District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr , Santa Fe, NM 87505

RECEIVED
APR 24 2009
HOBBSOCD

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company – Atlantic Richfield Company	Contact – Duronda Smith
Address – 1701 Summit Avenue Suite 2 Plano, TX 75074	Telephone No. – 972-509-7022
Facility Name – Farnsworth Main Tank Battery	Facility Type – Abandoned Battery

Surface Owner – Jay Anthony	Mineral Owner – Federal	Lease No. – LC 030180 A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	13	26S	36E					Lea

Latitude 32° 02.685' N **Longitude** 103° 12.720' W

NATURE OF RELEASE

Type of Release – Historic Hydrocarbons	Volume of Release – Unknown	Volume Recovered – None
Source of Release – Historic Battery	Date and Hour of Occurrence N/A	Date and Hour of Discovery N/A
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Site is an abandoned battery site. Historic hydrocarbon impacted soil is present at the site. A monitor well was set at the site and groundwater was proven at 111.5' bgs. A second monitor well was set at the site by the landowner and showed no levels of hydrocarbons or BTEX above WQCC Standards. A vertical and horizontal delineation was performed at the site using a backhoe and air rotary rig. All plot maps of sample points, field analytical and lab confirmations are attached in this remediation plan. During the delineation, all samples were screened for chlorides and there were no results above 250ppm. The ranking criteria for the site is: Groundwater – 0 points, Wellhead protection – 0 points, Surface Body of Water – 0 points. Total ranking for the site remediation is 0 points.

Describe Area Affected and Cleanup Action Taken.*
The Remediation Action Levels for the site will be Benzene – 10 ppm, BTEX – 50 ppm, TPH – 5,000 ppm and Chloride – 250 ppm. Remediation plan for the site will be to excavate all impacted soil to a depth of 4' bgs and horizontally until the RAL's are met (Dimensions shown on wall plot map). The excavated material will be blended onsite with clean native soil until the blended material meets the RAL's. All areas with impacted soil below 4' bgs will be capped with a 1' thick layer of red bed clay compacted and tested to 95% dry density. After installation of the clay barrier the remediated soil will be backfilled into the excavation and contoured to the surrounding area. The site will be re-vegetated with a seed mixture native to the surrounding area and approved by the landowner. Once the project is complete a final closure report will be submitted to the NMOCD. NMOCD Hobbs Office will be notified 48 hours before work begins and before backfill of the remediated soil.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Duronda Smith	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Manager Discontinued Operations	Approval Date: 4.27.09 Expiration Date:
E-mail Address: smithd92@bp.com	Conditions of Approval: Attached ☐ IRP # 2083
Date: 2-13-09 Phone: 972-509-7022	

* Attach Additional Sheets If Necessary

Remediation Plan

Prepared for

Atlantic Richfield

1701 Summit Ave Suite 2

Plano, TX 75074

Farnsworth Main Tank Battery

Lea County, NM

1RP-09-2-2083

Prepared by

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Phone (432) 366-0043 Fax (432) 366-0884

TABLE OF CONTENTS

Section I

Site History and Remediation Plan

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768
Phone (432) 366-0043 Fax (432) 366-0884

February 13, 2009

New Mexico Oil Conservation Division
Mr. Larry Johnson
1625 N. French Dr.
Hobbs, New Mexico 88240

Re: Site History and Remediation Plan
Atlantic Richfield – Farnsworth Main Tank Battery
UL'H' Sec. 13 T26S R36E Lea County, NM
1RP-09-2-2083

Mr. Larry Johnson,

Elke Environmental was contracted by Atlantic Richfield to complete the delineation and remediation of the Abandoned Farnsworth Main Tank Battery. A monitor well was installed at the site to confirm groundwater and analyze the groundwater. The water level is 111.5' bgs and the analysis of the groundwater proved to be protected water. Horizontal delineation was completed with a backhoe at depths of two, five, ten and fourteen foot depths at each wall test point. Vertical delineation was started with a backhoe and completed with an air rotary rig. A field vapor headspace measurement was used in place of a lab BTEX. Field Analysis is enclosed in Section III. Two consecutive clean samples were used to determine the bottom of the vertical delineation points with lab confirmations of TPH 8015M and Chloride. Lab Reports are enclosed in Section IV. Test Point 13 was sampled at 100' bgs and was above the NMOCD Standards. A second monitor well was installed in the impacted area by the landowner before delineation of the site. A sample of the groundwater was analyzed for BTEX and TPH 8015M. The result showed no impact of groundwater. The Lab Report of the water samples is included in Section IV. Plat maps and an aerial photo of the site is enclosed in Section II.

Atlantic Richfield proposed to excavate four foot of impacted soil from the entire site and blend with clean adjacent soil to below the Recommended Action Levels of 5,000ppm TPH using Method 8015M; 50ppm Total BTEX and 10ppm Benzene using Method 8021B; and 250ppm Chloride using Method 300.1. A one foot thick layer of red bed clay will be installed in areas where impacted soil is below four foot bgs. The red bed clay will be compacted and tested to confirm a standard of at least 95% dry density. The remediated soil will backfilled and contoured to the surrounding area. The entire site will be re-vegetated using the hydro-mulching method with a seed mixture approved by the landowner. If you have any questions about the enclosed report please contact me.

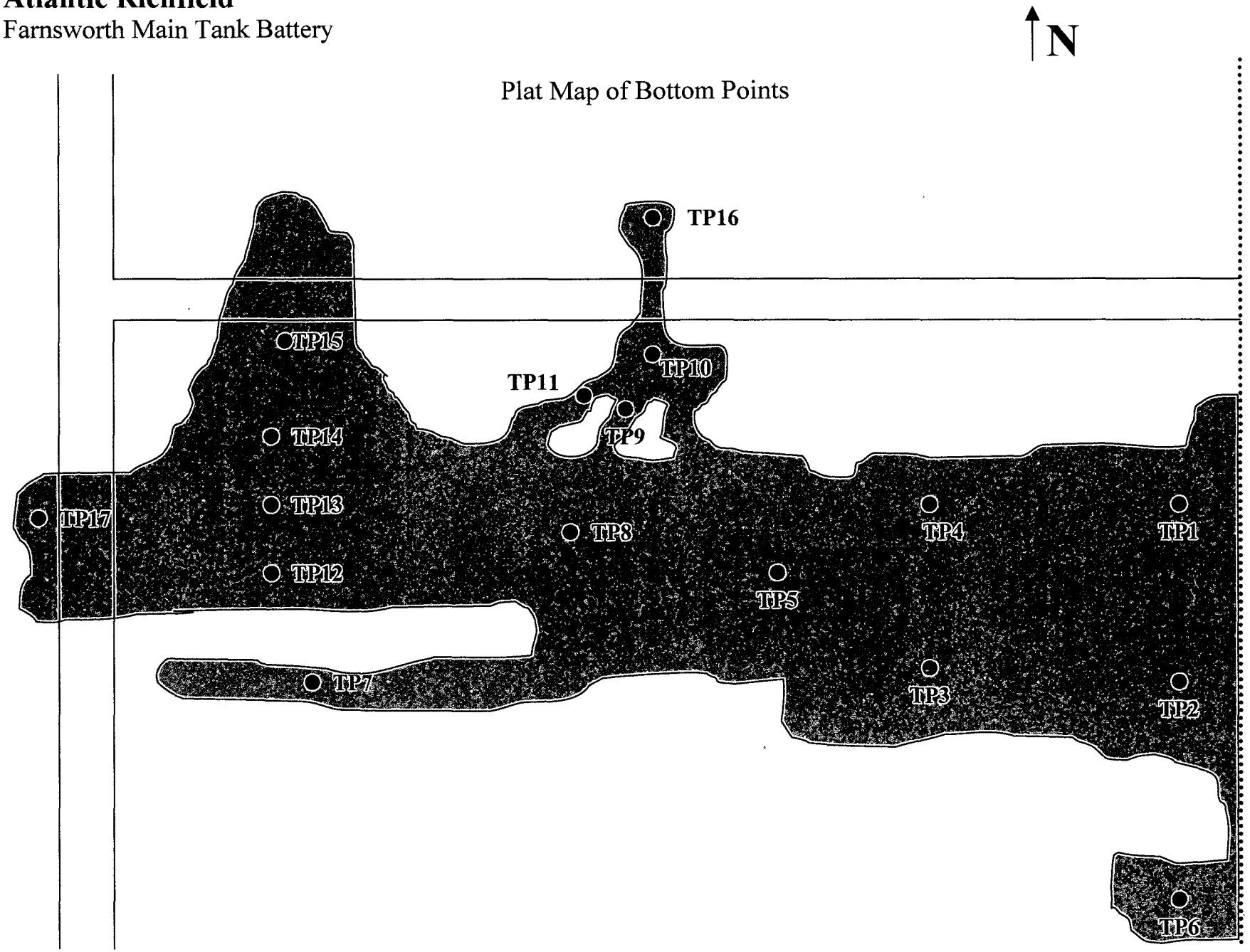
Sincerely,

Logan Anderson
Project Manager

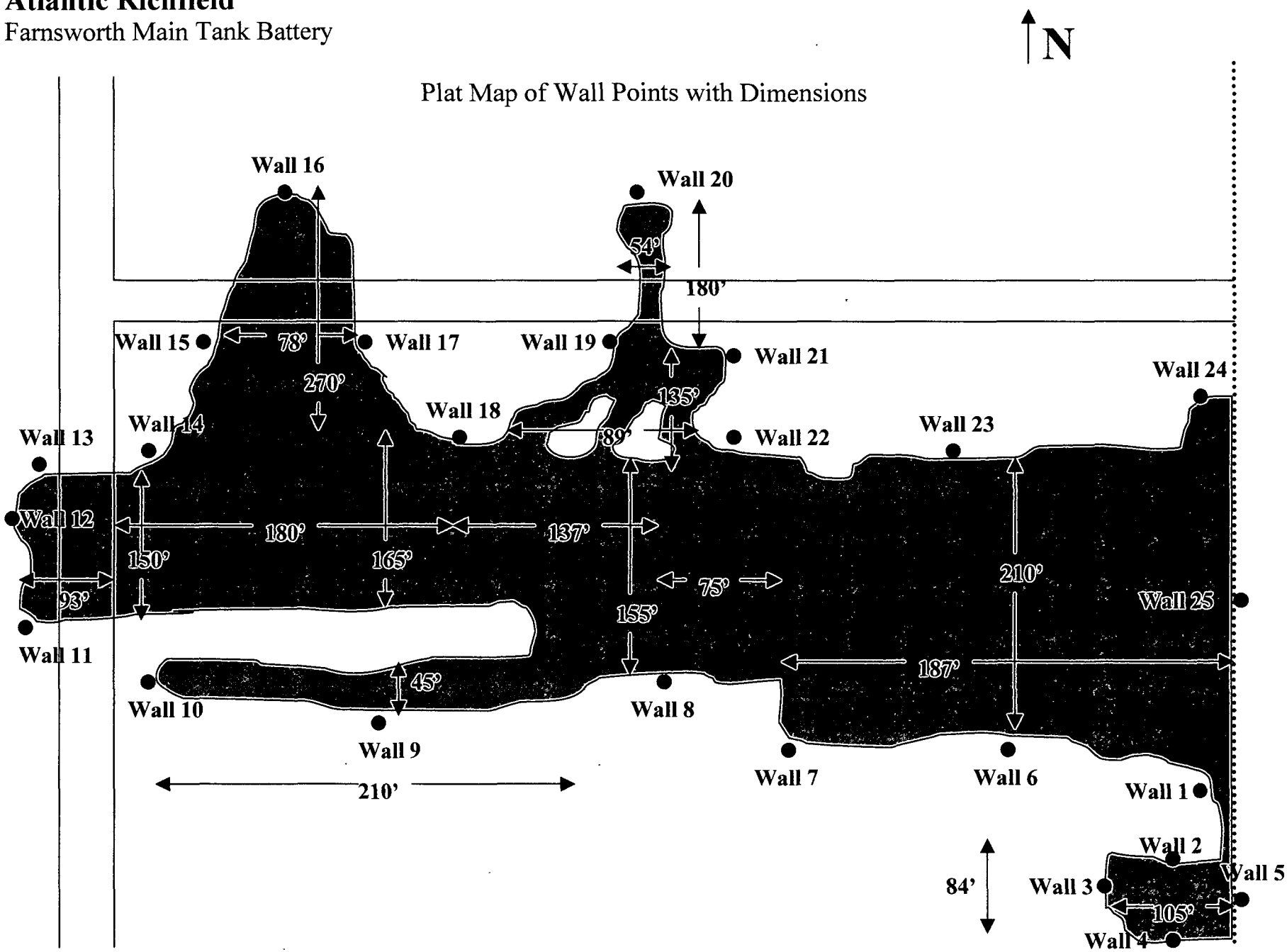
Section II

Plat Maps and an Aerial Photo of the Site

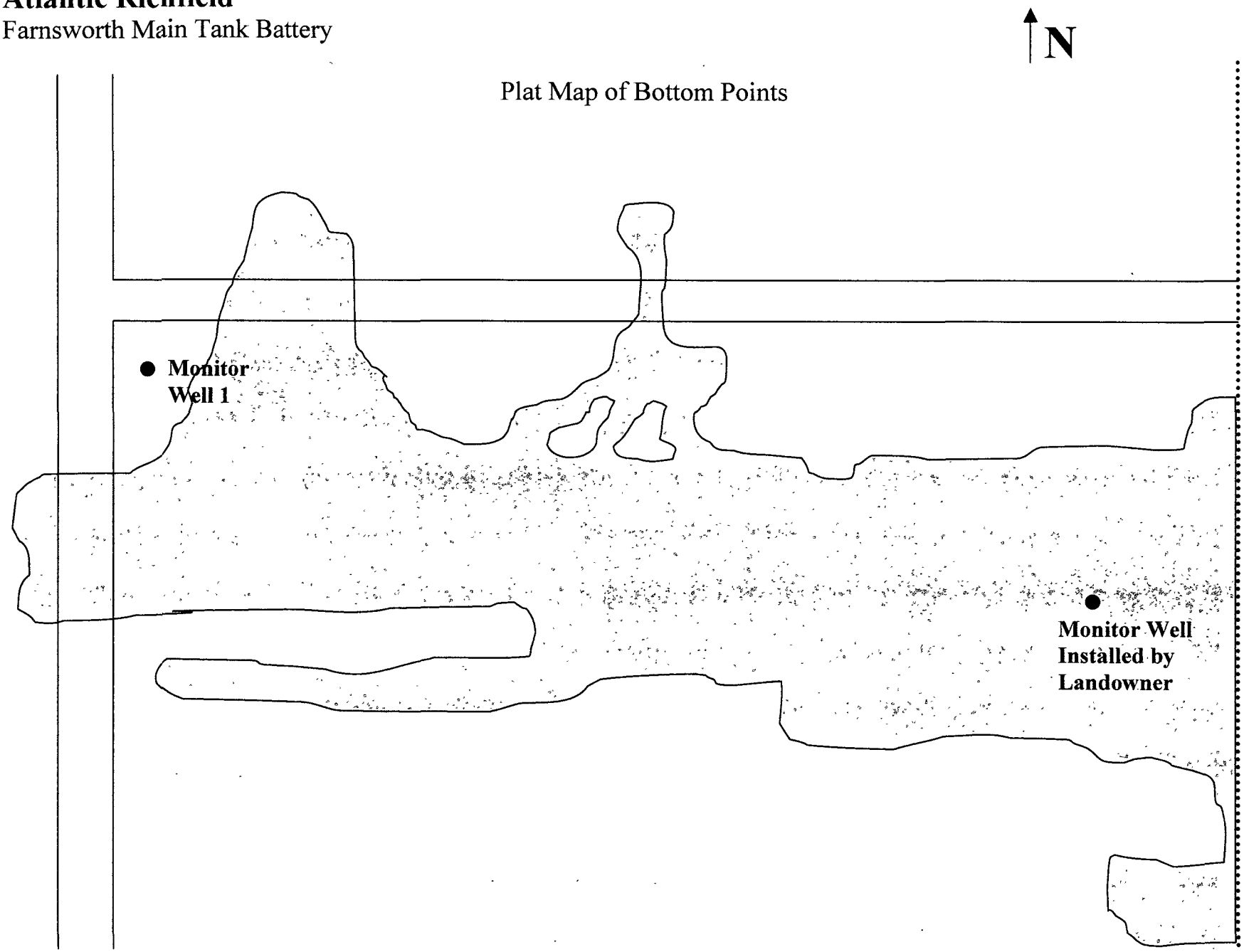
Atlantic Richfield
Farnsworth Main Tank Battery

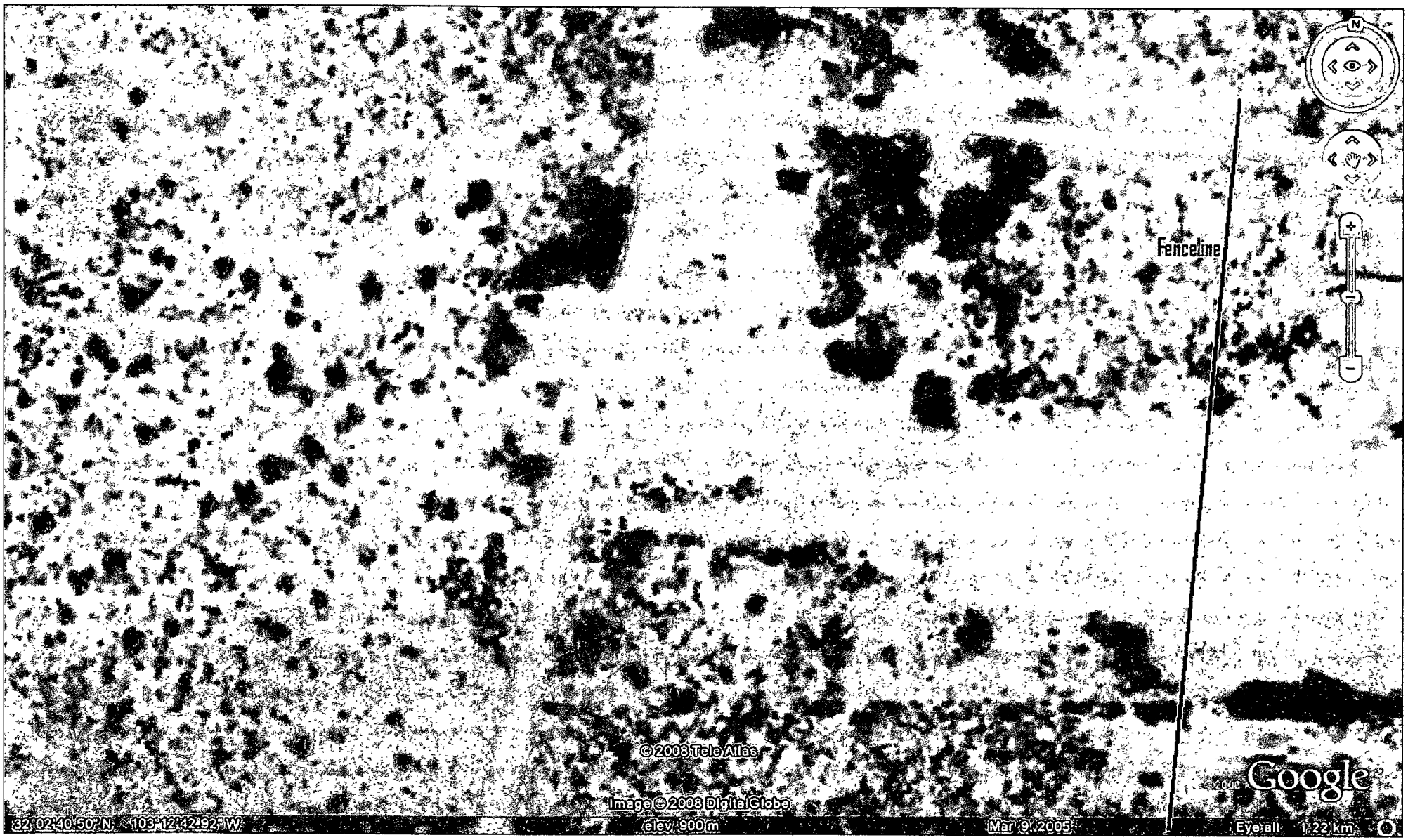


Atlantic Richfield
Farnsworth Main Tank Battery



Atlantic Richfield
Farnsworth Main Tank Battery




Fenceline
© 2008 Tele Atlas
Image © 2008 DigitalGlobe
32°02'40.50" N 103°12'42.92" W
elev 900 m
Mar 9, 2005
Eye alt 1.22 km
Google

