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ENVIRONMENTAL RESOLUTIONS, INC.

ENVIRONMENTAL DEPARTMENT
NORTHWEST REGION

DATE August 19, 2002

EXXONMOBIL OIL CORPORATION
GROUNDWATER MONITORING REPORT

Site No 7-6375 Address 8325 Mukilteo Speedway, Mukilteo, Washington
ExxonMobil Project Manager Darin L. Rouse
Consultant/Contact Person Environmental Resolutions, Inc /James S. Matthiessen
Primary Agency/Regulatory ID No Washington State Department of Ecology

WORK PERFORMED THIS QUARTER [Third - 2002]:

- Monitored 3, purged, and sampled 2 groundwater monitoring wells

WORK PROPOSED FOR NEXT QUARTER [Third - 2003]:

- Monitor, purge, and sample 3 groundwater monitoring wells

SUMMARY:

Frequency of Sampling Events	Annually	(Quarterly, etc)
Approximate Depth to Groundwater	2 to 10 ft	(Measured Feet)
Groundwater Gradient	Not Determined	(Direction)
	Not Determined	(Magnitude)
Maximum TPH-G/Benzene Concentrations	8,440/1,980	(ppb)
Measurable Free Product Detected	No	(Yes - ID well(s)/No)
Free Product Recovered This Quarter	None	(gallons)
Cumulative Free Product Recovered to Date	Unknown	(gallons)
Bulk Soil Removed This Quarter	None	(cubic yards)
Water Wells or Surface Waters w/in 2,000 ft	One irrigation well	(Distance &
Radius and Respective Direction	1,400 ft, South	Direction)
Current Remedial Action	None	(SVE/AS/P&T etc)
Permits for Discharge	None	(NPDES, POTW,etc)

DISCUSSION:

- SV2 contained hydrocarbon concentrations exceeding MTCA Method A Cleanup Levels

ATTACHMENTS:

Plate 1 Groundwater Sample Analysis Map - 07/09/02
Table 1 Groundwater Analytical Results
Laboratory Reports and Chain of Custody Documentation
Field Data Records

