

**2RP-3870**  
**REMEDIATION REPORT**  
**Nash Draw Tank Battery #38**  
Eddy County, New Mexico

LAI Project No. 16-0108-08

March 27, 2017

Prepared for:

XTO Energy, Inc.  
500 W. Illinois Ave., Suite 100  
Midland, Texas 79707

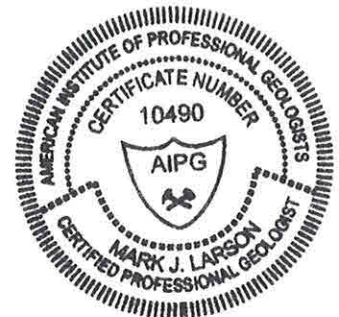
Prepared by:

Larson & Associates, Inc.  
507 North Marienfeld Street, Suite 205  
Midland, Texas 79701



Mark J. Larson, P.G.

Certified Professional Geologist #10490



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## **1.0 INTRODUCTION**

Larson & Associates, Inc. (LAI) has prepared this report on behalf of XTO Energy, Inc. (XTO) for submittal to the New Mexico Oil Conservation Division (OCD) District 2, in Artesia, New Mexico and U.S. Bureau of Land Management (BLM) in Carlsbad, New Mexico, to document soil remediation at the Nash Draw #10 tank battery (Site). The Site is located in Unit N (SW/4, NE/4), Section 13, Township 23 South, Range 29 East in Eddy County, New Mexico. The geodetic position is North 32° 17' 54.71506" and West 103° 56' 20.12604". Figure 1 presents a topographic map. Figure 2 presents an aerial map.

### **1.1 Background**

On June 22, 2016, LAI personnel used a Terraprobe® direct-push rig to collect soil samples at five (5) locations (DP-08-01 through DP-08-05). Soil samples were collected between ground surface and approximately four (4) feet below ground surface (bgs). A background sample (DP-00-BG) was collected about 80 feet west of the Site at approximately 1 foot bgs. The laboratory analysis and initial C-141 were submitted to OCD which assigned remediation permit number 2RP-3870, on September 8, 2016.

On September 29, 2016, LAI personnel supervised a backhoe operated by SDR Enterprises, LLC (SDR), Hobbs, New Mexico, to collect soil samples to delineate impacts observed in samples from DP-08-01. Table 1 presents the analytical data summary for the assessment soil samples.

On November 7, 2016, LAI, on behalf of XTO, submitted a plan OCD District 2 and BLM for approval to remediate impacts to soil based on laboratory analysis of soil samples collected on June 22, 2016 and September 29, 2016. On November 10, 2016, OCD District 2 approved the remediation plan. Appendix A presents the OCD approval.

### **1.2 Physical Setting**

The physical setting is as follows:

- Elevation is approximately 2,998 feet above mean sea level (AMSL);
- Topography slopes toward the west - northwest;
- The nearest surface water feature is a playa lake (Salt Lake) located about 0.8 mile northwest of the Site;
- Surface geology is comprised of unconsolidated Holocene to mid- Pleistocene-age eolian and piedmont-slope deposits that are approximately 80 feet thick according to a log from a nearby well;
- The Triassic-age Chinle formation of the Dockum group underlies the unconsolidated deposits and is comprised of interbedded sand, clay, and mudstone;
- According to State of New Mexico Office of the State Engineer (NMOSE) records a fresh water well is located about 0.6 miles south in Unit J (NW/4, SE/4), Section 24, Township 23 South, Range 29 East with groundwater reported at about 54 feet bgs.

### 1.3 Recommended Remediation Action Levels

Recommended remediation action levels (RRAL) were calculated for benzene, BTEX and TPH based on the following criteria established by the OCD in "Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993":

Criteria	Result	Score
Depth-to-Groundwater	50 - 99 feet	10
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1,000 Horizontal Feet	0

The following RRAL apply to the release for ranking score: 10

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 1,000 mg/Kg

## 2.0 REMEDIATION

Soil remediation was performed between December 13 and 15, 2016, according to the plan approved by OCD District 2 on November 10, 2016. SDR, under supervision from LAI, excavated soil from the area of DP-08-01 measuring about 15 x 30 feet to about 4 feet bgs. Soil samples collected from the excavation sidewalls were analyzed by Permian Basin Environmental Lab (PBEL) for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA SW-846 Method 8020B and total petroleum hydrocarbons (TPH) by EPA SW-846 Method 8015 including GRO (C6 – C12), DRO (>C12 – C28) and ORO (>C28 – C35). PBEL reported BTEX and TPH the Method 8020B and Method 8015M reporting limits (RL). A 20 mil thickness polyethylene liner was installed in the bottom of the excavations at about 4 feet bgs and covered with caliche.

