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 27 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: XTO Energy, Inc.	Contact Guy Haykus, Production Supervisor
Address: 200 N Loraine Street, Suite 800, Midland, TX 79701	Telephone No.: 432-682-8873
Facility Name: North Vacuum Abo Lease – North Water Station	Facility Type: Produced Water Injection Station

Surface Owner: NM State Land Office	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
F	14	17 S	34E					Lea

Latitude_N32° 50' 08.7"_____ Longitude 103° 3' 54.3"_____

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Permanent Pit (agreed scheduling order closure)	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 03/16/09 3:00 pm CST
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.*
Release from bottom of concrete-lined permanent pit discovered during closure in accordance with a plan approved by OCD Environmental Bureau personnel in Santa Fe on February 4, 2009. Removed concrete lining pit for disposal at OCD approved disposal facility (Controlled Recovery, Inc.). Propose to excavate contaminated soil for disposal at same disposal facility.

Describe Area Affected and Cleanup Action Taken.*
Contamination discovered in composite soil samples collected from five (5) areas showing staining on the side walls and below the pit. Contamination appears limited to immediate area of soil staining and will be excavated to delineate extent of release.

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: Michelle L Green	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Environmental Scientist	Approval Date: 4-28-09 Expiration Date:
E-mail Address:michelle@laenvironmental.com	Conditions of Approval: Attached ☐
Date: 3/17/09 Phone:432-687-0901	IRP# 09-3-2126

District I
1625 N. French Dr., Hobbs, NM 88240
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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: XTO Energy, Inc.	Contact: Guy Haykus/Production Superintendent
Address: 200 N. Loraine St., Ste. 800, Midland, TX 79701	Telephone No.: (432) 682-8873
Facility Name: North Vacuum Abo Lease - South Water Station	Facility Type: Produced Water Inj. Station – Nearest Producing Well is North Vacuum Unit Well #305 (API #30-025-3971) 30-025-37971

Surface Owner: State of New Mexico	Mineral Owner	Lease No. 8055

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
F	14	17S	34E					

Latitude: N 32° 50' 08.7" Longitude: W 103° 31' 54.3"

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Permanent Pit Approved for Closure Under Agreed Scheduling Order (ASO – 008), February 4, 2009	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 03/15/2009/3:00 pm CST
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.* Leakage from lined concrete pit detected in composite samples from bottom of pit after removal and disposal of concrete on March 11 – 12, 2009. Concentrations of benzene, BTEX and TPH below RRAL of 10 mg/Kg, 50 mg/Kg and 5,000 mg/Kg. Chloride decreases to 120 mg/Kg in sample from 50 feet below pit or 58 feet below ground in soil boring sample. Groundwater occurs at approximately 110 feet below ground surface (102 feet below pit) and no receptors in vicinity of site. Concrete and contaminated soil disposed at Controlled Recovery, Inc.

Describe Area Affected and Cleanup Action Taken.* Impact limited to soil to approximately 30 feet below pit or approximately 38 feet below ground surface. Proposed installing 20-mill liner in bottom of excavation and filling per OCD approved closure plan on February 18, 2009.

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: Mark Larson, Larson & Associates, Inc. (Consultant)	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Sr. Project Manager / President	Approval Date: 4.28.09 Expiration Date:
E-mail Address: mark@laenvironmental.com	Conditions of Approval: Attached ☐ IRP# 09.3.2126
Date: 04/27/2009 Phone: (432) 687-0901	

* Attach Additional Sheets If Necessary

fGRL0912148380

Larson & Associates, Inc.
Environmental Consultants

RECEIVED
APR 27 2009
HOBBSOCD

April 27, 2009

Mr. Larry Johnson
Environmental Engineer
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

Re: 1RP-09-3-2126 - Permanent Pit Soil Sample Results
XTO Energy, Inc. North Vacuum Abo Unit North Water Station
Unit F (SE/4, NW/4), Section 14, Township 17 South, Range 34 East
Latitude 32° 50' 08.7" North, Longitude 103° 31' 54.3" West
Lea County, New Mexico

Dear Mr. Johnson:
This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of XTO Energy, Inc. (XTO) by Larson & Associates, Inc. (LAI), its consultant, to transmit laboratory results of soil samples collected from a permanent pit at the XTO North Vacuum Abo Unit North Water Station (Facility) located in Unit F (SE/4, NW/4), Section 14, Township 17 South, Range 34 East in Lea County, New Mexico. The permanent pit closure is performed according to a plan approved by the OCD Environmental Bureau in Santa Fe, New Mexico, on February 4, 20009. The closure is part of an Agreed Scheduling Order (ASO-008) between XTO and the OCD to for closure of below-grade tanks and permanent pits in southeast and northwest New Mexico. The global position system (GPS) coordinate for the Facility is latitude 32° 50' 08.7" north and longitude 103° 31' 54.3" west.

The pit measures approximately 60 x 62 x 5 feet and lined with concrete about 6 inches thick. The approximate capacity is 3,300 barrels (138,600 gallons). The nearest producing well is the XTO North Vacuum Abo Unit Well #297 with API #30-025-29607. The New Mexico State Land Office (SLO) is the surface owner of record. Groundwater occurs at approximately 110 feet below ground surface and no well, including municipal or private wells used by less than five households for domestic or stock purposes, is located within 500 feet of the Facility. No surface water features, including lakes, rivers, ponds, arroyos, irrigation ditch, lakebed, sinkhole, or playa lake is located within 200 horizontal feet of the Facility. Figure 1 presents a location and topographic map. Figure 2 presents a Google satellite image for the Facility. Figure 3 presents a Facility drawing. Contact information for XTO is as follows:

XTO Energy Inc.
Permian Division-SE New Mexico
P.O. Box 700
Eunice, New Mexico 88231
Contact Person: Jerry Parker
Phone Number: (575) 394-0542

XTO Energy Inc.
Midland Office
200 N. Loraine Street, Suite 800
Midland, Texas 79701
Contact Person: Guy Haykus
Phone Number: (432) 682-8873

On February 18, 2009, XTO submitted closure notification via certified letter with return receipt to the OCD District 1 office, located in Hobbs, New Mexico. On March 2, 2009, XTO sent closure notification via certified letters with return receipts to the New Mexico State Land Office (SLO) in Hobbs and Santa Fe, New Mexico. The notices identified March 9, 2009, as the beginning date to commence pit closure. On March 9, 2009, XTO removed ancillary equipment (i.e., fencing, netting, piping, etc.) for salvage or scrap. A track-mounted hammer hoe was used to break the concrete and moved from the pit using a loader. The concrete was disposed at Controlled Recovery, Inc. (CRI) which operates under OCD permit R9166. Appendix A presents the closure notification letters and return receipts.

On March 11 and 12, 2009, LAI personnel collected 5-spot composite soil samples from the pit bottom (1BC) and sidewalls (2NC, 3WC, 4EC and 5SC) following removal of the concrete. No staining or wet areas were observed, therefore, no discreet soil samples were collected. The composite soil samples were placed in clean glass sample containers, labeled, chilled in an ice chest and hand-delivered under chain of custody control and preservation to Xenco Laboratories (formerly Environmental Lab of Texas, Inc.) located in Odessa, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene, xylenes (BTEX) by method 8021B, total petroleum hydrocarbons (TPH) by method 418.1 and chloride by method 300.1.

No benzene or BTEX was reported in the composite samples at concentrations above the OCD reporting limits of 0.2 milligrams per kilogram (mg/Kg) for benzene and 50 mg/Kg for BTEX. TPH was reported at 1,470 mg/Kg in the bottom sample (1BC), 344 mg/Kg in the north sample (2NC), 3,200 mg/Kg in the west sample (3WC), 973 mg/Kg in the east sample (4EC) and 4,500 mg/Kg in the south sample

(5SC). Chloride ranged from 70.1 mg/Kg in the north sample (2NC) to 947 mg/Kg) in the bottom sample (1BC) and exceeded OCD reporting level of 250 mg/Kg.

On March 17, 2009, LAI notified the OCD at its District 1 office, located in Hobbs, New Mexico, of the composite sample results and submitted, on behalf of XTO, the initial C-141. The OCD District 1 office issued remediation project number 1RP-09-3-2126. On March 17, 2009, XTO excavated soil from the west and south sides of the excavation and LAI personnel collected additional composite samples from these areas on March 19, 2009. The samples were collected using the method previously described and analyzed by Xenco Laboratories (Xenco) for BTEX (8021B), TPH (418.1) and chloride (300.1). Benzene was not reported above the test method detection limits and BTEX below the OCD reporting level of 50 mg/Kg. TPH was reported in the west and south sidewall composite samples at 4,320 mg/Kg and 3,200 mg/Kg, respectively. Chloride was 419 mg/Kg and 305 mg/Kg, in the west (3WC) and south (5SC) samples, respectively.

On March 19, 2009, LAI personnel collected a grab sample near the center and bottom of the pit at approximately 3 feet below the pit or about 8 feet below ground surface (BGS). Xenco analyzed the sample for chloride and reported 1,150 mg/Kg. On March 23 and April 2, 2009, LAI personnel collected additional samples near the center and bottom of the pit at approximately 5, 10, 15 and 20 feet below the pit or 13, 18, 23 and 28 feet BGS. Xenco analyzed the samples for chloride and reported 943 mg/Kg (5 feet), 1,390 mg/Kg (10 feet), 446 mg/Kg (15 feet) and 772 mg/Kg 20 feet). On April 8, 2009, Scarborough Drilling, Inc. used a truck-mounted air rotary drilling rig to collect soil samples near the center and bottom of the pit. Samples were collected using a jam tube sampler at 5, 10, 15, 20, 25, 30, 40 and 50 feet below the pit or 13, 18, 23, 28, 33, 48 and 58 feet BGS. The samples were placed in clean glass sample containers, labeled, chilled in an ice chest and hand-delivered under chain of custody control and preservation to Xenco, which analyzed the samples for TPH (5, 10, 15 and 20 feet) using methods 418.1 and 8015. The laboratory analyzed all samples for chloride. No TPH was reported in the 418.1 samples above the method detection limits. The highest TPH (8015) concentration was 17.7 mg/Kg in the sample from 10 feet. Chloride decreased to 120 mg/Kg in the sample from 50 feet. Table 1 presents a summary of the laboratory analysis. Appendix B presents the boring log. Appendix C presents the laboratory reports. Appendix D presents photographs.