Prepared By

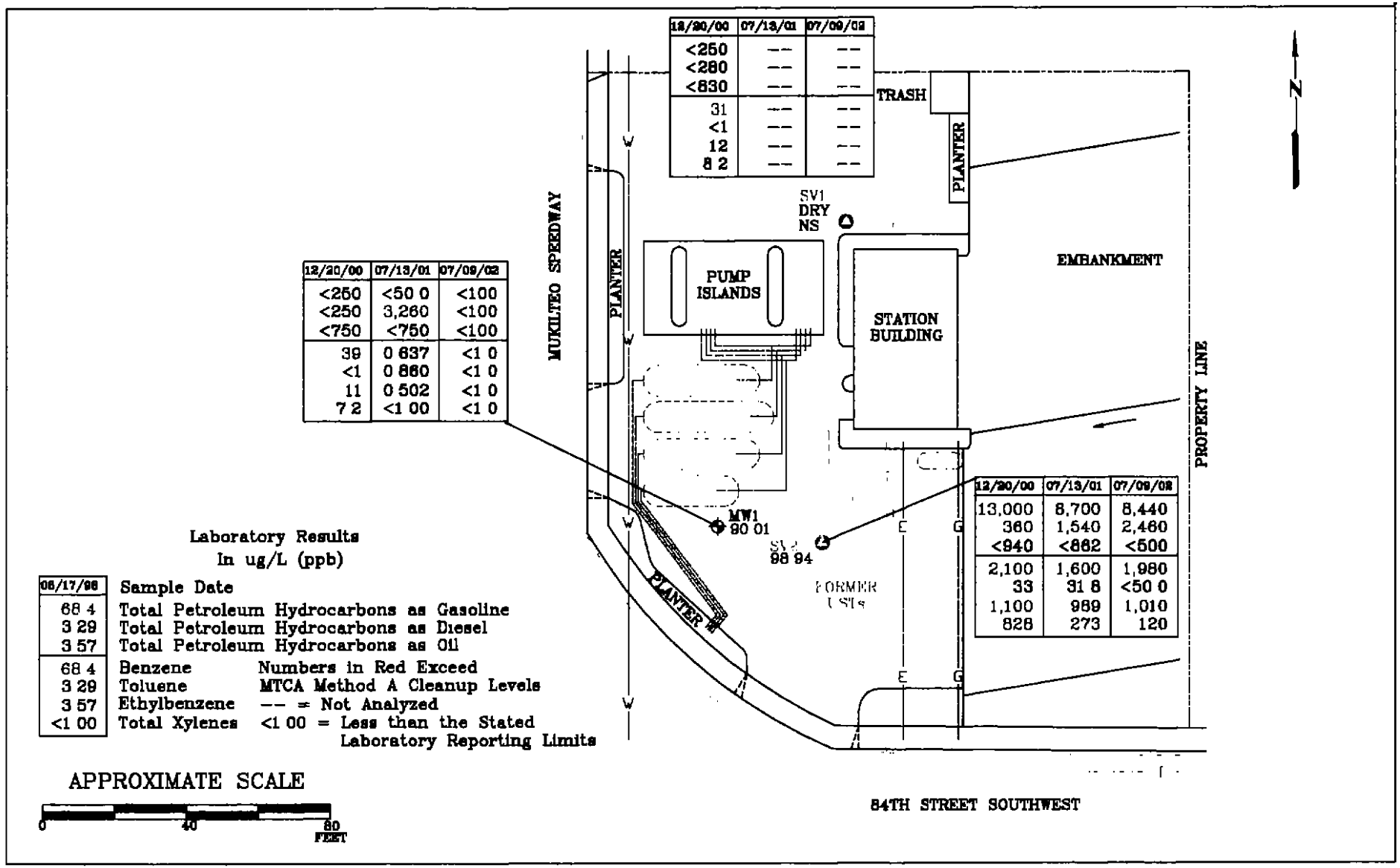
Yukiko Noguchi
Staff Scientist

State of Washington
Hydrogeologist
276
Licensed Geologist
JOHN K. MEYER

Reviewed By

John K. Meyer, R.G.
Branch Manager

3111613 R01



FN 31116GWS

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GROUNDWATER SAMPLE ANALYSIS MAP - 07/09/02

FORMER EXXON STATION 7-6375
8325 Mukilteo Speedway
Mukilteo, Washington

EXPLANATION

- MW1 — Groundwater Monitoring Well
- 89 40 — Relative Groundwater Elevation
- NS — Not Sampled
- [illegible] for extraction well

PROJECT NO.
31116

PLATE
1

CK 08/16/02

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Former Exxon Station 7-6375
8325 Mukilteo Speedway
Mukilteo, Washington