SDR excavated soil from the area of DP-08-02 measuring about 20 x 20 feet to about 2 feet bgs. Soil was excavated from the area of DP-08-03 measuring about 35 x 35 feet to about 1 foot bgs. LAI personnel directed SDR to remove about 6 inches of soil from the area around DP-08-04 measuring about 30 x 35 feet after observing hydrocarbon stained soil. The excavations were filled with caliche.

Approximately 167 cubic yards of contaminated soil was disposed at Lea Land Landfill, LLC. Table 2 presents the confirmation soil sample analytical data summary. Figure 3 presents the remediation areas. Appendix B presents the confirmation sample laboratory reports. Appendix C presents photographs. Appendix D presents the waste manifests. Appendix E presents the initial and final C-141.

## 3.0 CONCLUSIONS

Soil was remediated according to the remediation plans approved by OCD District 2. XTO requests no further action for 2RP-3870.

## Tables

Table 1  
2RP-3870  
Investigation Soil Sample Analytical Data Summary  
XTO Energy, Inc., Nash Draw Tank Battery 38  
Unit N (SE/4, SW/4), Section 13, Township 23 South, Range 29 East  
Eddy County, New Mexico

Location	Depth (Feet)	Collection Date	Status	C6 - C12 (mg/Kg)	>C12 - C28 (mg/Kg)	>C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
OCD RRAL: 1,000								
DP-08-BG	0 - 1	6/22/2016	In-Situ	41.7	<26.3	<26.3	41.7	130
DP-08-01	0 - 1	6/22/2016	Excavated	40.7	<27.2	<27.2	<27.2	3,130
	1 - 2	6/22/2016	Excavated	--	--	--	--	2,920
	2 - 3	6/22/2016	Excavated	--	--	--	--	5,220
	3 - 4	6/22/2016	Excavated	--	--	--	--	3,790
	6	9/29/2016	In-Situ	--	--	--	--	1,850
	8	9/29/2016	In-Situ	--	--	--	--	410
	9	9/29/2016	In-Situ	--	--	--	--	542
DP-08-02	0 - 1	6/22/2016	Excavated	402	7,000	1,300	8,702	120
	1 - 2	6/22/2016	Excavated	237	5,020	954	6,220	--
	2 - 3	6/22/2016	In-Situ	36.6	156	36.0	228.6	--
DP-08-03	0 - 1	6/22/2016	Excavated	<278	3,970	932	4,902	161
	1 - 2	6/22/2016	In-Situ	37.7	43.5	<27.2	81.2	--
DP-08-04	0 - 1	6/22/2016	In-Situ	41	32.2	<26.6	73.2	11.4
DP-08-05	0 - 1	6/22/2016	In-Situ	39.2	<27.2	<27.2	39.2	14.2
	1 - 2	6/22/2016	In-Situ	--	--	--	--	--
	2 - 3	6/22/2016	In-Situ	--	--	--	--	--
	3 - 4	6/22/2016	In-Situ	--	--	--	--	--

Notes: laboratory analysis performed by Permian Basin Environmental Lab, Midland, Texas, by EPA SW-846 method 8015M (TPH) and 300.0 (chloride)  
Depth in feet below ground surface (bgs)  
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)  
RRAL: Remediation action level calculated from OCD guidance document (August 13, 1993)

**Table 2**  
**2RP-3870**  
**Confirmation Soil Sample Analytical Data Summary**  
**XTO Energy, Inc., Nash Draw Tank Battery 38**  
**Unit N (SE/4, SW/4), Section 13, Township 23 South, Range 29 East**  
**Eddy County, New Mexico**

Location	Sidewall	Depth (Feet)	Collection Date	Status	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
<b>OCD RRAL: 1,000</b>									
<b>DP-08-01</b>	North	2	12/8/2016	In-Situ	<30.1	<30.1	<30.1	<30.1	--
	East	2	12/8/2016	In-Situ	<29.8	<29.8	<29.8	<29.8	--
	South	2	12/8/2016	In-Situ	<29.1	<29.1	<29.1	<29.1	--
	West	2	12/8/2016	In-Situ	<28.4	<28.4	<28.4	<28.4	--