Remediation action levels (RRAL) were calculated using the following OCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater (Vertical Distance to Groundwater Feet)	>100	0

Wellhead Protection Area (Horizontal Distance to Water Wells, Feet)	No	0
Distance to Surface Water Body (Horizontal Distance to Surface Water, Feet)	>1000	0
		Total: 0

The following RRALs have been assigned to the Facility:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**5,000 mg/kg**

Conclusions

Benzene, BTEX and TPH were less than the RRAL in the bottom and sidewall composite samples (1BC, 2NC, 3WC, 4EC and 5SC) collected on March 11 and 12, 2009, and from the west (3WC) and south (5SC) sidewall collected on March 19, 2009. Chloride was highest in the bottom composite sample and decreased to 120 mg/Kg in the grab sample from 50 feet below the pit.

Recommendations

Based on the soil sample results, XTO requests approval from OCD District 1 environmental personnel to install a 20 mill thickness high density polyethylene liner in the bottom of the pit and close the excavation according to the requirements of the closure plan approved by environmental personnel of the OCD Santa Fe office on February 4, 2009. Appendix F presents the initial and final C-141.

Please contact me at (432) 687-0901 (office), (432) 556-8656 (cell) or email: mark@laenvironmental.com if you have questions.

Sincerely,

Larson & Associates, Inc.

Mark J. Larson
President

Encl.

Cc: Guy Haykus/XTO Energy, Inc/Production Superintendent - Midland
Dudley McMinn/XTO Energy Inc./Environmental Manager - Midland
DeeAnn Kemp/XTO Energy Inc/Regulatory and Production Mgr. – Midland
Kristy Ward/XTO Energy Inc/Regulatory Analyst - Midland

TABLES

Table 1
Soil Analytical Data Summary
XTO Energy, Inc.
North Vacuum Abo Lease - North Water Station
Unit F (SE/4, NW/4) Sec 14, T17S, R34E
Lea County, New Mexico
LAI Project No.: 8-0164

Sample ID	Date	Status	Depth (Ft)	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	TPH C6-C35	TPH 418.1	Chlorides
Reporting Level:				0.2				50		100	250
1BC	3/12/2009	In-Situ	0 (7)	<0.0011	**0.0034**	**0.0111**	**0.0163**	**0.0308**	--	**1,470**	**947**
	3/19/2009	In-Situ	1 (8)	<0.0010	<0.0020	<0.0010	<0.0010	<0.0010	--	**708**	**1,150**
	3/23/2009	In-Situ	5 (13)	--	--	--	--	--	--	--	**943**
	3/23/2009	In-Situ	10 (18)	--	--	--	--	--	--	--	**1,390**
	3/23/2009	In-Situ	15 (23)	--	--	--	--	--	--	--	**446**
	4/2/2009	In-Situ	20 (28)	--	--	--	--	--	--	--	**772**
BH-1	4/8/2009		5 (13)	--	--	--	--	--	**16.9**	**<11.1**	**2,370**
	4/8/2009		10 (18)	--	--	--	--	--	**17.7**	**<10.7**	**111**
	4/8/2009		15 (23)	--	--	--	--	--	**16.5**	**<10.4**	**78**
	4/8/2009		20 (28)	--	--	--	--	--	**<16.0**	**<10.7**	**428**
	4/8/2009		25 (33)	--	--	--	--	--	--	--	**2,190**
	4/8/2009		30 (38)	--	--	--	--	--	--	--	**1,720**
	4/8/2009		40 (48)	--	--	--	--	--	--	--	**330**
	4/8/2009		50 (58	--	--	--	--	--	--	--	**120**
2NC	3/11/2009	In-Situ	0 - 1	<0.0011	<0.0022	<0.0011	<0.0011	<0.0011	--	**344**	**70.1**
3WC	3/12/2009	Excavated	0 - 1	**0.0020**	**0.0090**	**0.0217**	**0.0329**	**0.0656**	--	**3,200**	**349**
	3/19/2009	In-Situ	2 - 5	<0.0010	<0.0020	<0.0010	**0.0036**	**0.0036**	--	**4,320**	**419**
4EC	3/11/2009	In-Situ	0 - 1	<0.0011	<0.0021	<0.0011	0.0024	0.0024	--	**973**	**337**
5SC	3/12/2009	Excavated	0 - 1	<0.0011	<0.0022	0.0039	0.0161	0.02	--	**4,500**	**445**
	3/19/2009	In-Situ	2 - 5	<0.0010	<0.0020	**0.0017**	**0.0029**	**0.0046**	--	**3,200**	**305**

Notes

RRAL - Recommended Remediation Action Level

BTEX analyzed via EPA SW Method 8021B.

Total Petroleum Hydrocarbons analyzed via EPA Method 418.1.

Chlorides analyzed via EPA Method 300.

All values reported in Milligrams per Kilogram - dry (mg/Kg, parts per million).

Bold indicates the analyte was detected.

FIGURES

JWW

Y \PROJECTS\XTO ENERGY\8-0164\8-0164 NORTH VACUUM ABO NORTH UNIT dwg, 4/27/2009 4 49 43 PM

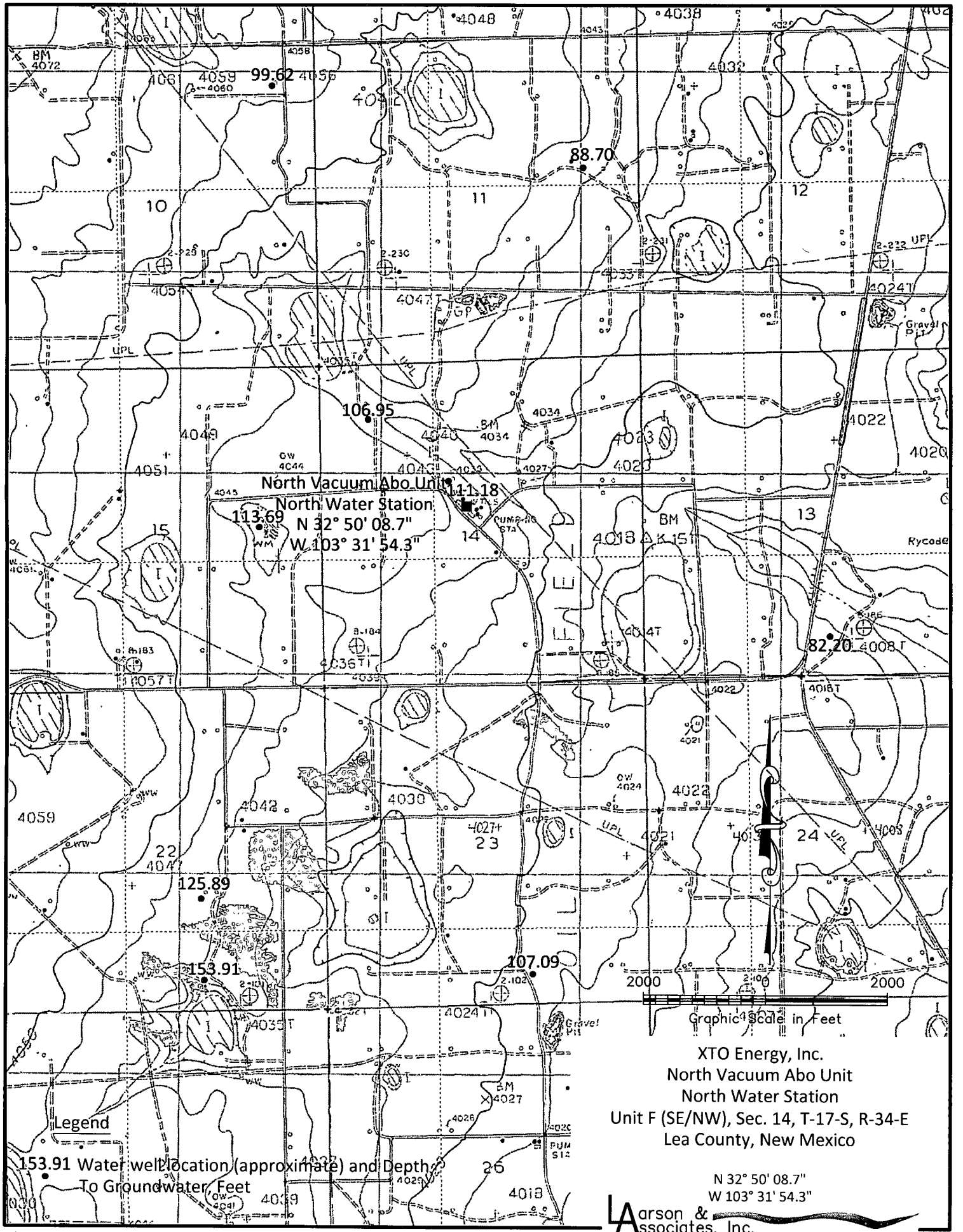
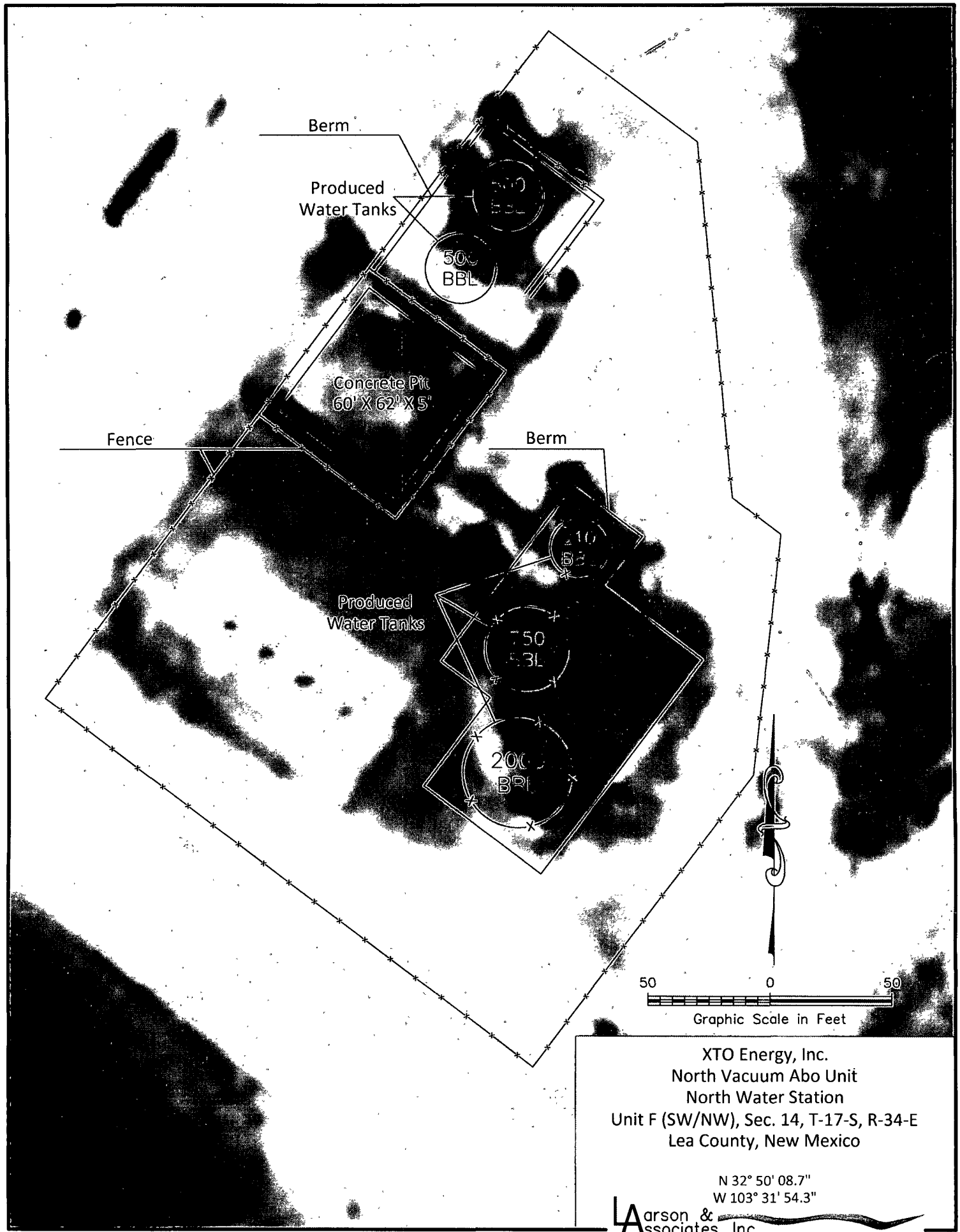


