			CL		
						encountered water at 9:40am clay with trace amounts of silt, medium plasticity, very dense, no sign lithologic changes upon encountering water	
35							
						clay, lighter gray color, iron oxidation, trace organics, calcium nodules up to 1/4"	
						silty clay, gray/light brown, large calcium nodules organics	
40							

(Continued downward on next page)

Casing Diameter: 2" Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: MW6 Plate: 2 OF 2
Site: Former Exxon Service Station 7-3567 Date: 7/19/00
Drill Contractor: Woodward Drilling
Sample Method: Continuous Geologist: JOHN B. BOBBITT
Drill Rig: B57 Bore Hole Diameter: 8" Signature: JB Bobbitt
Location: 4 Feet West of MW1 Registration: R.G. 4313
25 Feet East of Santa Rita Road Logged by: Tom Culig

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						(Continued downward from previous page)	
					ML	clayey silt with very fine-grained sand, gray/ brown organics	
45					SM	Silty sand, brown, high plasticity	
					SP	Sand with trace pebbles, wet, very loose with some pebbles to 1/2" increasing pebble content, angular to sub-angular	
50					SM	Silty sand with 1/4" gravel	
					GW	Sandy gravel with 1/4"-2" pebbles	
55						Total depth at 54 feet. Groundwater encountered at 32 feet.	

Casing Diameter: 2" Slot Size: 0.020", Sand Size: #3, Grout Portland Type I/II

2431MW6A

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: MW7 Plate: 1 OF 2
Site: Former Exxon Service Station 7-3567 Date: 7/18/00
Drill Contractor: Woodward Drilling
Sample Method: Continuous Geologist: JOHN B. BOBBITT
Drill Rig: B57 Bore Hole Diameter: 8" Signature:
Location: 35 Feet East of MW2 Registration: R.G. 4313
18 Feet South of Dispenser Islands Logged by: Tom Culig

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION	WELL DESIGN
						6" concrete	
						Clay, brown, high plasticity	
5					CL		
						silty clay	
10						Silty sand, black/brown, wet	
					SM	brown color, high plasticity	
						Silty clay, dark brown, high plasticity	
15						clay with little silt, dark gray/black, moderate plasticity, massive layer, no bedding, very dense	
20						gray color, higher plasticity	
25					CL	clay with trace of silt and sand, gray/brown, wet, less dense as overlying bed	
						clay with very small traces of silt and iron oxide	
30							
35						small white nodules of calcium carbonate larger nodules	
						clay with traces of silt, light brown	
					SC	Clayey sandy, wet, very low density	
40						(Continued downward on next page)	

Casing Diameter: 2" Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

ENVIRONMENTAL RESOLUTIONS, INC.

Project No.: 2431 Boring: MW7 Plate: 2 OF 2
Site: Former Exxon Service Station 7-3567 Date: 7/18/00
Drill Contractor: Woodward Drilling
Sample Method: Continuous Geologist: JOHN B. BOBBITT
Drill Rig: B57 Bore Hole Diameter: 8" Signature: JB Bobbitt
Location: 35 Feet East of MW2 Registration: R.G. 4313
18 Feet South of Dispenser Islands Logged by: Tom Culig

DEPTH (ft)	BLOW COUNTS	PID/OVM (ppm)	SAMPLE	COLUMN	USCS	GEOLOGIC DESCRIPTION (Continued downward from previous page)	WELL DESIGN
					SC	higher density	
						clayey sand, dark brown, wet, very loose	
45					CL	Clay with traces of sand, light brown	
					SC	Clayey sand, dark brown, wet, very loose	
					CL	Sandy clay, light brown, very dense, moderate plasticity	
					ML	Clayey silt with traces of sand, bands of iron oxide, high plasticity	
60						Total depth at 50 feet. Groundwater encountered at 38 feet.	

Casing Diameter: 2" Slot Size: 0.020", Sand Size: #3, Grout: Portland Type I/II

2431MW7A

ATTACHMENT F

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY RECORDS

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

Case Narrative for:

EXXON Company U.S.A.

Certificate of Analysis Number:

00070529

Report To:			
Environmental Resolution, Inc.	Project Name:	243103x	
Jim Chappell	Site:	7-3567,19828545	
73 Digital Drive Suite 100	Site Address:	3192 Santa Rita Rd.	
		Pleasanton	CA
Novato	PO Number:	20006363	
California	State:	California	
94949-	State Cert. No.:		
ph: (415) 382-9105 fax: (415) 382-1856	Date Reported:	7/31/00	

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.

Sonia West

West, Sonia
Senior Project Manager

7/31/00
Date

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

EXXON Company U.S.A.

Certificate of Analysis Number:

00070529

Report To:	Environmental Resolution, Inc.	**Project Name:**	243103x
	Jim Chappell	**Site:**	7-3567,19828545
	73 Digital Drive Suite 100	**Site Address:**	3192 Santa Rita Rd.
	Novato		Pleasanton CA
	California	**PO Number:**	20006363
	94949-	**State:**	California
	ph: (415) 382-9105 fax: (415) 382-1856	**State Cert. No.:**	
Fax To:	*Environmental Resolution, Inc.*	**Date Reported:**	7/31/00
	Jim Chappell *fax: (415) 382-1856*		

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
6-MW7	00070529-01	Soil	7/18/00	7/21/00 10:00:00 AM		☑
7-MW7	00070529-02	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-10-MW7	00070529-03	Soil	7/18/00	7/21/00 10:00:00 AM		☑
12-MW7	00070529-04	Soil	7/18/00	7/21/00 10:00:00 AM		☑
13-MW7	00070529-05	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-15-MW7	00070529-06	Soil	7/18/00	7/21/00 10:00:00 AM		☐
S-17-MW7	00070529-07	Soil	7/18/00	7/21/00 10:00:00 AM		☑
19-MW7	00070529-08	Soil	7/18/00	7/21/00 10:00:00 AM		☑
21-MW7	00070529-09	Soil	7/18/00	7/21/00 10:00:00 AM		☐
S-23-MW7	00070529-10	Soil	7/18/00	7/21/00 10:00:00 AM		☑
28-MW7	00070529-11	Soil	7/18/00	7/21/00 10:00:00 AM		☑
32-MW7	00070529-12	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-36-MW7	00070529-13	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-43-MW7	00070529-14	Soil	7/18/00	7/21/00 10:00:00 AM		☑
47-MW7	00070529-15	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-10-MW5	00070529-16	Soil	7/18/00	7/21/00 10:00:00 AM		☑
S-16-MW5	00070529-17	Soil	7/18/00	7/21/00 10:00:00 AM		☐
24-MW5	00070529-18	Soil	7/18/00	7/21/00 10:00:00 AM		☑
30-MW5	00070529-19	Soil	7/18/00	7/21/00 10:00:00 AM		☐
S-13-MW6	00070529-20	Soil	7/19/00	7/21/00 10:00:00 AM		☑
18-MW6	00070529-21	Soil	7/19/00	7/21/00 10:00:00 AM		☐
23-MW6	00070529-22	Soil	7/19/00	7/21/00 10:00:00 AM		☑
S-30-MW6	00070529-23	Soil	7/19/00	7/21/00 10:00:00 AM		☐
S-38-MW6	00070529-24	Soil	7/19/00	7/21/00 10:00:00 AM		☑

Sonia West

7/31/00

Vest, Sonia
Senior Project Manager

Date

Joel Grice
Laboratory Director

Ted Yen
Quality Assurance Officer

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

EXXON Company U.S.A.

Certificate of Analysis Number:

00070529

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:**	243103x
		Site:	7-3567,19828545
		Site Address:	3192 Santa Rita Rd. Pleasanton CA
		PO Number:	20006363
		State:	California
		State Cert. No.:	
Fax To:	*Environmental Resolution, Inc.* *Jim Chappell* *fax: (415) 382-1856*	**Date Reported:**	7/31/00

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
45-MW6	00070529-25	Soil	7/19/00	7/21/00 10:00:00 AM		☑
P1-(1-4) COMP	00070529-26	Soil	7/19/00	7/21/00 10:00:00 AM		☐

Sonia West

7/31/00

Vest, Sonia
Senior Project Manager

Date

Joel Grice
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: S-15-MW7 **Collected:** 7/18/00 **SPL Sample ID:** 00070529-06

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 18:18	AM	347467
Surr: n-Pentacosane	88.5	%	20-154	1		07/25/00 18:18	AM	347467

Run ID/Seq #: HP_V_000725A-347467

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 1:33	CJ	346245
Surr: 1,4-Difluorobenzene	99.3	%	72-153	1		07/25/00 1:33	CJ	346245
Surr: 4-Bromofluorobenzene	111	%	51-149	1		07/25/00 1:33	CJ	346245
PURGEABLE AROMATICS			MCL	SW8021B		Units: mg/Kg		
Benzene	ND		0.001	1		07/25/00 1:33	CJ	344361
Ethylbenzene	ND		0.001	1		07/25/00 1:33	CJ	344361
Methyl tert-butyl ether	ND		0.001	1		07/25/00 1:33	CJ	344361
Toluene	ND		0.001	1		07/25/00 1:33	CJ	344361
m,p-Xylene	ND		0.001	1		07/25/00 1:33	CJ	344361
o-Xylene	ND		0.001	1		07/25/00 1:33	CJ	344361
Xylenes,Total	ND		0.001	1		07/25/00 1:33	CJ	344361
Surr: 1,4-Difluorobenzene	97.1	%	59-127	1		07/25/00 1:33	CJ	344361
Surr: 4-Bromofluorobenzene	86.7	%	48-156	1		07/25/00 1:33	CJ	344361

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

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

Client Sample ID: S-21-MW7 **Collected:** 7/18/00 **SPL Sample ID:** 00070529-09

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 16:58	AM	347468
Surr: n-Pentacosane	89.5	%	20-154	1		07/25/00 16:58	AM	347468