Notes: laboratory analysis performed by Permian Basin Environmental Lab, Midland, Texas, by EPA SW-846 method 8015M (TPH) and 300.0 (chloride)  
 Depth in feet below ground surface (bgs)  
 mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)  
 RRAL: Remediation action level calculated from OCD guidance document (August 13, 1993)



## Figures

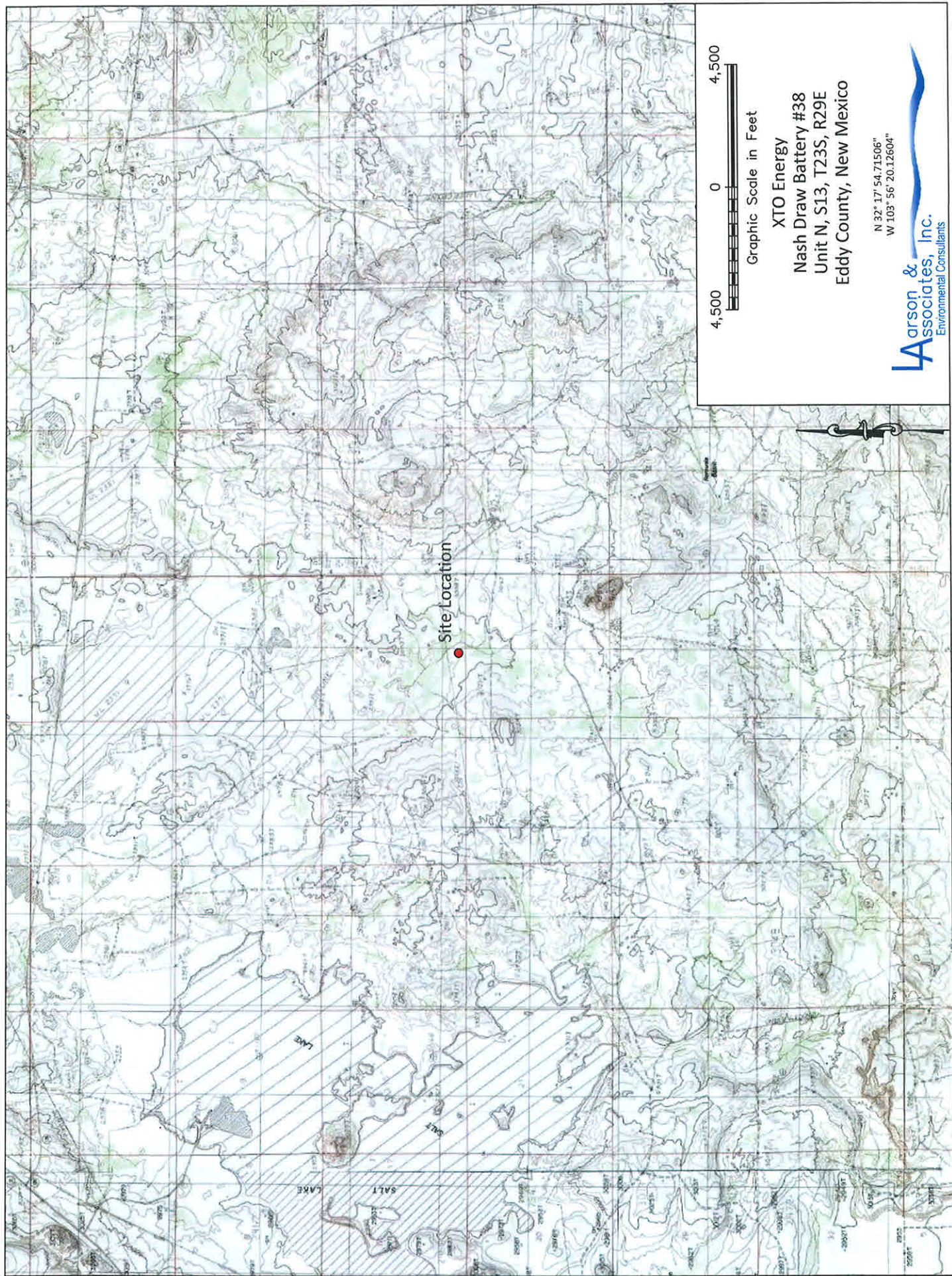


Figure 1 - Topographic Map

11" x 8.5"