Figure 1 - Topographic Map

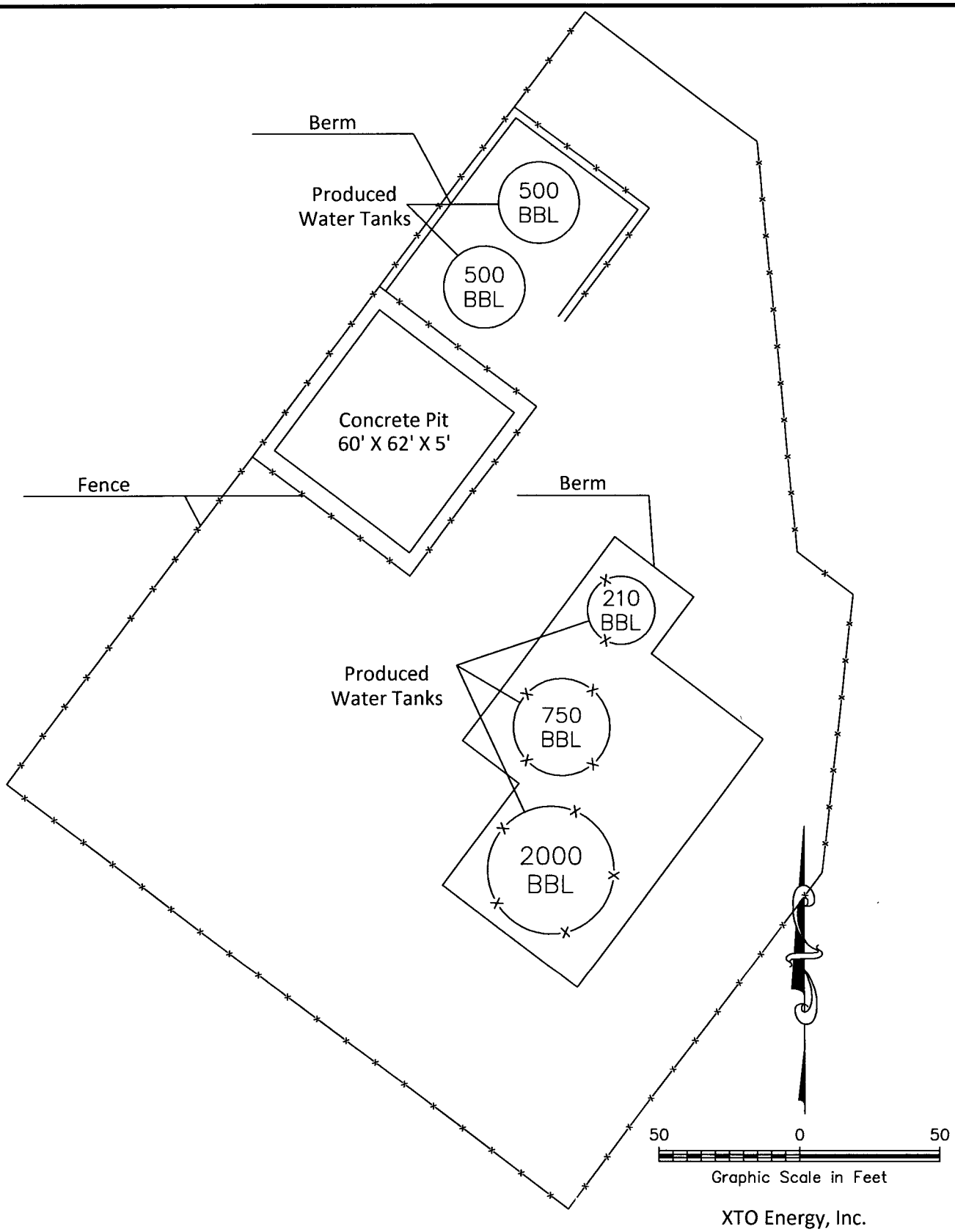


XTO Energy, Inc.
North Vacuum Abo Unit
North Water Station
Unit F (SW/NW), Sec. 14, T-17-S, R-34-E
Lea County, New Mexico

N 32° 50' 08.7"
W 103° 31' 54.3"

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Aerial

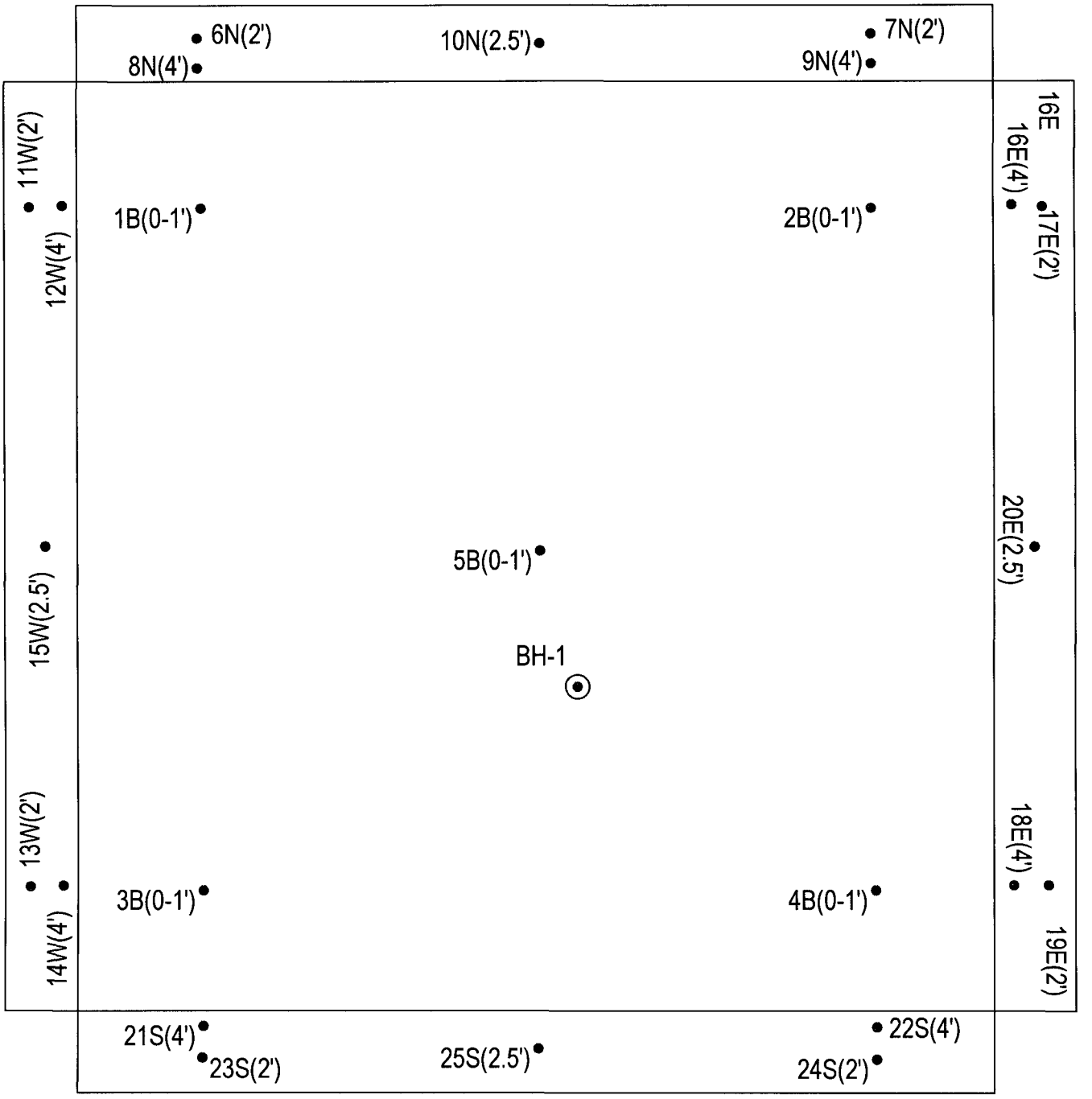


XTO Energy, Inc.
North Vacuum Abo Unit
North Water Station
Unit F (SE/NW), Sec. 14, T-17-S, R-34-E
Lea County, New Mexico

N 32° 50' 08.7"
W 103° 31' 54.3"

Larson & Associates, Inc.
Environmental Consultants

Figure 3 - Site Drawing



10 0 10

Graphic Scale in Feet

XTO Energy, Inc.
North Vacuum Abo Unit
North Water Station
Unit F (SE/NW), Sec. 14, T-17-S, R-34-E
Lea County, New Mexico

N 32° 50' 08.7"
W 103° 31' 54.3"

Legend

5B(0-1') - Soil Sample Location And Depth, Feet

BH-1 - Soil Boring Location

Larson & Associates, Inc.
Environmental Consultants

Figure 4 - Site Drawing

APPENDIX A

Closure Notifications

XTO ENERGY
200 N. Loraine, Ste. 800
Midland, TX 79701

February 18, 2009

Mr. Larry Hill
District Supervisor
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Notice of Pit Closure
XTO Energy, Inc.
North Vacuum Abo Lease – North Water Station
Unit F (SE/4, NW/4), Section 14
Township 17 South, Range 34 East
Lea County, New Mexico

Dear Mr. Hill,

Pursuant to paragraph (3) of Subsection J of 19.15.17.13 NMAC, notice is hereby given to the New Mexico Oil Conservation Division (OCD) by XTO Energy, Inc. (XTO) of its intent to close a permanent pit at the North Vacuum Abo Lease, North Water Station (Facility) beginning on March 9, 2009. The Facility is located in Unit F (SE/4, NW/4), Section 14, Township 17 South, Range 34 East in Lea County, New Mexico. The latitude and longitude is 32° 50' 08.7" north and 103° 31' 54.3" west, respectively. The nearest well is the North Vacuum Abo Lease Well #297 with API #30-025-29607. The closure will be in accordance with a plan meeting the requirements of Paragraphs (1) through (7) of Subsection G of 19.15.17.11 NMAC that was approved by the OCD Environmental Bureau in Santa Fe, New Mexico, on February 4, 2009. Please contact myself at (432) 682-8873 or Mark Larson with Larson & Associates, Inc. at (432) 687-0901, if you have questions.