Section III

Field Analytical of Site

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	10-27-08	2'	3,850	224	84.1	32° 02.676' N 103° 12.638' W
TP1	10-27-08	4'	7,480		177	30° 02.676' N 103° 12.638' W
TP1	10-27-08	6'	9,000		238	30° 02.676' N 103° 12.638' W
TP1	10-27-08	8'	10,570		301	30° 02.676' N 103° 12.638' W
TP1	10-27-08	10'	11,980		333	30° 02.676' N 103° 12.638' W
TP1	10-27-08	12'	9,850		327	30° 02.676' N 103° 12.638' W
TP1	10-27-08	14'	8,480	171	163	30° 02.676' N 103° 12.638' W
TP1	11-3-08	20'			128	30° 02.676' N 103° 12.638' W
TP1	11-3-08	25'			121	30° 02.676' N 103° 12.638' W
TP1	11-3-08	30'			111	30° 02.676' N 103° 12.638' W
TP1	11-3-08	35'			113	30° 02.676' N 103° 12.638' W
TP1	11-3-08	40'	10,900		128	30° 02.676' N 103° 12.638' W
TP1	11-3-08	45'	6,460		79.5	30° 02.676' N 103° 12.638' W
TP1	11-3-08	50'	15,830		85.1	30° 02.676' N 103° 12.638' W
TP1	11-3-08	55'	2,338	111	27.2	30° 02.676' N 103° 12.638' W
TP1	11-3-08	60'	361	98	18.1	30° 02.676' N 103° 12.638' W
TP2	10-27-08	2'	17,450	159	880	32° 02.664' N 103° 12.637' W

Analyst Notes

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP2	10-27-08	4'	15,680		420	32° 02.664' N 103° 12.637' W
TP2	10-27-08	6'	16,720		720	32° 02.664' N 103° 12.637' W
TP2	10-27-08	8'	15,450		590	32° 02.664' N 103° 12.637' W
TP2	10-27-08	10'	17,200		610	32° 02.664' N 103° 12.637' W
TP2	10-27-08	12'	14,310		688	32° 02.664' N 103° 12.637' W
TP2	10-27-08	14'	11,740	76	710	32° 02.664' N 103° 12.637' W
TP2	11-03-08	20'			204	32° 02.664' N 103° 12.637' W
TP2	11-03-08	25'			239	32° 02.664' N 103° 12.637' W
TP2	11-03-08	30'			124	32° 02.664' N 103° 12.637' W
TP2	11-03-08	35'			127	32° 02.664' N 103° 12.637' W
TP2	11-03-08	40'	2,266		33.6	32° 02.664' N 103° 12.637' W
TP2	11-03-08	45'	770	87	39.8	32° 02.664' N 103° 12.637' W
TP2	11-03-08	50'	810	115	29.1	32° 02.664' N 103° 12.637' W
TP3	11-03-08	2'	8,220	47	137	32° 02.664' N 103° 12.653' W
TP3	11-03-08	4'			199	32° 02.664' N 103° 12.653' W
TP3	11-03-08	6'			139	32° 02.664' N 103° 12.653' W
TP3	11-03-08	8'			138	32° 02.664' N 103° 12.653' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP3	11-03-08	10'			147	32° 02.664' N 103° 12.653' W
TP3	11-03-08	12'			56.2	32° 02.664' N 103° 12.653' W
TP3	11-03-08	14'	7,670	89	174	32° 02.664' N 103° 12.653' W
TP3	11-03-08	20'	480	54	13.9	32° 02.664' N 103° 12.653' W
TP3	11-03-08	25'	118	96	14.0	32° 02.664' N 103° 12.653' W
TP4	10-27-08	2'	1,310	131	72.1	32° 12.672' N 103° 12.653'W
TP4	10-27-08	4'			173	32° 12.672' N 103° 12.653'W
TP4	10-27-08	6'			156	32° 12.672' N 103° 12.653'W
TP4	10-27-08	8'			144	32° 12.672' N. 103° 12.653'W
TP4	10-27-08	10'			178	32° 12.672' N 103° 12.653'W
TP4	10-27-08	12'			189	32° 12.672' N 103° 12.653'W
TP4	10-27-08	14'	11,260	75	154	32° 12.672' N 103° 12.653'W
TP4	11-03-08	20'	330	89	13.1	32° 12.672' N 103° 12.653'W
TP4	11-03-08	25'	240	57	13.8	32° 12.672' N 103° 12.653'W
TP5	10-28-08	2'	9,470	98	9.9	32° 02.672' N 103° 12.673' W
TP5	10-28-08	5'	3,610		8.7	32° 02.672' N 103° 12.673' W
TP5	10-28-08	10'	10,630		26.3	32° 02.672' N 103° 12.673' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP5	10-28-08	14'	748	77	10.1	32° 02.672' N 103° 12.673' W
TP5	11-04-08	20'	65	111	11.2	32° 02.672' N 103° 12.673' W
TP5	11-04-08	25'	52	189	6.4	32° 02.672' N 103° 12.673' W
TP6	10-28-08	2'	36	46	0.0	32o 02.638' N 103°12.634' W
TP6	10-28-08	5'	23	54	0.0	32o 02.638' N 103°12.634' W
TP7	10-28-08	2'	1,640	72	0.0	32° 02.664' N 103° 12.719' W
TP7	10-28-08	5'	2,042	81	0.0	32° 02.664' N 103° 12.719' W
TP8	10-28-08	2'	782	53	0.1	32° 02.676' N 103° 12.691' W
TP8	10-28-08	5'	44	44	0.0	32° 02.676' N 103° 12.691' W
TP9	10-28-08	2'	46	76	0.0	32° 02.690' N 103° 12.679' W
TP9	10-28-08	5'	32	98	0.0	32° 02.690' N 103° 12.679' W
TP10	10-28-08	2'	4,190	143	0.0	32° 02.704' N 103° 112.678' W
TP10	10-28-08	5'	1,412	137	0.0	32° 02.704' N 103° 112.678' W
TP11	10-28-08	2'	22	150	0.0	32° 02.693' N 103° 12.689' W
TP11	10-28-08	5'	23	127	0.0	32° 02.693' N 103° 12.689' W
TP12	10-28-08	2'	32	26	0.0	32° 02.678' N 103° 12.711' W
TP12	10-28-08	5'	21	69	0.0	32° 02.678' N 103° 12.711' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP13	10-28-08	2'	6,020	117	53.8	32° 02.688' N 103° 12.708' W
TP13	10-2808	5'	7,790		1.3	32° 02.688' N 103° 12.708' W
TP13	10-28-08	10'	11,890		97.8	32° 02.688' N 103° 12.708' W
TP13	10-28-08	14'	8,170		82.6	32° 02.688' N 103° 12.708' W
TP13	11-04-08	20'			374	32° 02.688' N 103° 12.708' W
TP13	11-04-08	25'			305	32° 02.688' N 103° 12.708' W
TP13	11-04-08	30'			307	32° 02.688' N 103° 12.708' W
TP13	11-04-08	35'			322	32° 02.688' N 103° 12.708' W
TP13	11-04-08	40'			225	32° 02.688' N 103° 12.708' W
TP13	11-04-08	45'			181	32° 02.688' N 103° 12.708' W
TP13	11-04-08	50'	5,340		74.7	32° 02.688' N 103° 12.708' W
TP13	11-04-08	55'			149	32° 02.688' N 103° 12.708' W
TP13	11-04-08	60'			140	32° 02.688' N 103° 12.708' W
TP13	11-04-08	65'			196	32° 02.688' N 103° 12.708' W
TP13	11-04-08	70'			174	32° 02.688' N 103° 12.708' W
TP13	11-04-08	75'			156	32° 02.688' N 103° 12.708' W
TP13	11-04-08	80'	8,630		128	32° 02.688' N 103° 12.708' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP13	11-04-08	85'			112	32° 02.688' N 103° 12.708' W
TP13	11-04-08	90'	5,200		95.2	32° 02.688' N 103° 12.708' W
TP13	11-04-08	95'	2,419	89	74.1	32° 02.688' N 103° 12.708' W
TP13	11-04-08	100'	361	116	16.9	32° 02.688' N 103° 12.708' W
TP14	10-28-08	2'	714	78	0.0	32° 02.700' N 103° 12.706' w
TP14	10-28-08	5'	42	113	0.0	32° 02.700' N 103° 12.706' w
TP15	10-28-08	2'	46	98	0.1	32° 02.714' N 301° 12.708' W
TP15	10-28-08	5'	29	95	0.0	32° 02.714' N 301° 12.708' W
TP16	10-28-08	2'	17,900		0.0	32° 02.730' N 302° 12.676'W
TP16	10-28-08	5'	1,960	88	0.0	32° 02.730' N 302° 12.676'W
TP16	10-28-08	10'	2,610	87	0.0	32° 02.730' N 302° 12.676'W
TP17	10-29-08	2'	6.220	78	0.0	32° 02.686' N 103° 12.739' W
TP17	10-29-08	5'	5,360		0.0	32° 02.686' N 103° 12.739' W
TP17	10-29-08	10'	6,990		0.0	32° 02.686' N 103° 12.739' W
TP17	10-29-08	14'	5,140		0.0	32° 02.686' N 103° 12.739' W
TP17	11-04-08	20'	251	54	10.2	32° 02.686' N 103° 12.739' W
TP17	11-04-08	25'	115	62	9.0	32° 02.686' N 103° 12.739' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 1 A	10-28-08	2'	30	98	0.0	32° 02.654' N 103° 12.635' W
Wall 1 A	10-28-08	5'	2,473	103	0.1	32° 02.654' N 103° 12.635' W
Wall 1 A	10-28-08	10'	4,227	74	0.0	32° 02.654' N 103° 12.635' W
Wall 1 A	10-28-08	14'	574	111	0.0	32° 02.654' N 103° 12.635' W
Wall 2 A	10-29-08	2'	117	116	0.0	32° 02.642' N 103° 12.633' W
Wall 2 A	10-29-08	5'	33	79	0.0	32° 02.642' N 103° 12.633' W
Wall 2 A	10-29-08	10'	42	84	0.0	32° 02.642' N 103° 12.633' W
Wall 2 A	10-29-08	14'	51	91	0.0	32° 02.642' N 103° 12.633' W
Wall 3 A	10-29-08	2'	42	201	0.0	32° 02.641' N 301° 12.645' W
Wall 3 A	10-29-08	5'	117	76	0.0	32° 02.641' N 301° 12.645' W
Wall 3 A	10-29-08	10'	275	84	0.0	32° 02.641' N 301° 12.645' W
Wall 3 A	10-29-08	14'	313	198	0.2	32° 02.641' N 301° 12.645' W
Wall 4 A	10-29-08	2'	76	117	0.0	32° 02.629' N 103° 12.639' W
Wall 4 A	10-29-08	5'	23	45	0.0	32° 02.629' N 103° 12.639' W
Wall 4 A	10-29-08	10'	45	52	0.0	32° 02.629' N 103° 12.639' W
Wall 4 A	10-29-08	14'	41	59	0.0	32° 02.629' N 103° 12.639' W
Wall 5 A	10-29-08	2'	2,960	111	0.6	32° 02.635' N 103° 12.628' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 5 A	10-29-08	5'	29	97	0.0	32° 02.635' N 103° 12.628' W
Wall 5 A	10-29-08	10'	190	85	0.0	32° 02.635' N 103° 12.628' W
Wall 5 A	10-29-08	14'	359	42	0.0	32° 02.635' N 103° 12.628' W
Wall 6 A	10-29-08	2'	139	79	0.0	32° 02.654' N 103° 12.661' W
Wall 6 A	10-29-08	5'	78	87	0.0	32° 02.654' N 103° 12.661' W
Wall 6 A	10-29-08	10'	64	104	0.1	32° 02.654' N 103° 12.661' W
Wall 6 A	10-29-08	14'	62	78	0.0	32° 02.654' N 103° 12.661' W
Wall 7 A	10-29-08	2'	3,460	72	16.7	32° 02.656' N 103° 12.677' W
Wall 7 A	10-29-08	5'	2,170	114	11.2	32° 02.656' N 103° 12.677' W
Wall 7 A	10-29-08	10'	2,580	119	9.9	32° 02.656' N 103° 12.677' W
Wall 7 A	10-29-08	14'	1,940	137	9.8	32° 02.656' N 103° 12.677' W
Wall 8 A	10-29-08	2'	330	172	0.0	32° 02.661' N 103° 12.699' W
Wall 8 A	10-29-08	5'	210	154	0.0	32° 02.661' N 103° 12.699' W
Wall 8 A	10-29-08	10'	98	165	0.0	32° 02.661' N 103° 12.699' W
Wall 8 A	10-29-08	14'	147	98	0.0	32° 02.661' N 103° 12.699' W
Wall 9 A	10-29-08	2'	470	184	0.0	32° 02.661' N 103° 12.718' W
Wall 9 A	10-29-08	5'	230	169	0.0	32° 02.661' N 103° 12.718' W

Analyst Notes

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 9 A	10-29-08	10'	111	184	0.0	32° 02.661' N 103° 12.718' W
Wall 9 A	10-29-08	14'	150	97	0.0	32° 02.661' N 103° 12.718' W
Wall 10 A	10-29-08	2'	76	25	0.7	32° 02.667' N 103° 12.729' W
Wall 10 A	10-29-08	5'	101	116	1.1	32° 02.667' N 103° 12.729' W
Wall 10 A	10-29-08	10'	92	117	0.3	32° 02.667' N 103° 12.729' W
Wall 10 A	10-29-08	14'	141	121	0.0	32° 02.667' N 103° 12.729' W
Wall 11 A	10-29-08	2'	232	76	0.0	32° 02.677' N 103° 12.744' W
Wall 11 A	10-29-08	5'	111	58	0.0	32° 02.677' N 103° 12.744' W
Wall 11 A	10-29-08	10'	47	94	0.0	32° 02.677' N 103° 12.744' W
Wall 11 A	10-29-08	14'	54	109	0.0	32° 02.677' N 103° 12.744' W
Wall 12 A	10-29-08	2'	78	176	0.0	32° 02.695' N 103° 12.742' W
Wall 12 A	10-29-08	5'	47	144	0.0	32° 02.695' N 103° 12.742' W
Wall 12 A	10-29-08	10'	54	171	0.0	32° 02.695' N 103° 12.742' W
Wall 12 A	10-29-08	14'	62	184	0.0	32° 02.695' N 103° 12.742' W
Wall 13 A	10-29-08	2'	77	111	0.0	32° 02.697' N 103° 12.736' W
Wall 13 A	10-29-08	5'	24	127	0.0	32° 02.697' N 103° 12.736' W
Wall 13 A	10-29-08	10'	104	89	0.0	32° 02.697' N 103° 12.736' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 13 A	10-29-08	14'	115	54	0.0	32° 02.697' N 103° 12.736' W
Wall 14 A	10-29-08	2'	84	201	0.0	32° 02.705' N 103° 12.717' W
Wall 14 A	10-29-08	5'	53	48	0.0	32° 02.705' N 103° 12.717' W
Wall 14 A	10-29-08	10'	21	59	0.0	32° 02.705' N 103° 12.717' W
Wall 14 A	10-29-08	14'	46	65	0.0	32° 02.705' N 103° 12.717' W
Wall 15 A	10-29-08	2'	107	213	0.0	32° 02.716' N 103° 12.716' W
Wall 15 A	10-29-08	5'	49	201	0.0	32° 02.716' N 103° 12.716' W
Wall 15 A	10-29-08	10'	88	199	0.0	32° 02.716' N 103° 12.716' W
Wall 15 A	10-29-08	14'	76	204	0.0	32° 02.716' N 103° 12.716' W
Wall 16 A	10-29-08	2'	78	117	0.0	32° 02.735' N 103° 12.702' W
Wall 16 A	10-29-08	5'	23	119	0.0	32° 02.735' N 103° 12.702' W
Wall 16 A	10-29-08	10'	45	148	0.0	32° 02.735' N 103° 12.702' W
Wall 16 A	10-29-08	14'	46	99	0.0	32° 02.735' N 103° 12.702' W
Wall 17 A	10-29-08	2'	99	108	0.0	32° 02.710' N 103° 12.697' W
Wall 17 A	10-29-08	5'	104	184	0.0	32° 02.710' N 103° 12.697' W
Wall 17 A	10-29-08	10'	37	193	0.0	32° 02.710' N 103° 12.697' W
Wall 17 A	10-29-08	14'	58	217	0.0	32° 02.710' N 103° 12.697' W

Analyst Notes

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 18 A	10-29-08	2'	44	58	0.0	32° 02.700' N 103° 12.695' W
Wall 18 A	10-29-08	5'	18	69	0.0	32° 02.700' N 103° 12.695' W
Wall 18 A	10-29-08	10'	56	78	0.0	32° 02.700' N 103° 12.695' W
Wall 18 A	10-29-08	14'	27	63	0.0	32° 02.700' N 103° 12.695' W
Wall 19 A	10-29-08	2'	97	88	0.0	32° 02.709' N 103° 12.680' W
Wall 19 A	10-29-08	5'	88	109	0.0	32° 02.709' N 103° 12.680' W
Wall 19 A	10-29-08	10'	22	112	0.0	32° 02.709' N 103° 12.680' W
Wall 19 A	10-29-08	14'	101	154	0.0	32° 02.709' N 103° 12.680' W
Wall 20 A	10-29-08	2'	17	149	0.0	32° 02.736' N 103° 12.674' W
Wall 20 A	10-29-08	5'	21	74	0.0	32° 02.736' N 103° 12.674' W
Wall 20 A	10-29-08	10'	47	92	0.0	32° 02.736' N 103° 12.674' W
Wall 20 A	10-29-08	14'	54	84	0.0	32° 02.736' N 103° 12.674' W
Wall 21 A	10-30-08	2'	101	104	0.0	32° 02.717' N 103° 12.670' W
Wall 21 A	10-30-08	5'	75	83	0.0	32° 02.717' N 103° 12.670' W
Wall 21 A	10-30-08	10'	98	92	0.0	32° 02.717' N 103° 12.670' W
Wall 21 A	10-30-08	14'	44	109	0.0	32° 02.717' N 103° 12.670' W
Wall 22 A	10-30-08	2'	27	111	0.0	32° 02.689' N 103° 12.666' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Atlantic Richfield **Analyst** Logan Anderson

Site Farnsworth Main Battery

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
Wall 22 A	10-30-08	5'	33	94	0.0	32° 02.689' N 103° 12.666' W
Wall 22 A	10-30-08	10'	51	67	0.0	32° 02.689' N 103° 12.666' W
Wall 22 A	10-30-08	14'	24	88	0.0	32° 02.689' N 103° 12.666' W
Wall 23 A	10-30-08	2'	1,400	114	9.1	32° 02.685' N 103° 12.647' W
Wall 23 A	10-30-08	5'	2,470	91	11.2	32° 02.685' N 103° 12.647' W
Wall 23 A	10-30-08	10'	981	54	0.0	32° 02.685' N 103° 12.647' W
Wall 23 A	10-30-08	14'	504	63	0.0	32° 02.685' N 103° 12.647' W
Wall 24 A	10-30-08	2'	35	201	0.0	32° 02.692' N 103° 12.635' W
Wall 24 A	10-30-08	5'	46	174	0.0	32° 02.692' N 103° 12.635' W
Wall 24 A	10-30-08	10'	51	53	0.0	32° 02.692' N 103° 12.635' W
Wall 24 A	10-30-08	14'	27	122	0.0	32° 02.692' N 103° 12.635' W
Wall 25 A	10-30-08	2'	3,570	27	4.3	32° 02.672' N 103° 12.627' W
Wall 25 A	10-30-08	5'	20,150	99	159	32° 02.672' N 103° 12.627' W
Wall 25 A	10-30-08	10'	4,590	154	141	32° 02.672' N 103° 12.627' W
Wall 25 A	10-30-08	14'	6,280	103	170	32° 02.672' N 103° 12.627' W

Analyst Notes

Section IV

Monitor Well Logs

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER): ARCO Farnsworth Main Battery MW-1	OSE FILE NUMBER(S):
WELL OWNER NAME(S): Atlantic Ritchfield	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 1701 Summit Avenue, Suite 2	CITY: Plano STATE: TX ZIP: 75074

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	2	42.00	N
	LONGITUDE	103	12	43.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS: From Highway 18, go past park to CR 205, go south turn in at Eaves A-B Lease Road

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼		☐ NORTH ☐ SOUTH	☐ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	Raymond Straub, Jr.	Straub Corporation

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01-20-2009	01-20-2009	120	120	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 113

DRILLING FLUID: ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY.