Battery #38



Graphic Scale in Feet

XTO Energy  
Nash Draw Battery #38  
Unit N, S13, T23S, R29E  
Eddy County, New Mexico

N 32° 17' 54.71506"  
W 103° 56' 20.12604"

**Larson & Associates, Inc.**  
Environmental Consultants

Figure 2 - Aerial Map

11" x 8.5"

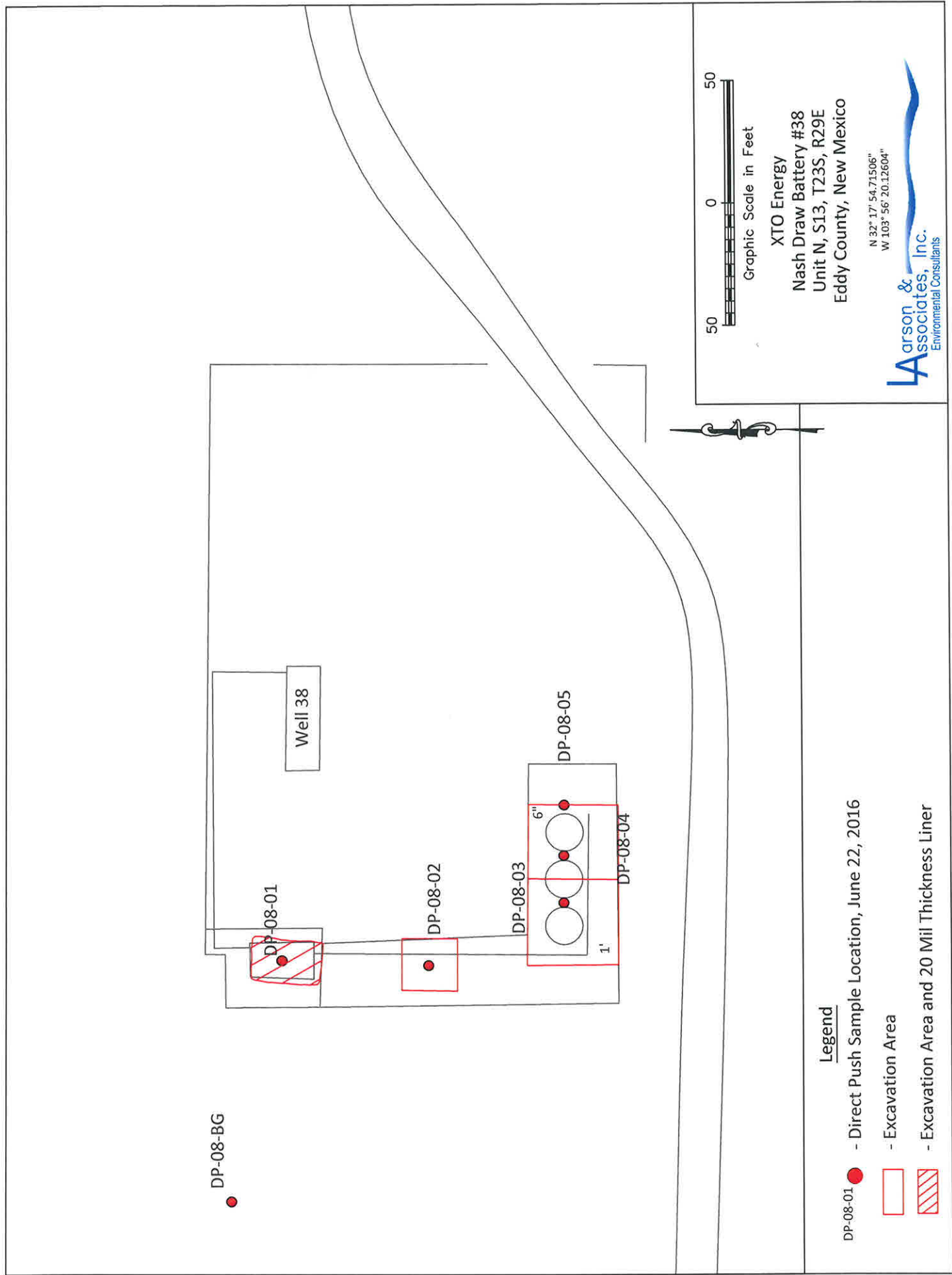


Figure 3 - Site Map Showing Excavation and Sample Locations

**Appendix A**  
**Remediation Plan Approval**



**From:** Patterson, Heather, EMNRD [Heather.Patterson@state.nm.us]  
**Sent:** Thursday, November 10, 2016 3:12 PM  
**To:** Mark Larson; Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; hprice@blm.gov  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** RE: 2RP-3870, Remediation Plan, Nash Draw Tank Battery #38, November 2, 2016