Sincerely,

XTO Energy, Inc.
Guy Haykus
Production Superintendent

Cc: Mark Larson/Larson & Associates, Inc.
DeeAnn Kemp/XTO Energy Inc/Regulatory and Production Mgr. – Midland
Kristy Ward/XTO Energy Inc/Regulatory Analyst – Midland

XTO ENERGY
200 N. Loraine, Ste. 800
Midland, TX 79701

March 2, 2009

Mr. Patrick Lyons, Commissioner
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Re: Notice of Pit Closure
XTO Energy, Inc.
North Vacuum Abo Lease – North Water Station
Unit F (SE/4, NW/4), Section 14
Township 17 South, Range 34 East
Lea County, New Mexico

Dear Commissioner Lyons,

Pursuant to paragraph (1) of Subsection J of 19.15.17.13 NMAC, notice is hereby given to the New Mexico State Land Office (SLO), as surface owner of record, by XTO Energy, Inc. (XTO) of its intent to close a permanent pit located at the North Vacuum Abo Lease – North Water Station (Facility) beginning March 9, 2009. The Facility is located in Unit F (SE/4, NW/4), Section 14, Township 17 South, Range 34 East in Lea County, New Mexico. The latitude and longitude is 32° 50' 08.7" north and 103° 31' 54.3" west, respectively. The closure will be performed according to a plan meeting the requirements of Paragraphs (1) through (7) of Subsection G of 19.15.17.11 NMAC that was approved by the New Mexico Oil Conservation Division (OCD) on February 4, 2009. The closure plan may be viewed at the OCD District 1 office located in Hobbs, New Mexico or with the OCD Environmental Bureau in Santa Fe, New Mexico. Please contact myself at (432) 682-8873 or Mark Larson with Larson & Associates, Inc. at (432) 687-0901, if you have questions.

Sincerely,

XTO Energy, Inc.
Guy Haykus
Production Superintendent

Cc: Myra Meyers/SLO Hobbs District
Mark Larson/Larson & Associates, Inc.
DeeAnn Kemp/XTO Energy Inc/Regulatory and Production Mgr. – Midland
Kristy Ward/XTO Energy Inc/Regulatory Analyst - Midland

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Larry Hall
Oil Conservation Division
1625 N. French Dr.
Hobbs, NM 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from 7007 0220 0002 5082 4221

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Patrick Lyons, Commissioner
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from sen 7007 0220 0002 5082 4214

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

New Mexico State Land Office
Myra Meyers
2402 N. Grimes, Ste. D
Hobbs, NM 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

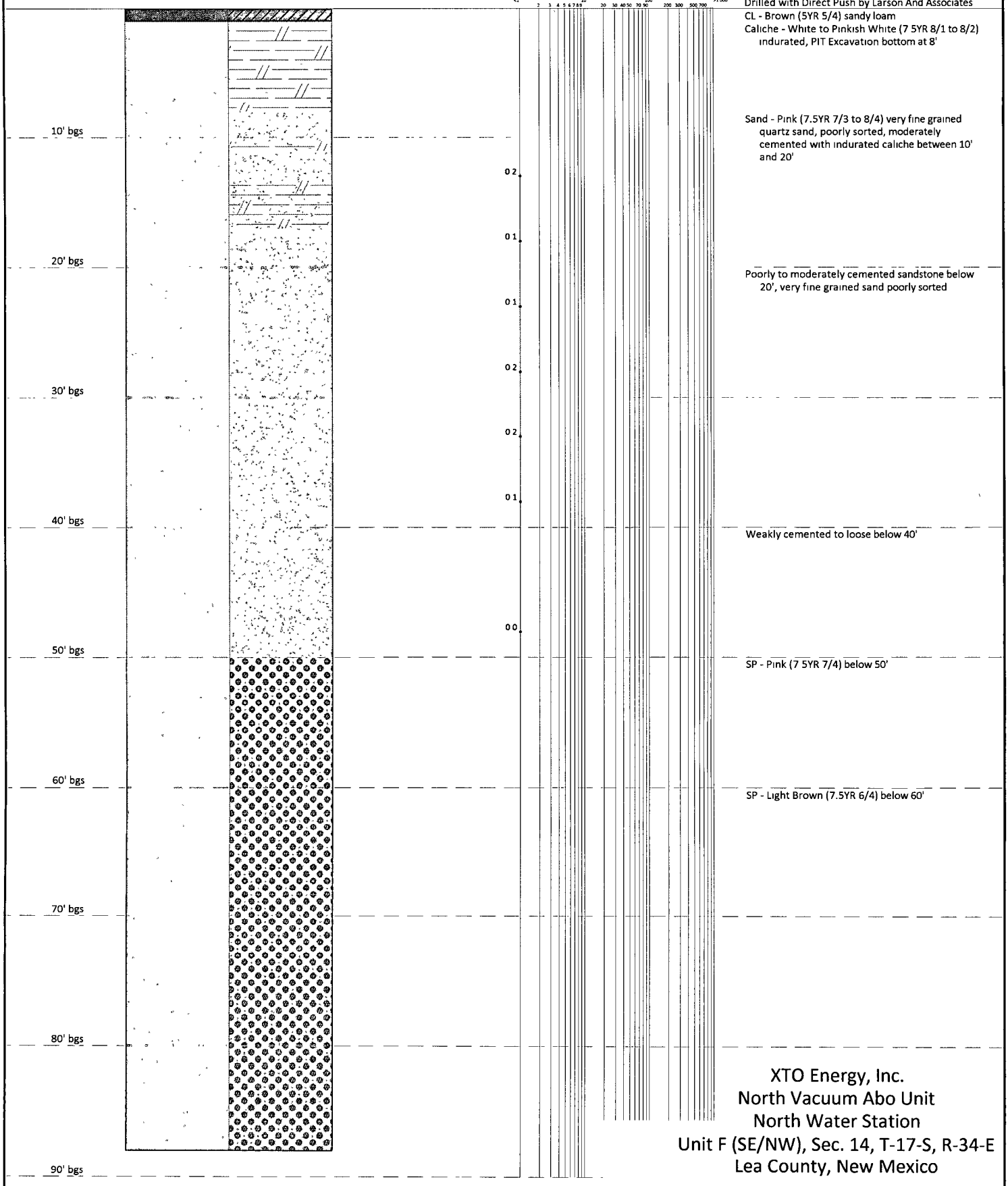
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

APPENDIX B

Boring Log



Lithologic Well Log

Drilling started 9/25/2007, completed 9/25/2007
Drilled with Direct Push by Larson And Associates
CL - Brown (5YR 5/4) sandy loam
Caliche - White to Pinkish White (7 5YR 8/1 to 8/2) indurated, PIT Excavation bottom at 8'

Sand - Pink (7.5YR 7/3 to 8/4) very fine grained quartz sand, poorly sorted, moderately cemented with indurated caliche between 10' and 20'

Poorly to moderately cemented sandstone below 20', very fine grained sand poorly sorted

Weakly cemented to loose below 40'

SP - Pink (7 5YR 7/4) below 50'

SP - Light Brown (7.5YR 6/4) below 60'

XTO Energy, Inc.
North Vacuum Abo Unit
North Water Station
Unit F (SE/NW), Sec. 14, T-17-S, R-34-E
Lea County, New Mexico

N 32° 50' 08.7"
W 103° 31' 54.3"

Larson & Associates, Inc.
Environmental Consultants

BH-1 - Boring Log

APPENDIX C

Laboratory Reports

Analytical Report 327344

for

Larson & Associates

Project Manager: Michelle Green

Midland/Odessa Standard List of Methods

8-0164

16-MAR-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
Miramar, FL E86349
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

16-MAR-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **327344**
Midland/Odessa Standard List of Methods
Project Address:

Michelle Green:

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 327344. 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. 327344 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 327344

Larson & Associates, Midland, TX

Midland/Odessa Standard List of Methods

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
1 BC	S	Mar-12-09 10:40		327344-001
2 NC	S	Mar-11-09 16:40		327344-002
3 WC	S	Mar-12-09 11:00		327344-003
4 EC	S	Mar-11-09 17:12		327344-004
5 SC	S	Mar-12-09 11:30		327344-005

Certificate of Analysis Summary 327344

Larson & Associates, Midland, TX

Project Name: Midland/Odessa Standard List of Methods

Project Id: 8-0164
Contact: Michelle Green
Project Location:

Date Received in Lab: Thu Mar-12-09 03:15 pm
Report Date: 16-MAR-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	327344-001		327344-002		327344-003		327344-004		327344-005	
	Field Id:	1 BC		2 NC		3 WC		4 EC		5 SC	
	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-12-09 10 40		Mar-11-09 16:40		Mar-12-09 11:00		Mar-11-09 17·12		Mar-12-09 11:30	
Anions by EPA 300	*Extracted:*										
	Analyzed:	Mar-13-09 09.45		Mar-13-09 09:45		Mar-13-09 09:45		Mar-13-09 09:45		Mar-13-09 09.45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		947	21.5	70 1	5.46	349	10.9	337	21.5	445	11 0
BTEX by EPA 8021B	*Extracted:*	Mar-14-09 09.00		Mar-14-09 09·00		Mar-14-09 09·00		Mar-14-09 09·00		Mar-14-09 09·00	
	Analyzed:	Mar-14-09 12:48		Mar-14-09 13 09		Mar-14-09 13.29		Mar-14-09 13.50		Mar-14-09 14.51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0 0011	ND	0.0011	0.0020	0.0011	ND	0.0011	ND	0.0011
Toluene		0.0034	0 0022	ND	0.0022	0.0090	0.0022	ND	0.0022	ND	0.0022
Ethylbenzene		0 0111	0.0011	ND	0.0011	0.0217	0.0011	ND	0.0011	0.0039	0.0011
m,p-Xylenes		0.0109	0.0022	ND	0.0022	0 0228	0 0022	ND	0.0022	0 0120	0 0022
o-Xylene		0 0054	0.0011	ND	0.0011	0.0101	0.0011	0.0024	0 0011	0.0041	0 0011
Total Xylenes		0 0163	0.0011	ND	0 0011	0.0329	0.0011	0 0024	0.0011	0.0161	0 0011
Total BTEX		0 0308	0.0011	ND	0.0011	0.0656	0.0011	0.0024	0.0011	0.02	0.0011
Percent Moisture	*Extracted:*										
	Analyzed:	Mar-13-09 17.00		Mar-13-09 17.00		Mar-13-09 17.00		Mar-13-09 17:00		Mar-13-09 17.00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.96	1.00	8 50	1 00	8.54	1.00	6.96	1.00	9.03	1 00
TPH by EPA 418.1	*Extracted:*										
	Analyzed:	Mar-13-09 10:18		Mar-13-09 10 18		Mar-13-09 10 18		Mar-13-09 10:18		Mar-13-09 10 18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH, Total Petroleum Hydrocarbons		1470	10.7	344	10.9	3200	10.9	973	10.7	4500	11.0

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.