Run ID/Seq #: HP_V_000725A-347468

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 1:59	CJ	346246
Surr: 1,4-Difluorobenzene	99.0	%	72-153	1		07/25/00 1:59	CJ	346246
Surr: 4-Bromofluorobenzene	129	%	51-149	1		07/25/00 1:59	CJ	346246
PURGEABLE AROMATICS			MCL	SW8021B		Units: mg/Kg		
Benzene	ND		0.001	1		07/25/00 1:59	CJ	344362
Ethylbenzene	ND		0.001	1		07/25/00 1:59	CJ	344362
Methyl tert-butyl ether	0.001		0.001	1		07/25/00 1:59	CJ	344362
Toluene	ND		0.001	1		07/25/00 1:59	CJ	344362
m,p-Xylene	ND		0.001	1		07/25/00 1:59	CJ	344362
o-Xylene	0.001		0.001	1		07/25/00 1:59	CJ	344362
Xylenes,Total	0.001		0.001	1		07/25/00 1:59	CJ	344362
Surr: 1,4-Difluorobenzene	102	%	59-127	1		07/25/00 1:59	CJ	344362
Surr: 4-Bromofluorobenzene	82.8	%	48-156	1		07/25/00 1:59	CJ	344362

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

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

Client Sample ID: S-16-MW5 **Collected:** 7/18/00 **SPL Sample ID:** 00070529-17

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 19:38	AM	347469
Surr: n-Pentacosane	84.2	%	20-154	1		07/25/00 19:38	AM	347469

Run ID/Seq #: HP_V_000725A-347469

Prep Method	Prep Date	Prep Initials
	07/24/2000 13:21	

GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 2:25	CJ	346247
Surr: 1,4-Difluorobenzene	102	%	72-153	1		07/25/00 2:25	CJ	346247
Surr: 4-Bromofluorobenzene	121	%	51-149	1		07/25/00 2:25	CJ	346247
PURGEABLE AROMATICS			MCL	SW8021B		Units: mg/Kg		
Benzene	ND		0.001	1		07/25/00 2:25	CJ	344363
Ethylbenzene	ND		0.001	1		07/25/00 2:25	CJ	344363
Methyl tert-butyl ether	ND		0.001	1		07/25/00 2:25	CJ	344363
Toluene	ND		0.001	1		07/25/00 2:25	CJ	344363
m,p-Xylene	ND		0.001	1		07/25/00 2:25	CJ	344363
o-Xylene	ND		0.001	1		07/25/00 2:25	CJ	344363
Xylenes,Total	ND		0.001	1		07/25/00 2:25	CJ	344363
Surr: 1,4-Difluorobenzene	103	%	59-127	1		07/25/00 2:25	CJ	344363
Surr: 4-Bromofluorobenzene	92.5	%	48-156	1		07/25/00 2:25	CJ	344363

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

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

Client Sample ID: S-30-MW5 **Collected:** 7/18/00 **SPL Sample ID:** 00070529-19

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				**MCL**	**CA_DRO**		**Units: mg/Kg**		
Diesel Range Organics	3.8		2		1		07/25/00 20:18	AM	347470
Surr: n-Pentacosane	119	%	20-154		1		07/25/00 20:18	AM	347470

Run ID/Seq #: HP_V_000725A-347470

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

GASOLINE RANGE ORGANICS				**MCL**	**CA_GRO**		**Units: mg/Kg**		
Gasoline Range Organics	ND		1		1		07/24/00 23:49	CJ	346239
Surr: 1,4-Difluorobenzene	100	%	72-153		1		07/24/00 23:49	CJ	346239
Surr: 4-Bromofluorobenzene	113	%	51-149		1		07/24/00 23:49	CJ	346239
PURGEABLE AROMATICS				**MCL**	**SW8021B**		**Units: mg/Kg**		
Benzene	ND		0.001		1		07/24/00 23:49	CJ	344348
Ethylbenzene	ND		0.001		1		07/24/00 23:49	CJ	344348
Methyl tert-butyl ether	ND		0.001		1		07/24/00 23:49	CJ	344348
Toluene	ND		0.001		1		07/24/00 23:49	CJ	344348
m,p-Xylene	ND		0.001		1		07/24/00 23:49	CJ	344348
o-Xylene	ND		0.001		1		07/24/00 23:49	CJ	344348
Xylenes,Total	ND		0.001		1		07/24/00 23:49	CJ	344348
Surr: 1,4-Difluorobenzene	96.9	%	59-127		1		07/24/00 23:49	CJ	344348
Surr: 4-Bromofluorobenzene	89.8	%	48-156		1		07/24/00 23:49	CJ	344348

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

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

Client Sample ID: S-18-MW6 **Collected:** 7/19/00 **SPL Sample ID:** 00070529-21

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 20:58	AM	347471
Surr: n-Pentacosane	85.0	%	20-154	1		07/25/00 20:58	AM	347471

Run ID/Seq #: HP_V_000725A-347471

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 0:15	CJ	346240
Surr: 1,4-Difluorobenzene	99.7	%	72-153	1		07/25/00 0:15	CJ	346240
Surr: 4-Bromofluorobenzene	113	%	51-149	1		07/25/00 0:15	CJ	346240
PURGEABLE AROMATICS			MCL	SW8021B		Units: mg/Kg		
Benzene	ND		0.001	1		07/25/00 0:15	CJ	344351
Ethylbenzene	ND		0.001	1		07/25/00 0:15	CJ	344351
Methyl tert-butyl ether	ND		0.001	1		07/25/00 0:15	CJ	344351
Toluene	ND		0.001	1		07/25/00 0:15	CJ	344351
m,p-Xylene	ND		0.001	1		07/25/00 0:15	CJ	344351
o-Xylene	ND		0.001	1		07/25/00 0:15	CJ	344351
Xylenes,Total	ND		0.001	1		07/25/00 0:15	CJ	344351
Surr: 1,4-Difluorobenzene	97.8	%	59-127	1		07/25/00 0:15	CJ	344351
Surr: 4-Bromofluorobenzene	90.1	%	48-156	1		07/25/00 0:15	CJ	344351

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

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Client Sample ID: S-30-MW6 **Collected:** 7/19/00 **SPL Sample ID:** 00070529-23

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 21:38	AM	347472
Surr: n-Pentacosane	84.8	%	20-154	1		07/25/00 21:38	AM	347472

Run ID/Seq #: HP_V_000725A-347472

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 0:41	CJ	346242
Surr: 1,4-Difluorobenzene	101	%	72-153	1		07/25/00 0:41	CJ	346242
Surr: 4-Bromofluorobenzene	113	%	51-149	1		07/25/00 0:41	CJ	346242
PURGEABLE AROMATICS			MCL	SW8021B		Units: mg/Kg		
Benzene	ND		0.001	1		07/25/00 0:41	CJ	344356
Ethylbenzene	ND		0.001	1		07/25/00 0:41	CJ	344356
Methyl tert-butyl ether	ND		0.001	1		07/25/00 0:41	CJ	344356
Toluene	ND		0.001	1		07/25/00 0:41	CJ	344356
m,p-Xylene	ND		0.001	1		07/25/00 0:41	CJ	344356
o-Xylene	ND		0.001	1		07/25/00 0:41	CJ	344356
Xylenes,Total	ND		0.001	1		07/25/00 0:41	CJ	344356
Surr: 1,4-Difluorobenzene	99.3	%	59-127	1		07/25/00 0:41	CJ	344356
Surr: 4-Bromofluorobenzene	84.3	%	48-156	1		07/25/00 0:41	CJ	344356

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

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(713) 660-0901

Client Sample ID: SP1-(1-4) COMP **Collected:** 7/19/00 **SPL Sample ID:** 00070529-26

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS			MCL	CA_DRO		Units: mg/Kg		
Diesel Range Organics	ND		2	1		07/25/00 22:17	AM	347473
Surr: n-Pentacosane	80.6	%	20-154	1		07/25/00 22:17	AM	347473

Run ID/Seq #: HP_V_000725A-347473

Prep Method	Prep Date	Prep Initials
SW3550A	07/24/2000 13:21	EE

GASOLINE RANGE ORGANICS			MCL	CA_GRO		Units: mg/Kg		
Gasoline Range Organics	ND		1	1		07/25/00 1:07	CJ	346243
Surr: 1,4-Difluorobenzene	98.7	%	72-153	1		07/25/00 1:07	CJ	346243
Surr: 4-Bromofluorobenzene	127	%	51-149	1		07/25/00 1:07	CJ	346243

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

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Client Sample ID: SP1-(1-4) COMP **Collected:** 7/19/00 **SPL Sample ID:** 00070529-26

Site: 7-3567,19828545

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HALOGENATED VOLATILES ORGANIC COMPOUNDS		**MCL**	**SW8010B**		**Units: mg/Kg**		
1,1,1-Trichloroethane	ND	0.001	1		07/27/00 15:26	YN	350697
1,1,2,2-Tetrachloroethane	ND	0.002	1		07/27/00 15:26	YN	350697
1,1,2-Trichloroethane	ND	0.001	1		07/27/00 15:26	YN	350697
1,1-Dichloroethane	ND	0.001	1		07/27/00 15:26	YN	350697
1,1-Dichloroethene	ND	0.001	1		07/27/00 15:26	YN	350697
1,2-Dichlorobenzene	ND	0.001	1		07/27/00 15:26	YN	350697
1,2-Dichloroethane	ND	0.001	1		07/27/00 15:26	YN	350697
1,2-Dichloropropane	ND	0.001	1		07/27/00 15:26	YN	350697
1,3-Dichlorobenzene	ND	0.002	1		07/27/00 15:26	YN	350697
1,4-Dichlorobenzene	ND	0.002	1		07/27/00 15:26	YN	350697
Bromodichloromethane	ND	0.001	1		07/27/00 15:26	YN	350697
Bromoform	ND	0.001	1		07/27/00 15:26	YN	350697
Bromomethane	ND	0.001	1		07/27/00 15:26	YN	350697
Carbon tetrachloride	ND	0.001	1		07/27/00 15:26	YN	350697
Chlorobenzene	ND	0.001	1		07/27/00 15:26	YN	350697
Chloroethane	ND	0.001	1		07/27/00 15:26	YN	350697
Chloroform	ND	0.001	1		07/27/00 15:26	YN	350697
Chloromethane	ND	0.001	1		07/27/00 15:26	YN	350697
cis-1,2-Dichloroethene	ND	0.001	1		07/27/00 15:26	YN	350697
cis-1,3-Dichloropropene	ND	0.001	1		07/27/00 15:26	YN	350697
Dibromochloromethane	ND	0.001	1		07/27/00 15:26	YN	350697
Dichlorodifluoromethane	ND	0.001	1		07/27/00 15:26	YN	350697
Methylene chloride	0.0023	0.002	1		07/27/00 15:26	YN	350697
Tetrachloroethene	ND	0.001	1		07/27/00 15:26	YN	350697
trans-1,2-Dichloroethene	ND	0.001	1		07/27/00 15:26	YN	350697
trans-1,3-Dichloropropene	ND	0.001	1		07/27/00 15:26	YN	350697
Trichloroethene	ND	0.001	1		07/27/00 15:26	YN	350697
Trichlorofluoromethane	ND	0.001	1		07/27/00 15:26	YN	350697
Vinyl chloride	ND	0.001	1		07/27/00 15:26	YN	350697
Surr: 3-Bromochlorobenzene	73.3 %	50-150	1		07/27/00 15:26	YN	350697
METALS BY METHOD 6010B, TOTAL		**MCL**	**SW6010B**		**Units: mg/Kg**		
Lead	5.64	0.5	1		07/25/00 4:38	EG	345855