Well Name	Sample Da	DTW	GW Elev	TPH-G	TPH-D	TPH-O	B	T	E	X	Total Pb	Diss Pb	1,1,1-TCA
MW1	08/14/92	10 45	89 55	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	–	ND
100 00	12/08/92	11 28	88 72	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	–	1 3
	04/22/93	10 20	89 80	<50	<50	–	<0 5	<0 5	<0 5	<0 5	–	–	1 7
	06/01/93	10 14	89 86	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	–	1 5
	09/07/93	10 21	89 79	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	<3 0	ND
	12/01/93	10 83	89 17	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	<3 0	–
	02/22/94	9 26	90 74	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	<3 0	–
	06/01/94	10 05	89 95	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	<3 0	–
	08/18/94	10 20	89 80	<50	–	–	<0 5	<0 5	<0 5	<0 5	–	<3 0	–
	11/15/94	11 14	88 86	<50	–	–	<0 5	<0 5	<0 5	<0 5	[redacted]	–	–
	02/23/95	9 88	90 12	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	05/09/95	9 98	90 02	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	<2 0	–
	08/17/95	10 26	89 74	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	<2 0	–
	11/06/95	10 77	89 23	<50	<250	<750	<0 5	<0 5	<0 5	<1 0	[redacted]	–	–
	01/12/96	8 93	91 07	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	04/03/96	9 94	90 06	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	<2 0	–
	07/23/96	10 14	89 86	<50	–	–	<0 5	<0 5	<0 5	<1 0	[redacted]	–	–
	10/28/96	10 76	89 24	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	01/16/97	9 58	90 42	<50	<250	<500	<0 5	<0 5	<0 5	<1 0	<2 0	–	–
	04/09/97	9 63	90 37	<50	<250	<500	<0 5	<0 5	<0 5	<1 0	<2 0	–	–
	07/28/97	10 03	89 97	<50	<250	<750	<0 5	0 629	<0 5	<1 0	<2 0	–	–
	03/24/99	8 42	91 58	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	12/20/00	10 60	89 40	<250	<250	<750	[redacted]	<1	11	7 2	–	–	–
	07/13/01	10 03	89 97	<50 0	[redacted]	<750	0 637	0 860	0 502	<1 00	–	–	–
	07/09/02	9 99	90 01	<100	<100	<100	<1 0	<1 0	<1 0	<1 0	–	–	–
SV1	11/06/95	13 97	87 07	<50	400	<750	<0 5	<0 5	<0 5	<1 0	[redacted]	–	–
101 04	01/12/96	12 15	88 89	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	<2 0	–
	04/03/96	DRY	–	–	–	–	–	–	–	–	–	–	–
	07/23/96	DRY	–	–	–	–	–	–	–	–	–	–	–
	10/28/96	11 90	89 14	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	01/16/97	11 88	89 16	<50	<250	<500	<0 5	<0 5	<0 5	<1 0	<2 0	–	–
	04/09/97	12 27	88 77	<50	–	–	<0 5	<0 5	<0 5	<1 0	<2 0	–	–
	07/28/97	12 91	88 13	<50	<250	<750	<0 5	<0 5	<0 5	<1 0	<2 0	–	–
	03/24/99	12 29	88 75	<50	–	–	<0 5	<0 5	<0 5	<1 0	–	–	–
	12/20/00*	11 30	89 74	<250	<280	<830	[redacted]	<1	12	8 2	–	–	–
	07/13/01	DRY	–	–	–	–	–	–	–	–	–	–	–
	07/09/02	DRY	–	–	–	–	–	–	–	–	–	–	–
SV2	11/06/95	4 29	97 16	[redacted]							[redacted]	–	–
101 45	01/12/96	2 44	99 01		–	–					–	[redacted]	–
	04/03/96	2 80	98 65		–	–					–		–
	07/23/96	2 68	98 77		–	–					[redacted]	–	–
	10/28/96	3 47	97 98		–	–					–	–	–
	01/16/97	2 54	98 91								3 7	–	–
	04/09/97	2 70	98 75					30 3			[redacted]	–	–
	07/28/97	2 73	98 72								3 01	–	–
	03/24/99	1 80	99 65		–	–		25 8			–	–	–
	##########	4 40	97 05			<940		33			–	–	–
	07/13/01	2 20	99.25			<862		31 8			–	–	–
	07/09/02	2 51	98 94			<500		<50 0			–	–	–
MTCA Method A Cleanup Level					1,000[a]		5	40	30	20	5	5	NA

EXPLANATION
Concentrations in ug/L (ppb)
Wellhead elevations taken from prior consultant s reports
DTW = Depth to water in feet below top of casing
GW Elev = Groundwater elevation relative to top of casing elevations
TPH-G = Total Petroleum Hydrocarbons as Gasoline by Ecology Method NWTPH-Gx
TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil respectively, by Ecology Method NWTPH-Dx
B = Benzene T = Toluene E = Ethylbenzene, X = Total Xylenes
BTEX = Aromatic compounds by EPA Method 8020 and 8021B refer to laboratory reports
Total Pb = Total lead Diss Pb = Dissolved lead
Total and dissolved lead analyses using EPA Series 6000/7000 Methods
1,1,1-TCA = 1 1 1 - Trichloroethane by EPA Method 601
– = Not Analyzed or Sampled
< = Less than the stated laboratory reporting limit
Shaded values equal or exceed MTCA Method A Cleanup Levels
[a] Total Petroleum Hydrocarbons
* Sample identified as SB5 on official laboratory report
Data prior to 12/20/00 taken from previous consultant's reports