Form 2 - Surrogate Recoveries

Project Name: Midland/Odessa Standard List of Methods

Work Orders : 327344,

Project ID: 8-0164

Lab Batch #: 752563 **Sample:** 526389-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/14/09 09:24

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 752563 **Sample:** 526389-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/14/09 09:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 752563 **Sample:** 526389-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/14/09 10:25

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 752563 **Sample:** 327344-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 12:48

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 752563 **Sample:** 327344-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 13:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

** 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: Midland/Odessa Standard List of Methods

Work Orders : 327344,

Project ID: 8-0164

Lab Batch #: 752563 **Sample:** 327344-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 13:29

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0230	0.0300	77	80-120	**
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 752563 **Sample:** 327344-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 13:50

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 752563 **Sample:** 327344-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 14:51

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0228	0.0300	76	80-120	**
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 752563 **Sample:** 327400-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 15:12

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 752563 **Sample:** 327400-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/14/09 15:32

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

** 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: Midland/Odessa Standard List of Methods

Work Order #: 327344 **Project ID:** 8-0164

Lab Batch #: 752554 **Sample:** 752554-1-BKS **Matrix:** Solid

Date Analyzed: 03/13/2009 **Date Prepared:** 03/13/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

		BLANK /BLANK SPIKE RECOVERY STUDY				
Anions by EPA 300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.4	104	90-110	

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

BS / BSD Recoveries

Project Name: Midland/Odessa Standard List of Methods

Work Order #: 327344 **Project ID:** 8-0164

Analyst: ASA **Date Prepared:** 03/14/2009 **Date Analyzed:** 03/14/2009

Lab Batch ID: 752563 **Sample:** 526389-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	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
Benzene	ND	0 1000	0 0957	96	0.1	0.0913	91	5	70-130	35	
Toluene	ND	0.1000	0.0970	97	0.1	0.0926	93	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0961	96	0.1	0.0921	92	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2094	105	0.2	0.2008	100	4	70-135	35	
o-Xylene	ND	0.1000	0.1025	103	0.1	0.0987	99	4	71-133	35	

Analyst: LATCOR **Date Prepared:** 03/13/2009 **Date Analyzed:** 03/13/2009

Lab Batch ID: 752551 **Sample:** 752551-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by EPA 418.1	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
TPH, Total Petroleum Hydrocarbons	ND	2500	2180	87	2500	2220	89	2	65-135	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: Midland/Odessa Standard List of Methods

Work Order #: 327344
Lab Batch #: 752554
Date Analyzed: 03/13/2009
QC- Sample ID: 327343-001 S
Reporting Units: mg/kg

Project ID: 8-0164
Date Prepared: 03/13/2009
Analyst: LATCOR
Batch #: 1
Matrix: Soil

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	14700	4260	18800	96	80-120	

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: Midland/Odessa Standard List of Methods

Work Order # : 327344 **Project ID:** 8-0164

Lab Batch ID: 752563 **QC- Sample ID:** 327400-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/14/2009 **Date Prepared:** 03/14/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B 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
Benzene	ND	0.1004	0.0772	77	0.1004	0.0794	79	3	70-130	35	
Toluene	ND	0.1004	0.0775	77	0.1004	0.0799	80	3	70-130	35	
Ethylbenzene	ND	0.1004	0.0745	74	0.1004	0.0776	77	4	71-129	35	
m,p-Xylenes	ND	0.2008	0.1628	81	0.2008	0.1697	85	4	70-135	35	
o-Xylene	ND	0.1004	0.0818	81	0.1004	0.0847	84	3	71-133	35	

Lab Batch ID: 752551 **QC- Sample ID:** 327344-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/13/2009 **Date Prepared:** 03/13/2009 **Analyst:** LATCOR

Reporting Units: mg/kg

TPH by EPA 418.1 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
TPH, Total Petroleum Hydrocarbons	1470	2690	4250	103	2690	4360	107	3	65-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

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: Midland/Odessa Standard List of Methods

Work Order #: 327344

Lab Batch #: 752554 **Project ID:** 8-0164

Date Analyzed: 03/13/2009 **Date Prepared:** 03/13/2009 **Analyst:** LATCOR

QC- Sample ID: 327343-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	14700	14800	1	20	

Lab Batch #: 752518

Date Analyzed: 03/13/2009 **Date Prepared:** 03/13/2009 **Analyst:** BEV

QC- Sample ID: 327343-001 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	6.08	5.76	5	20	

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

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3-12-09 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 327344
PROJECT LOCATION OR NAME:
LAI PROJECT #: 8-0164 COLLECTOR: RB

TRRP report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE:
Time zone/State: MST

ANALYSES: BTEX ☒ MTBE ☐ (8021B); TRPH 418.1 ☒ TPH 1005 ☐ TPH 1006 ☐; GASOLINE MOD 8015 ☐; DIESEL MOD 8015 ☐; VOC 8260 ☐; SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐; 8081 PESTICIDES ☐ 8151 HERBICIDES ☐; 8082 PCBS ☐; TCLP - METALS (RCRA) ☐ TCLP VOC ☐; TCLP - PEST ☐ HERB ☐ Semi-VOC ☐; TOTAL METALS (RCRA) ☐ OTHER LIST ☐; LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐; RCI ☐ TOX ☐ FLASHPOINT ☐; TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐; pH ☐ HEXAVALENT CHROMIUM ☐; EXPLOSIVES ☐ PECHLORATE ☐; CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ (300.1)

	Field Sample I.D.	Lab #	Date (2009)	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	BTEX	TRPH 418.1	CHLORIDE	FIELD NOTES
01	1BC		3-12	10:40	S	1				X		X	X	X	Composite
02	2NC		3-11	4:40	↓	↓				↓		↓	↓	↓	↓
03	3WC		3-12	11:00	↓	↓				↓		↓	↓	↓	↓
04	4EC		3-11	5:12	↓	↓				↓		↓	↓	↓	↓
05	5SC		3-12	11:30	↓	↓				↓		↓	↓	↓	↓
	TOTAL					5				5		5	5	5	

RELINQUISHED BY:(Signature) K.W. Brook DATE/TIME 3-12-09 3:15 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME 3.17.09 15:15 RECEIVED BY: (Signature) Andrea Lam

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 2.5 THERM #:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED 9 oz glass

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 3.12.09 15:15

Lab ID #: 327344

Initials: AL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	2.5 °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 328020

for

Larson & Associates

Project Manager: Michelle Green

Midland/Odessa Standard List of Methods

8-0164

25-MAR-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
Miramar, FL E86349
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

25-MAR-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **328020**
Midland/Odessa Standard List of Methods
Project Address:

Michelle Green:

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 328020. 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. 328020 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 328020

Larson & Associates, Midland, TX

Midland/Odessa Standard List of Methods

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
1 BC	S	Mar-19-09 13:25		328020-001
3 WC	S	Mar-19-09 14:20		328020-002
5 SC	S	Mar-19-09 15:15		328020-003

Certificate of Analysis Summary 328020

Larson & Associates, Midland, TX

Project Name: Midland/Odessa Standard List of Methods

Project Id: 8-0164
Contact: Michelle Green
Project Location:

Date Received in Lab: Fri Mar-20-09 08:36 am
Report Date: 25-MAR-09
Project Manager: Brent Barron, II

Analysis Requested												
	Lab Id:	328020-001		328020-002		328020-003						
	Field Id:	1 BC		3 WC		5 SC						
	Depth:											
	Matrix:	SOIL		SOIL		SOIL						
	Sampled:	Mar-19-09 13.25		Mar-19-09 14.20		Mar-19-09 15:15						
Anions by EPA 300	*Extracted:*											
	Analyzed:	Mar-20-09 21:49		Mar-20-09 21:49		Mar-20-09 21:49						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Chloride		1150	27 4	419	11 0	305	11.1					
BTEX by EPA 8021B	*Extracted:*	Mar-20-09 10·00		Mar-20-09 10·00		Mar-20-09 10·00						
	Analyzed:	Mar-20-09 15:25		Mar-20-09 16:06		Mar-20-09 15.46						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene		ND	0.0010	ND	0 0010	ND	0.0010					
Toluene		ND	0.0020	ND	0.0020	ND	0.0020					
Ethylbenzene		ND	0.0010	ND	0.0010	0.0017	0.0010					
m,p-Xylenes		ND	0.0020	0.0036	0.0020	0.0029	0.0020					
o-Xylene		ND	0.0010	ND	0 0010	ND	0.0010					
Total Xylenes		ND	0.0010	0.0036	0.0010	0.0029	0.0010					
Total BTEX		ND	0.0010	0.0036	0.0010	0.0046	0.0010					
Percent Moisture	*Extracted:*											
	Analyzed:	Mar-20-09 17·00		Mar-20-09 17:00		Mar-20-09 17:00						
	Units/RL:	%	RL	%	RL	%	RL					
Percent Moisture		8 92	1 00	8.98	1.00	9 57	1.00					
TPH by EPA 418.1	*Extracted:*											
	Analyzed:	Mar-24-09 08:53		Mar-24-09 08·53		Mar-24-09 08.53						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
TPH, Total Petroleum Hydrocarbons		708	11.0	4320	11.0	3200	11.1					

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.