Run ID/Seq #: TJAT_000724C-345855

Prep Method	Prep Date	Prep Initials
SW3050B	07/24/2000 9:00	MR

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

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Client Sample ID: SP1-(1-4) COMP | **Collected:** 7/19/00 | **SPL Sample ID:** 00070529-26

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: mg/Kg**		
Benzene	ND		0.001	1		07/25/00 1:07	CJ	344360
Ethylbenzene	ND		0.001	1		07/25/00 1:07	CJ	344360
Methyl tert-butyl ether	ND		0.001	1		07/25/00 1:07	CJ	344360
Toluene	ND		0.001	1		07/25/00 1:07	CJ	344360
m,p-Xylene	ND		0.001	1		07/25/00 1:07	CJ	344360
o-Xylene	ND		0.001	1		07/25/00 1:07	CJ	344360
Xylenes,Total	ND		0.001	1		07/25/00 1:07	CJ	344360
Surr: 1,4-Difluorobenzene	98.5	%	59-127	1		07/25/00 1:07	CJ	344360
Surr: 4-Bromofluorobenzene	95.4	%	48-156	1		07/25/00 1:07	CJ	344360

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

Quality Control Documentation

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

Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Diesel Range Organics
Method: CA_DRO

WorkOrder: 00070529
Lab Batch ID: 6192

Method Blank

RunID: HP_V_000725A-346188 Units: mg/Kg
Analysis Date: 07/25/2000 8:11 Analyst: AM
Preparation Date: 07/24/2000 13:21 Prep By: EE Method: SW3550A

Analyte	Result	Rep Limit
Diesel Range Organics	ND	2.0
Surr: n-Pentacosane	85.5	20-154

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00070529-06A	S-15-MW7
00070529-09A	S-21-MW7
00070529-17A	S-16-MW5
00070529-19A	S-30-MW5
00070529-21A	S-18-MW6
00070529-23A	S-30-MW6
00070529-26A	SP1-(1-4) COMP

Laboratory Control Sample (LCS)

RunID: HP_V_000725A-346189 Units: mg/Kg
Analysis Date: 07/25/2000 8:51 Analyst: AM
Preparation Date: 07/24/2000 13:21 Prep By: EE Method: SW3550A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	83.3	74	89	50	150

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

Sample Spiked: 00070557-04
RunID: HP_V_000725A-347560 Units: mg/Kg-dry
Analysis Date: 07/25/2000 10:09 Analyst: AM
Preparation Date: 07/24/2000 13:21 Prep By: EE Method: SW3550A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics	ND	107	89	83.0	107	95	88.2	6.08	30	21	175

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

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Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Purgeable Aromatics
Method: SW8021B
WorkOrder: 00070529
Lab Batch ID: R17730

Method Blank

RunID: VARE_000724A-344328 Units: ug/Kg
Analysis Date: 07/24/2000 13:00 Analyst: CJ

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Methyl tert-butyl ether	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	1.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,4-Difluorobenzene	95.0	59-127
Surr: 4-Bromofluorobenzene	92.3	48-156

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00070529-06A	S-15-MW7
00070529-09A	S-21-MW7
00070529-17A	S-16-MW5
00070529-19A	S-30-MW5
00070529-21A	S-18-MW6
00070529-23A	S-30-MW6
00070529-26A	SP1-(1-4) COMP

Laboratory Control Sample (LCS)

RunID: VARE_000724A-344327 Units: ug/Kg
Analysis Date: 07/24/2000 12:34 Analyst: CJ

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	50	99	60	116
Ethylbenzene	50	50	100	68	127
Methyl tert-butyl ether	50	50	100	64	126
Toluene	50	49	98	64	122
m,p-Xylene	100	100	100	68	129
o-Xylene	50	50	99	68	127
Xylenes,Total	150	150	100	68	129

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

Sample Spiked: 00070529-06
RunID: VARE_000724A-344343 Units: ug/Kg
Analysis Date: 07/24/2000 21:39 Analyst: CJ

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	15	77.1	20	21	106	31.6	34	35	139
Ethylbenzene	ND	20	13	63.7	20	18	89.3	33.5	35	31	137
Methyl tert-butyl ether	ND	20	16	82.4	20	18	91.8	10.8	22	27	196

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

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Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Purgeable Aromatics
Method: SW8021B
WorkOrder: 00070529
Lab Batch ID: R17730

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

Sample Spiked: 00070529-06
RunID: VARE_000724A-344343 Units: ug/Kg
Analysis Date: 07/24/2000 21:39 Analyst: CJ

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
oluene	ND	20	14	68.8	20	17	84.7	20.8	28	31	137
m,p-Xylene	ND	40	25	62.8	40	35	86.5	31.7	38	19	144
o-Xylene	ND	20	13	63.5	20	17	84.5	28.4	57	25	139
ylenes,Total	ND	60	38	63.3	60	52	86.7	31.1	38	19	144

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

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Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Gasoline Range Organics
Method: CA_GRO
WorkOrder: 00070529
Lab Batch ID: R17838

Method Blank

RunID: VARE_000724E-346237 Units: mg/Kg
Analysis Date: 07/24/2000 23:24 Analyst: CJ

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	1.0
Surr: 1,4-Difluorobenzene	98.3	72-153
Surr: 4-Bromofluorobenzene	110.7	51-149

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00070529-06A	S-15-MW7
00070529-09A	S-21-MW7
00070529-17A	S-16-MW5
00070529-19A	S-30-MW5
00070529-21A	S-18-MW6
00070529-23A	S-30-MW6
00070529-26A	SP1-(1-4) COMP

Laboratory Control Sample (LCS)

RunID: VARE_000724E-346231 Units: mg/Kg
Analysis Date: 07/24/2000 21:14 Analyst: CJ

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.81	81	53	137

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

Sample Spiked: 00070529-26
RunID: VARE_000724E-346233 Units: mg/Kg
Analysis Date: 07/24/2000 22:32 Analyst: CJ

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.83	88.1	0.9	0.78	82.6	6.46	50	36	163

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

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Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Halogenated Volatiles Organic Compounds **WorkOrder:** 00070529
Method: SW8010B **Lab Batch ID:** R18045

Method Blank

RunID: HP_X_000727A-350694 Units: ug/Kg
Analysis Date: 07/27/2000 14:09 Analyst: YN

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00070529-26A	SP1-(1-4) COMP

Analyte	Result	Rep Limit
1,1,1-Trichloroethane	ND	1.0
1,1,2,2-Tetrachloroethane	ND	2.0
1,1,2-Trichloroethane	ND	1.0
1,1-Dichloroethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dichloroethane	ND	1.0
1,2-Dichloropropane	ND	1.0
1,3-Dichlorobenzene	ND	2.0
1,4-Dichlorobenzene	ND	2.0
Bromodichloromethane	ND	1.0
Bromoform	ND	1.0
Bromomethane	ND	1.0
Carbon tetrachloride	ND	1.0
Chlorobenzene	ND	1.0
Chloroethane	ND	1.0
Chloroform	ND	1.0
Chloromethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Dichlorodifluoromethane	ND	1.0
Methylene chloride	2.6 B	2.0
Tetrachloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
Trichlorofluoromethane	ND	1.0
Vinyl chloride	ND	1.0
Surr: 3-Bromochlorobenzene	73.3	50-150

Laboratory Control Sample (LCS)

RunID: HP_X_000727A-350688 Units: ug/Kg
Analysis Date: 07/27/2000 11:36 Analyst: YN

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1-Trichloroethane	20	19	95	70	130
1,1,2,2-Tetrachloroethane	20	22	110	70	130
1,1,2-Trichloroethane	20	21	105	70	130
1,1-Dichloroethane	20	17	86	70	130
1,1-Dichloroethene	20	17	83	70	130
1,2-Dichlorobenzene	20	22	112	70	130

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

HOUSTON LABORATORY
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Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Halogenated Volatiles Organic Compounds
Method: SW8010B
WorkOrder: 00070529
Lab Batch ID: R18045

Laboratory Control Sample (LCS)

RunID: HP_X_000727A-350688 Units: ug/Kg
Analysis Date: 07/27/2000 11:36 Analyst: YN

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2-Dichloroethane	20	20	100	70	130
1,2-Dichloropropane	20	19	97	70	130
1,3-Dichlorobenzene	20	22	112	70	130
1,4-Dichlorobenzene	20	23	113	70	130
Bromodichloromethane	20	20	98	70	130
Bromoform	20	21	103	70	130
Bromomethane	20	18	92	70	130
Carbon tetrachloride	20	19	93	70	130
Chlorobenzene	20	20	100	70	130
Chloroethane	20	18	88	70	130
Chloroform	20	19	95	70	130
Chloromethane	20	19	93	70	130
cis-1,2-Dichloroethene	20	20	100	70	130
cis-1,3-Dichloropropene	20	20	100	70	130
Dibromochloromethane	20	20	102	70	130
Dichlorodifluoromethane	20	19	95	70	130
Methylene chloride	20	19	95	70	130
Tetrachloroethene	20	19	93	70	130
trans-1,2-Dichloroethene	20	16	80	70	130
trans-1,3-Dichloropropene	20	21	105	70	130
Trichloroethene	20	18	91	70	130
Trichlorofluoromethane	20	18	90	70	130

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

Sample Spiked: 00070634-21
RunID: HP_X_000727A-350690 Units: ug/Kg
Analysis Date: 07/27/2000 12:14 Analyst: YN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1,1-Trichloroethane	ND	20	18	90.0	20	10	50.0	57.1*	30	50	150
1,1,2,2-Tetrachloroethane	ND	20	20	100	20	11	55.0	58.1*	30	50	150
1,1,2-Trichloroethane	ND	20	19	95.0	20	11	55.0	53.3*	30	50	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

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

Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Halogenated Volatiles Organic Compounds **WorkOrder:** 00070529
Method: SW8010B **Lab Batch ID:** R18045