ExxonMobil
Refining & Supply Company
Global Remediation

Darin L Rouse
Territory Manager
Environmental Remediation

2300 Clayton Road Suite 1250
P O Box 4032
Concord, CA 94520-4032
(925) 246-8768 Telephone
(925) 246-8798 Facsimile

3152

ExxonMobil
Refining & Supply

September 11, 2002

Mr Ben Amoah-Forson
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

RE: Former Exxon RAS 7-6375/8325 Mukilteo Speedway, Mukilteo, Washington

Dear Mr Amoah-Forson

Attached for your review and comment is a letter report entitled ***ExxonMobil Groundwater Monitoring Report,*** dated August 19, 2002 for work conducted during the third quarter 2002 at the site referenced above The report was prepared by Environmental Resolutions, Inc (ERI) of Tukwila, Washington, and details the results of the annual 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
Territory Manager

Attachment ERI's ExxonMobil Groundwater Monitoring Report, Third Quarter 2002, dated August 19

cc w/ attachment
Mr Scott Hooton, BP Oil Company
Mr Tim Johnson, Tosco Corporation

w/o attachment
Mr John Meyer, Environmental Resolutions, Inc

TestAmerica
INCORPORATED

7/22/02

ERI 3894
YUKIKO NOGUCHI
815 INDUSTRY DRIVE
TUKWILA, WA 98188

This report includes the analytical certificates of analysis for all samples listed below These samples relate to your project 31116 EXXONMOBIL 7-6375 The Laboratory Project number is 292612 An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report

Sample Identification	Lab Number	Collection Date
SV 2	02-A114006	7/ 9/02
MW 1	02-A114007	7/ 9/02

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 7/22/02

Laboratory Certification Number: C249

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INCORPORATED

ANALYTICAL REPORT

ERI 3894
YUKIKO NOGUCHI
815 INDUSTRY DRIVE
TUKWILA, WA 98188

Project: 31116
Project Name: EXXONMOBIL 7-6375
Sampler: ROY MORSE

Lab Number: 02-A114006
Sample ID: SV 2
Sample Type: Water
Site ID: 7-6375

Date Collected: 7/ 9/02
Time Collected: 2:30
Date Received: 7/11/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
TRPH ORO (C24-C40)	ND	ug/L	500	5 0	7/17/02	18 46	K Phelps	NWTPH-Dx	4745
Benzene	1980	ug/L	50 0	50 0	7/22/02	9 22	D Cooper	8021B	8605
Ethylbenzene	1010	ug/L	50 0	50.0	7/22/02	9 22	D Cooper	8021B	8605
Toluene	ND	ug/L	50.0	50 0	7/22/02	9 22	D. Cooper	8021B	8605
Xylenes (Total)	120.	ug/L	50.0	50 0	7/22/02	9·22	D. Cooper	8021B	8605
TPH (Gasoline Range)	8440	ug/L	5000	50 0	7/22/02	9.22	D. Cooper	NWTPH-Gx	8605
TPH (Diesel Range)	2460	ug/L	500.	5 0	7/17/02	18 46	K Phelps	NWTPH-Dx	4745

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
RPH	1000 ml	1.00 ml	7/16/02		D Harris	3510

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	100.	50 - 150
BTEX/GRO Surr , a,a,a-TFT	98	69 - 132

Sample report continued

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INCORPORATED

ANALYTICAL REPORT

Laboratory Number: 02-A114006
Sample ID: SV 2
Project: 31116

LABORATORY COMMENTS:

ND - Not detected at the report limit
B - Analyte was detected in the method blank
J - Estimated Value below Report Limit.
E - Estimated Value above the calibration limit of the instrument
- Recovery outside Laboratory historical or method prescribed limits

End of Sample Report

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ANALYTICAL REPORT

ERI 3894
YUKIKO NOGUCHI
815 INDUSTRY DRIVE
TUKWILA, WA 98188

Project: 31116
Project Name: EXXONMOBIL 7-6375
Sampler: ROY MORSE

Lab Number: 02-A114007
Sample ID: MW 1
Sample Type: Water
Site ID: 7-6375

Date Collected: 7/ 9/02
Time Collected: 2:45
Date Received: 7/11/02
Time Received: 9:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
ORGANIC PARAMETERS									
TRPH ORO (C24-C40)	ND	ug/L	100	1.0	7/17/02	0 32	K.Phelps	NWTPH-Dx	4745
Benzene	ND	ug/L	1 0	1 0	7/22/02	9 50	D. Cooper	8021B	8605
Ethylbenzene	ND	ug/L	1.0	1 0	7/22/02	9.50	D Cooper	8021B	8605
Toluene	ND	ug/L	1 0	1 0	7/22/02	9 50	D Cooper	8021B	8605
Xylenes (Total)	ND	ug/L	I 0	I.0	7/22/02	9 50	D Cooper	8021B	8605
TPH (Gasoline Range)	ND	ug/L	100	1 0	7/22/02	9·50	D Cooper	NWTPH-Gx	8605
TPH (Diesel Range)	ND	ug/L	100	1 0	7/17/02	0.32	K.Phelps	NWTPH-Dx	4745

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
EPH	1000 ml	1 00 ml	7/16/02		D Harris	3510

Surrogate	% Recovery	Target Range
surr-o-Terphenyl	88	50 - 150
BTEX/GRO Surr , a,a,a-TFT	102	69 - 132

Sample report continued .

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PROJECT QUALITY CONTROL DATA
Project Number: 31116
Page: 1

Matrix Spike Recovery

Analyte	units	Orig Val.	MS Val	Spike Conc	Recovery	Target Range	Q C Batch	Spike Sample
UST ANALYSIS								
Benzene	mg/l	< 0 0006	0 0517	0.0500	103	74. - 129.	8605	BLANK
Toluene	mg/l	< 0.0006	0 0518	0.0500	104	74. - 128	8605	BLANK
Ethylbenzene	mg/l	< 0 0007	0.0536	0.0500	107	75. - 128	8605	BLANK
Xylenes (Total)	mg/l	< 0 0006	0 103	0 100	103	72 - 126	8605	BLANK
TPH (Gasoline Range)	mg/l	< 0 042	0 982	1.00	98	59 - 128	8605	BLANK
TPH (Diesel Range)	mg/l	< 0 100	0 987	1.00	99	23. - 120	4745	blank
BTEX/GRO Surr., a,a,a-TFT	% Recovery				101	69. - 132	8605	

Matrix Spike Duplicate

Analyte	units	Orig Val.	Duplicate	RPD	Limit	Q.C. Batch
UST PARAMETERS						
Benzene	mg/l	0.0517	0.0526	1 73	15.	8605
Toluene	mg/l	0 0518	0 0528	1 91	15.	8605
Ethylbenzene	mg/l	0.0536	0.0547	2 03	15.	8605
Xylenes (Total)	mg/l	0 103	0 106	2 87	19.	8605
TPH (Gasoline Range)	mg/l	0 982	0 969	1 33	22	8605
TPH (Diesel Range)	mg/l	0 987	1 00	1.31	49	4745
BTEX/GRO Surr., a,a,a-TFT	% Recovery		101			8605

Laboratory Control Data

Analyte	units	Known Val	Analyzed Val	% Recovery	Target Range	Q C. Batch
UST PARAMETERS						
Benzene	mg/l	0 100	0 105	105	74 - 124	8605
Toluene	mg/l	0 100	0 106	106	74 - 121	8605
Ethylbenzene	mg/l	0 100	0 111	111	75 - 123	8605

Project QC continued . .