Form 2 - Surrogate Recoveries

Project Name: Midland/Odessa Standard List of Methods

Work Orders : 328020, **Project ID:** 8-0164

Lab Batch #: 753294 **Sample:** 526790-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/20/09 11:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

Lab Batch #: 753294 **Sample:** 526790-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/20/09 11:52

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 753294 **Sample:** 526790-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 03/20/09 12:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 753294 **Sample:** 328020-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/20/09 15:25

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 753294 **Sample:** 328020-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/20/09 15:46

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

** 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: Midland/Odessa Standard List of Methods

Work Orders : 328020,

Project ID: 8-0164

Lab Batch #: 753294 **Sample:** 328020-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/20/09 16:06

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 753294 **Sample:** 327939-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/20/09 16:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 753294 **Sample:** 327939-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 03/20/09 16:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

** 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: Midland/Odessa Standard List of Methods

Work Order #: 328020 **Project ID:** 8-0164

Lab Batch #: 753357 **Sample:** 753357-1-BKS **Matrix:** Solid

Date Analyzed: 03/20/2009 **Date Prepared:** 03/20/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by EPA 300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.3	103	90-110	

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

BS / BSD Recoveries

Project Name: Midland/Odessa Standard List of Methods

Work Order #: 328020 **Project ID:** 8-0164

Analyst: ASA **Date Prepared:** 03/20/2009 **Date Analyzed:** 03/20/2009

Lab Batch ID: 753294 **Sample:** 526790-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	ND	0.1000	0 1049	105	0.1	0 0969	97	8	70-130	35	
Toluene	ND	0.1000	0.1065	107	0.1	0.0979	98	8	70-130	35	
Ethylbenzene	ND	0.1000	0.1068	107	0.1	0.0982	98	8	71-129	35	
m,p-Xylenes	ND	0 2000	0.2312	116	0.2	0 2134	107	8	70-135	35	
o-Xylene	ND	0.1000	0.1142	114	0.1	0.1048	105	9	71-133	35	

Analyst: LATCOR **Date Prepared:** 03/24/2009 **Date Analyzed:** 03/24/2009

Lab Batch ID: 753536 **Sample:** 753536-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1 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
TPH, Total Petroleum Hydrocarbons	ND	2500	2330	93	2500	2320	93	0	65-135	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: Midland/Odessa Standard List of Methods

Work Order #: 328020
Lab Batch #: 753357
Date Analyzed: 03/20/2009
QC- Sample ID: 327896-101 S
Reporting Units: mg/kg

Project ID: 8-0164
Date Prepared: 03/20/2009
Analyst: LATCOR
Batch #: 1
Matrix: Soil

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	242	206	455	103	80-120	

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: Midland/Odessa Standard List of Methods

Work Order # : 328020 **Project ID:** 8-0164

Lab Batch ID: 753294 **QC- Sample ID:** 327939-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/20/2009 **Date Prepared:** 03/20/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B 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
Benzene	ND	0.1019	0.0838	82	0.1019	0.0812	80	3	70-130	35	
Toluene	ND	0.1019	0.0834	82	0 1019	0.0802	79	4	70-130	35	
Ethylbenzene	ND	0 1019	0.0779	76	0 1019	0.0734	72	6	71-129	35	
m,p-Xylenes	ND	0.2038	0.1679	82	0.2038	0.1585	78	6	70-135	35	
o-Xylene	ND	0.1019	0.0845	83	0 1019	0.0798	78	6	71-133	35	

Lab Batch ID: 753536 **QC- Sample ID:** 328020-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/24/2009 **Date Prepared:** 03/24/2009 **Analyst:** LATCOR

Reporting Units: mg/kg

TPH by EPA 418.1 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
TPH, Total Petroleum Hydrocarbons	708	2740	3470	101	2740	3590	105	3	65-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

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: Midland/Odessa Standard List of Methods

Work Order #: 328020

Lab Batch #: 753357 **Project ID:** 8-0164

Date Analyzed: 03/20/2009 **Date Prepared:** 03/20/2009 **Analyst:** LATCOR

QC- Sample ID: 327896-101 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	242	244	1	20	

Lab Batch #: 753313

Date Analyzed: 03/20/2009 **Date Prepared:** 03/20/2009 **Analyst:** BEV

QC- Sample ID: 327990-002 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	10.0	9.59	4	20	

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

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3-19-09 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 328070
PROJECT LOCATION OR NAME:
LAI PROJECT #: 8-0164 COLLECTOR: KB

TRRP report? ☐ Yes ☒ No
TIME ZONE Time zone/State: NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D	Lab #	Date (2009)	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO3	H2SO4	NaOH	ICE	UNPRESERVED	ANALYSES: BTEX 8021B	TPH 1005	TPH 1006	TPH 8015	GASOLINE MOD 8015	DIESEL - MOD 8015	VOC 8260	SVOC 8270	8081 PESTICIDES	8082 PCBS	TCLP METALS (RCRA)	TOTAL METALS (RCRA)	LEAD - TOTAL	RCI	TDS	pH	TOX	FIELD NOTES
1BC		3-19	1:25	S	1					X		X	X															X	Composite
3WC		3-19	2:20	S	1					X		X	X															X	Composite
5SC		3-19	3:15	S	1					X		X	X															X	Composite

TOTAL:

RELINQUISHED BY: (Signature)	DATE/TIME 3/20/09 8:36	RECEIVED BY: (Signature) Jamie Fitch	03-20-09 0836
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 4.0°C THERM #
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson

Date/ Time: 03-20-09 @ 0836

Lab ID #: 328020

Initials: JMF

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 328209

for

Larson & Associates

Project Manager: Michelle Green

Midland/Odessa Standard List of Methods

8-0164

31-MAR-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
Miramar, FL E86349
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

31-MAR-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **328209**
Midland/Odessa Standard List of Methods
Project Address:

Michelle Green:

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 328209. 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. 328209 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 328209

Larson & Associates, Midland, TX

Midland/Odessa Standard List of Methods

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS # 5 (13')	S	Mar-23-09 10:30	13 ft	328209-001
SS # 5 (18')	S	Mar-23-09 11:00	18 ft	328209-002
SS # 5 (23')	S	Mar-23-09 11:30	23 ft	328209-003

Certificate of Analysis Summary 328209

Larson & Associates, Midland, TX

Project Name: Midland/Odessa Standard List of Methods

Project Id: 8-0164
Contact: Michelle Green
Project Location:

Date Received in Lab: Mon Mar-23-09 04:13 pm
Report Date: 31-MAR-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	328209-001		328209-002		328209-003					
	Field Id:	SS # 5 (13')		SS # 5 (18')		SS # 5 (23')					
	Depth:	13 ft		18 ft		23 ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Mar-23-09 10:30		Mar-23-09 11:00		Mar-23-09 11:30					
Anions by EPA 300	*Extracted:*										
	Analyzed:	Mar-26-09 16.30		Mar-26-09 16:30		Mar-30-09 14 43					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		943	10.8	1390	28 1	446	10.8				
Percent Moisture	*Extracted:*										
	Analyzed:	Mar-26-09 17:00		Mar-26-09 17.00		Mar-30-09 16 40					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		7.11	1.00	11.03	1 00	7 44	1 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.

Blank Spike Recovery

Project Name: Midland/Odessa Standard List of Methods

Work Order #: 328209 **Project ID:** 8-0164

Lab Batch #: 753994 **Sample:** 753994-1-BKS **Matrix:** Solid

Date Analyzed: 03/26/2009 **Date Prepared:** 03/26/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by EPA 300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.6	106	90-110	

Lab Batch #: 754330 **Sample:** 754330-1-BKS **Matrix:** Solid

Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by EPA 300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.8	108	90-110	

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

Form 3 - MS Recoveries

Project Name: Midland/Odessa Standard List of Methods

Work Order #: 328209

Lab Batch #: 753994 **Project ID:** 8-0164

Date Analyzed: 03/26/2009 **Date Prepared:** 03/26/2009 **Analyst:** LATCOR

QC- Sample ID: 328209-001 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	943	215	504	0	80-120	X

Lab Batch #: 754330

Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** LATCOR

QC- Sample ID: 328761-001 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	409	210	611	96	80-120	

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

Sample Duplicate Recovery

Project Name: Midland/Odessa Standard List of Methods

Work Order #: 328209

Lab Batch #: 753994 **Project ID:** 8-0164
Date Analyzed: 03/26/2009 **Date Prepared:** 03/26/2009 **Analyst:** LATCOR
QC- Sample ID: 328209-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	943	939	0	20	

Lab Batch #: 754330
Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** LATCOR
QC- Sample ID: 328761-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	409	409	0	20	

Lab Batch #: 753990
Date Analyzed: 03/26/2009 **Date Prepared:** 03/26/2009 **Analyst:** BEV
QC- Sample ID: 328424-001 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	13.5	3	20	

Lab Batch #: 754344
Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** BEV
QC- Sample ID: 328746-001 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	2.71	3.00	10	20	

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

HOLD

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3/23/09 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 328204
PROJECT LOCATION OR NAME:
LAI PROJECT #: 8-0164 COLLECTOR: RB

TRRP report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐; TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐; GASOLINE MOD 8015 ☐; DIESEL - MOD 8015 ☐; VOC 8260 ☐; SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐; 8081 PESTICIDES ☐ 8151 HERBICIDES ☐; 8082 PCBS ☐; TCLP - METALS (RCRA) ☐ TCLP VOC ☐; TCLP - PEST ☐ HERB ☐ Semi VOC ☐; TOTAL METALS (RCRA) ☐ OTHER LIST ☐; LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐; TOC ☐ TOX ☐ FLASHPOINT ☐; TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐; pH ☐ HEXAVALENT CHROMIUM ☐; EXPLOSIVES ☐ PERCHLORATE ☐; CHLORIDES X ANIONS ☐ ALKALINITY ☐; 300.1

Field Sample I.D.	Lab #	Date (2009)	Time	Matrix	# of Containers	Chlorides 300.1	FIELD NOTES
SS#5 (13')		3/23	10:30	S	1	X	GRAB
SS#5 (18')		3/23	11:00	S	1	X	GRAB
SS#5 (23')		3/23	11:30	S	1	X	GRAB
TOTAL					3	3	3

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
R.W. Booth	3/23/09 4:13	[signature] 3-23-09 16:13
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL X
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 25.0 THERM #:
CUSTODY SEALS ☐ BROKEN ☐ INTACT X NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED w/labels

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Assoc.

Date/ Time: 3.23.09 16.13

Lab ID #: 328209

Initials: aL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	15.0 °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

Gracie Avalos

From: Michelle Green [michelle@laenvironmental.com]
Sent: Wednesday, March 25, 2009 2:24 PM
To: Gracie Avalos
Subject: RE: WO 328020 / 8-0164

Gracie,

Please analyze (Chloride) the first two samples (13' and 18') that were collected March 23, 2009.