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

Sample Spiked: 00070634-21
RunID: HP_X_000727A-350690 Units: ug/Kg
Analysis Date: 07/27/2000 12:14 Analyst: YN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethane	ND	20	18	89.7	20	11	56.7	45.2*	30	50	150
1,1-Dichloroethene	ND	20	18	88.6	20	10	49.2*	57.2*	30	50	150
1,2-Dichlorobenzene	ND	20	14	71.0	20	6.7	33.3*	72.2*	30	50	150
1,2-Dichloroethane	ND	20	19	94.5	20	11	57.4	48.8*	30	50	150
1,2-Dichloropropane	ND	20	19	94.1	20	11	54.5	53.3*	30	50	150
1,3-Dichlorobenzene	ND	20	14	71.2	20	6	29.4*	83.2*	30	50	150
1,4-Dichlorobenzene	ND	20	15	72.8	20	6.9	34.5*	71.2*	30	50	150
Bromodichloromethane	ND	20	18	91.3	20	11	52.5	54.0*	30	50	150
Bromoform	ND	20	19	93.1	20	10	51.7	57.1*	30	50	150
Bromomethane	ND	20	20	98.9	20	11	56.7	54.2*	30	50	150
Carbon tetrachloride	ND	20	17	84.8	20	9.3	46.3*	58.7*	30	50	150
Chlorobenzene	ND	20	17	84.4	20	8.4	42.2*	66.6*	30	50	150
Chloroethane	ND	20	19	95.5	20	11	54.5	54.7*	30	50	150
Chloroform	ND	20	18	89.8	20	11	56.2	46.2*	30	50	150
Chloromethane	ND	20	19	95.1	20	11	55.8	52.0*	30	50	150
cis-1,2-Dichloroethene	ND	20	18	90.0	20	11	55.0	48.3*	30	50	150
cis-1,3-Dichloropropene	ND	20	19	95.0	20	10	50.0	62.1*	30	50	150
Dibromochloromethane	ND	20	19	93.1	20	10	52.4	55.8*	30	50	150
Dichlorodifluoromethane	ND	20	16	80.0	20	8	40.0*	66.7*	30	50	150
Methylene chloride	ND	20	22	101	20	14	62.5	46.7*	30	50	150
Tetrachloroethene	ND	20	16	77.0	20	7.6	37.2*	69.6*	30	50	150
trans-1,2-Dichloroethene	ND	20	18	90.0	20	11	55.0	48.3*	30	50	150
trans-1,3-Dichloropropene	ND	20	19	95.0	20	11	55.0	53.3*	30	50	150
Trichloroethene	ND	20	17	83.5	20	9.3	45.5*	58.9*	30	50	150
Trichlorofluoromethane	ND	20	19	95.0	20	10	50.0	62.1*	30	50	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

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

Quality Control Report

EXXON Company U.S.A.

243103x

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 00070529
Lab Batch ID: 6202-T

Method Blank

RunID: TJAT_000724C-345820 Units: mg/Kg
Analysis Date: 07/25/2000 2:45 Analyst: EG
Preparation Date: 07/24/2000 9:00 Prep By: MR Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00070529-26A	SP1-(1-4) COMP

Analyte	Result	Rep Limit
Lead	ND	0.5

Laboratory Control Sample (LCS)

RunID: TJAT_000724C-345822 Units: mg/Kg
Analysis Date: 07/25/2000 2:52 Analyst: EG
Preparation Date: 07/24/2000 9:00 Prep By: MR Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Lead	97.8	92.6	N/A	74.5	121

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

Sample Spiked: 00070278-02
RunID: TJAT_000724C-345827 Units: mg/Kg
Analysis Date: 07/25/2000 3:07 Analyst: EG
Preparation Date: 07/24/2000 9:00 Prep By: MR Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
ead	5.2	100	83.3	78.0	100	82.8	77.6	0.532	20	75	125

Qualifiers:

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

Chain of Custody

And

Sample Receipt Checklist

EXXON COMPANY, USA. (West Coast)

CHAIN OF CUSTODY RECORD NO. 00070529 Page 1 of 3

Exxon Engineer: Darin Rouse Phone: (925) 246-8768
Consultant Co. Name ERI Contact: Jim Chappell
Address: 73 Digital Drive Fax: (415) 382-4323
Suite 100, Novato, California 94949 1856
RAS #: 7-3567 Facility/State ID # (TN Only):
AFE # (Terminal Only): Consultant Project #: 243103X
Location: 3192 Santa Rita Rd. (City) Pleasanton (State) Ca
☒ EE ☐ C&M ☐ SDT
Consultant Work Release #: 19828545
Sampled By: Tom Culig

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H_2O	MATRIX SOIL	MATRIX AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 DRO ☒	TPH/GC 8015 GRO ☒	BTEX 8020 ☒	MTBE 8020 ☒	OXYGENATES (7) 8260 ☐	O&G IR 413.1 ☐	GRAV. 413.2 ☐	VOL. 8260 ☐	624 ☐	SEMI-VOL 8270 ☐	625 ☐	PNA/PAH 8100 ☐	8310 ☐	8270 ☐	PCB/PEST 8081/8082 ☐	PCB ONLY ☐	TCLP FULL ☐ VOA ☐ SEMI-VOA ☐ PEST ☐ HERB ☐	METALS, TOTAL ☐	METALS, TCLP ☐	LEAD, TOTAL 239.1 ☐	7421 ☐	LEAD, TCLP ☐	LEAD, DISSOLVED ☐	LEAD TOTAL ☐	REACTIVITY ☐	CORROSIVITY ☐	FLASH POINT ☐	PURGEABLE HYDROCARBON 8010 ☐	601 ☐	TPH/IR 418.1 ☐	TOX/TOH ☐
S-6-MW7	7-18					X			ice	1	4oz		H	O	Id																								
S-7-MW7													Hold							H	O	1		D																
S-10-MW7																																								
S-12-MW7																																								
S-13-MW7																																								
S-15-MW7													X	X	X																									
S-17-MW7													#	O	1	D																								
S-19-MW7													H	O	1	D																								
S-21-MW7													X	X	X																									
S-23-MW7	↓					↓			↓	↓	↓		H	O	1	D																								

OTHER

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

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

EXXON UST CONTRACT NO. C41483

SPECIAL DETECTION LIMITS (Specify)

REMARKS: DW

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

QA/QC Level
Standard ☒ CLP ☐ Other ☐ ___

LAB USE ONLY Lot # Storage Location
1000 BOA

WORK ORDER #: 00070529 LAB WORK RELEASE #:

CUSTODY RECORD

	Date	Time	
Relinquished By Sampler: Jim Chappell			Received By:
Relinquished:	Date	Time	Received By:
Relinquished:	Date 7-21-00	Time 1000	Received By: Way Bill #: Cooler Temp: 4

Triplicate: Original • White Lab's Copy • Green Client Copy • Yellow

EXXON COMPANY, USA.
(West Coast)

Exxon Engineer: Darin Rouse Phone: (925) 246-8768
Consultant Co. Name: ERI Contact: Jim Chappell
Address: 73 Digital Drive Suite 100, Novato, Ca 94949 Fax: (415) 382-~~4323~~ 1856
RAS #: 7-3567 Facility/State ID # (TN Only):
AFE # (Terminal Only): Consultant Project #: 243103X
Location: 3192 Santa Rita Rd (City) Pleasanton (State) Ca
☒ EE ☐ C&M ☐ SDT
Consultant Work Release #: 19828545
Sampled By: Tom Culig

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

SAMPLE I.D.	DATE	TIME	COMP	GRAB	MATRIX H_2O	MATRIX SOIL	MATRIX AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO ☒ 8015 DRO ☒	BTEX 8020 ☒ 602 ☐	MTBE 8020 ☒ 8260 ☐	OXYGENATES (7) 8260 ☐	O&G IR 413.1 ☐ GRAV. 413.2 ☐	VOL. 8260 ☐ 624 ☐	SEMI-VOL 8270 ☐ 625 ☐	PNA/PAH 8100 ☐ 8310 ☐ 8270 ☐	PCB/PEST 8081/8082 ☐ PCB ONLY ☐	TCLP FULL ☐ VOA ☐ SEMI-VOA ☐ PEST ☐ HERB ☐	METALS, TOTAL ☐ METALS, TCLP ☐	LEAD, TOTAL 239.1 ☐ 7421 ☐ LEAD, TCLP ☐	LEAD, DISSOLVED ☐ LEAD TOTAL ☐	REACTIVITY ☐ CORROSIVITY ☐ FLASH POINT ☐	PURGEABLE HYDROCARBON 8010 ☐ 601 ☐	TPH/IR 418.1 ☐	TOX/TOH ☐	OTHER: HOLD
S-28-MW7	7/18					X			Ice	1	Sleeve																		X
S-32-MW7																													X
S-36-MW7																													X
S-43-MW7																													X
S-47-MW7																													X
S-10-MW5																													X
S-16-MW5												X	X	X															
S-24-MW5																													X
S-30-MW5												X	X	X															

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

EXXON UST CONTRACT NO. C41483

SPECIAL DETECTION LIMITS (Specify)

REMARKS:

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

LAB USE ONLY Lot # Storage Location
WORK ORDER #: LAB WORK RELEASE #:

QA/QC Level
Standard ☒ CLP ☐ Other ☐ ___

CUSTODY RECORD				
	Relinquished By Sampler: Jim Chappell	Date	Time	Received By:
	Relinquished:	Date	Time	Received By:
	Relinquished:	Date 7-21-00	Time 10:00	Received By: [signature] Way Bill #: Cooler Temp: 4

Triplicate: Original • White Lab's Copy • Green Client Copy • Yellow

EXXON COMPANY, USA. (West Coast)

CHAIN OF CUSTODY RECORD NO. (4) 10529 Page 3 of 3

Exxon Engineer: Darin Rouse Phone: (925) 246-8768
Consultant Co. Name E.R.I. Contact: Jim Chappell
Address: 73 Digital Drive Fax: (415) 382-1856
Suite 100, Novato, Ca, 94949
RAS #: 7-3567 Facility/State ID # (TN Only):
AFE # (Terminal Only): Consultant Project #: 243103X
Location: 3192 Santa Rita Rd. (City) Pleasanton (State) Ca
☒ EE ☐ C&M ☐ SDT
Consultant Work Release #: 19828545
Sampled By: Tom Culig