RE: XTO \* Nash Draw Battery #38 \* 30-015-29737 \* 2RP-3870

Mark,

Your proposed remediation for the above referenced site is approved.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Heather Patterson  
Environmental Specialist  
NMOCD District II  
Office (575)748-1283 ext.101  
Cell (575)703-0228

**From:** Mark Larson [<mailto:Mark@laenvironmental.com>]  
**Sent:** Monday, November 07, 2016 6:29 PM  
**To:** Patterson, Heather, EMNRD; Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; [hprice@blm.gov](mailto:hprice@blm.gov)  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** Re: 2RP-3870, Remediation Plan, Nash Draw Tank Battery #38, November 2, 2016

All,

Please find attached remediation plan for the Nash Draw Tank Battery #38. The plan was revised to include BTEX in excavation samples, where applicable. Remediation will commence on Tuesday, November 8, 2016, per our verbal discussion and approval yesterday. Please contact Dudley McMinn with XTO at (432) 682-8873 or me if you have questions.

Respectfully,

Mark J. Larson, P.G.  
President/Sr. Project Manager  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
Office – 432-687-0901  
Cell – 432- 556-8656  
Fax – 432-687-0456  
[mark@laenvironmental.com](mailto:mark@laenvironmental.com)

**Appendix B**  
**Laboratory Report**

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Mark Larson  
Larson & Associates, Inc.  
P.O. Box 50685  
Midland, TX 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Location: New Mexico  
Lab Order Number: 6L09001



NELAP/TCEQ # T104704156-13-3

Report Date: 12/09/16



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-08-01 N2	6L09001-01	Soil	12/08/16 11:23	12-09-2016 08:53
DP-08-01 E2	6L09001-02	Soil	12/08/16 11:30	12-09-2016 08:53
DP-08-01 S2	6L09001-03	Soil	12/08/16 11:36	12-09-2016 08:53
DP-08-01 W2	6L09001-04	Soil	12/08/16 11:40	12-09-2016 08:53

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-08-01 N2**  
**6L09001-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00120	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Toluene	ND	0.00241	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Ethylbenzene	ND	0.00120	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (p/m)	ND	0.00241	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (o)	ND	0.00120	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.1 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.0 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	17.0	0.1	%	1	P6L0903	12/09/16	12/09/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C12-C28	ND	30.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C28-C35	ND	30.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: 1-Chlorooctane		91.5 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: o-Terphenyl		104 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	30.1	mg/kg dry	1	[CALC]	12/08/16	12/09/16	calc	

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

DP-08-01 E2  
6L09001-02 (Soil)

Analytic	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

Organics by GC

Benzene	ND	0.00119	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Toluene	ND	0.00238	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Ethylbenzene	ND	0.00119	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (p/m)	ND	0.00238	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (o)	ND	0.00119	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	89.0 %	75-125			P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	98.2 %	75-125			P6L0905	12/09/16	12/09/16	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

% Moisture	16.0	0.1	%	1	P6L0903	12/09/16	12/09/16	% calculation	
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	29.8	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C12-C28	ND	29.8	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C28-C35	ND	29.8	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: 1-Chlorooctane	92.0 %	70-130			P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: o-Terphenyl	107 %	70-130			P6L0904	12/08/16	12/09/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.8	mg/kg dry	1	[CALC]	12/08/16	12/09/16	calc	

Permian Basin Environmental Lab, L.P.  
The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-08-01 S2**  
**6L09001-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00116	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Toluene	ND	0.00233	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Ethylbenzene	ND	0.00116	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (p/m)	ND	0.00233	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (o)	ND	0.00116	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.2 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	14.0	0.1	%	1	P6L0903	12/09/16	12/09/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C12-C28	ND	29.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: 1-Chlorooctane		91.3 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: o-Terphenyl		106 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	29.1	mg/kg dry	1	[CALC]	12/08/16	12/09/16	calc	