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
120	100	6	SCH 40 PVC SCREEN	FJ	2	.0154	.010
100	+43"	6	SCH 40 PVC RISER	FJ	2	.0154	RISER

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)
120	113	7	RED CLAYEY SAND/SOFT SANDSTONE	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☑ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	120	97	6	20/40	9 BAGS	TOPLOAD
	97	2	6	3/8 BENTONITE HOLEPLUG	2.5 BAGS	TOPLOAD
	2	+43"	6	CEMENT	1 BAG	TOPLAND

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	15	15	BROWN SAND	☐ YES ☑ NO
15	45	30	RED/TAN CALCIFIED SAND	☐ YES ☑ NO
45	65	20	RED CLAYEY SAND	☐ YES ☑ NO
65	80	15	RED SLIGHT CALCIFIED CLAYEY SAND	☐ YES ☑ NO
80	86	6	RED SLIGHT CALCIFIED CLAYEY SAND	☐ YES ☑ NO
86	100	14	SANDY RED CLAY	☐ YES ☑ NO
100	120	20	RED CLAYEY SAND (SOFT SANDSTONE)	☑ YES ☐ NO
TD	120			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST — METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

ADDITIONAL STATEMENTS OR EXPLANATIONS:

2X2 PAD - 4'X4'X60" ABOVE GROUND SURFACE COMPLETION

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

SIGNATURE OF DRILLER _____ DATE _____

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Monitor Well Report Form

Client Atlantic Richfield **Date** 1-23-2009

Site Farnsworth Main Tank Battery

Monitor Well ID	Depth of Water	Total Depth of Well	Feet of Water	Gallons of Water to Purge	Gallons of Water Purged	Time
MW-1	111.50'	122.85'	11.35'	5.55	5.5	11:53am

Notes

Signature

Section V

Lab Summaries and Lab Reports

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Lab Analytical Summary

Bottom and Wall Confirmations

Sample ID	TPH 8015M Mg/kg	Chloride mg/kg
TP1 @ 55'	898	ND
TP1 @ 60'	172	ND
TP2 @ 45'	341.6	ND
TP2 @ 50'	290.6	ND
TP3 @ 20'	63.3	ND
TP3 @ 25'	21	ND
TP4 @ 20'	88.3	ND
TP4 @ 25'	48.7	ND
TP5 @ 20'	17.3	ND
TP5 @ 25'	29	ND
TP6 @ 2'	ND	ND
TP6 @ 5'	ND	ND
TP7 @ 2'	279	ND
TP7 @ 5'	163.5	ND
TP8 @ 2'	130	ND
TP8 @ 5'	20.3	ND
TP9 @ 2'	ND	ND
TP9 @ 5'	ND	ND
TP10 @ 2'	237	ND
TP10 @ 5'	143.9	ND
TP11 @ 2'	ND	ND
TP11 @ 5'	ND	ND
TP12 @ 2'	ND	ND

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Lab Analytical Summary

Bottom and Wall Confirmations

Sample ID	TPH 8015M Mg/kg	Chloride mg/kg
TP12 @ 5'	16.5	ND
TP13 @ 95'	600.4	ND
TP13 @ 100'	436.1	ND
TP14 @ 2'	179.6	ND
TP14 @ 5'	15.9	ND
TP15 @ 2'	ND	ND
TP15 @ 5'	ND	ND
TP16 @ 5'	372	ND
TP16 @ 10'	187.3	ND
TP17 @ 20'	ND	ND
TP17 @ 25'	ND	ND
Wall 1 @ 2'	30.1	ND
Wall 1 @ 5'	122.2	ND
Wall 1 @ 10'	401	ND
Wall 1 @ 14'	19.4	ND
Wall 5 @ 2'	244	ND
Wall 5 @ 5'	ND	ND
Wall 5 @ 10'	19.1	ND
Wall 5 @ 14'	29.5	ND
Wall 10 @ 2'	ND	ND
Wall 10 @ 5'	ND	ND
Wall 10 @ 10'	ND	ND
Wall 10 @ 14'	ND	ND

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Lab Analytical Summary

Bottom and Wall Confirmations

Sample ID	TPH 8015M Mg/kg	Chloride mg/kg
Wall 15 @ 2'	ND	ND
Wall 15 @ 5'	ND	ND
Wall 15@ 10'	ND	ND
Wall 15 @ 14'	ND	ND
Wall 20 @ 2'	ND	ND
Wall 20 @ 5'	ND	ND
Wall 20 @ 10'	ND	ND
Wall 20 @ 14'	36.5	ND
Wall 25 @ 2'	1,216	ND
Wall 25 @ 5'	6,011	ND
Wall 25 @ 10'	2,417	ND
Wall 25 @ 14'	4,483	ND

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Lab Analytical Summary

SPLP of Impacted Soil Below 4' BGS

Sample ID	Total TPH 8015M / ppm	SPLP TPH 8015M / ppm
TP1 @ 10'	9,467	136.06
TP2 @ 10'	580	1.72
TP13 @ 10'	4,082	147.89
TP17 @ 10	2,359	3.95

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: July 26, 2007

Work Order: 7071719

Project Location: Jal, NM
Project Name: Farnsworth Main Tank Battery

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
130163	MW-1 002-002A	water	2007-07-13	12:50	2007-07-17
130164	Trip Blank	water	2007-07-13	00:00	2007-07-17

Sample - Field Code	TPH DRO DRO (mg/L)	TPH GRO GRO (mg/L)
130163 - MW-1 002-002A	<5.00	<0.100
130164 - Trip Blank		<0.100

Sample: 130163 - MW-1 002-002A

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 130164 - Trip Blank

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Analytical Report 316199

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Atlantic Richfield

10-NOV-08

XENCO Laboratories

ACCREDITED IN ACCORDANCE WITH nelac

E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

10-NOV-08

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
4817 Andrews Hwy
P.O. Box 14167 Odessa, tx 79768
Odessa, TX 79762

Reference: XENCO Report No: **316199**
Atlantic Richfield
Project Address: Farnsworth Main Battery

Logan Anderson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 316199. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 316199 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 316199

Elke Environmental, Inc., Odessa, TX

Atlantic Richfield

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP5 @ 14'	S	Oct-28-08 08:47	14 ft	316199-001
TP6 @ 2'	S	Oct-28-08 09:01	2 ft	316199-002
TP6 @ 5'	S	Oct-28-08 09:14	5 ft	316199-003
TP7 @ 2'	S	Oct-28-08 10:05	2 ft	316199-004
TP7 @ 5'	S	Oct-28-08 10:17	5 ft	316199-005
TP8 @ 2'	S	Oct-28-08 11:03	2 ft	316199-006
TP8 @ 5'	S	Oct-28-08 11:24	5 ft	316199-007
TP9 @ 2'	S	Oct-28-08 11:46	2 ft	316199-008
TP9 @ 5'	S	Oct-28-08 11:55	5 ft	316199-009
TP10 @ 2'	S	Oct-28-08 12:47	2 ft	316199-010
TP10 @ 5'	S	Oct-28-08 13:05	5 ft	316199-011
TP11 @ 2'	S	Oct-28-08 13:38	2 ft	316199-012
TP11 @ 5'	S	Oct-28-08 13:59	5 ft	316199-013
TP12 @ 2'	S	Oct-28-08 14:29	2 ft	316199-014
TP12 @ 5'	S	Oct-28-08 14:51	5 ft	316199-015
TP14 @ 2'	S	Oct-28-08 15:15	2 ft	316199-016
TP14 @ 5'	S	Oct-28-08 15:28	5 ft	316199-017
TP15 @ 2'	S	Oct-28-08 16:03	2 ft	316199-018
TP15 @ 5'	S	Oct-28-08 16:37	5 ft	316199-019
TP16 @ 5'	S	Oct-28-08 16:55	5 ft	316199-020
TP16 @ 10'	S	Oct-28-08 17:07	10 ft	316199-021
Wall 1 A @ 2'	S	Oct-28-08 17:31	2 ft	316199-022
Wall 1 A @ 5'	S	Oct-28-08 17:40	5 ft	316199-023
Wall 1 A @ 10'	S	Oct-28-08 17:47	10 ft	316199-024
Wall 1 A @ 14'	S	Oct-28-08 17:55	14 ft	316199-025
Wall 5 A @ 2'	S	Oct-29-08 07:37	2 ft	316199-026
Wall 5 A @ 5'	S	Oct-29-08 07:42	5 ft	316199-027
Wall 5 A @ 10'	S	Oct-29-08 07:47	10 ft	316199-028
Wall 5 A @ 14'	S	Oct-29-08 07:52	14 ft	316199-029
Wall 10 A @ 2'	S	Oct-29-08 11:51	2 ft	316199-030
Wall 10 A @ 5'	S	Oct-29-08 11:58	5 ft	316199-031
Wall 10 A @ 10'	S	Oct-29-08 12:01	10 ft	316199-032
Wall 10 A @ 14'	S	Oct-29-08 12:10	14 ft	316199-033
Wall 15 A @ 2'	S	Oct-29-08 14:17	2 ft	316199-034
Wall 15 A @ 5'	S	Oct-29-08 14:41	5 ft	316199-035
Wall 15 A @ 10'	S	Oct-29-08 14:52	10 ft	316199-036
Wall 15 A @ 14'	S	Oct-29-08 14:59	14 ft	316199-037
Wall 20 A @ 2'	S	Oct-29-08 17:01	2 ft	316199-038
Wall 20 A @ 5'	S	Oct-29-08 17:05	5 ft	316199-039
Wall 20 A @ 10'	S	Oct-29-08 17:16	10 ft	316199-040
Wall 20 A @ 14'	S	Oct-29-08 17:25	14 ft	316199-041
Wall 25 A @ 2'	S	Oct-30-08 07:38	2 ft	316199-042
Wall 25 A @ 5'	S	Oct-30-08 07:52	5 ft	316199-043

Elke Environmental, Inc., Odessa, TX

Atlantic Richfield

Wall 25 A @ 10'	S	Oct-30-08 07:59	10 ft	316199-044
Wall 25 A @ 14'	S	Oct-30-08 08:23	14 ft	316199-045
TP1 @ 10'	S	Oct-30-08 09:15	10 ft	316199-046
TP2 @ 10'	S	Oct-30-08 10:11	10 ft	316199-047
TP13 @ 10'	S	Oct-30-08 11:24	10 ft	316199-048
TP17 @ 10'	S	Oct-30-08 12:35	10 ft	316199-049

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-001		316199-002		316199-003		316199-004		316199-005		316199-006	
	Field Id:	TP5 @ 14'		TP6 @ 2'		TP6 @ 5'		TP7 @ 2'		TP7 @ 5'		TP8 @ 2'	
	Depth:	14 ft		2 ft		5 ft		2 ft		5 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 08:47		Oct-28-08 09:01		Oct-28-08 09.14		Oct-28-08 10·05		Oct-28-08 10:17		Oct-28-08 11:03	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 11·00		Oct-31-08 11:00		Oct-31-08 11.00		Oct-31-08 11·00		Oct-31-08 11:00		Oct-31-08 11.00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.24	ND	5.15	ND	5.23	ND	5.25	ND	5.23	ND	5.15
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-31-08 17:00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17.00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.56	1.00	2.99	1.00	4.32	1.00	4 82	1.00	4 35	1.00	2.85	1.00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 13:00		Oct-31-08 13.00		Oct-31-08 13.00		Oct-31-08 13:00		Oct-31-08 13 00		Oct-31-08 13.00	
	Analyzed:	Nov-01-08 12:41		Nov-01-08 13:07		Nov-01-08 13:34		Nov-01-08 14·01		Nov-01-08 14:27		Nov-01-08 14:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.7	ND	15 5	ND	15.7	ND	15.8	ND	15 7	ND	15.4
C12-C28 Diesel Range Hydrocarbons		85 4	15 7	ND	15 5	ND	15 7	139	15 8	106	15.7	87 6	15 4
C28-C35 Oil Range Hydrocarbons		ND	15.7	ND	15.5	ND	15.7	140	15.8	57.5	15.7	42.4	15.4
Total TPH		85.4		ND		ND		279		163 5		130	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-007		316199-008		316199-009		316199-010		316199-011		316199-012	
	Field Id:	TP8 @ 5'		TP9 @ 2'		TP9 @ 5'		TP10 @ 2'		TP10 @ 5'		TP11 @ 2'	
	Depth:	5 ft		2 ft		5 ft		2 ft		5 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 11:24		Oct-28-08 11:46		Oct-28-08 11:55		Oct-28-08 12.47		Oct-28-08 13·05		Oct-28-08 13:38	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 11·00		Oct-31-08 11.00		Oct-31-08 11.00		Oct-31-08 11·00		Oct-31-08 15.09		Oct-31-08 15·09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.14	ND	5 19	ND	5.15	ND	5.22	ND	5.25	ND	5.08
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-31-08 17.00		Oct-31-08 17:00		Oct-31-08 17:00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.74	1.00	3.64	1.00	2.83	1.00	4.14	1.00	4 68	1.00	1.60	1 00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 13·00		Oct-31-08 13.00		Oct-31-08 13.00		Oct-31-08 13.00		Oct-31-08 13 00		Oct-31-08 13·00	
	Analyzed:	Nov-01-08 15:19		Nov-01-08 15·44		Nov-01-08 16·10		Nov-01-08 16:35		Nov-01-08 17 24		Nov-01-08 17·48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.4	ND	15 6	ND	15 4	ND	15 6	ND	15 7	ND	15.2
C12-C28 Diesel Range Hydrocarbons		20 3	15 4	ND	15 6	ND	15 4	118	15.6	78 6	15.7	ND	15 2
C28-C35 Oil Range Hydrocarbons		ND	15.4	ND	15 6	ND	15.4	119	15.6	65.3	15.7	ND	15.2
Total TPH		20.3		ND		ND		237		143.9		ND	

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-013		316199-014		316199-015		316199-016		316199-017		316199-018	
	Field Id:	TP11 @ 5'		TP12 @ 2'		TP12 @ 5'		TP14 @ 2'		TP14 @ 5'		TP15 @ 2'	
	Depth:	5 ft		2 ft		5 ft		2 ft		5 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 13:59		Oct-28-08 14:29		Oct-28-08 14:51		Oct-28-08 15.15		Oct-28-08 15:28		Oct-28-08 16:03	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 15.09		Oct-31-08 15·09		Oct-31-08 15 09		Oct-31-08 15·09		Oct-31-08 15·09		Oct-31-08 15.09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.04	ND	5.13	ND	5.15	ND	5.14	ND	5.26	ND	5.12
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-31-08 17:00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17:00		Oct-31-08 17.00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1 00	2 48	1.00	3 00	1.00	2 78	1.00	4 88	1 00	2 39	1.00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 13·00		Oct-31-08 13.00		Oct-31-08 13·00		Oct-31-08 13·00		Oct-31-08 13·00		Oct-31-08 13:00	
	Analyzed:	Nov-01-08 18:13		Nov-01-08 18.39		Nov-01-08 19 05		Nov-01-08 19:31		Nov-01-08 19·56		Nov-01-08 20·23	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.1	ND	15 4	ND	15 5	ND	15 4	ND	15.8	ND	15.4
C12-C28 Diesel Range Hydrocarbons		ND	15.1	ND	15.4	16 5	15 5	92 6	15.4	15 9	15 8	ND	15.4
C28-C35 Oil Range Hydrocarbons		ND	15 1	ND	15.4	ND	15.5	87.0	15 4	ND	15 8	ND	15.4
Total TPH		ND		ND		16 5		179.6		15.9		ND	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-019		316199-020		316199-021		316199-022		316199-023		316199-024	
	Field Id:	TP15 @ 5'		TP16 @ 5'		TP16 @ 10'		Wall 1 A @ 2'		Wall 1 A @ 5'		Wall 1 A @ 10'	
	Depth:	5 ft		5 ft		10 ft		2 ft		5 ft		10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 16:37		Oct-28-08 16:55		Oct-28-08 17:07		Oct-28-08 17:31		Oct-28-08 17.40		Oct-28-08 17:47	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 15:09		Oct-31-08 15:09		Oct-31-08 15 09		Oct-31-08 15.09		Oct-31-08 15:09		Oct-31-08 15.09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.15	ND	5.31	ND	5.35	ND	5.04	ND	5.46	ND	10 7
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 13:00		Oct-31-08 13:00		Oct-31-08 14:00		Oct-31-08 14.00		Oct-31-08 14 00		Oct-31-08 14.00	
	Analyzed:	Nov-01-08 20:49		Nov-01-08 21.16		Nov-02-08 02.12		Nov-02-08 02.39		Nov-02-08 03:06		Nov-02-08 03.34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.4	ND	15.9	ND	16.0	30 1	15.1	ND	16 4	ND	16.0
C12-C28 Diesel Range Hydrocarbons		ND	15.4	183	15.9	124	16.0	ND	15.1	78.5	16 4	203	16.0
C28-C35 Oil Range Hydrocarbons		ND	15.4	189	15.9	63.3	16.0	ND	15.1	43.7	16.4	198	16.0
Total TPH		ND		372		187 3		30 1		122.2		401	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-019		316199-020		316199-021		316199-022		316199-023		316199-024	
	Field Id:	TP15 @ 5'		TP16 @ 5'		TP16 @ 10'		Wall 1 A @ 2'		Wall 1 A @ 5'		Wall 1 A @ 10'	
	Depth:	5 ft		5 ft		10 ft		2 ft		5 ft		10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 16:37		Oct-28-08 16:55		Oct-28-08 17:07		Oct-28-08 17:31		Oct-28-08 17.40		Oct-28-08 17:47	
Percent Moisture	***Extracted:***												
	Analyzed:	Oct-31-08 17:00		Oct-31-08 17:00		Nov-01-08 11:06		Nov-01-08 11:06		Nov-01-08 11:06		Nov-01-08 11:06	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2 82	1.00	5.84	1.00	6 51	1.00	ND	1.00	8.39	1.00	6.52	1.00