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H_2O	MATRIX SOIL	MATRIX AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 DRO ☒	TPH/GC 8015 GRO ☒	BTEX 8020 ☒ / 602 ☐	MTBE 8020 ☒ / 8260 ☐	OXYGENATES (7) 8260 ☐	O&G ☐ / IR 413.1 ☐ / GRAV. 413.2 ☐	VOL. 8260 ☐ / 624 ☐	SEMI-VOL 8270 ☐ / 625 ☐	PNA/PAH 8100 ☐ / 8310 ☐ / 8270 ☐	PCB/PEST 8081/8082 ☐ / PCB ONLY ☐	TCLP FULL ☐ VOA ☐ SEMI-VOA ☐ PEST ☐ HERB ☐	METALS, TOTAL ☐ / METALS, TCLP ☐	LEAD, TOTAL 239.1 ☒ / 7421 ☐ / LEAD, TCLP ☐	LEAD, DISSOLVED ☐ / LEAD TOTAL ☒	REACTIVITY ☐ / CORROSIVITY ☐ / FLASH POINT ☐	PURGEABLE HYDROCARBON 8010 ☒ / 601 ☐	TPH/IR 418.1 ☐	TOX/TOH ☐	HOLD
1 S-13-MW6	7/19					X			ICE	1	sleeve																			X
1 S-18-MW6										1		X	X	X																
1 S-23-MW6										1																				X
1 S-30-MW6										1		X	X	X																
1 S-38-MW6										1																				X
1 S-45-MW6										1	↓																			X
4 SP1-(1-4)	↓		X			↓			↓	4		X	X	X										NO ☒ X		X	X			

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

EXXON UST CONTRACT NO. C41483

QA/QC Level
Standard ☒ CLP ☐ Other ☐ ___

SPECIAL DETECTION LIMITS (Specify)

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

REMARKS:
Composite SP1-(1-4) please

LAB USE ONLY Lot # Storage Location

WORK ORDER #: LAB WORK RELEASE #:

CUSTODY RECORD

	Date	Time	
Relinquished By Sampler: Jim Chappell			Received By:
Relinquished:	Date	Time	Received By:
Relinquished:	Date 7-21-00	Time 1000	Received By: Way Bill #: Cooler Temp: 4

Triplicate: Original - White Lab's Copy - Green Client Copy - Yellow

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

Sample Receipt Checklist

Workorder:	00070529	Received by:	Barrera, Nancy
Date and Time Received:	7/21/00 10:00:00 AM	Carrier name:	FedEx
Temperature:	4		

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

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

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

Certificate of Analysis Number:
00080090

Report To:		Project Name:	243113X
Environmental Resolution, Inc.		Site:	7-3567,19828545
Jim Chappell		Site Address:	3192 Santa Rita Rd.
73 Digital Drive Suite 100			Pleasanton CA
Novato		PO Number:	LWR#20900450
California		State:	California
94949-		State Cert. No.:	
ph: (415) 382-9105	fax: (415) 382-1856	Date Reported:	

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.

Sonia West

West, Sonia
Senior Project Manager

8/15/00
Date

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

EXXON Company U.S.A.

Certificate of Analysis Number:

00080090

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:	243113X
		Site:	7-3567,19828545
		Site Address:	3192 Santa Rita Rd. Pleasanton CA
		PO Number:	LWR#20900450
		State:	California
		State Cert. No.:	
Fax To:	*Environmental Resolution, Inc.* *Jim Chappell* *fax: (415) 382-1856*	Date Reported:	

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
7/18/00	00080090-01	Trip Blank	7/18/00	8/3/00 10:00:00 AM		☐
BB-MW2	00080090-02	Water	7/31/00 5:35:00 PM	8/3/00 10:00:00 AM		☐
W-19-MW1	00080090-03	Water	7/31/00 3:30:00 PM	8/3/00 10:00:00 AM		☐
19-MW1	00080090-04	Water	7/31/00 3:35:00 PM	8/3/00 10:00:00 AM		☐
38-MW3	00080090-05	Water	7/31/00 5:15:00 PM	8/3/00 10:00:00 AM		☐
W-38-MW3	00080090-06	Water	7/31/00 5:20:00 PM	8/3/00 10:00:00 AM		☐
W-49-MW4 (G)	00080090-07	Water	7/31/00 3:45:00 PM	8/3/00 10:00:00 AM		☐
49-MW4 (G)	00080090-08	Water	7/31/00 3:50:00 PM	8/3/00 10:00:00 AM		☐
39-MW6	00080090-09	Water	7/31/00 4:15:00 PM	8/3/00 10:00:00 AM		☐
W-39-MW6	00080090-10	Water	7/31/00 4:20:00 PM	8/3/00 10:00:00 AM		☐
24-MW7	00080090-11	Water	7/31/00 4:30:00 PM	8/3/00 10:00:00 AM		☐
24-MW7	00080090-12	Water	7/31/00 4:35:00 PM	8/3/00 10:00:00 AM		☐
W-31-MW2	00080090-13	Water	7/31/00 5:40:00 PM	8/3/00 10:00:00 AM		☐
W-31-MW2	00080090-14	Water	7/31/00 5:45:00 PM	8/3/00 10:00:00 AM		☐

Sonia West

8/15/00

est, Sonia
Senior Project Manager

Date

Joel Grice
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID TB 7/18/00 **Collected:** 7/18/00 **SPL Sample ID:** 00080090-01

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 16:34	DL	360338
Surr: 1,4-Difluorobenzene	102	%	62-144	1		08/04/00 16:34	DL	360338
Surr: 4-Bromofluorobenzene	93.3	%	44-153	1		08/04/00 16:34	DL	360338
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 16:34	DL	360275
Ethylbenzene	ND		0.5	1		08/04/00 16:34	DL	360275
Methyl tert-butyl ether	ND		2	1		08/04/00 16:34	DL	360275
Toluene	ND		0.5	1		08/04/00 16:34	DL	360275
m,p-Xylene	ND		0.5	1		08/04/00 16:34	DL	360275
o-Xylene	ND		0.5	1		08/04/00 16:34	DL	360275
Xylenes,Total	ND		0.5	1		08/04/00 16:34	DL	360275
Surr: 1,4-Difluorobenzene	98.5	%	72-137	1		08/04/00 16:34	DL	360275
Surr: 4-Bromofluorobenzene	102	%	48-156	1		08/04/00 16:34	DL	360275
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/04/00 13:19	NL	367871
1,2-Dichloroethane	ND		5	1		08/04/00 13:19	NL	367871
2-Nitropropane	ND		20	1		08/04/00 13:19	NL	367871
Diisopropyl ether	ND		10	1		08/04/00 13:19	NL	367871
Methyl tert-butyl ether	ND		5	1		08/04/00 13:19	NL	367871
t-Butyl alcohol	ND		500	1		08/04/00 13:19	NL	367871
tert-Amyl methyl ether	ND		10	1		08/04/00 13:19	NL	367871
tert-Butyl ethyl ether	ND		10	1		08/04/00 13:19	NL	367871
Surr: 1,2-Dichloroethane-d4	116	%	62-119	1		08/04/00 13:19	NL	367871
Surr: 4-Bromofluorobenzene	98.0	%	78-123	1		08/04/00 13:19	NL	367871
Surr: Toluene-d8	106	%	74-122	1		08/04/00 13:19	NL	367871

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

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

Client Sample ID W-BB-MW2 **Collected:** 7/31/00 5:35:00 **SPL Sample ID:** 00080090-02

Site: 7-3567,19828545

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		08/08/00 15:51	AM	364633
Surr: n-Pentacosane	65.4	%	20-150	1		08/08/00 15:51	AM	364633

Run ID/Seq #: HP_V_000808D-364633

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 16:58	DL	360339
Surr: 1,4-Difluorobenzene	101	%	62-144	1		08/04/00 16:58	DL	360339
Surr: 4-Bromofluorobenzene	94.0	%	44-153	1		08/04/00 16:58	DL	360339
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 16:58	DL	360276
Ethylbenzene	ND		0.5	1		08/04/00 16:58	DL	360276
Methyl tert-butyl ether	ND		2	1		08/04/00 16:58	DL	360276
Toluene	ND		0.5	1		08/04/00 16:58	DL	360276
m,p-Xylene	ND		0.5	1		08/04/00 16:58	DL	360276
o-Xylene	ND		0.5	1		08/04/00 16:58	DL	360276
Xylenes,Total	ND		0.5	1		08/04/00 16:58	DL	360276
Surr: 1,4-Difluorobenzene	98.8	%	72-137	1		08/04/00 16:58	DL	360276
Surr: 4-Bromofluorobenzene	102	%	48-156	1		08/04/00 16:58	DL	360276
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 18:22	NL	367872
1,2-Dichloroethane	ND		5	1		08/07/00 18:22	NL	367872
2-Nitropropane	ND		20	1		08/07/00 18:22	NL	367872
Diisopropyl ether	ND		10	1		08/07/00 18:22	NL	367872
Methyl tert-butyl ether	ND		5	1		08/07/00 18:22	NL	367872
t-Butyl alcohol	ND		500	1		08/07/00 18:22	NL	367872
tert-Amyl methyl ether	ND		10	1		08/07/00 18:22	NL	367872
tert-Butyl ethyl ether	ND		10	1		08/07/00 18:22	NL	367872
Surr: 1,2-Dichloroethane-d4	104	%	62-119	1		08/07/00 18:22	NL	367872
Surr: 4-Bromofluorobenzene	104	%	78-123	1		08/07/00 18:22	NL	367872
Surr: Toluene-d8	92.0	%	74-122	1		08/07/00 18:22	NL	367872

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

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

Client Sample ID W-19-MW1 **Collected:** 7/31/00 3:30:00 **SPL Sample ID:** 00080090-03