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

**DP-08-01 W2**  
**6L09001-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00114	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Toluene	ND	0.00227	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Ethylbenzene	ND	0.00114	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Xylene (o)	ND	0.00114	mg/kg dry	1	P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.9 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		90.0 %	75-125		P6L0905	12/09/16	12/09/16	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	12.0	0.1	%	1	P6L0903	12/09/16	12/09/16	% calculation	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: 1-Chlorooctane		90.7 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Surrogate: o-Terphenyl		107 %	70-130		P6L0904	12/08/16	12/09/16	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	12/08/16	12/09/16	calc	

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P6L0905 - General Preparation (GC)**

**Blank (P6L0905-BLK1)**

Prepared & Analyzed: 12/09/16

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.0560		"	0.0600		93.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.0597		"	0.0600		99.5	75-125			

**LCS (P6L0905-BS1)**

Prepared & Analyzed: 12/09/16

Benzene	0.0932	0.00100	mg/kg wet	0.100		93.2	70-130			
Toluene	0.0991	0.00200	"	0.100		99.1	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.202	0.00200	"	0.200		101	70-130			
Xylene (o)	0.0966	0.00100	"	0.100		96.6	70-130			
Surrogate: 1,4-Difluorobenzene	0.0597		"	0.0600		99.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.0628		"	0.0600		105	75-125			

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch P6L0903 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P6L0903-BLK1)**

Prepared & Analyzed: 12/09/16

% Moisture ND 0.1 %

**Duplicate (P6L0903-DUP1)**

Source: 6L08004-02

Prepared & Analyzed: 12/09/16

% Moisture 6.0 0.1 % 6.0 0.00 20

**Duplicate (P6L0903-DUP2)**

Source: 6L09001-04

Prepared & Analyzed: 12/09/16

% Moisture 12.0 0.1 % 12.0 0.00 20

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

## Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

### Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch P6L0904 - TX 1005

##### Blank (P6L0904-BLK1)

Prepared: 12/08/16 Analyzed: 12/09/16

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	67.7		"	50.0		135	70-130			S-GC

##### LCS (P6L0904-BS1)

Prepared: 12/08/16 Analyzed: 12/09/16

C6-C12	909	25.0	mg/kg wet	1000		90.9	75-125			
>C12-C28	1060	25.0	"	1000		106	75-125			
Surrogate: 1-Chlorooctane	117		"	100		117	70-130			
Surrogate: o-Terphenyl	61.2		"	50.0		122	70-130			

##### LCS Dup (P6L0904-BS1)

Prepared: 12/08/16 Analyzed: 12/09/16

C6-C12	897	25.0	mg/kg wet	1000		89.7	75-125	1.32	20	
>C12-C28	1080	25.0	"	1000		108	75-125	1.34	20	
Surrogate: 1-Chlorooctane	118		"	100		118	70-130			
Surrogate: o-Terphenyl	63.6		"	50.0		127	70-130			

##### Matrix Spike (P6L0904-MS1)

Source: 6L08003-03

Prepared: 12/08/16 Analyzed: 12/09/16

C6-C12	1080	29.8	mg/kg dry	1190	27.8	88.3	75-125			
>C12-C28	1260	29.8	"	1190	ND	106	75-125			
Surrogate: 1-Chlorooctane	170		"	143		119	70-130			
Surrogate: o-Terphenyl	95.7		"	71.4		134	70-130			S-GC

##### Matrix Spike Dup (P6L0904-MS1)

Source: 6L08003-03

Prepared: 12/08/16 Analyzed: 12/09/16

C6-C12	1010	29.8	mg/kg dry	1190	27.8	82.7	75-125	6.55	20	
>C12-C28	1200	29.8	"	1190	ND	101	75-125	4.62	20	
Surrogate: 1-Chlorooctane	163		"	143		114	70-130			
Surrogate: o-Terphenyl	90.9		"	71.4		127	70-130			



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: Nash Draw #38  
Project Number: 16-0108-08  
Project Manager: Mark Larson

Fax: (432) 687-0456

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date: 12/9/2016

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

6669001

CHAIN-OF-CUSTODY

**Arson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfield, Ste. 200  
Midland, TX 79701  
432-687-0901

Date Reported to:

Mark Lancon

DATE: 12-09-2016

PAGE 1 OF 1

PO #: LAB WORK ORDER #:

PROJECT LOCATION OR NAME: XTO Nash Area Hwy 38

LAI PROJECT #: 16-0108-08 COLLECTOR: JH

TRRP report?  
☐ Yes ☒ No

S=SOIL  
W=WATER  
A=AIR

P=PAINT  
SL=SLUDGE  
OT=OTHER

TIME ZONE:  
Time zone/State:  
Mtn/AM

Field  
Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

PRESERVATION  
HCl  
HNO<sub>3</sub>  
H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐  
ICE  
UNPRESERVED