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-025		316199-026		316199-027		316199-028		316199-029		316199-030	
	Field Id:	Wall 1 A @ 14'		Wall 5 A @ 2'		Wall 5 A @ 5'		Wall 5 A @ 10'		Wall 5 A @ 14'		Wall 10 A @ 2'	
	Depth:	14 ft		2 ft		5 ft		10 ft		14 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-28-08 17:55		Oct-29-08 07:37		Oct-29-08 07:42		Oct-29-08 07:47		Oct-29-08 07:52		Oct-29-08 11:51	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 15:09		Oct-31-08 15.09		Oct-31-08 15.09		Oct-31-08 15 09		Oct-31-08 15:09		Oct-31-08 15:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.03	ND	5.15	ND	5.09	ND	5.26	ND	5.61	ND	5.07
Percent Moisture	***Extracted:***												
	Analyzed:	Nov-01-08 11:06		Nov-01-08 11.06		Nov-01-08 11.06		Nov-01-08 11:06		Nov-01-08 11:06		Nov-01-08 11:06	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	2.99	1.00	1 75	1.00	4 97	1.00	10.91	1.00	1 34	1.00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 14.00		Oct-31-08 14:00		Oct-31-08 14:00		Oct-31-08 14:00		Oct-31-08 14:00		Oct-31-08 14:00	
	Analyzed:	Nov-02-08 04:01		Nov-02-08 04:28		Nov-02-08 04:55		Nov-02-08 05:22		Nov-02-08 05:49		Nov-02-08 06:16	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15 1	ND	15.5	ND	15.3	ND	15 8	ND	16 8	ND	15.2
C12-C28 Diesel Range Hydrocarbons		19 4	15 1	122	15 5	ND	15 3	19 1	15 8	29.5	16.8	ND	15 2
C28-C35 Oil Range Hydrocarbons		ND	15 1	122	15.5	ND	15.3	ND	15.8	ND	16 8	ND	15.2
Total TPH		19.4		244		ND		19 1		29 5		ND	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:
Contact: Logan Anderson
Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm
Report Date: 10-NOV-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-031		316199-032		316199-033		316199-034		316199-035		316199-036	
	Field Id:	Wall 10 A @ 5'		Wall 10 A @ 10'		Wall 10 A @ 14'		Wall 15 A @ 2'		Wall 15 A @ 5'		Wall 15 A @ 10'	
	Depth:	5 ft		10 ft		14 ft		2 ft		5 ft		10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-08 11:58		Oct-29-08 12:01		Oct-29-08 12:10		Oct-29-08 14:17		Oct-29-08 14:41		Oct-29-08 14:52	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 23 42		Oct-31-08 23 42		Oct-31-08 23:42		Oct-31-08 23 42		Oct-31-08 23 42		Oct-31-08 23:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.29	ND	5.19	ND	5.12	ND	5.16	ND	5.38	ND	5.17
Percent Moisture	***Extracted:***												
	Analyzed:	Nov-01-08 11 06		Nov-01-08 11.06		Nov-01-08 11.06		Nov-01-08 11.06		Nov-01-08 11:06		Nov-01-08 11:06	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		5.40	1.00	3.57	1 00	2 31	1.00	3.19	1.00	6 98	1.00	3 35	1 00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 14:00		Oct-31-08 14:00		Oct-31-08 14.00		Oct-31-08 14:00		Oct-31-08 14:00		Oct-31-08 14:00	
	Analyzed:	Nov-02-08 07:11		Nov-02-08 07 38		Nov-02-08 08:05		Nov-02-08 08:33		Nov-02-08 08:58		Nov-02-08 09:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.9	ND	15 6	ND	15 4	ND	15.5	ND	16.1	ND	15.5
C12-C28 Diesel Range Hydrocarbons		ND	15.9	ND	15.6	ND	15 4	ND	15 5	ND	16 1	ND	15.5
C28-C35 Oil Range Hydrocarbons		ND	15.9	ND	15.6	ND	15.4	ND	15.5	ND	16.1	ND	15 5
Total TPH		ND		ND		ND		ND		ND		ND	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:
Contact: Logan Anderson
Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm
Report Date: 10-NOV-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-037		316199-038		316199-039		316199-040		316199-041		316199-042	
	Field Id:	Wall 15 A @ 14'		Wall 20 A @ 2'		Wall 20 A @ 5'		Wall 20 A @ 10'		Wall 20 A @ 14'		Wall 25 A @ 2'	
	Depth:	14 ft		2 ft		5 ft		10 ft		14 ft		2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-29-08 14:59		Oct-29-08 17:01		Oct-29-08 17.05		Oct-29-08 17:16		Oct-29-08 17:25		Oct-30-08 07:38	
Anions by EPA 300/300.1	***Extracted:***												
	Analyzed:	Oct-31-08 23 42		Oct-31-08 23.42		Oct-31-08 23:42		Oct-31-08 23.42		Oct-31-08 23 42		Oct-31-08 23 42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	5.19	ND	5.13	ND	5.45	ND	5.20	ND	5.55	ND	5 35
Percent Moisture	***Extracted:***												
	Analyzed:	Nov-01-08 11:06		Nov-01-08 11.06		Nov-01-08 11:06		Nov-01-08 11:06		Oct-31-08 17:00		Oct-31-08 17.00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3 68	1 00	2.46	1.00	8 28	1.00	3.79	1 00	9.83	1.00	6.57	1.00
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 14 00		Oct-31-08 14:00		Oct-31-08 14·00		Oct-31-08 14 00		Oct-31-08 17 00		Oct-31-08 17.00	
	Analyzed:	Nov-02-08 09:50		Nov-02-08 10:15		Nov-02-08 10·41		Nov-02-08 11:08		Nov-02-08 00·44		Nov-03-08 01·11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15 6	ND	15.4	ND	16 4	ND	15.6	17 8	16.6	ND	16 1
C12-C28 Diesel Range Hydrocarbons		ND	15.6	ND	15 4	ND	16 4	ND	15.6	18.7	16 6	626	16.1
C28-C35 Oil Range Hydrocarbons		ND	15.6	ND	15.4	ND	16.4	ND	15 6	ND	16.6	590	16 1
Total TPH		ND		ND		ND		ND		36.5		1216	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested												
	Lab Id:	316199-043		316199-044		316199-045		316199-046		316199-047		316199-048	
	Field Id:	Wall 25 A @ 5'		Wall 25 A @ 10'		Wall 25 A @ 14'		TP1 @ 10'		TP2 @ 10'		TP13 @ 10'	
	Depth:	5 ft		10 ft		14 ft		-10 ft		-10 ft		-10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-30-08 07.52		Oct-30-08 07:59		Oct-30-08 08:23		Oct-30-08 09:15		Oct-30-08 10:11		Oct-30-08 11:24	
SPLP TPH By SW8015 Mod	***Extracted:***							Nov-05-08 17:00		Nov-05-08 17:00		Nov-05-08 17:00	
	Analyzed:							Nov-06-08 14:56		Nov-06-08 12:21		Nov-06-08 15.20	
	Units/RL:							mg/L	RL	mg/L	RL	mg/L	RL
C6-C12 Gasoline Range Hydrocarbons								8.06	1.50	ND	1.50	7.09	1.50
C12-C28 Diesel Range Hydrocarbons								109	1.50	1.72	1.50	115	1.50
C28-C35 Oil Range Hydrocarbons								19.0	1 50	ND	1 50	25 8	1 50
Total TPH								136 06		1 72		147.89	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316199-043		316199-044		316199-045		316199-046		316199-047		316199-048	
	Field Id:	Wall 25 A @ 5'		Wall 25 A @ 10'		Wall 25 A @ 14'		TP1 @ 10'		TP2 @ 10'		TP13 @ 10'	
	Depth:	5 ft		10 ft		14 ft		10 ft		10 ft		10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-30-08 07:52		Oct-30-08 07.59		Oct-30-08 08:23		Oct-30-08 09.15		Oct-30-08 10:11		Oct-30-08 11:24	
Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Oct-31-08 23:42		Oct-31-08 23:42		Oct-31-08 23.42							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		ND	5.59	ND	5.26	ND	5.35						
Percent Moisture	*Extracted:*												
	Analyzed:	Oct-31-08 17:00		Oct-31-08 17:00		Oct-31-08 17.00		Oct-31-08 17.00		Oct-31-08 17:00		Oct-31-08 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		10.56	1.00	4.97	1.00	6.48	1.00	8 80	1 00	10.87	1.00	9 66	1 00
TPH By SW8015 Mod	*Extracted:*	Oct-31-08 17.00		Oct-31-08 17:00		Oct-31-08 17 00		Oct-31-08 17 00		Oct-31-08 17:00		Oct-31-08 17:00	
	Analyzed:	Nov-03-08 01:39		Nov-03-08 02:06		Nov-03-08 02:33		Nov-03-08 03:00		Nov-03-08 03:28		Nov-03-08 03:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		381	168	225	158	353	160	657	164	ND	16 8	301	83 0
C12-C28 Diesel Range Hydrocarbons		4460	168	1950	158	3420	160	7440	164	302	16 8	2870	83.0
C28-C35 Oil Range Hydrocarbons		1170	168	242	158	710	160	1370	164	278	16 8	911	83.0
Total TPH		6011		2417		4483		9467		580		4082	

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Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	316199-049					
	Field Id:	TP17 @ 10'					
	Depth:	-10 ft					
	Matrix:	SOIL					
	Sampled:	Oct-30-08 12.35					
SPLP TPH By SW8015 Mod	***Extracted:***	Nov-05-08 17:00					
	Analyzed:	Nov-06-08 14.32					
	Units/RL:	mg/L	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	1.50				
C12-C28 Diesel Range Hydrocarbons		3.95	1.50				
C28-C35 Oil Range Hydrocarbons		ND	1 50				
Total TPH		3.95					

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316199

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:
Contact: Logan Anderson
Project Location: Farnsworth Main Battery

Date Received in Lab: Thu Oct-30-08 04:27 pm
Report Date: 10-NOV-08
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	316199-049					
	Field Id:	TP17 @ 10'					
	Depth:	10 ft					
	Matrix:	SOIL					
	Sampled:	Oct-30-08 12:35					
Percent Moisture	***Extracted:***						
	Analyzed:	Oct-31-08 17:00					
	Units/RL:	%	RL				
Percent Moisture		5.57	1.00				
TPH By SW8015 Mod	***Extracted:***	Oct-31-08 17.00					
	Analyzed:	Nov-03-08 04:22					
	Units/RL:	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		44 0	15 9				
C12-C28 Diesel Range Hydrocarbons		2080	15 9				
C28-C35 Oil Range Hydrocarbons		235	15.9				
Total TPH		2359					

Brent Barron
Odessa Laboratory Director

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199, **Project ID:**

Lab Batch #: 739074 **Sample:** 316199-041 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	60.8	50.0	122	70-135	

Lab Batch #: 739074 **Sample:** 316199-042 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

Lab Batch #: 739074 **Sample:** 316199-043 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	71.1	50.0	142	70-135	**

Lab Batch #: 739074 **Sample:** 316199-044 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	68.4	100	68	70-135	**
o-Terphenyl	41.9	50.0	84	70-135	

Lab Batch #: 739074 **Sample:** 316199-045 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	61.6	50.0	123	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739074 **Sample:** 316199-046 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	70.9	50.0	142	70-135	**

Lab Batch #: 739074 **Sample:** 316199-047 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	58.8	50.0	118	70-135	

Lab Batch #: 739074 **Sample:** 316199-048 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	66.8	50.0	134	70-135	

Lab Batch #: 739074 **Sample:** 316199-049 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	58.5	50.0	117	70-135	

Lab Batch #: 739074 **Sample:** 316212-008 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	61.4	50.0	123	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739074 **Sample:** 316212-008 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.8	50.0	126	70-135	

Lab Batch #: 739074 **Sample:** 518572-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	62.8	50.0	126	70-135	

Lab Batch #: 739074 **Sample:** 518572-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	61.8	50.0	124	70-135	

Lab Batch #: 739074 **Sample:** 518572-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.1	50.0	124	70-135	

Lab Batch #: 739125 **Sample:** 316199-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	60.4	50.0	121	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739125 **Sample:** 316199-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 739125 **Sample:** 316199-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.8	50.0	120	70-135	

Lab Batch #: 739125 **Sample:** 316199-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.3	50.0	119	70-135	

Lab Batch #: 739125 **Sample:** 316199-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 739125 **Sample:** 316199-025 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	59.2	50.0	118	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739125 **Sample:** 316199-025 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	61.2	50.0	122	70-135	

Lab Batch #: 739125 **Sample:** 316199-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.0	50.0	118	70-135	

Lab Batch #: 739125 **Sample:** 316199-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.4	50.0	115	70-135	

Lab Batch #: 739125 **Sample:** 316199-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	60.8	50.0	122	70-135	

Lab Batch #: 739125 **Sample:** 316199-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	59.9	50.0	120	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199, **Project ID:**

Lab Batch #: 739125 **Sample:** 316199-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 739125 **Sample:** 316199-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.2	50.0	116	70-135	

Lab Batch #: 739125 **Sample:** 316199-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 739125 **Sample:** 316199-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	56.6	50.0	113	70-135	

Lab Batch #: 739125 **Sample:** 316199-034 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	57.8	50.0	116	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739125 **Sample:** 316199-035 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.6	50 0	117	70-135	

Lab Batch #: 739125 **Sample:** 316199-036 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	58.9	50.0	118	70-135	

Lab Batch #: 739125 **Sample:** 316199-037 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	58.8	50.0	118	70-135	

Lab Batch #: 739125 **Sample:** 316199-038 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	58.7	50.0	117	70-135	

Lab Batch #: 739125 **Sample:** 316199-039 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.3	50.0	115	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739125 **Sample:** 316199-040 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	60.0	50.0	120	70-135	

Lab Batch #: 739125 **Sample:** 518611-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	63.7	50.0	127	70-135	

Lab Batch #: 739125 **Sample:** 518611-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	59.6	50.0	119	70-135	

Lab Batch #: 739125 **Sample:** 518611-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	62.6	50.0	125	70-135	

Lab Batch #: 739126 **Sample:** 316199-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739126 **Sample:** 316199-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.2	50.0	118	70-135	

Lab Batch #: 739126 **Sample:** 316199-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 739126 **Sample:** 316199-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	57.2	50.0	114	70-135	

Lab Batch #: 739126 **Sample:** 316199-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	54.4	50.0	109	70-135	

Lab Batch #: 739126 **Sample:** 316199-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199, **Project ID:**

Lab Batch #: 739126 **Sample:** 316199-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

Lab Batch #: 739126 **Sample:** 316199-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	56.3	50.0	113	70-135	

Lab Batch #: 739126 **Sample:** 316199-008 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	62.3	50.0	125	70-135	

Lab Batch #: 739126 **Sample:** 316199-008 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	60.7	50.0	121	70-135	

Lab Batch #: 739126 **Sample:** 316199-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.5	50.0	115	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739126 **Sample:** 316199-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	59.4	50.0	119	70-135	

Lab Batch #: 739126 **Sample:** 316199-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.0	50.0	116	70-135	

Lab Batch #: 739126 **Sample:** 316199-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	56.0	50.0	112	70-135	

Lab Batch #: 739126 **Sample:** 316199-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	54.0	50.0	108	70-135	

Lab Batch #: 739126 **Sample:** 316199-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	57.9	50.0	116	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739126 **Sample:** 316199-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	59.1	50.0	118	70-135	

Lab Batch #: 739126 **Sample:** 316199-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	58.0	50.0	116	70-135	

Lab Batch #: 739126 **Sample:** 316199-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	58.9	50.0	118	70-135	

Lab Batch #: 739126 **Sample:** 316199-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.1	50.0	114	70-135	

Lab Batch #: 739126 **Sample:** 316199-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	57.3	50.0	115	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199, **Project ID:**

Lab Batch #: 739126 **Sample:** 316199-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	57.7	50.0	115	70-135	

Lab Batch #: 739126 **Sample:** 518612-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	60.6	50.0	121	70-135	

Lab Batch #: 739126 **Sample:** 518612-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.9	50.0	118	70-135	

Lab Batch #: 739126 **Sample:** 518612-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	131	100	131	70-135	
o-Terphenyl	66.5	50.0	133	70-135	

Lab Batch #: 739585 **Sample:** 316199-046 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.0	10.0	110	70-135	
o-Terphenyl	5.70	5.00	114	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739585 **Sample:** 316199-047 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.39	10.0	84	70-135	
o-Terphenyl	4.39	5.00	88	70-135	

Lab Batch #: 739585 **Sample:** 316199-048 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.86	10.0	89	70-135	
o-Terphenyl	4.75	5.00	95	70-135	

Lab Batch #: 739585 **Sample:** 316199-049 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.59	10.0	96	70-135	
o-Terphenyl	4.97	5.00	99	70-135	

Lab Batch #: 739585 **Sample:** 518891-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	10.1	10.0	101	70-135	
o-Terphenyl	5.17	5.00	103	70-135	

Lab Batch #: 739585 **Sample:** 518891-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	8.76	10.0	88	70-135	
o-Terphenyl	4.53	5.00	91	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316199,

Project ID:

Lab Batch #: 739585 **Sample:** 518891-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L

SPLP TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	10.2	10.0	102	70-135	
o-Terphenyl	5.24	5.00	105	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Atlantic Richfield

Work Order #: 316199 **Project ID:**

Lab Batch #: 738877 **Sample:** 738877-1-BKS **Matrix:** Solid
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	9.02	90	75-125	

Lab Batch #: 738881 **Sample:** 738881-1-BKS **Matrix:** Solid
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	9.65	97	75-125	

Lab Batch #: 738883 **Sample:** 738883-1-BKS **Matrix:** Solid
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	9.15	92	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Atlantic Richfield