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS				**MCL**	**CA_GRO**	**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 17:23	DL	360340
Surr: 1,4-Difluorobenzene	104	%	62-144	1		08/04/00 17:23	DL	360340
Surr: 4-Bromofluorobenzene	94.0	%	44-153	1		08/04/00 17:23	DL	360340
PURGEABLE AROMATICS				**MCL**	**SW8021B**	**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 17:23	DL	360277
Ethylbenzene	ND		0.5	1		08/04/00 17:23	DL	360277
Methyl tert-butyl ether	51		2	1		08/04/00 17:23	DL	360277
Toluene	ND		0.5	1		08/04/00 17:23	DL	360277
m,p-Xylene	ND		0.5	1		08/04/00 17:23	DL	360277
o-Xylene	ND		0.5	1		08/04/00 17:23	DL	360277
Xylenes,Total	ND		0.5	1		08/04/00 17:23	DL	360277
Surr: 1,4-Difluorobenzene	101	%	72-137	1		08/04/00 17:23	DL	360277
Surr: 4-Bromofluorobenzene	102	%	48-156	1		08/04/00 17:23	DL	360277
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 18:50	NL	367873
1,2-Dichloroethane	ND		5	1		08/07/00 18:50	NL	367873
2-Nitropropane	ND		20	1		08/07/00 18:50	NL	367873
Diisopropyl ether	ND		10	1		08/07/00 18:50	NL	367873
Methyl tert-butyl ether	38		5	1		08/07/00 18:50	NL	367873
t-Butyl alcohol	ND		500	1		08/07/00 18:50	NL	367873
tert-Amyl methyl ether	ND		10	1		08/07/00 18:50	NL	367873
tert-Butyl ethyl ether	ND		10	1		08/07/00 18:50	NL	367873
Surr: 1,2-Dichloroethane-d4	100	%	62-119	1		08/07/00 18:50	NL	367873
Surr: 4-Bromofluorobenzene	100	%	78-123	1		08/07/00 18:50	NL	367873
Surr: Toluene-d8	94.0	%	74-122	1		08/07/00 18:50	NL	367873

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

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

Client Sample ID W-19-MW1 **Collected:** 7/31/00 3:35:00 **SPL Sample ID:** 00080090-04

Site: 7-3567,19828545

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		08/08/00 16:30	AM	364634
Surr: n-Pentacosane	58.0	%	20-150	1		08/08/00 16:30	AM	364634

Run ID/Seq #: HP_V_000808D-364634

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

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

Client Sample ID W-38-MW3 **Collected:** 7/31/00 5:15:00 **SPL Sample ID:** 00080090-05

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 17:47	DL	360341
Surr: 1,4-Difluorobenzene	104	%	62-144	1		08/04/00 17:47	DL	360341
Surr: 4-Bromofluorobenzene	94.0	%	44-153	1		08/04/00 17:47	DL	360341
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 17:47	DL	360278
Ethylbenzene	ND		0.5	1		08/04/00 17:47	DL	360278
Methyl tert-butyl ether	230		2	1		08/04/00 17:47	DL	360278
Toluene	ND		0.5	1		08/04/00 17:47	DL	360278
m,p-Xylene	ND		0.5	1		08/04/00 17:47	DL	360278
o-Xylene	ND		0.5	1		08/04/00 17:47	DL	360278
Xylenes,Total	ND		0.5	1		08/04/00 17:47	DL	360278
Surr: 1,4-Difluorobenzene	101	%	72-137	1		08/04/00 17:47	DL	360278
Surr: 4-Bromofluorobenzene	104	%	48-156	1		08/04/00 17:47	DL	360278
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 19:17	NL	367874
1,2-Dichloroethane	ND		5	1		08/07/00 19:17	NL	367874
2-Nitropropane	ND		20	1		08/07/00 19:17	NL	367874
Diisopropyl ether	ND		10	1		08/07/00 19:17	NL	367874
Methyl tert-butyl ether	160		5	1		08/07/00 19:17	NL	367874
t-Butyl alcohol	ND		500	1		08/07/00 19:17	NL	367874
tert-Amyl methyl ether	ND		10	1		08/07/00 19:17	NL	367874
tert-Butyl ethyl ether	ND		10	1		08/07/00 19:17	NL	367874
Surr: 1,2-Dichloroethane-d4	104	%	62-119	1		08/07/00 19:17	NL	367874
Surr: 4-Bromofluorobenzene	96.0	%	78-123	1		08/07/00 19:17	NL	367874
Surr: Toluene-d8	92.0	%	74-122	1		08/07/00 19:17	NL	367874

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

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

Client Sample ID W-38-MW3 **Collected:** 7/31/00 5:20:00 **SPL Sample ID:** 00080090-06

Site: 7-3567,19828545

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		08/08/00 17:10	AM	364635
Surr: n-Pentacosane	75.4	%	20-150	1		08/08/00 17:10	AM	364635

Run ID/Seq #: HP_V_000808D-364635

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Client Sample ID W-49-MW4 (G) **Collected:** 7/31/00 3:45:00 **SPL Sample ID:** 00080090-07

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS				**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50		1		08/04/00 18:11	DL	360342
Surr: 1,4-Difluorobenzene	103	%	62-144		1		08/04/00 18:11	DL	360342
Surr: 4-Bromofluorobenzene	90.3	%	44-153		1		08/04/00 18:11	DL	360342
PURGEABLE AROMATICS				**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5		1		08/04/00 18:11	DL	360279
Ethylbenzene	ND		0.5		1		08/04/00 18:11	DL	360279
Methyl tert-butyl ether	480		2		1		08/04/00 18:11	DL	360279
Toluene	ND		0.5		1		08/04/00 18:11	DL	360279
m,p-Xylene	ND		0.5		1		08/04/00 18:11	DL	360279
o-Xylene	ND		0.5		1		08/04/00 18:11	DL	360279
Xylenes,Total	ND		0.5		1		08/04/00 18:11	DL	360279
Surr: 1,4-Difluorobenzene	101	%	72-137		1		08/04/00 18:11	DL	360279
Surr: 4-Bromofluorobenzene	104	%	48-156		1		08/04/00 18:11	DL	360279
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5		1		08/07/00 19:44	NL	367875
1,2-Dichloroethane	ND		5		1		08/07/00 19:44	NL	367875
2-Nitropropane	ND		20		1		08/07/00 19:44	NL	367875
Diisopropyl ether	ND		10		1		08/07/00 19:44	NL	367875
Methyl tert-butyl ether	490		50		10		08/08/00 20:32	NL	363948
t-Butyl alcohol	ND		500		1		08/07/00 19:44	NL	367875
tert-Amyl methyl ether	ND		10		1		08/07/00 19:44	NL	367875
tert-Butyl ethyl ether	ND		10		1		08/07/00 19:44	NL	367875
Surr: 1,2-Dichloroethane-d4	110	%	62-119		10		08/08/00 20:32	NL	363948
Surr: 1,2-Dichloroethane-d4	104	%	62-119		1		08/07/00 19:44	NL	367875
Surr: 4-Bromofluorobenzene	104	%	78-123		10		08/08/00 20:32	NL	363948
Surr: 4-Bromofluorobenzene	100	%	78-123		1		08/07/00 19:44	NL	367875
Surr: Toluene-d8	90.0	%	74-122		10		08/08/00 20:32	NL	363948
Surr: Toluene-d8	92.0	%	74-122		1		08/07/00 19:44	NL	367875

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

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

Client Sample ID W-49-MW4 (G) **Collected:** 7/31/00 3:50:00 **SPL Sample ID:** 00080090-08

Site: 7-3567,19828545

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		08/08/00 17:49	AM	364636
Surr: n-Pentacosane	71.0	%	20-150	1		08/08/00 17:49	AM	364636

Run ID/Seq #: HP_V_000808D-364636

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Client Sample ID W-39-MW6 **Collected:** 7/31/00 4:15:00 **SPL Sample ID:** 00080090-09

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 18:36	DL	360343
Surr: 1,4-Difluorobenzene	104	%	62-144	1		08/04/00 18:36	DL	360343
Surr: 4-Bromofluorobenzene	94.3	%	44-153	1		08/04/00 18:36	DL	360343
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 18:36	DL	360280
Ethylbenzene	ND		0.5	1		08/04/00 18:36	DL	360280
Methyl tert-butyl ether	ND		2	1		08/04/00 18:36	DL	360280
Toluene	ND		0.5	1		08/04/00 18:36	DL	360280
m,p-Xylene	ND		0.5	1		08/04/00 18:36	DL	360280
o-Xylene	ND		0.5	1		08/04/00 18:36	DL	360280
Xylenes,Total	ND		0.5	1		08/04/00 18:36	DL	360280
Surr: 1,4-Difluorobenzene	98.0	%	72-137	1		08/04/00 18:36	DL	360280
Surr: 4-Bromofluorobenzene	104	%	48-156	1		08/04/00 18:36	DL	360280
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 20:11	NL	367876
1,2-Dichloroethane	ND		5	1		08/07/00 20:11	NL	367876
2-Nitropropane	ND		20	1		08/07/00 20:11	NL	367876
Diisopropyl ether	ND		10	1		08/07/00 20:11	NL	367876
Methyl tert-butyl ether	ND		5	1		08/07/00 20:11	NL	367876
t-Butyl alcohol	ND		500	1		08/07/00 20:11	NL	367876
tert-Amyl methyl ether	ND		10	1		08/07/00 20:11	NL	367876
tert-Butyl ethyl ether	ND		10	1		08/07/00 20:11	NL	367876
Surr: 1,2-Dichloroethane-d4	106	%	62-119	1		08/07/00 20:11	NL	367876
Surr: 4-Bromofluorobenzene	102	%	78-123	1		08/07/00 20:11	NL	367876
Surr: Toluene-d8	92.0	%	74-122	1		08/07/00 20:11	NL	367876

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

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

Client Sample ID W-39-MW6 **Collected:** 7/31/00 4:20:00 **SPL Sample ID:** 00080090-10

Site: 7-3567,19828545

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		08/08/00 18:29	AM	364637
Surr: n-Pentacosane	66.6	%	20-150	1		08/08/00 18:29	AM	364637

Run ID/Seq #: HP_V_000808D-364637

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

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

Client Sample ID W-24-MW7 **Collected:** 7/31/00 4:30:00 **SPL Sample ID:** 00080090-11