Thank you,

Michelle Green

From: Gracie Avalos [mailto:gracie.avalos@xenco.com]
Sent: Wednesday, March 25, 2009 2:01 PM
To: Michelle Green; Mark Larson
Subject: WO 328020 / 8-0164

Upon review, please let us know if you will be in need of us running either the 15 soil samples brought in Friday the 20th, or the 3 soil samples brought in Monday the 23rd as they're on hold.

We always appreciate the work you provide, have a good one!

Gracie Avalos
Project Assistant
Xenco Labs - Odessa
432-563-1800 Office
432-4563-1713 Fax
gracie.avalos@xenco.com

3/25/2009

Gracie Avalos

From: Michelle Green [michelle@laenvironmental.com]
Sent: Monday, March 30, 2009 10:37 AM
To: Gracie Avalos
Subject: RE: WO 328209 / 8-0164

Gracie,

Can you please analyze sample SS #5 (23') for Chloride. Is it possible to have a result later this afternoon?

Thank you

Michelle L. Green
Larson & Associates, Inc.
507 N Marienfeld, Suite 200
Midland, TX 79701

Office: 432.687.0901
Fax: 432.687.0789
Cell: 432.934.3231

Larson & Associates, Inc.
Environmental Consultants

From: Gracie Avalos [mailto:gracie.avalos@xenco.com]
Sent: Monday, March 30, 2009 10:30 AM
To: Michelle Green; Mark Larson
Subject: WO 328209 / 8-0164
Importance: High

Gracie Avalos
Project Assistant
Xenco Labs - Odessa
432-563-1800 Office
432-4563-1713 Fax
gracie.avalos@xenco.com

3/30/2009

Analytical Report 329622

for

Larson & Associates

Project Manager: Michelle Green

XTO Vacuum North

8-0164

20-APR-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
Miramar, FL E86349
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

20-APR-09

Project Manager: **Michelle Green**
Larson & Associates
P.O. Box 50685
Midland, TX 79710

Reference: XENCO Report No: **329622**
XTO Vacuum North
Project Address:

Michelle Green:

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 329622. 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. 329622 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 329622

Larson & Associates, Midland, TX

XTO Vacuum North

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1,5' (13'BGS)	S	Apr-08-09 09:00		329622-001
BH-1,10' (18'BGS)	S	Apr-08-09 09:05		329622-002
BH-1,15' (23'BGS)	S	Apr-08-09 09:10		329622-003
BH-1,20' (28'BGS)	S	Apr-08-09 09:15		329622-004
BH-1,25' (33'BGS)	S	Apr-08-09 09:25		329622-005
BH-1,30' (38'BGS)	S	Apr-08-09 09:35		329622-006
BH-1,40' (48'BGS)	S	Apr-08-09 09:45		329622-007
BH-1,50' (58'BGS)	S	Apr-08-09 10:00		329622-008

Certificate of Analysis Summary 329622
Larson & Associates, Midland, TX

Project Name: XTO Vacuum North

Project Id: 8-0164
Contact: Michelle Green
Project Location:

Date Received in Lab: Apr-08-09 05:20 pm
Report Date: 20-APR-09
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	329622-001		329622-002		329622-003		329622-004	
	Field Id:	BH-1,5' (13'BGS)		BH-1,10' (18'BGS)		BH-1,15' (23'BGS)		BH-1,20' (28'BGS)	
	Depth:								
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-08-09 09:00		Apr-08-09 09:05		Apr-08-09 09:10		Apr-08-09 09:15	
Anions by EPA 300	*Extracted:*								
	Analyzed:	Apr-09-09 10:41		Apr-09-09 10:41		Apr-09-09 10:41		Apr-09-09 10:41	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2370	55.3	111	10.7	77.8	10.4	428	10.7
Percent Moisture	*Extracted:*								
	Analyzed:	Apr-09-09 08:45		Apr-09-09 08:45		Apr-09-09 08:45		Apr-09-09 08:45	
	Units/RL:	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.54	1.00	6.73	1.00	4.17	1.00	6.35	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-10-09 16:35		Apr-10-09 16:35		Apr-10-09 16:35		Apr-10-09 16:35	
	Analyzed:	Apr-11-09 12:45		Apr-11-09 13:10		Apr-11-09 13:35		Apr-11-09 14:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.6	ND	16.1	ND	15.7	ND	16.0
C12-C28 Diesel Range Hydrocarbons		16.9	16.6	17.7	16.1	16.5	15.7	ND	16.0
C28-C35 Oil Range Hydrocarbons		ND	16.6	ND	16.1	ND	15.7	ND	16.0
Total TPH		16.9	16.6	17.7	16.1	16.5	15.7	ND	16.0
TPH by EPA 418.1	*Extracted:*								
	Analyzed:	Apr-09-09 14:32		Apr-09-09 14:32		Apr-09-09 14:32		Apr-09-09 14:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH, Total Petroleum Hydrocarbons		ND	11.1	ND	10.7	ND	10.4	ND	10.7

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 329622
Larson & Associates, Midland, TX

Project Name: XTO Vacuum North

Project Id: 8-0164
Contact: Michelle Green
Project Location:

Date Received in Lab: Apr-08-09 05:20 pm
Report Date: 20-APR-09
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	329622-005		329622-006		329622-007		329622-008	
	Field Id:	BH-1,25' (33'BGS)		BH-1,30' (38'BGS)		BH-1,40' (48'BGS)		BH-1,50' (58'BGS)	
	Depth:								
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-08-09 09:25		Apr-08-09 09:35		Apr-08-09 09:45		Apr-08-09 10:00	
Anions by EPA 300	*Extracted:*								
	Analyzed:	Apr-09-09 10:41		Apr-09-09 10:41		Apr-09-09 10:41		Apr-14-09 10:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2190	53.4	1720	26.3	330	10.7	120	10.6
Percent Moisture	*Extracted:*								
	Analyzed:	Apr-09-09 08:45		Apr-09-09 08:45		Apr-09-09 08:45		Apr-14-09 20:02	
	Units/RL:	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.30	1.00	5.09	1.00	6.94	1.00	5.99	1.00

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.

Form 2 - Surrogate Recoveries

Project Name: XTO Vacuum North

Work Orders : 329622, **Project ID:** 8-0164

Lab Batch #: 755565 **Sample:** 528142-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/11/09 06:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.6	100	100	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 755565 **Sample:** 528142-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/11/09 07:15

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.4	100	99	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

Lab Batch #: 755565 **Sample:** 528142-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/11/09 07:40

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	100	88	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 755565 **Sample:** 329622-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 12:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.2	100	87	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 755565 **Sample:** 329622-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 13:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	48.8	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.

Version: 1.017

Form 2 - Surrogate Recoveries

Project Name: XTO Vacuum North

Work Orders : 329622, **Project ID:** 8-0164

Lab Batch #: 755565 **Sample:** 329622-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 13:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 755565 **Sample:** 329622-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 14:00

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.5	100	86	70-135	
o-Terphenyl	48.7	50.0	97	70-135	

Lab Batch #: 755565 **Sample:** 329622-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 16:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 755565 **Sample:** 329622-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/11/09 17:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	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.

Version 1.017

Blank Spike Recovery

Project Name: XTO Vacuum North

Work Order #: 329622 **Project ID:** 8-0164

Lab Batch #: 755399 **Sample:** 755399-1-BKS **Matrix:** Solid
Date Analyzed: 04/09/2009 **Date Prepared:** 04/09/2009 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Anions by EPA 300 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.6	106	80-120	

Lab Batch #: 755901 **Sample:** 755901-1-BKS **Matrix:** Solid
Date Analyzed: 04/14/2009 **Date Prepared:** 04/14/2009 **Analyst:** LATCOR
Reporting Units: mg/kg **Batch #:** 1

Anions by EPA 300 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.1	101	80-120	

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

Version 1.017

BS / BSD Recoveries

Project Name: XTO Vacuum North

Work Order #: 329622 **Project ID:** 8-0164

Analyst: BEV **Date Prepared:** 04/09/2009 **Date Analyzed:** 04/09/2009

Lab Batch ID: 755401 **Sample:** 755401-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1 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
TPH, Total Petroleum Hydrocarbons	ND	2500	2180	87	2500	2210	88	1	65-135	35	

Analyst: BHW **Date Prepared:** 04/10/2009 **Date Analyzed:** 04/11/2009

Lab Batch ID: 755565 **Sample:** 528142-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod 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	995	100	1000	980	98	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	950	95	1000	937	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: XTO Vacuum North

Work Order #: 329622

Lab Batch #: 755399 **Project ID:** 8-0164

Date Analyzed: 04/09/2009 **Date Prepared:** 04/09/2009 **Analyst:** LATCOR

QC- Sample ID: 329622-001 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	2370	1110	3590	110	80-120	

Lab Batch #: 755901

Date Analyzed: 04/14/2009 **Date Prepared:** 04/14/2009 **Analyst:** LATCOR

QC- Sample ID: 330010-001 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	709	207	868	77	80-120	X

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

Version. 1.017

Form 3 - MS / MSD Recoveries

Project Name: XTO Vacuum North

Work Order # : 329622 **Project ID:** 8-0164

Lab Batch ID: 755401 **QC- Sample ID:** 329622-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/09/2009 **Date Prepared:** 04/09/2009 **Analyst:** BEV

Reporting Units: mg/kg

TPH by EPA 418.1 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
TPH, Total Petroleum Hydrocarbons	ND	2760	2510	91	2760	2500	91	0	65-135	35	

Lab Batch ID: 755565 **QC- Sample ID:** 329622-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/11/2009 **Date Prepared:** 04/10/2009 **Analyst:** BHW

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	1110	1110	100	1110	1120	101	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	16.9	1110	1060	94	1110	1070	95	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

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

Version: 1.017

Sample Duplicate Recovery

Project Name: XTO Vacuum North

Work Order #: 329622

Lab Batch #: 755399 **Project ID:** 8-0164
Date Analyzed: 04/09/2009 **Date Prepared:** 04/09/2009 **Analyst:** LATCOR
QC- Sample ID: 329622-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	2370	2320	2	20	

Lab Batch #: 755901
Date Analyzed: 04/14/2009 **Date Prepared:** 04/14/2009 **Analyst:** LATCOR
QC- Sample ID: 330010-001 D **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	709	690	3	20	

Lab Batch #: 755304
Date Analyzed: 04/09/2009 **Date Prepared:** 04/09/2009 **Analyst:** BEV
QC- Sample ID: 329619-001 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	8.51	8.67	2	20	

Lab Batch #: 755862
Date Analyzed: 04/14/2009 **Date Prepared:** 04/14/2009 **Analyst:** BEV
QC- Sample ID: 330010-001 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	3.55	3.48	2	20	