Work Order #: 316199 **Project ID:**

Analyst: ASA **Date Prepared:** 10/31/2008 **Date Analyzed:** 11/02/2008

Lab Batch ID: 739074 **Sample:** 518572-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	879	88	1000	866	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	934	93	1000	912	91	2	70-135	35	

Analyst: ASA **Date Prepared:** 10/31/2008 **Date Analyzed:** 11/02/2008

Lab Batch ID: 739125 **Sample:** 518611-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	872	87	1000	881	88	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	930	93	1000	935	94	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Atlantic Richfield

Work Order #: 316199 **Project ID:**

Analyst: ASA **Date Prepared:** 10/31/2008 **Date Analyzed:** 11/01/2008

Lab Batch ID: 739126 **Sample:** 518612-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	857	86	1000	921	92	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	927	93	1000	952	95	3	70-135	35	

Analyst: ASA **Date Prepared:** 11/05/2008 **Date Analyzed:** 11/06/2008

Lab Batch ID: 739585 **Sample:** 518891-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

SPLP TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	100	83 7	84	100	83.8	84	0	70-135	25	
C12-C28 Diesel Range Hydrocarbons	ND	100	91.7	92	100	92.2	92	1	70-135	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Atlantic Richfield

Work Order #: 316199

Lab Batch #: 738877 **Project ID:**

Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR

QC- Sample ID: 316093-026 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1190	516	1810	120	75-125	

Lab Batch #: 738881

Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR

QC- Sample ID: 316199-012 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	105	104	99	75-125	

Lab Batch #: 738883

Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR

QC- Sample ID: 316199-033 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	106	105	99	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Atlantic Richfield

Work Order # : 316199 **Project ID:**

Lab Batch ID: 739074 **QC- Sample ID:** 316212-008 S **Batch #:** 1 **Matrix:** Soil
Date Analyzed: 11/03/2008 **Date Prepared:** 10/31/2008 **Analyst:** ASA
Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1070	878	82	1070	901	84	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1070	937	88	1070	961	90	2	70-135	35	

Lab Batch ID: 739125 **QC- Sample ID:** 316199-025 S **Batch #:** 1 **Matrix:** Soil
Date Analyzed: 11/02/2008 **Date Prepared:** 10/31/2008 **Analyst:** ASA
Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1010	818	81	1010	856	85	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	19.4	1010	903	87	1010	961	93	7	70-135	35	

Lab Batch ID: 739126 **QC- Sample ID:** 316199-008 S **Batch #:** 1 **Matrix:** Soil
Date Analyzed: 11/01/2008 **Date Prepared:** 10/31/2008 **Analyst:** ASA
Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1040	858	83	1040	847	81	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1040	923	89	1040	915	88	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Atlantic Richfield

Work Order #: 316199

Lab Batch #: 738877 **Project ID:**
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
QC- Sample ID: 316093-026 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	1190	1110	7	20	

Lab Batch #: 738881
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
QC- Sample ID: 316199-012 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 738883
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** LATCOR
QC- Sample ID: 316199-033 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 738805
Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** BEV
QC- Sample ID: 316199-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.56	4.81	5	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Sample Duplicate Recovery

Project Name: Atlantic Richfield

Work Order #: 316199

Lab Batch #: 738806 **Project ID:**

Date Analyzed: 11/01/2008 **Date Prepared:** 11/01/2008 **Analyst:** BEV

QC- Sample ID: 316199-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.51	6.64	2	20	

Lab Batch #: 738807

Date Analyzed: 10/31/2008 **Date Prepared:** 10/31/2008 **Analyst:** BEV

QC- Sample ID: 316199-041 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	9.83	10.3	5	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043 Fax No. 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc: Farnsworth Main Battery
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 316194

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP 8015B	TPH 418.1 (8015M)	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	TP5@ 14'		14'	10.28.08	9:47A		1	X								S	X				X									X
02	TP6 @ 2'		2'	10.28.08	9:01A		1	X								S	X				X									X
03	TP6 @ 5'		5'	10.28.08	9:14A		1	X								S	X				X									X
04	TP7 @ 2'		2'	10.28.08	10:05A		1	X								S	X				X									X
05	TP7 @ 5'		5'	10.28.08	10:17A		1	X								S	X				X									X
06	TP8 @ 2'		2'	10.28.08	11:03A		1	X								S	X				X									X
07	TP8 @ 5'		5'	10.28.08	11:24A		1	X								S	X				X									X
08	TP9 @ 2'		2'	10.28.08	11:46A		1	X								S	X				X									X
09	TP9 @ 5'		5'	10.28.08	11:55A		1	X								S	X				X									X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	10.30.08	3:45P	Erick Sinchez	10-30-08	3:45
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
Erick Sinchez	10-30-08	4:27	Andrea Fan	10.30.08	4:27

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? Y (N/A)
Labels on container(s) (Y) N
Custody seals on container(s) (Y) N
Custody seals on cooler(s) (Y) N
Sample Hand Delivered (Y) N
by Sampler/Client Rep. ? (Y) N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 3.5 °C

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79766
Phone 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-368-0043 Fax No: 432-368-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc: Farnsworth Main Battery
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 311619

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable SW=Surface Water Other	Analyze For: 8015B	TPH 418.1	TPH TX 1005	TX 1006	TCLP / TOTAL: Calcium (Ca), Mg, Na, K	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
10	TP10 C2'		2'	10/28/08	12:47P		1	X								S	X			X										X
11	TP10 C5'		5'		1:05P		1	X								S	X			X										X
12	TP11 C2'		2'		1:38P		1	X								S	X			X										X
13	TP11 C5'		5'		1:59P		1	X								S	X			X										X
14	TP12 C2'		2'		2:29P		1	X								S	X			X										X
15	TP12 C5'		5'		2:51P		1	X								S	X			X										X
16	TP14C 2'		2'		3:15P		1	X								S	X			X										X
17	TP14C 5'		5'		3:29P		1	X								S	X			X										X
18	TP15C 2'		2'		4:03P		1	X								S	X			X										X
19	TP15C 5'		5'		4:37P		1	X								S	X			X										X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	10.30.08	3:45P	Erick Sanchez	10-30-08	3:45
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
Erick Sanchez	10.31.08	4:27	Andrea Fierro	10/31/08	4:27

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.5 °C

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043
Fax No: 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc.: Farnsworth Main Battery
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 316199

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: 8015M	TPH: 418.1	TPH: TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	TCLP Metals: Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
20	TP16 @ 5'		5'	10-28-08	4:55P		1	X								S	X			X										X
21	TP16 @ 10'		10'		5:07P		1	X								S	X			X										X
22	Wall 1A @ 2'		2'		5:31P		1	X								S	X			X										X
23	Wall 1A @ 5'		5'		5:40P		1	X								S	X			X										X
24	Wall 1A @ 10'		10'		5:47P		1	X								S	X			X										X
25	Wall 1A @ 14'		14'	↓	5:55P		1	X								S	X			X										X
26	Wall 5A @ 2'		2'	10-29-08	7:37A		1	X								S	X			X										X
27	Wall 5A @ 5'		5'		7:42A		1	X								S	X			X										X
28	Wall 5A @ 10'		10'		7:47A		1	X								S	X			X										X
29	Wall 5A @ 14'		14'	↓	7:52A		1	X								S	X			X										X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	10-30-08	3:45P	Erica Sánchez	10-30-08	3:45
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by: Erica Sánchez	10-30-08	4:27	Received by ELOT: Andrea Pena	11-30-08	4:27

Laboratory Comments:
Sample Containers Intact? Y (N)
VOCs Free of Headspace? (Y) N (NA)
Labels on container(s) Y (N)
Custody seals on container(s) Y (N) (NA)
Custody seals on cooler(s) (Y) N (NA)
Sample Hand Delivered (Y) N
by Sampler/Client Rep ? (Y) N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.5 °C

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043
Fax No: 432-366-0884
Sampler Signature: [signature]
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc.: Farnsworth Main Battery
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 316199

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix (DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other)	TPH 418.1 (8015M) 8015B	TPH TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
30	Wall 10 A @ 2'		2'	10-29-08	11:51 A		1	X								S	X			X										X
31	Wall 10 A @ 5'		5'	↓	11:58 A		1	X								S	X			X										X
32	Wall 10 A @ 10'		10'	↓	12:01 P		1	X								S	X			X										X
33	Wall 10 A @ 14'		14'	↓	12:10 P		1	X								S	X			X										X
34	Wall 15 A @ 2'		2'	↓	2:17 P		1	X								S	X			X										X
35	Wall 15 A @ 5'		5'	↓	2:41 P		1	X								S	X			X										X
36	Wall 15 A @ 10'		10'	↓	2:52 P		1	X								S	X			X										X
37	Wall 15 A @ 14'		14'	↓	2:59 P		1	X								S	X			X										X
38	Wall 20 A @ 2'		2'	↓	5:01 P		1	X								S	X			X										X
39	Wall 20 A @ 5'		5'	↓	5:05 P		1	X								S	X			X										X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10-30-08	3:45 P	Erick Sanchez	10-30-08	[illegible]
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT:	Date	Time
Erick Sanchez	10-30-08	4:27	Andrea [illegible]	10-30-08	4:27

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? Y (N)
Labels on container(s) (Y) N
Custody seals on container(s) (Y) N
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep.? (Y) N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.5 °C

Page 5 of 5

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson

Company Name: Elke Environmental

Company Address: P O Box 14167

City/State/Zip: Odessa, TX 79768

Telephone No: 432-366-0043

Fax No: 432-366-0884

Sampler Signature: [signature]

e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield

Project #:

Project Loc: Farnsworth Main Battery

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 316199

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix (DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other)	TPH 418.1 (8015M) 8015B	TPH TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.		SPLP TPH 8015M		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
40	Wall 20 A @ 10'		10'	10-29-08	5:16P		1	X								S	X			X												X
41	Wall 20 A @ 14'		14'	10-29-08	5:25P		1	X								S	X			X												X
42	Wall 25 A @ 2'		2'	10-30-08	7:38A		1	X								S	X			X												X
43	Wall 25 A @ 5'		5'	10-30-08	7:52A		1	X								S	X			X												X
44	Wall 25 A @ 10'		10'	10-30-08	7:59A		1	X								S	X			X												X
45	Wall 25 A @ 14'		14'	10-30-08	8:23A		1	X								S	X			X												X
46	TP1 @ 10'		10'	10-30-08	9:15A		1	X								S	X												X			X
47	TP2 @ 10'		10'	10-30-08	10:11A		1	X								S	X												X			X
48	TP13 @ 10'		10'	10-30-08	11:24A		1	X								S	X												X			X
49	TP17 @ 10'		10'	10-30-08	12:35P		1	X								S	X												X			X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10-30-08	3:45P	Erick Sanchez	10-30-08	3:45P
Erick Sanchez	10-30-08	4:27	Received by ELOT: Andrea [signature]	10-30-08	4:27

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	Y	(N)
Labels on container(s)	(Y)	N
Custody seals on container(s)	(Y)	N
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep ?	(Y)	N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt	5.5	°C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Like Env

Date/ Time: 10 30 08 16 27

Lab ID #: 316191

Initials: CL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	5.5 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	Yes	No	(Not Applicable)	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20 VOC samples have zero headspace?	Yes	No	(Not Applicable)	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 316620

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Atlantic Richfield

10-NOV-08

E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

10-NOV-08

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
4817 Andrews Hwy
P.O. Box 14167 Odessa, tx 79768
Odessa, TX 79762

Reference: XENCO Report No: **316620**
Atlantic Richfield
Project Address: Farnsworth Main Battery

Logan Anderson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 316620. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 316620 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 316620

Elke Environmental, Inc., Odessa, TX

Atlantic Richfield

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP1 @ 55'	S	Nov-03-08 11:07	55 ft	316620-001
TP1 @ 60'	S	Nov-03-08 11:23	60 ft	316620-002
TP2 @ 45'	S	Nov-03-08 13:39	45 ft	316620-003
TP2 @ 50'	S	Nov-03-08 13:52	50 ft	316620-004
TP3 @ 20'	S	Nov-03-08 14:57	20 ft	316620-005
TP3 @ 25'	S	Nov-03-08 15:10	25 ft	316620-006
TP4 @ 20'	S	Nov-03-08 15:54	20 ft	316620-007
TP4 @ 25'	S	Nov-03-08 16:09	25 ft	316620-008
TP5 @ 20'	S	Nov-04-08 09:30	20 ft	316620-009
TP5 @ 25'	S	Nov-04-08 09:47	25 ft	316620-010
TP13 @ 95'	S	Nov-04-08 12:20	95 ft	316620-011
TP13 @ 100'	S	Nov-04-08 12:41	100 ft	316620-012
TP17 @ 20'	S	Nov-04-08 13:41	20 ft	316620-013
TP17 @ 25'	S	Nov-04-08 13:58	25 ft	316620-014

Certificate of Analysis Summary 316620

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:
Contact: Logan Anderson
Project Location: Farnsworth Main Battery

Date Received in Lab: Tue Nov-04-08 03:40 pm
Report Date: 10-NOV-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316620-001		316620-002		316620-003		316620-004		316620-005		316620-006	
	Field Id:	TP1 @ 55'		TP1 @ 60'		TP2 @ 45'		TP2 @ 50'		TP3 @ 20'		TP3 @ 25'	
	Depth:	55 ft		60 ft		45 ft		50 ft		20 ft		25 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-03-08 11:07		Nov-03-08 11:23		Nov-03-08 13:39		Nov-03-08 13:52		Nov-03-08 14.57		Nov-03-08 15:10	
Inorganic Anions by EPA 300	***Extracted:***												
	Analyzed:	Nov-05-08 09:55		Nov-05-08 09:55		Nov-05-08 09.55		Nov-05-08 09 55		Nov-05-08 09 55		Nov-05-08 09:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	51.5	ND	51.1	ND	52.6	ND	52.2	ND	110	ND	112
Percent Moisture	***Extracted:***												
	Analyzed:	Nov-05-08 00.00		Nov-05-08 00.00		Nov-05-08 00.00		Nov-05-08 00.00		Nov-05-08 00:00		Nov-05-08 00:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.89		2.16		4 96		4.24		9.06		11.0	
TPH by SW8015 Mod	***Extracted:***	Nov-06-08 17 00		Nov-06-08 17:00		Nov-06-08 17 00		Nov-06-08 17.00		Nov-06-08 17:00		Nov-06-08 17.00	
	Analyzed:	Nov-08-08 10 40		Nov-08-08 11:05		Nov-08-08 11:29		Nov-08-08 11:53		Nov-08-08 12:18		Nov-08-08 12:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15 4	ND	15 3	ND	15 8	ND	15 7	ND	16 5	ND	16.8
C12-C28 Diesel Range Hydrocarbons		726	15.4	135	15.3	272	15.8	274	15.7	63 3	16.5	21 0	16 8
C28-C35 Oil Range Hydrocarbons		172	15 4	37.0	15 3	69 6	15 8	16.6	15 7	ND	16.5	ND	16 8
Total TPH		898		172		341 6		290 6		63.3		21	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316620

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Tue Nov-04-08 03:40 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	316620-007		316620-008		316620-009		316620-010		316620-011		316620-012	
	Field Id:	TP4 @ 20'		TP4 @ 25'		TP5 @ 20'		TP5 @ 25'		TP13 @ 95'		TP13 @ 100'	
	Depth:	20 ft		25 ft		20 ft		25 ft		95 ft		100 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-03-08 15:54		Nov-03-08 16:09		Nov-04-08 09:30		Nov-04-08 09:47		Nov-04-08 12:20		Nov-04-08 12:41	
Inorganic Anions by EPA 300	***Extracted:***												
	Analyzed:	Nov-05-08 09:55		Nov-05-08 09 55		Nov-05-08 09:55		Nov-05-08 09:55		Nov-05-08 09:55		Nov-05-08 18:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	108	ND	111	ND	52.8	ND	113	ND	52.0	ND	52.3
Percent Moisture	***Extracted:***												
	Analyzed:	Nov-05-08 00:00		Nov-05-08 00 00		Nov-05-08 00.00		Nov-05-08 00.00		Nov-05-08 16.00		Nov-05-08 16:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.61		10 0		5 27		11 9		3.78	1.00	4.46	1.00
TPH by SW8015 Mod	***Extracted:***	Nov-06-08 17.00		Nov-06-08 17:00		Nov-06-08 17:00		Nov-06-08 17 00		Nov-07-08 18.00		Nov-07-08 18:00	
	Analyzed:	Nov-08-08 13:09		Nov-08-08 13:35		Nov-08-08 13:59		Nov-08-08 14:23		Nov-08-08 19:18		Nov-08-08 19:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.2	ND	16 7	ND	15 8	ND	17 0	15.7	15.6	18 0	15 7
C12-C28 Diesel Range Hydrocarbons		88.3	16 2	48.7	16.7	17.3	15.8	29 0	17.0	491	15 6	354	15.7
C28-C35 Oil Range Hydrocarbons		ND	16.2	ND	16.7	ND	15.8	ND	17.0	93 7	15 6	64.1	15.7
Total TPH		88.3		48.7		17 3		29		600.4		436 1	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 316620

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Tue Nov-04-08 03:40 pm

Report Date: 10-NOV-08

Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	316620-013		316620-014			
	Field Id:	TP17 @ 20'		TP17 @ 25'			
	Depth:	20 ft		25 ft			
	Matrix:	SOIL		SOIL			
	Sampled:	Nov-04-08 13:41		Nov-04-08 13:58			
Inorganic Anions by EPA 300	***Extracted:***						
	Analyzed:	Nov-05-08 18:27		Nov-05-08 18:27			
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		ND	52.2	ND	53.6		
Percent Moisture	***Extracted:***						
	Analyzed:	Nov-05-08 16.00		Nov-05-08 16.00			
	Units/RL:	%	RL	%	RL		
Percent Moisture		4.16	1.00	6.70	1.00		
TPH by SW8015 Mod	***Extracted:***	Nov-07-08 18:00		Nov-07-08 18:00			
	Analyzed:	Nov-08-08 20:12		Nov-08-08 20:39			
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	15 7	ND	16 1		
C12-C28 Diesel Range Hydrocarbons		ND	15.7	ND	16.1		
C28-C35 Oil Range Hydrocarbons		ND	15.7	ND	16.1		
Total TPH		ND		ND			

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316620, **Project ID:**

Lab Batch #: 739664 **Sample:** 316620-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.6	100	90	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 739664 **Sample:** 316620-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86 8	100	87	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 739664 **Sample:** 316620-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.9	100	92	70-135	
o-Terphenyl	48.3	50.0	97	70-135	

Lab Batch #: 739664 **Sample:** 316620-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.4	100	90	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 739664 **Sample:** 316620-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.7	100	91	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316620,

Project ID:

Lab Batch #: 739664 **Sample:** 316620-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.2	100	90	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 739664 **Sample:** 316620-006 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 739664 **Sample:** 316620-006 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.7	50.0	105	70-135	

Lab Batch #: 739664 **Sample:** 316620-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	100	92	70-135	
o-Terphenyl	47.9	50.0	96	70-135	

Lab Batch #: 739664 **Sample:** 316620-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.4	100	93	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316620, **Project ID:**

Lab Batch #: 739664 **Sample:** 316620-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	100	94	70-135	
o-Terphenyl	48.8	50.0	98	70-135	