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 19:00	DL	360344
Surr: 1,4-Difluorobenzene	101	%	62-144	1		08/04/00 19:00	DL	360344
Surr: 4-Bromofluorobenzene	95.3	%	44-153	1		08/04/00 19:00	DL	360344
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 19:00	DL	360281
Ethylbenzene	ND		0.5	1		08/04/00 19:00	DL	360281
Methyl tert-butyl ether	13		2	1		08/04/00 19:00	DL	360281
Toluene	ND		0.5	1		08/04/00 19:00	DL	360281
m,p-Xylene	ND		0.5	1		08/04/00 19:00	DL	360281
o-Xylene	ND		0.5	1		08/04/00 19:00	DL	360281
Xylenes,Total	ND		0.5	1		08/04/00 19:00	DL	360281
Surr: 1,4-Difluorobenzene	98.7	%	72-137	1		08/04/00 19:00	DL	360281
Surr: 4-Bromofluorobenzene	104	%	48-156	1		08/04/00 19:00	DL	360281
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 20:39	NL	367877
1,2-Dichloroethane	ND		5	1		08/07/00 20:39	NL	367877
2-Nitropropane	ND		20	1		08/07/00 20:39	NL	367877
Diisopropyl ether	ND		10	1		08/07/00 20:39	NL	367877
Methyl tert-butyl ether	8		5	1		08/07/00 20:39	NL	367877
t-Butyl alcohol	ND		500	1		08/07/00 20:39	NL	367877
tert-Amyl methyl ether	ND		10	1		08/07/00 20:39	NL	367877
tert-Butyl ethyl ether	ND		10	1		08/07/00 20:39	NL	367877
Surr: 1,2-Dichloroethane-d4	106	%	62-119	1		08/07/00 20:39	NL	367877
Surr: 4-Bromofluorobenzene	102	%	78-123	1		08/07/00 20:39	NL	367877
Surr: Toluene-d8	96.0	%	74-122	1		08/07/00 20:39	NL	367877

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

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HOUSTON, TEXAS 77054
(713) 660-0901

Client Sample ID W-24-MW7 **Collected:** 7/31/00 4:35:00 **SPL Sample ID:** 00080090-12

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				**MCL**	**CA_DRO**		**Units: ug/L**		
Diesel Range Organics	150		50		1		08/08/00 19:08	AM	364639
Surr: n-Pentacosane	77.8	%	20-150		1		08/08/00 19:08	AM	364639

Run ID/Seq #: HP_V_000808D-364639

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

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Client Sample ID W-31-MW2 **Collected:** 7/31/00 5:40:00 **SPL Sample ID:** 00080090-13

Site: 7-3567,19828545

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
GASOLINE RANGE ORGANICS			**MCL**	**CA_GRO**		**Units: ug/L**		
Gasoline Range Organics	ND		50	1		08/04/00 19:25	DL	360345
Surr: 1,4-Difluorobenzene	101	%	62-144	1		08/04/00 19:25	DL	360345
Surr: 4-Bromofluorobenzene	93.3	%	44-153	1		08/04/00 19:25	DL	360345
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		0.5	1		08/04/00 19:25	DL	360282
Ethylbenzene	ND		0.5	1		08/04/00 19:25	DL	360282
Methyl tert-butyl ether	6.8		2	1		08/04/00 19:25	DL	360282
Toluene	ND		0.5	1		08/04/00 19:25	DL	360282
m,p-Xylene	ND		0.5	1		08/04/00 19:25	DL	360282
o-Xylene	ND		0.5	1		08/04/00 19:25	DL	360282
Xylenes,Total	ND		0.5	1		08/04/00 19:25	DL	360282
Surr: 1,4-Difluorobenzene	99.3	%	72-137	1		08/04/00 19:25	DL	360282
Surr: 4-Bromofluorobenzene	103	%	48-156	1		08/04/00 19:25	DL	360282
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**		**Units: ug/L**		
1,2-Dibromoethane	ND		5	1		08/07/00 21:06	NL	367878
1,2-Dichloroethane	ND		5	1		08/07/00 21:06	NL	367878
2-Nitropropane	ND		20	1		08/07/00 21:06	NL	367878
Diisopropyl ether	ND		10	1		08/07/00 21:06	NL	367878
Methyl tert-butyl ether	ND		5	1		08/07/00 21:06	NL	367878
t-Butyl alcohol	ND		500	1		08/07/00 21:06	NL	367878
tert-Amyl methyl ether	ND		10	1		08/07/00 21:06	NL	367878
tert-Butyl ethyl ether	ND		10	1		08/07/00 21:06	NL	367878
Surr: 1,2-Dichloroethane-d4	106	%	62-119	1		08/07/00 21:06	NL	367878
Surr: 4-Bromofluorobenzene	104	%	78-123	1		08/07/00 21:06	NL	367878
Surr: Toluene-d8	94.0	%	74-122	1		08/07/00 21:06	NL	367878

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

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Client Sample ID W-31-MW2 **Collected:** 7/31/00 5:45:00 **SPL Sample ID:** 00080090-14

Site: 7-3567,19828545

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		08/08/00 19:48	AM	364641
Surr: n-Pentacosane	69.2	%	20-150		1		08/08/00 19:48	AM	364641

Run ID/Seq #: HP_V_000808D-364641

Prep Method	Prep Date	Prep Initials
SW3510B	08/03/2000 16:11	KL

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

Quality Control Documentation

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

Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Diesel Range Organics
Method: CA_DRO
WorkOrder: 00080090
Lab Batch ID: 6417

Method Blank

RunID: HP_V_000808D-364631 Units: mg/L
Analysis Date: 08/08/2000 14:33 Analyst: AM
Preparation Date: 08/03/2000 16:11 Prep By: KL Method SW3510B

Analyte	Result	Rep Limit
Diesel Range Organics	ND	0.050
Surr: n-Pentacosane	71.8	20-150

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-02C	W-BB-MW2
00080090-04A	W-19-MW1
00080090-06A	W-38-MW3
00080090-08A	W-49-MW4 (G)
00080090-10A	W-39-MW6
00080090-12A	W-24-MW7
00080090-14A	W-31-MW2

Laboratory Control Sample (LCS)

RunID: HP_V_000808D-364632 Units: mg/L
Analysis Date: 08/08/2000 15:12 Analyst: AM
Preparation Date: 08/03/2000 16:11 Prep By: KL Method SW3510B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.2	90	21	175

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

Sample Spiked: 00080091-01
RunID: HP_V_000808D-364643 Units: mg/L
Analysis Date: 08/08/2000 22:25 Analyst: AM
Preparation Date: 08/03/2000 16:11 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 Range Organics	ND	1.25	1.9	149	1.25	1.4	106	33.4*	20	21	175

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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Purgeable Aromatics
Method: SW8021B
WorkOrder: 00080090
Lab Batch ID: R18476

Method Blank

RunID: HP_U_000804A-360272 Units: ug/L
Analysis Date: 08/04/2000 12:24 Analyst: DL

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	98.4	72-137
Surr: 4-Bromofluorobenzene	103.3	48-156

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-01A	TB 7/18/00
00080090-02A	W-BB-MW2
00080090-03A	W-19-MW1
00080090-05A	W-38-MW3
00080090-07A	W-49-MW4 (G)
00080090-09A	W-39-MW6
00080090-11A	W-24-MW7
00080090-13A	W-31-MW2

Laboratory Control Sample (LCS)

RunID: HP_U_000804A-360271 Units: ug/L
Analysis Date: 08/04/2000 12:00 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	49	98	70	130
Ethylbenzene	50	53	105	70	130
Methyl tert-butyl ether	50	47	94	70	130
Toluene	50	50	101	70	130
m,p-Xylene	100	100	105	70	130
o-Xylene	50	52	103	70	130
Xylenes,Total	150	152	101	70	130

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

Sample Spiked: 00080090-03
RunID: HP_U_000804A-360273 Units: ug/L
Analysis Date: 08/04/2000 14:32 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	21	105	20	22	110	4.63	21	32	164
Ethylbenzene	ND	20	22	108	20	23	114	5.48	19	52	142
Methyl tert-butyl ether	51	20	65	70.8	20	71	98.2	32.3*	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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Purgeable Aromatics
Method: SW8021B

WorkOrder: 00080090
Lab Batch ID: R18476

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

Sample Spiked: 00080090-03
RunID: HP_U_000804A-360273 Units: ug/L
Analysis Date: 08/04/2000 14:32 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	21	107	20	22	112	4.35	20	38	159
m,p-Xylene	ND	40	43	108	40	46	114	5.72	17	53	144
Xylene	ND	20	21	106	20	22	111	5.32	18	53	143
enes,Total	ND	60	64	107	60	68	113	6.06	18	53	144

Qualifiers:

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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Gasoline Range Organics
Method: CA_GRO
WorkOrder: 00080090
Lab Batch ID: R18478

Method Blank

RunID: HP_U_000804B-360337 Units: mg/L
Analysis Date: 08/04/2000 16:09 Analyst: DL

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	104.7	62-144
Surr: 4-Bromofluorobenzene	94.0	44-153

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-01A	TB 7/18/00
00080090-02A	W-BB-MW2
00080090-03A	W-19-MW1
00080090-05A	W-38-MW3
00080090-07A	W-49-MW4 (G)
00080090-09A	W-39-MW6
00080090-11A	W-24-MW7
00080090-13A	W-31-MW2

Laboratory Control Sample (LCS)

RunID: HP_U_000804B-360334 Units: mg/L
Analysis Date: 08/04/2000 11:35 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.85	85	75	125

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

Sample Spiked: 00080090-05
RunID: HP_U_000804B-360335 Units: mg/L
Analysis Date: 08/04/2000 15:21 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	0.94	104	0.9	0.89	98.5	5.42	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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 00080090
Method: SW8260B **Lab Batch ID:** R18465

Method Blank

RunID: M_000804B-360087 Units: ug/L
Analysis Date: 08/04/2000 11:02 Analyst: NL

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-01B	TB 7/18/00

Analyte	Result	Rep Limit
1,2-Dibromoethane	ND	5.0
1,2-Dichloroethane	ND	5.0
Diisopropyl ether	ND	10
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Surr: 1,2-Dichloroethane-d4	116.0	62-119
Surr: 4-Bromofluorobenzene	98.0	78-123
Surr: Toluene-d8	104.0	74-122

Laboratory Control Sample (LCS)

RunID: M_000804B-360086 Units: ug/L
Analysis Date: 08/04/2000 10:35 Analyst: NL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	51	102	66	134
Benzene	50	50	100	79	119
Chlorobenzene	50	49	98	74	110
Toluene	50	53	106	73	113
Trichloroethene	50	49	98	74	122

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

Sample Spiked: 00080041-02
RunID: M_000804B-360090 Units: ug/L
Analysis Date: 08/04/2000 12:24 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
-Dichloroethene	440	2500	2800	94	2500	2800	94	0	14	38	172
Benzene	ND	2500	2600	100	2500	2600	100	0	11	66	134
Chlorobenzene	770	2500	3200	97	2500	3200	97	0	13	67	115
luene	ND	2500	2600	104	2500	2500	100	4	13	59	125

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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 00080090
Lab Batch ID: R18465