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

Version: 1.017

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: MICHELLE GREEN

DATE: 4-8-09 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 324022
PROJECT LOCATION OR NAME: XTO VACUUM NORTH
LAI PROJECT #: 8-0164 COLLECTOR: ML + RB

TRRP report? ☐ Yes ☐ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐; TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐; GASOLINE MOD 8015 ☐; DIESEL - MOD 8015 ☐; VOC 8260 ☐; SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐; 8081 PESTICIDES ☐ 8151 HERBICIDES ☐; 8082 PCBS ☐; TCLP - METALS (RCRA) ☐ TCLP VOC ☐; TCLP - PEST ☐ HERB ☐ Semi-VOC ☐; TOTAL METALS (RCRA) ☐ OTHER LIST ☐; LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐; RCI ☐ TOX ☐ FLASHPOINT ☐; TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐; pH ☐ HEXAVALENT CHROMIUM ☐; EXPLOSIVES ☐ PERCHLORATE ☐; CHLORIDE ☒ (300.1) ANIONS ☐ ALKALINITY ☐; HOLD

	Field Sample I.D.	Lab #	Date (2009)	Time	Matrix	# of Containers	ICE	BTEX	TRPH 418.1	GASOLINE MOD 8015	CHLORIDE (300.1)	HOLD	FIELD NOTES
01	BH-1, 5' (13' BGS)		4-8	09:00	S	2	X	X	X	X	X		GRAB
02	BH-1, 10' (18' BGS)		↓	0905	↓	↓	X	X	X	X	X		↓
03	BH-1, 15' (23' BGS)		↓	0910	↓	↓	X	X	X	X	X		↓
04	BH-1, 20' (28' BGS)		↓	0915	↓	↓	X	X	X	X	X		↓
05	BH-1, 25' (33' BGS)		↓	0925	↓	↓	X				X		↓
06	BH-1, 30' (38' BGS)		↓	0935	↓	↓	X				X		↓
07	BH-1, 40' (48' BGS)		↓	0945	↓	↓	X				X		↓
08	BH-1, 50' (58' BGS)		↓	1000	↓	↓	X					X	↓
09	BH-1, 60' (68' BGS)		↓	1012	↓	↓	X					X	↓
10	BH-1, 70' (78' BGS)		↓	1035	↓	↓	X					X	↓
11	BH-1, 80' (88' BGS)		↓	1055	↓	↓	X					X	↓

TOTAL

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	4/8/09 5:20P	[signature] 4:50 TT-20
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP. 4.0 THERM #:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED 4 oz glass

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Larson & Associates

Date/ Time: 04-08-09 @ 1720

Lab ID #: 329622

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

Gracie Avalos

From: Mark Larson [Mark@laenvironmental.com]
Sent: Tuesday, April 14, 2009 9:00 AM
To: Gracie Avalos
Cc: Michelle Green
Subject: Re: Analytical Report #329622

Gracie,
Please run the 50' sample for chloride
Thanks,

Mark J. Larson
Sr. Project Manager / President
507 N. Marienfeld St., Ste. 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

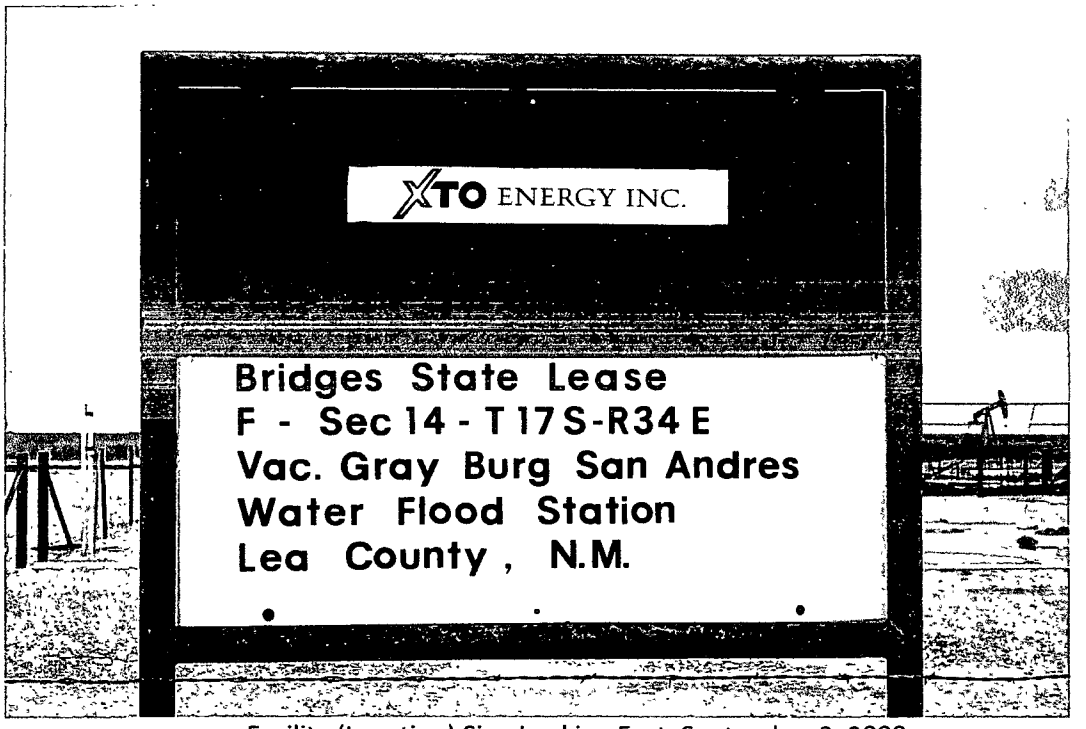
LArson & Associates, Inc.
Environmental Consultants

4/14/2009

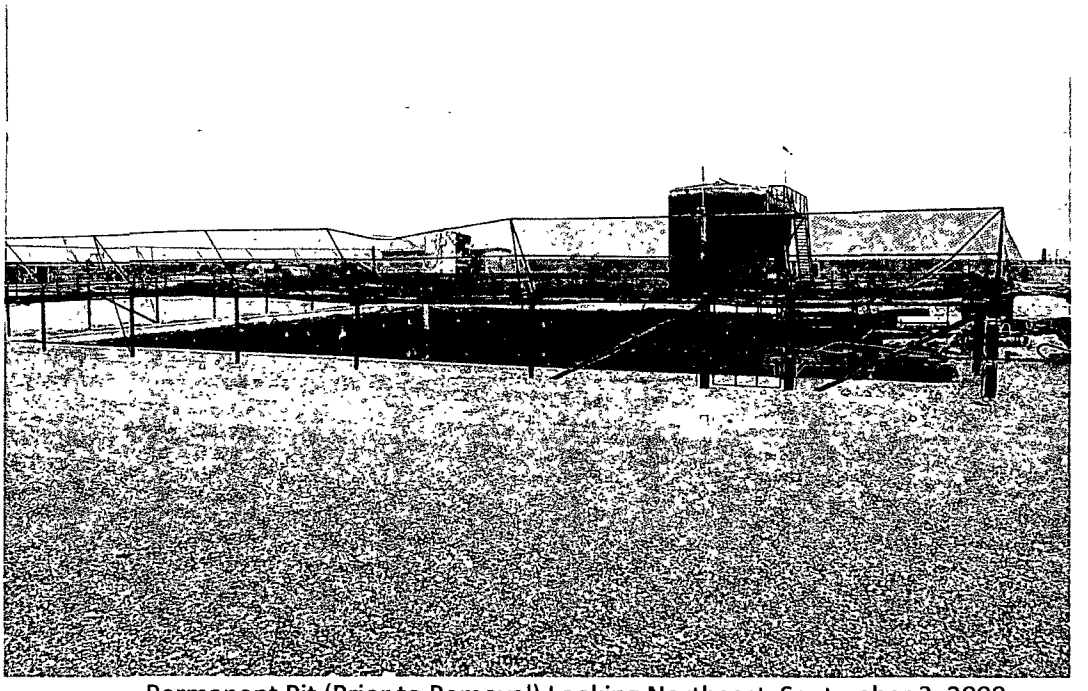
APPENDIX D

Photographs

Photographic Documentation

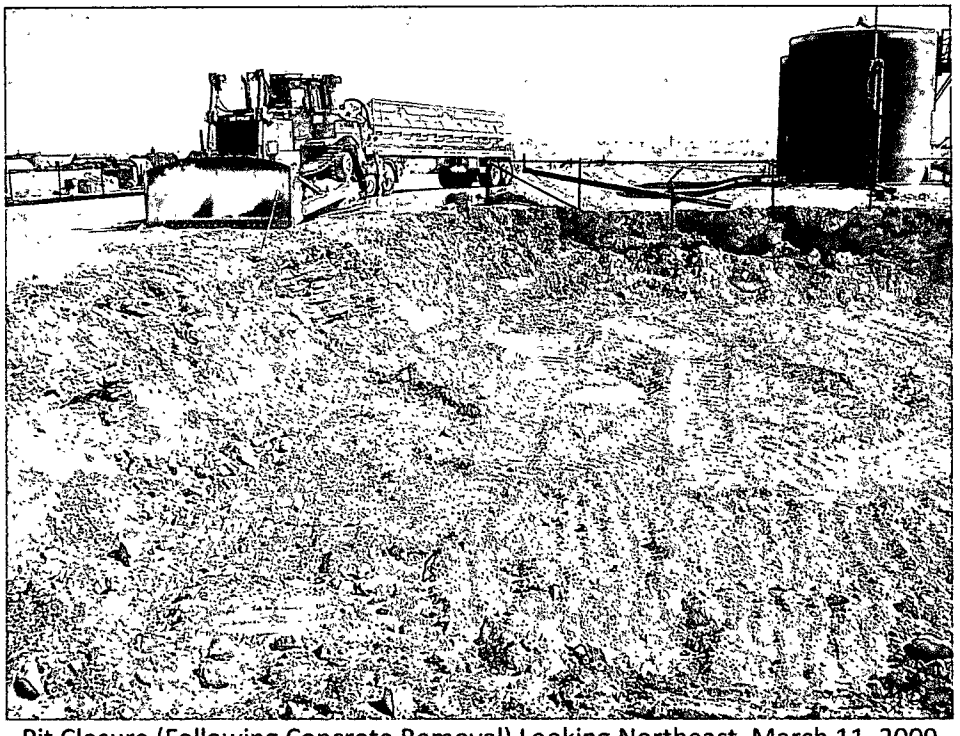


Facility (Location) Sign Looking East, September 3, 2008



Permanent Pit (Prior to Removal) Looking Northeast, September 3, 2008

Photographic Documentation



Pit Closure (Following Concrete Removal) Looking Northeast, March 11, 2009

Pit Closure (Following Concrete Removal) Looking North, March 11, 2009