Lab Batch #: 739664 **Sample:** 316620-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 739664 **Sample:** 518942-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 739664 **Sample:** 518942-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	100	88	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

Lab Batch #: 739664 **Sample:** 518942-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316620, **Project ID:**

Lab Batch #: 739676 **Sample:** 316620-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	100	96	70-135	
o-Terphenyl	49.8	50.0	100	70-135	

Lab Batch #: 739676 **Sample:** 316620-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	49.4	50.0	99	70-135	

Lab Batch #: 739676 **Sample:** 316620-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

Lab Batch #: 739676 **Sample:** 316620-013 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-135	
o-Terphenyl	59.1	50.0	118	70-135	

Lab Batch #: 739676 **Sample:** 316620-013 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Atlantic Richfield

Work Orders : 316620,

Project ID:

Lab Batch #: 739676 **Sample:** 316620-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	49.4	50.0	99	70-135	

Lab Batch #: 739676 **Sample:** 518946-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

Lab Batch #: 739676 **Sample:** 518946-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.6	100	89	70-135	
o-Terphenyl	46.9	50.0	94	70-135	

Lab Batch #: 739676 **Sample:** 518946-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Atlantic Richfield

Work Order #: 316620 **Project ID:**

Lab Batch #: 739286 **Sample:** 739286-1-BKS **Matrix:** Solid
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	9.90	99	75-125	

Lab Batch #: 739303 **Sample:** 739303-1-BKS **Matrix:** Solid
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	10.4	104	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Atlantic Richfield

Work Order #: 316620 **Project ID:**

Analyst: ASA **Date Prepared:** 11/06/2008 **Date Analyzed:** 11/08/2008

Lab Batch ID: 739664 **Sample:** 518942-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	840	84	1000	846	85	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	933	93	1000	941	94	1	70-135	35	

Analyst: ASA **Date Prepared:** 11/07/2008 **Date Analyzed:** 11/08/2008

Lab Batch ID: 739676 **Sample:** 518946-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	857	86	1000	848	85	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	945	95	1000	936	94	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Atlantic Richfield

Work Order #: 316620
Lab Batch #: 739286
Date Analyzed: 11/05/2008
QC- Sample ID: 316614-004 S
Reporting Units: mg/kg

Project ID:
Date Prepared: 11/05/2008
Batch #: 1
Analyst: LATCOR
Matrix: Soil

Inorganic Anions by EPA 300 Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1530	1040	2890	131	75-125	X

Lab Batch #: 739303
Date Analyzed: 11/05/2008
QC- Sample ID: 316620-012 S
Reporting Units: mg/kg

Date Prepared: 11/05/2008
Batch #: 1
Analyst: LATCOR
Matrix: Soil

Inorganic Anions by EPA 300 Analytes	MATRIX / MATRIX SPIKE RECOVERY STUDY					
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	105	124	118	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Atlantic Richfield

Work Order # : 316620 **Project ID:**

Lab Batch ID: 739664 **QC- Sample ID:** 316620-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/08/2008 **Date Prepared:** 11/06/2008 **Analyst:** ASA

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1120	955	85	1120	944	84	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	21.0	1120	1060	93	1120	1050	92	1	70-135	35	

Lab Batch ID: 739676 **QC- Sample ID:** 316620-013 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 11/09/2008 **Date Prepared:** 11/07/2008 **Analyst:** ASA

Reporting Units: mg/kg

TPH by SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1040	881	85	1040	892	86	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1040	986	95	1040	1010	97	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Atlantic Richfield

Work Order #: 316620

Lab Batch #: 739286 **Project ID:**
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
QC- Sample ID: 316614-004 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	1530	31.7	192	20	F

Lab Batch #: 739303
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
QC- Sample ID: 316620-012 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 739284
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
QC- Sample ID: 316550-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	13.9	16.0	14	20	

Lab Batch #: 739285
Date Analyzed: 11/05/2008 **Date Prepared:** 11/05/2008 **Analyst:** LATCOR
QC- Sample ID: 316620-011 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.78	3.63	4	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043
Fax No. 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc: Farnsworth Main Battery
PO #:
Report Format: Standard TRRP NPDES

(lab use only)
ORDER #: 310620

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW-Drinking Water	SL-Sludge	GW - Groundwater	SW-Surface Water	NP-Non-Potable	Specify Other	Analyze For: 8015M	TPH 418.1	8015M	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or 8TEX 8260	RCI	N.O.R.M.			RUSH TAT (pre-schedule) 24, 48, 72 hrs	Standard TAT
01	TP1 @ 55'		55'	11-3-08	11:07 A		1	X									S					X					X												X
02	TP1 @ 60'		60'		11:23 A		1	X									S					X					X												X
03	TP2 @ 45'		45'		1:39 P		1	X									S					X					X												X
04	TP2 @ 50'		50'		1:52 P		1	X									S					X					X												X
05	TP3 @ 20'		20'		2:57 P		1	X									S					X					X												X
06	TP3 @ 25'		25'		3:10 P		1	X									S					X					X												X
07	TP4 @ 20'		20'		3:54 P		1	X									S					X					X												X
08	TP4 @ 25'		25'		4:09 P		1	X									S					X					X												X
09	TP5 @ 20'		20'	11-4-08	9:30 A		1	X									S					X					X												X
10	TP5 @ 25'		25'	11-4-08	9:47 A		1	X									S					X					X												X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	11-4-08	3:40			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Andrea Lam	Date: 11-4-08	Time: 5:40

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered by Sampler/Client Rep ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 4.0 °C

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043 Fax No: 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc: Farnsworth Main Battery
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 316020

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water GW = Groundwater WW=Non-Potable SL=Sludge S=Soil/Solid Specify Other	Analyze For: TCLP TOTAL: 8015B TPH 418.1 (8015M)	TPH TX 1005	Chlorides (Cl, Mg, Na, K)	Arsenic (SAR/ESP/CEC Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M			RUSH TAT (pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	TP13C 95'		95'	11-4-08	12:26P		1	X								S	X		X												X
12	TP13C 100'		100'	"	12:41P		1	X								S	X		X												X
13	TP17C 20'		20'	"	1:41P		1	X								S	X		X												X
14	TP17C 25'		25'	↓	1:58P		1	X								S	X		X												X

Special Instructions:

Relinquished by	Date	Time	Received by:	Date	Time
	11-4-08	3:40P			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: Andrea Perez	Date: 11-4-08	Time: 5:40

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep ?	Y	N

by Courier? UPS DHL FedEx Lone Star
402705

Temperature Upon Receipt: 4.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time: 11 4 09 15:40

Lab ID #: 310620

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken.

Check all that Apply

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 323241

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Atlantic Richfield

27-JAN-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

27-JAN-09

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
4817 Andrews Hwy
P.O. Box 14167 Odessa, tx 79768
Odessa, TX 79762

Reference: XENCO Report No: **323241**
Atlantic Richfield
Project Address: Farnsworth Main Battery

Logan Anderson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 323241. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 323241 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 323241

Elke Environmental, Inc., Odessa, TX

Atlantic Richfield

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	Jan-23-09 11:54	111.5 - 122.8	323241-001

Certificate of Analysis Summary 323241

Elke Environmental, Inc., Odessa, TX

Project Name: Atlantic Richfield

Project Id:

Contact: Logan Anderson

Project Location: Farnsworth Main Battery

Date Received in Lab: Fri Jan-23-09 02:15 pm

Report Date: 27-JAN-09

Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	323241-001					
	Field Id:	MW-1					
	Depth:	111.5-122.8					
	Matrix:	WATER					
	Sampled:	Jan-23-09 11:54					
TDS by SM2540C	***Extracted:***						
	Analyzed:	Jan-26-09 16:23					
	Units/RL:	mg/L	RL				
Total dissolved solids		1180	5.00				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

Sample Duplicate Recovery

Project Name: Atlantic Richfield

Work Order #: 323241

Lab Batch #: 747615 **Project ID:**

Date Analyzed: 01/26/2009 **Date Prepared:** 01/26/2009 **Analyst:** WRU

QC- Sample ID: 323241-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	1180	1180	0	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043 Fax No. 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Atlantic Richfield
Project #:
Project Loc: Farnsworth Main Battery
PO #:
Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 323241

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH 418.1	BTEX 8021B	TPH TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	TCLP: Metals Ag As Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	TDS	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	MW-1	111.5	122.5	1-23-09	11:54 am		1	X								GW													X		X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	1-23-09	12:08 P		1/23/09	12:41 P
Relinquished by	Date	Time	Received by	Date	Time
	1-23-09	2:15pm			
Relinquished by	Date	Time	Received by ELOT	Date	Time
			Andrea Perez	1/23/09	14:15

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N/A
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep ?	Y	N
by Courier? UPS OHL FedEx Lone Star		
Temperature Upon Receipt:	3.7 °C	

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time: 12.3.01 14 15

Lab ID #: 323241

Initials: JL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	3.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact _____ Contacted by _____ Date/ Time _____

Regarding _____

Corrective Action Taken

Check all that Apply.

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: July 26, 2007

Work Order: 7071719

Project Location: Jal, NM
Project Name: Farnsworth Main Tank Battery
Project Number: Farnsworth Main Tank Battery

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
130163	MW-1 002-002A	water	2007-07-13	12:50	2007-07-17
130164	Trip Blank	water	2007-07-13	00:00	2007-07-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 130163 - MW-1 002-002A

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39220	Date Analyzed:	2007-07-18	Analyzed By:	TG
Prep Batch:	33942	Sample Preparation:	2007-07-18	Prepared By:	TG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<5.00	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		25.3	mg/L	1	15.0	169	40.7 - 174

Sample: 130163 - MW-1 002-002A

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	39404	Date Analyzed:	2007-07-25	Analyzed By:	MT
Prep Batch:	34113	Sample Preparation:	2007-07-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	63.3 - 132
4-Bromofluorobenzene (4-BFB)		0.0738	mg/L	1	0.100	74	61.8 - 117.5

Sample: 130163 - MW-1 002-002A

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	39228	Date Analyzed:	2007-07-18	Analyzed By:	JG
Prep Batch:	33949	Sample Preparation:	2007-07-18	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		47.8	µg/L	1	50.0	96	82.4 - 115
Toluene-d8		48.0	µg/L	1	50.0	96	89.7 - 108
4-Bromofluorobenzene (4-BFB)		44.6	µg/L	1	50.0	89	84.6 - 114

Sample: 130164 - Trip Blank

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5030B
QC Batch:	39404	Date Analyzed:	2007-07-25	Analyzed By:	MT
Prep Batch:	34113	Sample Preparation:	2007-07-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<0.100	mg/L	1	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	63.3 - 132
4-Bromofluorobenzene (4-BFB)		0.0712	mg/L	1	0.100	71	61.8 - 117.5

Sample: 130164 - Trip Blank

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	39228	Date Analyzed:	2007-07-18	Analyzed By:	JG
Prep Batch:	33949	Sample Preparation:	2007-07-18	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.4	µg/L	1	50.0	97	82.4 - 115
Toluene-d8		48.2	µg/L	1	50.0	96	89.7 - 108
4-Bromofluorobenzene (4-BFB)		45.0	µg/L	1	50.0	90	84.6 - 114

Method Blank (1) QC Batch: 39220

QC Batch:	39220	Date Analyzed:	2007-07-18	Analyzed By:	TG
Prep Batch:	33942	QC Preparation:	2007-07-18	Prepared By:	TG

Parameter	Flag	MDL Result	Units	RL
DRO		<1.06	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		20.6	mg/L	1	15.0	137	40.7 - 174

Method Blank (1) QC Batch: 39228

QC Batch:	39228	Date Analyzed:	2007-07-18	Analyzed By:	JG
Prep Batch:	33949	QC Preparation:	2007-07-18	Prepared By:	JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.351	µg/L	1
Dichlorodifluoromethane		<0.306	µg/L	1
Chloromethane (methyl chloride)		<0.240	µg/L	1
Vinyl Chloride		<0.224	µg/L	1
Bromomethane (methyl bromide)		<0.325	µg/L	5
Chloroethane		<0.303	µg/L	1
Trichlorofluoromethane		<0.255	µg/L	1
Acetone		<1.86	µg/L	10
Iodomethane (methyl iodide)		<0.397	µg/L	5
Carbon Disulfide		<0.354	µg/L	1
Acrylonitrile		<0.306	µg/L	1
2-Butanone (MEK)		<0.670	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.463	µg/L	5
2-Hexanone		<0.303	µg/L	5
trans 1,4-Dichloro-2-butene		<0.406	µg/L	10
1,1-Dichloroethene		<0.326	µg/L	1
Methylene chloride		1.57	µg/L	5
MTBE		<0.352	µg/L	1
trans-1,2-Dichloroethene		<0.322	µg/L	1
1,1-Dichloroethane		<0.324	µg/L	1
cis-1,2-Dichloroethene		<0.331	µg/L	1
2,2-Dichloropropane		<0.440	µg/L	1
1,2-Dichloroethane (EDC)		<0.327	µg/L	1
Chloroform		<0.345	µg/L	1
1,1,1-Trichloroethane		<0.303	µg/L	1
1,1-Dichloropropene		<0.356	µg/L	1
Benzene		<0.356	µg/L	1
Carbon Tetrachloride		<0.342	µg/L	1
1,2-Dichloropropane		<0.366	µg/L	1
Trichloroethene (TCE)		<0.434	µg/L	1
Dibromomethane (methylene bromide)		<0.406	µg/L	1
Bromodichloromethane		<0.325	µg/L	1
2-Chloroethyl vinyl ether		<0.366	µg/L	5
cis-1,3-Dichloropropene		<0.387	µg/L	1
trans-1,3-Dichloropropene		<0.367	µg/L	1
Toluene		<0.366	µg/L	1
1,1,2-Trichloroethane		<0.397	µg/L	1
1,3-Dichloropropane		<0.355	µg/L	1
Dibromochloromethane		<0.315	µg/L	1
1,2-Dibromoethane (EDB)		<0.340	µg/L	1
Tetrachloroethene (PCE)		<0.355	µg/L	1
Chlorobenzene		<0.363	µg/L	1
1,1,1,2-Tetrachloroethane		<0.338	µg/L	1
Ethylbenzene		<0.350	µg/L	1
m,p-Xylene		<0.752	µg/L	1
Bromoform		<0.275	µg/L	1
Styrene		<0.395	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
o-Xylene		<0.375	µg/L	1
1,1,2,2-Tetrachloroethane		<0.283	µg/L	1
2-Chlorotoluene		<0.445	µg/L	1
1,2,3-Trichloropropane		<0.430	µg/L	1
Isopropylbenzene		<0.521	µg/L	1
Bromobenzene		<0.494	µg/L	1
n-Propylbenzene		<0.483	µg/L	1
1,3,5-Trimethylbenzene		<0.487	µg/L	1
tert-Butylbenzene		<0.496	µg/L	1
1,2,4-Trimethylbenzene		<0.532	µg/L	1
1,4-Dichlorobenzene (para)		<0.413	µg/L	1
sec-Butylbenzene		<0.449	µg/L	1
1,3-Dichlorobenzene (meta)		<0.451	µg/L	1
p-Isopropyltoluene		<0.450	µg/L	1
4-Chlorotoluene		<0.489	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.438	µg/L	1
n-Butylbenzene		<0.461	µg/L	1
1,2-Dibromo-3-chloropropane		<0.532	µg/L	5
1,2,3-Trichlorobenzene		<0.288	µg/L	5
1,2,4-Trichlorobenzene		<0.273	µg/L	5
Naphthalene		<0.299	µg/L	5
Hexachlorobutadiene		<0.483	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		46.7	µg/L	1	50.0	93	82.4 - 115
Toluene-d8		48.0	µg/L	1	50.0	96	89.7 - 108
4-Bromofluorobenzene (4-BFB)		44.7	µg/L	1	50.0	89	84.6 - 114

Method Blank (1) QC Batch: 39404

QC Batch: 39404 Date Analyzed: 2007-07-25 Analyzed By: MT
Prep Batch: 34113 QC Preparation: 2007-07-25 Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
GRO		<0.0353	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.107	mg/L	1	0.100	107	77.9 - 126
4-Bromofluorobenzene (4-BFB)		0.0693	mg/L	1	0.100	69	63.6 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 39220 Date Analyzed: 2007-07-18 Analyzed By: TG
Prep Batch: 33942 QC Preparation: 2007-07-18 Prepared By: TG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	25.7	mg/L	1	25.0	<1.06	103	56.9 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	25.4	mg/L	1	25.0	<1.06	102	56.9 - 128	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	19.2	18.8	mg/L	1	15.0	128	125	40.7 - 174

Laboratory Control Spike (LCS-1)

QC Batch: 39228 | Date Analyzed: 2007-07-18 | Analyzed By: JG
Prep Batch: 33949 | QC Preparation: 2007-07-18 | Prepared By: JG

Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane		51.7	µg/L	1	50.0	<0.351	103	85.7 - 113
Dichlorodifluoromethane		49.7	µg/L	1	50.0	<0.306	99	60.3 - 134
Chloromethane (methyl chloride)		42.0	µg/L	1	50.0	<0.240	84	72 - 120
Vinyl Chloride		45.1	µg/L	1	50.0	<0.224	90	64.4 - 132
Bromomethane (methyl bromide)		53.4	µg/L	1	50.0	<0.325	107	65.9 - 133
Chloroethane		43.9	µg/L	1	50.0	<0.303	88	65.3 - 132
Trichlorofluoromethane		48.9	µg/L	1	50.0	<0.255	98	52.7 - 159
Acetone		60.3	µg/L	1	50.0	<1.86	121	10 - 185
Iodomethane (methyl iodide)	[1]	58.9	µg/L	1	50.0	<0.397	118	80.9 - 112
Carbon Disulfide		50.3	µg/L	1	50.0	<0.354	101	73.7 - 120
Acrylonitrile		47.8	µg/L	1	50.0	<0.306	96	75.8 - 121
2-Butanone (MEK)	[2]	60.3	µg/L	1	50.0	<0.670	121	43.7 - 117
4-Methyl-2-pentanone (MIBK)		52.1	µg/L	1	50.0	<0.463	104	69.3 - 120
2-Hexanone		51.7	µg/L	1	50.0	<0.303	103	35.6 - 138
trans 1,4-Dichloro-2-butene		51.7	µg/L	1	50.0	<0.407	103	40 - 128
1,1-Dichloroethene		47.0	µg/L	1	50.0	<0.326	94	83.4 - 114
Methylene chloride		44.7	µg/L	1	50.0	<0.375	89	62.6 - 119
MTBE		47.0	µg/L	1	50.0	<0.352	94	70 - 132
trans-1,2-Dichloroethene		46.8	µg/L	1	50.0	<0.322	94	83.3 - 114
1,1-Dichloroethane		47.1	µg/L	1	50.0	<0.324	94	81 - 124
cis-1,2-Dichloroethene		47.6	µg/L	1	50.0	<0.331	95	83.8 - 115
2,2-Dichloropropane		49.9	µg/L	1	50.0	<0.440	100	37.9 - 136
1,2-Dichloroethane (EDC)		42.7	µg/L	1	50.0	<0.327	85	67.8 - 131
Chloroform		46.6	µg/L	1	50.0	<0.345	93	75.1 - 125
1,1,1-Trichloroethane		47.6	µg/L	1	50.0	<0.303	95	72.9 - 123
1,1-Dichloropropene		47.2	µg/L	1	50.0	<0.356	94	85.9 - 119
Benzene		47.7	µg/L	1	50.0	<0.356	95	83.5 - 115
Carbon Tetrachloride		51.8	µg/L	1	50.0	<0.342	104	62.7 - 144

continued ...