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

Sample Spiked: 00080041-02
RunID: M_000804B-360090 Units: ug/L
Analysis Date: 08/04/2000 12:24 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
ichloroethene	ND	2500	2400	96	2500	2400	96	0	14	61	134

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

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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 00080090
Lab Batch ID: R18580

Method Blank

RunID: M_000807A-362344 Units: ug/L
Analysis Date: 08/07/2000 14:17 Analyst: NL

Analyte	Result	Rep Limit
1,2-Dibromoethane	ND	5.0
1,2-Dichloroethane	ND	5.0
Diisopropyl ether	ND	10
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Surr: 1,2-Dichloroethane-d4	112.0	62-119
Surr: 4-Bromofluorobenzene	104.0	78-123
Surr: Toluene-d8	100.0	74-122

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-02B	W-BB-MW2
00080090-03B	W-19-MW1
00080090-05B	W-38-MW3
00080090-07B	W-49-MW4 (G)
00080090-09B	W-39-MW6
00080090-11B	W-24-MW7
00080090-13B	W-31-MW2

Laboratory Control Sample (LCS)

RunID: M_000807A-362343 Units: ug/L
Analysis Date: 08/07/2000 13:50 Analyst: NL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	53	106	66	134
Benzene	50	54	108	79	119
Chlorobenzene	50	46	92	74	110
Toluene	50	48	96	73	113
Trichloroethene	50	52	104	74	122

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

Sample Spiked: 00080043-05
RunID: M_000807A-362347 Units: ug/L
Analysis Date: 08/07/2000 16:06 Analyst: NL

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	50	60	120	50	56	112	7	14	38	172
Benzene	ND	50	55	110	50	56	112	2	11	66	134
Chlorobenzene	ND	50	47	94	50	48	96	2	13	67	115
oluene	ND	50	48	96	50	49	98	2	13	59	125

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

HOUSTON LABORATORY
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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 00080090
Lab Batch ID: R18580

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

Sample Spiked: 00080043-05
RunID: M_000807A-362347 Units: ug/L
Analysis Date: 08/07/2000 16:06 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
chloroethene	ND	50	52	104	50	54	108	4	14	61	134

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

HOUSTON LABORATORY
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Quality Control Report

EXXON Company U.S.A.

243113X

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 00080090
Lab Batch ID: R18667

Method Blank

RunID: M_000808A-363834 Units: ug/L
Analysis Date: 08/08/2000 13:04 Analyst: NL

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
00080090-07B	W-49-MW4 (G)

Analyte	Result	Rep Limit
Methyl tert-butyl ether	ND	5.0
Surr: 1,2-Dichloroethane-d4	104.0	62-119
Surr: 4-Bromofluorobenzene	102.0	78-123
Surr: Toluene-d8	88.0	74-122

Laboratory Control Sample (LCS)

RunID: M_000808A-363833 Units: ug/L
Analysis Date: 08/08/2000 12:37 Analyst: NL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	59	118	66	134
Benzene	50	55	110	79	119
Chlorobenzene	50	43	86	74	110
Toluene	50	46	92	73	113
Trichloroethene	50	52	104	74	122

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

Sample Spiked: 00080060-01
RunID: M_000808A-363838 Units: ug/L
Analysis Date: 08/08/2000 14:37 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	2500	3300	132	2500	3400	136	3	14	38	172
Benzene	ND	2500	3100	119	2500	3100	119	0	11	66	134
Chlorobenzene	ND	2500	2300	92	2500	2300	92	0	13	67	115
Toluene	330	2500	2900	103	2500	2900	103	0	13	59	125
Trichloroethene	ND	2500	2800	112	2500	2900	116	4	14	61	134

Qualifiers:

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

Chain of Custody

And

Sample Receipt Checklist

CHAIN OF CUSTODY RECORD NO. ______ Page 1 of 2

EXXON COMPANY, USA. (West Coast)

Exxon Engineer: DARIN ROUSE Phone (925) 246-8768

Consultant Co. Name: ERI Contact: JIM CHAPPELL

Address: 73 DIGITAL DRIVE SUITE 100 NOVATO CA Fax: (415) 382-1856

RAS #: 7-3567 Facility/State ID # (TN Only):

AFE # (Terminal Only): Consultant Project #: 24313X

Location: 3192 SANTA RITA Rd (City) PLEASANTON (State) CA

☐ EE ☐ C&M ☐ SDT

Consultant Work Release #: 19828545

Sampled By: MAHONEY

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX) | OTHER

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H_2O	SOIL	AIR	OTHER	PRESERVATIVE	NO OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO ☒ 8015 DRO ☐	BTEX 8020 ☒ 602 ☐	MTBE 8020 ☒ 8260 ☐	OXYGENATES (7) 8260 ☒	O&G IR 413.1 ☐ GRAV. 413.2 ☐	VOL. 8260 ☐ 624 ☐	SEMI-VOL 8270 ☐ 625 ☐	PNA/PAH 8100 ☐ 8310 ☐ 8270 ☐	PCB/PEST 8081/8082 ☐ PCB ONLY ☐	TCLP FULL☐ VOA☐ SEMI-VOA☐ PEST☐ HERB☐	METALS, TOTAL ☐ METALS, TCLP ☐	LEAD, TOTAL 239.1 ☐ 7421 ☐ LEAD, TCLP ☐	LEAD DISSOLVED ☐ LEAD TOTAL ☐	REACTIVITY ☐ CORROSIVITY ☐ FLASH POINT ☐	PURGEABLE HYDROCARBON 8010 ☐ 601 ☐	TPH/IR 418.1 ☐	TOX/TOH ☐
TB	7/18	—			X				HCL	2	40 mL	X	X	X	X													
W-BB-MW2	7/31	1735							HCL	2	40 mL	X	X	X	X													
W-BB-MW2		1735							ICE	1	1L	X																
W-19-MW1		1530							HCL	5	40 mL	X	X	X	X													
W-19-MW1		1535							ICE	2	1L	X																
W-38-MW3		1715							HCL	5	40 mL	X	X	X	X													
W-38-MW3		1720							ICE	2	1L	X																
W-49-MW4 (G)		1545							HCL	5	40 mL	X	X	X	X													
W-49-MW4 (G)		1550							ICE	2	1L	X																
W-34-MW6	↓	1615			↓				HCL	5	40 mL	X	X	X	X													

TAT

24 HR. ____* 72 HR. ____*

48 HR. ____* 96 HR. ____*

8 Business X *Contact US Prior to Sending Sample

Other ____

EXXON UST CONTRACT NO. C41483

SPECIAL DETECTION LIMITS (Specify)

REMARKS: 4°C

SPECIAL REPORTING REQUIREMENTS (Specify)

PDF ☐ ☐ EDD

FAX ☐ ☐ FAX C-O-C W/REPORT

LAB USE ONLY Lot # 1000 Storage Location

WORK ORDER # 00080090 LAB WORK RELEASE #:

QA/QC Level

Standard ☒ CLP ☐ Other ☐

CUSTODY RECORD

Relinquished By Sampler:	Date	Time	Received By:
John W. Mahoney	8/2/00	0930	
Relinquished:	Date	Time	Received By:
Relinquished:	Date	Time	Received By: Nancy Banera 8/3/00 1000
			Way Bill #: Cooler Temp:

Triplicate: Original • White Lab's Copy • Green Client Copy • Yellow

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 CHAPPELL

Address: 73 DIGITAL DRIVE Fax: (415) 382-1856

SUITE 100 NOVATO CA 94949

RAS #: 7-3567 Facility/State ID # (TN Only): _____

AFE # (Terminal Only): _____ Consultant Project #: 247113X

Location: 3192 SAN RAMON RD (City) PLEASANTON (State) CA

☐ EE ☐ C&M ☐ SDT

Consultant Work Release #: 19820545

Sampled By: K McHONEY

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX H_2O	MATRIX SOIL	MATRIX AIR	OTHER	PRESERVATIVE	NO. OF CONTAINERS	CONTAINER SIZE	TPH/GC 8015 GRO	TPH/GC 8015 DRO	BTEX 8020	MTBE 8020	MTBE 8260	OXYGENATES (7) 8260	O&G IR 413.1	O&G GRAV 413.2	VOL. 8260	SEMI-VOL 8270	PNA/PAH 8100	PNA/PAH 8310	PNA/PAH 8270	PCB/PEST 8081/8082	PCB ONLY	TCLP FULL	TCLP VOA	TCLP SEMI-VOA	TCLP PEST	TCLP HERB	METALS, TOTAL	METALS, TCLP	LEAD, TOTAL 239.1	LEAD, TCLP 7421	LEAD, DISSOLVED	LEAD TOTAL	REACTIVITY	CORROSIVITY	FLASH POINT	PURGEABLE HYDROCARBON 8010	PURGEABLE HYDROCARBON 601	TPH/IR 418.1	TOX/TOH
W-39-MW6	7/31	1624			X				ICE	2	1L	Y																																
W-24-MW7	↓	1630							HCL	5	40 mL	Y		Y	X	X	Y																													
W-24-MW7	↓	1635							ICE	2	1L	Y																																	
W-31-MW2	↓	1740							HCL	5	40 mL	Y		Y	X	X	X																													
W-31-MW2	↓	1745							ICE	2	1L	Y																																	

ANALYSIS REQUEST: (CHECK APPROPRIATE BOX)

OTHER

TAT

24 HR. ___* 72 HR. ___*

48 HR. ___* 96 HR. ___*

8 Business X *Contact US Prior to Sending Sample

Other ___

EXXON UST CONTRACT NO. C41483

SPECIAL DETECTION LIMITS (Specify)

REMARKS: 4c

SPECIAL REPORTING REQUIREMENTS (Specify)

PDF ☐ ☐ EDD

FAX ☐ ☐ FAX C-O-C W/REPORT

LAB USE ONLY Lot # Storage Location

WORK ORDER #: LAB WORK RELEASE #:

QA/QC Level

Standard ☑ CLP ☐ Other ☐ _____

CUSTODY RECORD

	Relinquished By Sampler:	Date	Time	Received By:
1	John W. McHoney	8/2/00	0930	
2	Relinquished:	Date	Time	Received By:
3	Relinquished:	Date	Time	Received By:

Way Bill # Fonney Express Cooler Temp: 8/3/00 1000

Triplicate: Original • White Lab's Copy • Green Client Copy • Yellow

HOUSTON LABORATORY
6880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	00080090	Received by:	Estrada, Ruben
Date and Time Received:	8/3/00 10:00:00 AM	Carrier name:	FedEx
Temperature:	4		

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