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PROJECT QUALITY CONTROL DATA
Project Number: 31116

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C Batch
Xylenes (Total)	mg/l	0.200	0 210	105	72 - 120	8605
TPH (Gasoline Range)	mg/l	1 00	0 982	98	61 - 139	8605
TPH (Diesel Range)	mg/l	1.00	1 13	113	28 - 115	4745
BTEX/GRO Surr , a,a,a-TFT	% Recovery			100	69 - 132	8605

Blank Data

Analyte	Blank Value	Units	Q C Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
TRPH ORO (C24-C40)	< 0 100	mg/l	4745	7/17/02	9·57
Benzene	< 0 0006	mg/l	8605	7/22/02	8.53
Toluene	< 0 0006	mg/l	8605	7/22/02	8 53
Ethylbenzene	< 0 0007	mg/l	8605	7/22/02	8.53
Xylenes (Total)	< 0.0006	mg/l	8605	7/22/02	8 53
TPH (Gasoline Range)	< 0 042	mg/l	8605	7/22/02	8:53
TPH (Diesel Range)	< 0 100	mg/l	4745	7/17/02	9 57

Blank Data

Analyte	Blank Value	Units	Q C. Batch	Date Analyzed	Time Analyzed
UST PARAMETERS					
surr-o-Terphenyl	98	% Recovery	4745	7/17/02	9:57
BTEX/GRO Surr., a,a,a-TFT	103	% Recovery	8605	7/22/02	8·53

- Value outside Laboratory historical or method prescribed QC limits

End of Report for Project 292612

TestAmerica INCORPORATED

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring ____

Client Name: EDI Client #: 3844
Address: 815 Industry Dr
City/State/Zip Code: Tukwila WA 98188
Project Manager: James Matthiessen
Telephone Number: (206) 575-6820 Fax: X6423
Sampler Name (Print Name): Kay Malst
Sampler Signature: Kay F Malst
09/02/02

Project Name: Exxon 7-6375
Project #: 3116
Site/Location ID: Mukilteo State: WA
Report To: Yukiko Noguchi
Invoice To:
Quote #: PO#:

TAT: 1 Standard; ___ Rush (surcharges may apply)
Date Needed: ____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: NWTPH-G BTEX	NWTPH-Dx	QC Deliverables	REMARKS
SV2	7/9/02	2130	G		GW		3						X	X	None	OZAH3 114006
MW1	7/9/02	2145	G		GW		3						X	X	Level 2 (Batch QC)	114007
															Level 3	
															Level 4	
															Other ____	

Special Instructions:
RUN SILICA GEL CLEANUP FOR DIESELS

Relinquished By	Date	Time	Received By	Date	Time
Kay F Malst	7/10/02				
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	7/11/02 Date	0900 Time

Custody Seals: Y N N/A
Method of Shipment:

GROUNDWATER SAMPLING - FIELD LOG

Client Name: Exxon 7-6376
Location: McKittrick
Field Crew: Roy Morse

ERI Job No. 1166
Field Cleaning Performed:
Analysis:

Date: 7/9/02

Page 1 of 1

* Case Volume = $(d_{well} - d_{sump})_{in} \times F$ where F =
0.163 for a 2" inside diameter well casing
0.652 for a 4" inside diameter well casing
1.467 for a 6" inside diameter well casing

Well No.	Time	Depth Water (ft.)	Depth Well (ft.)	Case Dia. (in)	Case Vol* gal	Purge Vol. (gal)	Conduct. µS/CM (X1000)	Temp. Deg F	pH	TURB. NTU	PID PPM	Comments
SVE 1		—	14.84	2								
SK MW 1		2.51	7.80	2	.5	1.5						DRY
		9.99	12.00	2	.5	1.5						

ERI

ENVIRONMENTAL RESOLUTIONS, INC.

Irvine • Novato • Seattle

Revised 4/20/92