[1]Spike recovery out of control limits. Concentration biased high. •
[2]Spike recovery out of control limits. Concentration biased high. •

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,2-Dichloropropane	47.0	µg/L	1	50.0	<0.366	94	88.8 - 114
Trichloroethene (TCE)	51.5	µg/L	1	50.0	<0.434	103	91.3 - 111
Dibromomethane (methylene bromide)	50.5	µg/L	1	50.0	<0.406	101	84.2 - 118
Bromodichloromethane	48.1	µg/L	1	50.0	<0.325	96	79.5 - 127
2-Chloroethyl vinyl ether	47.6	µg/L	1	50.0	<0.366	95	75.1 - 128
cis-1,3-Dichloropropene	52.0	µg/L	1	50.0	<0.387	104	83.2 - 119
trans-1,3-Dichloropropene	51.9	µg/L	1	50.0	<0.367	104	77.4 - 126
Toluene	46.1	µg/L	1	50.0	<0.366	92	82 - 110
1,1,2-Trichloroethane	45.8	µg/L	1	50.0	<0.397	92	77 - 123
1,3-Dichloropropane	45.6	µg/L	1	50.0	<0.355	91	81.1 - 124
Dibromochloromethane	52.1	µg/L	1	50.0	<0.315	104	79 - 129
1,2-Dibromoethane (EDB)	50.2	µg/L	1	50.0	<0.340	100	78.6 - 126
Tetrachloroethene (PCE)	50.4	µg/L	1	50.0	<0.355	101	36.7 - 173
Chlorobenzene	46.7	µg/L	1	50.0	<0.363	93	87.9 - 109
1,1,1,2-Tetrachloroethane	49.5	µg/L	1	50.0	<0.338	99	80.5 - 125
Ethylbenzene	46.1	µg/L	1	50.0	<0.350	92	82.4 - 116
m,p-Xylene	92.2	µg/L	1	100	<0.752	92	80 - 119
Bromoform	59.6	µg/L	1	50.0	<0.275	119	75.8 - 132
Styrene	54.2	µg/L	1	50.0	<0.395	108	84.2 - 117
o-Xylene	47.1	µg/L	1	50.0	<0.375	94	82.1 - 119
1,1,2,2-Tetrachloroethane	46.0	µg/L	1	50.0	<0.283	92	69.7 - 124
2-Chlorotoluene	44.7	µg/L	1	50.0	<0.445	89	76.5 - 123
1,2,3-Trichloropropane	47.3	µg/L	1	50.0	<0.430	95	66.3 - 130
Isopropylbenzene	46.5	µg/L	1	50.0	<0.521	93	78.3 - 123
Bromobenzene	44.7	µg/L	1	50.0	<0.494	89	79.9 - 122
n-Propylbenzene	43.7	µg/L	1	50.0	<0.483	87	72.6 - 122
1,3,5-Trimethylbenzene	46.0	µg/L	1	50.0	<0.487	92	69.6 - 127
tert-Butylbenzene	46.7	µg/L	1	50.0	<0.496	93	64 - 129
1,2,4-Trimethylbenzene	46.4	µg/L	1	50.0	<0.532	93	71 - 123
1,4-Dichlorobenzene (para)	45.7	µg/L	1	50.0	<0.413	91	74 - 118
sec-Butylbenzene	44.7	µg/L	1	50.0	<0.449	89	59.8 - 129
1,3-Dichlorobenzene (meta)	47.0	µg/L	1	50.0	<0.451	94	80.2 - 119
p-Isopropyltoluene	46.2	µg/L	1	50.0	<0.450	92	54.8 - 135
4-Chlorotoluene	45.4	µg/L	1	50.0	<0.489	91	78.9 - 124
1,2-Dichlorobenzene (ortho)	48.6	µg/L	1	50.0	<0.438	97	80 - 120
n-Butylbenzene	44.0	µg/L	1	50.0	<0.461	88	51.1 - 136
1,2-Dibromo-3-chloropropane	51.4	µg/L	1	50.0	<0.532	103	38.2 - 151
1,2,3-Trichlorobenzene	62.8	µg/L	1	50.0	<0.288	126	25.4 - 158
1,2,4-Trichlorobenzene	52.4	µg/L	1	50.0	<0.273	105	38.2 - 140
Naphthalene	64.8	µg/L	1	50.0	<0.299	130	33.3 - 152
Hexachlorobutadiene	49.9	µg/L	1	50.0	<0.483	100	49.1 - 134

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	52.2	µg/L	1	50.0	<0.351	104	85.7 - 113	1	20
Dichlorodifluoromethane	49.5	µg/L	1	50.0	<0.306	99	60.3 - 134	0	20
Chloromethane (methyl chloride)	42.6	µg/L	1	50.0	<0.240	85	72 - 120	1	20
Vinyl Chloride	45.7	µg/L	1	50.0	<0.224	91	64.4 - 132	1	20
Bromomethane (methyl bromide)	53.8	µg/L	1	50.0	<0.325	108	65.9 - 133	1	20

continued ...

control spikes continued ...

Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloroethane		44.1	µg/L	1	50.0	<0.303	88	65.3 - 132	0	20
Trichlorofluoromethane		49.9	µg/L	1	50.0	<0.255	100	52.7 - 159	2	20
Acetone		57.1	µg/L	1	50.0	<1.86	114	10 - 185	5	20
Iodomethane (methyl iodide)	[3]	60.1	µg/L	1	50.0	<0.397	120	80.9 - 112	2	20
Carbon Disulfide		51.2	µg/L	1	50.0	<0.354	102	73.7 - 120	2	20
Acrylonitrile		49.1	µg/L	1	50.0	<0.306	98	75.8 - 121	3	20
2-Butanone (MEK)	[4]	59.8	µg/L	1	50.0	<0.670	120	43.7 - 117	1	20
4-Methyl-2-pentanone (MIBK)		54.8	µg/L	1	50.0	<0.463	110	69.3 - 120	5	20
2-Hexanone		50.8	µg/L	1	50.0	<0.303	102	35.6 - 138	2	20
trans 1,4-Dichloro-2-butene		52.0	µg/L	1	50.0	<0.407	104	40 - 128	1	20
1,1-Dichloroethene		47.4	µg/L	1	50.0	<0.326	95	83.4 - 114	1	20
Methylene chloride		45.5	µg/L	1	50.0	<0.375	91	62.6 - 119	2	20
MTBE		47.5	µg/L	1	50.0	<0.352	95	70 - 132	1	20
trans-1,2-Dichloroethene		47.2	µg/L	1	50.0	<0.322	94	83.3 - 114	1	20
1,1-Dichloroethane		47.8	µg/L	1	50.0	<0.324	96	81 - 124	2	20
cis-1,2-Dichloroethene		48.4	µg/L	1	50.0	<0.331	97	83.8 - 115	2	20
2,2-Dichloropropane		49.6	µg/L	1	50.0	<0.440	99	37.9 - 136	1	20
1,2-Dichloroethane (EDC)		43.3	µg/L	1	50.0	<0.327	87	67.8 - 131	1	20
Chloroform		46.9	µg/L	1	50.0	<0.345	94	75.1 - 125	1	20
1,1,1-Trichloroethane		47.9	µg/L	1	50.0	<0.303	96	72.9 - 123	1	20
1,1-Dichloropropene		48.1	µg/L	1	50.0	<0.356	96	85.9 - 119	2	20
Benzene		48.2	µg/L	1	50.0	<0.356	96	83.5 - 115	1	20
Carbon Tetrachloride		52.5	µg/L	1	50.0	<0.342	105	62.7 - 144	1	20
1,2-Dichloropropane		47.3	µg/L	1	50.0	<0.366	95	88.8 - 114	1	20
Trichloroethene (TCE)		52.0	µg/L	1	50.0	<0.434	104	91.3 - 111	1	20
Dibromomethane (methylene bromide)		50.9	µg/L	1	50.0	<0.406	102	84.2 - 118	1	20
Bromodichloromethane		48.8	µg/L	1	50.0	<0.325	98	79.5 - 127	1	20
2-Chloroethyl vinyl ether		47.9	µg/L	1	50.0	<0.366	96	75.1 - 128	1	20
cis-1,3-Dichloropropene		52.6	µg/L	1	50.0	<0.387	105	83.2 - 119	1	20
trans-1,3-Dichloropropene		52.9	µg/L	1	50.0	<0.367	106	77.4 - 126	2	20
Toluene		46.5	µg/L	1	50.0	<0.366	93	82 - 110	1	20
1,1,2-Trichloroethane		46.4	µg/L	1	50.0	<0.397	93	77 - 123	1	20
1,3-Dichloropropane		46.1	µg/L	1	50.0	<0.355	92	81.1 - 124	1	20
Dibromochloromethane		52.6	µg/L	1	50.0	<0.315	105	79 - 129	1	20
1,2-Dibromoethane (EDB)		51.0	µg/L	1	50.0	<0.340	102	78.6 - 126	2	20
Tetrachloroethene (PCE)		51.2	µg/L	1	50.0	<0.355	102	36.7 - 173	2	20
Chlorobenzene		47.3	µg/L	1	50.0	<0.363	95	87.9 - 109	1	20
1,1,1,2-Tetrachloroethane		49.8	µg/L	1	50.0	<0.338	100	80.5 - 125	1	20
Ethylbenzene		46.5	µg/L	1	50.0	<0.350	93	82.4 - 116	1	20
m,p-Xylene		92.9	µg/L	1	100	<0.752	93	80 - 119	1	20
Bromoform		60.7	µg/L	1	50.0	<0.275	121	75.8 - 132	2	20
Styrene		54.4	µg/L	1	50.0	<0.395	109	84.2 - 117	0	20
o-Xylene		47.2	µg/L	1	50.0	<0.375	94	82.1 - 119	0	20
1,1,2,2-Tetrachloroethane		46.8	µg/L	1	50.0	<0.283	94	69.7 - 124	2	20
2-Chlorotoluene		45.1	µg/L	1	50.0	<0.445	90	76.5 - 123	1	20
1,2,3-Trichloropropane		47.4	µg/L	1	50.0	<0.430	95	66.3 - 130	0	20
Isopropylbenzene		46.9	µg/L	1	50.0	<0.521	94	78.3 - 123	1	20
Bromobenzene		44.9	µg/L	1	50.0	<0.494	90	79.9 - 122	0	20

continued ...

[3]LCSD analyte out of range. LCS/LCSD has a RPD within limits. Therfore, LCS shows extraction occured properly.
[4]LCSD analyte out of range. LCS/LCSD has a RPD within limits. Therfore, LCS shows extraction occured properly.

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
n-Propylbenzene	44.0	µg/L	1	50.0	<0.483	88	72.6 - 122	1	20
1,3,5-Trimethylbenzene	46.1	µg/L	1	50.0	<0.487	92	69.6 - 127	0	20
tert-Butylbenzene	47.1	µg/L	1	50.0	<0.496	94	64 - 129	1	20
1,2,4-Trimethylbenzene	46.9	µg/L	1	50.0	<0.532	94	71 - 123	1	20
1,4-Dichlorobenzene (para)	45.9	µg/L	1	50.0	<0.413	92	74 - 118	0	20
sec-Butylbenzene	45.1	µg/L	1	50.0	<0.449	90	59.8 - 129	1	20
1,3-Dichlorobenzene (meta)	47.5	µg/L	1	50.0	<0.451	95	80.2 - 119	1	20
p-Isopropyltoluene	46.6	µg/L	1	50.0	<0.450	93	54.8 - 135	1	20
4-Chlorotoluene	45.9	µg/L	1	50.0	<0.489	92	78.9 - 124	1	20
1,2-Dichlorobenzene (ortho)	49.1	µg/L	1	50.0	<0.438	98	80 - 120	1	20
n-Butylbenzene	44.1	µg/L	1	50.0	<0.461	88	51.1 - 136	0	20
1,2-Dibromo-3-chloropropane	52.0	µg/L	1	50.0	<0.532	104	38.2 - 151	1	20
1,2,3-Trichlorobenzene	64.3	µg/L	1	50.0	<0.288	129	25.4 - 158	2	20
1,2,4-Trichlorobenzene	53.9	µg/L	1	50.0	<0.273	108	38.2 - 140	3	20
Naphthalene	66.5	µg/L	1	50.0	<0.299	133	33.3 - 152	3	20
Hexachlorobutadiene	50.6	µg/L	1	50.0	<0.483	101	49.1 - 134	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	47.6	47.7	µg/L	1	50.0	95	95	82.4 - 115
Toluene-d8	46.9	46.7	µg/L	1	50.0	94	93	89.7 - 108
4-Bromofluorobenzene (4-BFB)	48.3	48.3	µg/L	1	50.0	97	97	84.6 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 39404 | Date Analyzed: 2007-07-25 | Analyzed By: MT
Prep Batch: 34113 | QC Preparation: 2007-07-25 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.835	mg/L	1	1.00	<0.0353	84	74.9 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.909	mg/L	1	1.00	<0.0353	91	74.9 - 115	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0829	0.0866	mg/L	1	0.100	83	87	78.8 - 118
4-Bromofluorobenzene (4-BFB)	0.0760	0.0787	mg/L	1	0.100	76	79	75.7 - 118

Matrix Spike (MS-1) Spiked Sample: 130278

QC Batch: 39220 | Date Analyzed: 2007-07-18 | Analyzed By: TG
Prep Batch: 33942 | QC Preparation: 2007-07-18 | Prepared By: TG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	[5]	29.3	mg/L	1	25.0	<1.06	117	61.9 - 112.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	25.1	mg/L	1	25.0	<1.06	100	61.9 - 112.2	15	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	22.9	22.9	mg/L	1	15	153	153	40.7 - 174

Matrix Spike (MS-1) Spiked Sample: 130278

QC Batch: 39228 | Date Analyzed: 2007-07-18 | Analyzed By: JG
Prep Batch: 33949 | QC Preparation: 2007-07-18 | Prepared By: JG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane		55.7	µg/L	1	50.0	<0.0699	111	82.5 - 118
Dichlorodifluoromethane		57.0	µg/L	1	50.0	<0.0598	114	46.8 - 125
Chloromethane (methyl chloride)		51.2	µg/L	1	50.0	<0.230	102	67.1 - 127
Vinyl Chloride		54.7	µg/L	1	50.0	<0.0902	109	63.7 - 129
Bromomethane (methyl bromide)		61.5	µg/L	1	50.0	<0.740	123	65.7 - 127
Chloroethane		50.7	µg/L	1	50.0	<0.195	101	69.9 - 131
Trichlorofluoromethane		54.4	µg/L	1	50.0	<0.160	109	60.2 - 134
Acetone		46.3	µg/L	1	50.0	<0.854	93	12.1 - 136
Iodomethane (methyl iodide)	[6]	61.9	µg/L	1	50.0	<0.112	124	75.7 - 115
Carbon Disulfide		57.3	µg/L	1	50.0	<0.0764	115	67.6 - 131
Acrylonitrile		53.3	µg/L	1	50.0	<0.184	107	79.9 - 131
2-Butanone (MEK)		53.4	µg/L	1	50.0	<0.394	107	28.7 - 137
4-Methyl-2-pentanone (MIBK)		55.2	µg/L	1	50.0	<0.484	110	77.1 - 122
2-Hexanone		52.9	µg/L	1	50.0	<0.0975	106	42.3 - 145
trans 1,4-Dichloro-2-butene		52.3	µg/L	1	50.0	<0.421	105	38.5 - 122
1,1-Dichloroethene		52.1	µg/L	1	50.0	<0.0736	104	78.7 - 119
Methylene chloride		49.2	µg/L	1	50.0	<0.689	98	64.9 - 121
MTBE		51.7	µg/L	1	50.0	<0.0504	103	46.6 - 162
trans-1,2-Dichloroethene		52.1	µg/L	1	50.0	<0.0598	104	75.1 - 119
1,1-Dichloroethane		53.7	µg/L	1	50.0	<0.0299	107	86.3 - 119
cis-1,2-Dichloroethene		52.8	µg/L	1	50.0	<0.101	106	82.6 - 116
2,2-Dichloropropane		43.0	µg/L	1	50.0	<0.0665	86	7.8 - 109
1,2-Dichloroethane (EDC)		50.1	µg/L	1	50.0	<0.0557	100	82.7 - 130
Chloroform		52.9	µg/L	1	50.0	<0.0475	106	83.6 - 119
1,1,1-Trichloroethane		52.3	µg/L	1	50.0	<0.0846	105	69.6 - 126
1,1-Dichloropropene		51.8	µg/L	1	50.0	<0.0423	104	79.2 - 121
Benzene		53.9	µg/L	1	50.0	<0.0495	108	75.8 - 125
Carbon Tetrachloride		54.3	µg/L	1	50.0	<0.121	109	58.7 - 143

continued ...

[5]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]Spike recovery out of control limits. Concentration biased high. •

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,2-Dichloropropane	51.3	µg/L	1	50.0	<0.0933	103	88.4 - 117
Trichloroethene (TCE)	52.3	µg/L	1	50.0	<0.0495	105	83.6 - 112
Dibromomethane (methylene bromide)	54.0	µg/L	1	50.0	<0.0640	108	90.7 - 117
Bromodichloromethane	51.6	µg/L	1	50.0	<0.0651	103	83.4 - 127
2-Chloroethyl vinyl ether	52.0	µg/L	1	50.0	<0.0905	104	10 - 211
cis-1,3-Dichloropropene	53.0	µg/L	1	50.0	<0.0640	106	78.6 - 113
trans-1,3-Dichloropropene	54.8	µg/L	1	50.0	<0.0504	110	81.8 - 113
Toluene	55.0	µg/L	1	50.0	<0.0736	110	81.6 - 115
1,1,2-Trichloroethane	49.4	µg/L	1	50.0	<0.106	99	83.2 - 122
1,3-Dichloropropane	50.5	µg/L	1	50.0	<0.0625	101	87.3 - 123
Dibromochloromethane	53.0	µg/L	1	50.0	<0.0791	106	81.4 - 130
1,2-Dibromoethane (EDB)	52.5	µg/L	1	50.0	<0.0460	105	91.4 - 118
Tetrachloroethene (PCE)	50.3	µg/L	1	50.0	<0.0696	101	51.8 - 111
Chlorobenzene	49.0	µg/L	1	50.0	<0.0217	98	83.9 - 113
1,1,1,2-Tetrachloroethane	51.8	µg/L	1	50.0	<0.125	104	79.5 - 127
Ethylbenzene	50.3	µg/L	1	50.0	<0.0566	101	75.4 - 121
m,p-Xylene	101	µg/L	1	100	<0.0363	101	74 - 124
Bromoform	59.6	µg/L	1	50.0	<0.0859	119	77.5 - 134
Styrene	57.5	µg/L	1	50.0	<0.0394	115	10 - 180
o-Xylene	51.7	µg/L	1	50.0	<0.0504	103	75.4 - 126
1,1,2,2-Tetrachloroethane	49.4	µg/L	1	50.0	<0.0672	99	86.4 - 122
2-Chlorotoluene	47.7	µg/L	1	50.0	<0.0283	95	69.2 - 128
1,2,3-Trichloropropane	48.5	µg/L	1	50.0	<0.0679	97	75.8 - 121
Isopropylbenzene	48.3	µg/L	1	50.0	<0.0406	97	69.6 - 127
Bromobenzene	47.8	µg/L	1	50.0	<0.103	96	77.1 - 125
n-Propylbenzene	46.6	µg/L	1	50.0	<0.0423	93	67.1 - 125
1,3,5-Trimethylbenzene	48.0	µg/L	1	50.0	<0.0557	96	66.1 - 126
tert-Butylbenzene	48.3	µg/L	1	50.0	<0.0770	97	63.9 - 126
1,2,4-Trimethylbenzene	48.8	µg/L	1	50.0	<0.0336	98	65 - 123
1,4-Dichlorobenzene (para)	46.6	µg/L	1	50.0	<0.0672	93	66.7 - 119
sec-Butylbenzene	46.7	µg/L	1	50.0	<0.0439	93	57.6 - 127
1,3-Dichlorobenzene (meta)	48.4	µg/L	1	50.0	<0.0672	97	78.8 - 118
p-Isopropyltoluene	47.6	µg/L	1	50.0	<0.0513	95	56.6 - 128
4-Chlorotoluene	47.9	µg/L	1	50.0	<0.0460	96	74 - 127
1,2-Dichlorobenzene (ortho)	49.6	µg/L	1	50.0	<0.0629	99	81.2 - 119
n-Butylbenzene	46.0	µg/L	1	50.0	<0.0400	92	50.4 - 130
1,2-Dibromo-3-chloropropane	48.4	µg/L	1	50.0	<0.538	97	55.7 - 152
1,2,3-Trichlorobenzene	49.7	µg/L	1	50.0	<0.504	99	32.6 - 149
1,2,4-Trichlorobenzene	48.0	µg/L	1	50.0	<0.166	96	35.8 - 144
Naphthalene	52.4	µg/L	1	50.0	<0.417	105	36.7 - 156
Hexachlorobutadiene	46.1	µg/L	1	50.0	<0.176	92	39.6 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	54.5	µg/L	1	50.0	<0.0699	109	82.5 - 118	2	20
Dichlorodifluoromethane	52.2	µg/L	1	50.0	<0.0598	104	46.8 - 125	9	20
Chloromethane (methyl chloride)	48.5	µg/L	1	50.0	<0.230	97	67.1 - 127	5	20
Vinyl Chloride	51.6	µg/L	1	50.0	<0.0902	103	63.7 - 129	6	20
Bromomethane (methyl bromide)	59.0	µg/L	1	50.0	<0.740	118	65.7 - 127	4	20

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloroethane	48.2	µg/L	1	50.0	<0.195	96	69.9 - 131	5	20
Trichlorofluoromethane	52.7	µg/L	1	50.0	<0.160	105	60.2 - 134	3	20
Acetone	45.6	µg/L	1	50.0	<0.854	91	12.1 - 136	2	20
Iodomethane (methyl iodide) [7]	60.5	µg/L	1	50.0	<0.112	121	75.7 - 115	2	20
Carbon Disulfide	55.6	µg/L	1	50.0	<0.0764	111	67.6 - 131	3	20
Acrylonitrile	52.6	µg/L	1	50.0	<0.184	105	79.9 - 131	1	20
2-Butanone (MEK)	52.9	µg/L	1	50.0	<0.394	106	28.7 - 137	1	20
4-Methyl-2-pentanone (MIBK)	55.6	µg/L	1	50.0	<0.484	111	77.1 - 122	1	20
2-Hexanone	52.4	µg/L	1	50.0	<0.0975	105	42.3 - 145	1	20
trans 1,4-Dichloro-2-butene	51.5	µg/L	1	50.0	<0.421	103	38.5 - 122	2	20
1,1-Dichloroethene	50.5	µg/L	1	50.0	<0.0736	101	78.7 - 119	3	20
Methylene chloride	47.4	µg/L	1	50.0	<0.689	95	64.9 - 121	4	20
MTBE	51.1	µg/L	1	50.0	<0.0504	102	46.6 - 162	1	20
trans-1,2-Dichloroethene	50.5	µg/L	1	50.0	<0.0598	101	75.1 - 119	3	20
1,1-Dichloroethane	52.3	µg/L	1	50.0	<0.0299	105	86.3 - 119	3	20
cis-1,2-Dichloroethene	51.7	µg/L	1	50.0	<0.101	103	82.6 - 116	2	20
2,2-Dichloropropane	40.9	µg/L	1	50.0	<0.0665	82	7.8 - 109	5	20
1,2-Dichloroethane (EDC)	48.8	µg/L	1	50.0	<0.0557	98	82.7 - 130	3	20
Chloroform	51.6	µg/L	1	50.0	<0.0475	103	83.6 - 119	2	20
1,1,1-Trichloroethane	51.3	µg/L	1	50.0	<0.0846	103	69.6 - 126	2	20
1,1-Dichloropropene	51.2	µg/L	1	50.0	<0.0423	102	79.2 - 121	1	20
Benzene	51.6	µg/L	1	50.0	<0.0495	103	75.8 - 125	4	20
Carbon Tetrachloride	54.0	µg/L	1	50.0	<0.121	108	58.7 - 143	1	20
1,2-Dichloropropane	51.0	µg/L	1	50.0	<0.0933	102	88.4 - 117	1	20
Trichloroethene (TCE)	52.4	µg/L	1	50.0	<0.0495	105	83.6 - 112	0	20
Dibromomethane (methylene bromide)	53.9	µg/L	1	50.0	<0.0640	108	90.7 - 117	0	20
Bromodichloromethane	51.7	µg/L	1	50.0	<0.0651	103	83.4 - 127	0	20
2-Chloroethyl vinyl ether	51.7	µg/L	1	50.0	<0.0905	103	10 - 211	1	20
cis-1,3-Dichloropropene	53.5	µg/L	1	50.0	<0.0640	107	78.6 - 113	1	20
trans-1,3-Dichloropropene	53.6	µg/L	1	50.0	<0.0504	107	81.8 - 113	2	20
Toluene	49.6	µg/L	1	50.0	<0.0736	99	81.6 - 115	10	20
1,1,2-Trichloroethane	48.7	µg/L	1	50.0	<0.106	97	83.2 - 122	1	20
1,3-Dichloropropane	49.6	µg/L	1	50.0	<0.0625	99	87.3 - 123	2	20
Dibromochloromethane	53.2	µg/L	1	50.0	<0.0791	106	81.4 - 130	0	20
1,2-Dibromoethane (EDB)	52.0	µg/L	1	50.0	<0.0460	104	91.4 - 118	1	20
Tetrachloroethene (PCE)	50.1	µg/L	1	50.0	<0.0696	100	51.8 - 111	0	20
Chlorobenzene	48.3	µg/L	1	50.0	<0.0217	97	83.9 - 113	1	20
1,1,1,2-Tetrachloroethane	51.2	µg/L	1	50.0	<0.125	102	79.5 - 127	1	20
Ethylbenzene	48.9	µg/L	1	50.0	<0.0566	98	75.4 - 121	3	20
m,p-Xylene	98.0	µg/L	1	100	<0.0363	98	74 - 124	3	20
Bromoform	60.4	µg/L	1	50.0	<0.0859	121	77.5 - 134	1	20
Styrene	56.4	µg/L	1	50.0	<0.0394	113	10 - 180	2	20
o-Xylene	50.0	µg/L	1	50.0	<0.0504	100	75.4 - 126	3	20
1,1,2,2-Tetrachloroethane	49.0	µg/L	1	50.0	<0.0672	98	86.4 - 122	1	20
2-Chlorotoluene	47.7	µg/L	1	50.0	<0.0283	95	69.2 - 128	0	20
1,2,3-Trichloropropane	49.1	µg/L	1	50.0	<0.0679	98	75.8 - 121	1	20
Isopropylbenzene	48.4	µg/L	1	50.0	<0.0406	97	69.6 - 127	0	20
Bromobenzene	47.7	µg/L	1	50.0	<0.103	95	77.1 - 125	0	20
n-Propylbenzene	46.5	µg/L	1	50.0	<0.0423	93	67.1 - 125	0	20

continued ...

[7] MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly. •

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,3,5-Trimethylbenzene	47.9	µg/L	1	50.0	<0.0557	96	66.1 - 126	0	20
tert-Butylbenzene	48.2	µg/L	1	50.0	<0.0770	96	63.9 - 126	0	20
1,2,4-Trimethylbenzene	48.4	µg/L	1	50.0	<0.0336	97	65 - 123	1	20
1,4-Dichlorobenzene (para)	47.1	µg/L	1	50.0	<0.0672	94	66.7 - 119	1	20
sec-Butylbenzene	46.7	µg/L	1	50.0	<0.0439	93	57.6 - 127	0	20
1,3-Dichlorobenzene (meta)	48.3	µg/L	1	50.0	<0.0672	97	78.8 - 118	0	20
p-Isopropyltoluene	47.9	µg/L	1	50.0	<0.0513	96	56.6 - 128	1	20
4-Chlorotoluene	48.1	µg/L	1	50.0	<0.0460	96	74 - 127	0	20
1,2-Dichlorobenzene (ortho)	49.9	µg/L	1	50.0	<0.0629	100	81.2 - 119	1	20
n-Butylbenzene	46.2	µg/L	1	50.0	<0.0400	92	50.4 - 130	0	20
1,2-Dibromo-3-chloropropane	53.0	µg/L	1	50.0	<0.538	106	55.7 - 152	9	20
1,2,3-Trichlorobenzene	60.5	µg/L	1	50.0	<0.504	121	32.6 - 149	20	20
1,2,4-Trichlorobenzene	51.9	µg/L	1	50.0	<0.166	104	35.8 - 144	8	20
Naphthalene	63.7	µg/L	1	50.0	<0.417	127	36.7 - 156	20	20
Hexachlorobutadiene	48.3	µg/L	1	50.0	<0.176	97	39.6 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	51.9	50.3	µg/L	1	50	104	101	86.6 - 114
Toluene-d8	49.8	48.1	µg/L	1	50	100	96	91 - 109
4-Bromofluorobenzene (4-BFB)	51.1	49.5	µg/L	1	50	102	99	87.2 - 113

Matrix Spike (MS-1) Spiked Sample: 130165

QC Batch: 39404 | Date Analyzed: 2007-07-25 | Analyzed By: MT
Prep Batch: 34113 | QC Preparation: 2007-07-25 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.852	mg/L	1	1.00	<0.0353	85	66.9 - 123

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.976	mg/L	1	1.00	<0.0353	98	66.9 - 123	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0921	0.101	mg/L	1	0.1	92	101	70.2 - 123
4-Bromofluorobenzene (4-BFB)	0.0798	0.0900	mg/L	1	0.1	80	90	65.1 - 130

Standard (ICV-1)

QC Batch: 39220 | Date Analyzed: 2007-07-18 | Analyzed By: TG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	251	100	85 - 115	2007-07-18

Standard (CCV-1)

QC Batch: 39220 Date Analyzed: 2007-07-18 Analyzed By: TG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	244	98	85 - 115	2007-07-18

Standard (CCV-1)

QC Batch: 39228 Date Analyzed: 2007-07-18 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		µg/L	50.0	49.2	98	70 - 130	2007-07-18
Dichlorodifluoromethane		µg/L	50.0	48.4	97	70 - 130	2007-07-18
Chloromethane (methyl chloride)		µg/L	50.0	41.6	83	70 - 130	2007-07-18
Vinyl Chloride		µg/L	50.0	44.9	90	80 - 120	2007-07-18
Bromomethane (methyl bromide)		µg/L	50.0	52.8	106	70 - 130	2007-07-18
Chloroethane		µg/L	50.0	42.9	86	70 - 130	2007-07-18
Trichlorofluoromethane		µg/L	50.0	48.2	96	70 - 130	2007-07-18
Acetone		µg/L	50.0	41.3	83	70 - 130	2007-07-18
Iodomethane (methyl iodide)		µg/L	50.0	57.1	114	70 - 130	2007-07-18
Carbon Disulfide		µg/L	50.0	49.1	98	70 - 130	2007-07-18
Acrylonitrile		µg/L	50.0	44.8	90	70 - 130	2007-07-18
2-Butanone (MEK)		µg/L	50.0	47.7	95	70 - 130	2007-07-18
4-Methyl-2-pentanone (MIBK)		µg/L	50.0	50.1	100	70 - 130	2007-07-18
2-Hexanone		µg/L	50.0	43.4	87	70 - 130	2007-07-18
trans 1,4-Dichloro-2-butene		µg/L	50.0	48.9	98	70 - 130	2007-07-18
1,1-Dichloroethene		µg/L	50.0	45.7	91	80 - 120	2007-07-18
Methylene chloride		µg/L	50.0	43.8	88	70 - 130	2007-07-18
MTBE		µg/L	50.0	45.1	90	70 - 130	2007-07-18
trans-1,2-Dichloroethene		µg/L	50.0	44.9	90	70 - 130	2007-07-18
1,1-Dichloroethane		µg/L	50.0	45.4	91	70 - 130	2007-07-18
cis-1,2-Dichloroethene		µg/L	50.0	46.1	92	70 - 130	2007-07-18
2,2-Dichloropropane		µg/L	50.0	49.1	98	70 - 130	2007-07-18
1,2-Dichloroethane (EDC)		µg/L	50.0	41.0	82	70 - 130	2007-07-18
Chloroform		µg/L	50.0	44.8	90	80 - 120	2007-07-18
1,1,1-Trichloroethane		µg/L	50.0	45.5	91	70 - 130	2007-07-18
1,1-Dichloropropene		µg/L	50.0	46.1	92	70 - 130	2007-07-18
Benzene		µg/L	50.0	46.3	93	70 - 130	2007-07-18
Carbon Tetrachloride		µg/L	50.0	50.0	100	70 - 130	2007-07-18
1,2-Dichloropropane		µg/L	50.0	45.2	90	80 - 120	2007-07-18
Trichloroethene (TCE)		µg/L	50.0	49.7	99	70 - 130	2007-07-18
Dibromomethane (methylene bromide)		µg/L	50.0	48.8	98	70 - 130	2007-07-18

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromodichloromethane		µg/L	50.0	46.7	93	70 - 130	2007-07-18
2-Chloroethyl vinyl ether		µg/L	50.0	45.8	92	70 - 130	2007-07-18
cis-1,3-Dichloropropene		µg/L	50.0	50.3	101	70 - 130	2007-07-18
trans-1,3-Dichloropropene		µg/L	50.0	50.4	101	70 - 130	2007-07-18
Toluene		µg/L	50.0	44.8	90	80 - 120	2007-07-18
1,1,2-Trichloroethane		µg/L	50.0	43.7	87	70 - 130	2007-07-18
1,3-Dichloropropane		µg/L	50.0	44.1	88	70 - 130	2007-07-18
Dibromochloromethane		µg/L	50.0	49.6	99	70 - 130	2007-07-18
1,2-Dibromoethane (EDB)		µg/L	50.0	48.2	96	70 - 130	2007-07-18
Tetrachloroethene (PCE)		µg/L	50.0	48.8	98	70 - 130	2007-07-18
Chlorobenzene		µg/L	50.0	45.1	90	80 - 120	2007-07-18
1,1,1,2-Tetrachloroethane		µg/L	50.0	47.6	95	70 - 130	2007-07-18
Ethylbenzene		µg/L	50.0	45.0	90	80 - 120	2007-07-18
m,p-Xylene		µg/L	100	89.5	90	70 - 130	2007-07-18
Bromoform		µg/L	50.0	56.1	112	70 - 130	2007-07-18
Styrene		µg/L	50.0	52.2	104	70 - 130	2007-07-18
o-Xylene		µg/L	50.0	45.4	91	70 - 130	2007-07-18
1,1,2,2-Tetrachloroethane		µg/L	50.0	43.7	87	70 - 130	2007-07-18
2-Chlorotoluene		µg/L	50.0	43.4	87	70 - 130	2007-07-18
1,2,3-Trichloropropane		µg/L	50.0	45.0	90	70 - 130	2007-07-18
Isopropylbenzene		µg/L	50.0	44.9	90	70 - 130	2007-07-18
Bromobenzene		µg/L	50.0	43.2	86	70 - 130	2007-07-18
n-Propylbenzene		µg/L	50.0	42.4	85	70 - 130	2007-07-18
1,3,5-Trimethylbenzene		µg/L	50.0	44.2	88	70 - 130	2007-07-18
tert-Butylbenzene		µg/L	50.0	45.1	90	70 - 130	2007-07-18
1,2,4-Trimethylbenzene		µg/L	50.0	44.8	90	70 - 130	2007-07-18
1,4-Dichlorobenzene (para)		µg/L	50.0	43.8	88	70 - 130	2007-07-18
sec-Butylbenzene		µg/L	50.0	43.3	87	70 - 130	2007-07-18
1,3-Dichlorobenzene (meta)		µg/L	50.0	45.4	91	70 - 130	2007-07-18
p-Isopropyltoluene		µg/L	50.0	45.1	90	70 - 130	2007-07-18
4-Chlorotoluene		µg/L	50.0	43.7	87	70 - 130	2007-07-18
1,2-Dichlorobenzene (ortho)		µg/L	50.0	46.4	93	70 - 130	2007-07-18
n-Butylbenzene		µg/L	50.0	42.6	85	70 - 130	2007-07-18
1,2-Dibromo-3-chloropropane		µg/L	50.0	45.9	92	70 - 130	2007-07-18
1,2,3-Trichlorobenzene		µg/L	50.0	52.7	105	70 - 130	2007-07-18
1,2,4-Trichlorobenzene		µg/L	50.0	48.1	96	70 - 130	2007-07-18
Naphthalene		µg/L	50.0	51.9	104	70 - 130	2007-07-18
Hexachlorobutadiene		µg/L	50.0	48.2	96	70 - 130	2007-07-18

Standard (ICV-1)

QC Batch: 39404 Date Analyzed: 2007-07-25 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.916	92	85 - 115	2007-07-25

Standard (CCV-1)

QC Batch: 39404 Date Analyzed: 2007-07-25 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.900	90	85 - 115	2007-07-25

LAB Order ID # 7071719

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794 1298
1 (800) 378 1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

6015 Harris Pkwy, Suite 110
Ft. Worth, Texas 76132
Tel (817) 201-5260

Company Name: BBC International, Inc. **Phone #:** 505-397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88260 **Fax #:** 505-397-0397

Contact Person: Cliff Brunson **E-mail:**

Invoice to: (If different from above)

Project #: **Project Name:** Farnsworth Main Tank Battery

Project Location (including state): Jal, NM **Sampler Signature:** [signature]

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard	Hold
130163	MW1-002	[illegible]		✓				✓						7/13/07	1250		✓																	
	MW1-002 A	[illegible]		✓				✓						7/13/07	1250				✓															
164	Trip Blank																X		X	GRO only														

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	7/16/07	815	Received at Laboratory by: [signature]	07/17/07	1115

LAB USE ONLY
Intact (Y) / N
Headspace Y / (N)
Temp 4 °
Log-in-Review

REMARKS:
- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Bus GLT 3046 30455

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