ANALYSES

BTEX ☒ MTBE ☐  
TRPH 418 ☐ TPH 1005 ☐ TPH 1006 ☐  
GASOLINE MOD 8015 ☐  
DIESEL - MOD 8015 ☐  
VOC 8260 ☐  
SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐  
8081 PESTICIDES ☐ 8151 HERBICIDES ☐  
8082 POPS ☐  
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 ☐ PCHLORATE ☐  
CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

FIELD NOTES

Dr-09-01 N2  
E2  
S2  
W2  
11:35  
11:36  
11:40  
S  
S  
S  
1  
1  
1

TOTAL

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

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 ☐ Rush

LABORATORY USE ONLY:

RECEIVING TEMP: 9.2 THERM #:

CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED

CARRIER BILL #

HAND DELIVERED

RELAB

12-9-16 6:45

# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116450**

1. PAGE    OF   

2. TRAILER NO.   

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

F

PERMIT NO.

WM-01-035 - New Mexico

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AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO. 116451

1. PAGE OF

2. TRAILER NO.

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO.

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

#### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

F

PERMIT NO.

WM-01-035 - New Mexico

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

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21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116452**

1. PAGE     OF    

2. TRAILER NO.    

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRCC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

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a.

b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

#### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

15. **GENERATOR'S CERTIFICATION:** I Herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

R

16. **TRANSPORTER (1)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

F

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

I

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

S

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

A

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

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Y

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

**COPY 4**

**Appendix C**  
**Photographs**





Location Viewing West Prior to Remediation, February 3, 2016



Location Viewing Northwest Prior to Remediation, February 3, 2016



Liner Installed at DP-08-01 Viewing North, December 13, 2016



Liner Installed at DP-08-01 Viewing Southwest, December 13, 2016





Backfilled Excavation at DP-08-01 Viewing West, December 14, 2016



Completed Remediation Viewing West, December 15, 2016





Completed Remediation Viewing North, December 15, 2016



Completed Remediation Viewing North, December 15, 2016

**Appendix D**  
**Waste Manifests**



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO

116450

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 313

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3. COMPANY NAME

PHONE NO.

4. ADDRESS

CITY

STATE

ZIP

5. PICK-UP DATE

6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

a.

b.

c.

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

14.

### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

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PRINTED/TYPED NAME

SIGNATURE

DATE

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16. **TRANSPORTER (1)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

17. **TRANSPORTER (2)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

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Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO **116451**

1. PAGE    OF   

2. TRAILER NO. **0001**

G

3. COMPANY NAME

4. ADDRESS

5. PICK-UP DATE

PHONE NO.

CITY

STATE

ZIP

6. TNRC I.D. NO.

E

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

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b.

E

c.

R

d.

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

14.

### IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

T

O

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R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16.

### TRANSPORTER (1)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

R

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

17.

### TRANSPORTER (2)

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

575-887-4048

F

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

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21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

CELL NO.

DATE

TIME

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

COPY 4



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

### NON-HAZARDOUS WASTE MANIFEST

NO 116452

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. 320

GENERATOR'S E N E R A T O R	3. COMPANY NAME SOB ENTERPRISE LLC	4. ADDRESS 1300 WEST MAIN STREET OKLAHOMA CITY, OK 73106	5. PICK-UP DATE 12/20/16		
	PHONE NO. 575-887-4257	CITY OKLAHOMA CITY	STATE OK	ZIP 73106	6. TNRCC I.D. NO.
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:		8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol
	a. 48020 48940 # 36				
	b.				
c.					
d.					
12. COMMENTS OR SPECIAL INSTRUCTIONS: BUSH CROWN BATTERY # 36				13. WASTE PROFILE NO. 91003	

T R A N S P O R T E R S	14. IN CASE OF EMERGENCY OR SPILL, CONTACT		
	NAME In Qinsider	PHONE NO. 575-887-4257	24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME	SIGNATURE	DATE
--------------------	-----------	------

T R A N S P O R T E R S	16. <b>TRANSPORTER (1)</b>	17. <b>TRANSPORTER (2)</b>
	NAME: SOB ENTERPRISE LLC	NAME: SOB ENTERPRISE LLC
	TEXAS I.D. NO.	TEXAS I.D. NO.
	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:

18. <b>TRANSPORTER (1):</b> Acknowledgment of receipt of material	19. <b>TRANSPORTER (2):</b> Acknowledgment of receipt of material
PRINTED/TYPED NAME Cullman, Lora	PRINTED/TYPED NAME
SIGNATURE Lora Cullman	SIGNATURE
DATE 12/20/16	DATE

D I S C P I O L S I A T O R Y	Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
---	---------------	---	------------------------

PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS
--------------------------------------	--------------

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE Dante Arizabe	CELL NO.	DATE 12/20/16	TIME 9:40
---------------------------------------	----------	------------------	--------------



MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

## 2. TRAILER NO.

TRANSPORTERS: COPIES 4 & 5

## **Appendix E**

### **Initial and Final C-141**



# NM OIL CONSERVATION

ARTESIA DISTRICT

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

SEP 07 2016

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

## Release Notification and Corrective Action

NAB1625257659 OPERATOR ☒ Initial Report ☐ Final Report

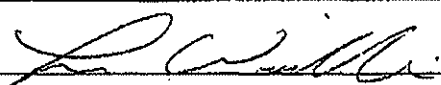

Name of Company: XTO Energy, Inc. <u>5380</u>	Contact: Dudley McMinn
Address: 500 W. Illinois Ave., Suite 100, Midland, TX 70701	Telephone No.: (432) 682-8873
Facility Name: Nash Draw Unit Battery #38	Facility Type: Tank Battery (Equipment Removed)
Surface Owner: Federal	Mineral Owner: Federal
API No. 30-015-29737	

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	13	23S	29E	330	South	2450	West	Eddy

Latitude 32.298611 Longitude -103.938889

## NATURE OF RELEASE

Type of Release: Crude Oil/Produced Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Spills	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 07-09-2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Hydrocarbons in soil due to historic use of tank battery reported in soil samples by laboratory following removal of tanks and equipment. Will remediate to OCD and BLM requirements.		
Describe Area Affected and Cleanup Action Taken.* Affected soil to be excavated, treated onsite treatment or disposed offsite at OCD approved facility. Refer to attached analytical data summary.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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: Luke Williams	Approved by Environmental Specialist: 	
Title: EH&S Coordinator	Approval Date: <u>9/8/16</u>	Expiration Date: <u>N/A</u>
E-mail Address: Luke_Williams@xtoenergy.com	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines <input type="checkbox"/> Attached <input type="checkbox"/>	
Date: 09-07-2016 Phone: (432) 683-8873	SUBMIT REMEDIATION PROPOSAL NO <u>1019116</u>	

\* Attach Additional Sheets If Necessary

LATER THAN: 10/9/16

2RP-3870

## **Patterson, Heather, EMNRD**

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**From:** Mark Larson <Mark@laenvironmental.com>  
**Sent:** Wednesday, September 07, 2016 4:54 PM  
**To:** Patterson, Heather, EMNRD  
**Cc:** McMinn, Dudley; Williams, Luke  
**Subject:** Re: Initial C-141s for XTO Energy, Inc., Nash Draw Unit Tank Batteries (8), Eddy County, New Mexico  
**Attachments:** Initial C-141, XTO Energy, Inc., Nash Draw unit Battery 1 & 6, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 10, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 9, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 15 & 33, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 24, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 36, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 19 & 34, September 7, 2016.pdf; Initial C-141, XTO Energy, Inc., Nash Draw Unit Battery 38, September 7, 2016.pdf

Dear Heather,

The attached C-141s and supporting documentation are submitted on behalf of XTO Energy, Inc., for eight (8) tank batteries located in the Nash Draw Unit, Eddy County, New Mexico. Please contact Dudley McMinn with XTO Energy, Inc. at (432) 682-8873 or me if you have questions.

Respectfully,

Mark J. Larson

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**From:** Mark Larson  
**Sent:** Wednesday, September 07, 2016 10:59 AM  
**To:** 'heather.patterson@state.nm.us'  
**Cc:** 'McMinn, Dudley'; 'Luke\_Williams@xtoenergy.com'  
**Subject:** Re: Meeting Confirmation

Dear Heather,

This message is to confirm our meeting at your office on September 15, 2016 at 10:00 AM (Mountain Time). Please contact me if you have questions. See you then!

Respectfully,

Mark J. Larson, P.G.  
President/Sr. Project Manager  
507 N. Marienfeld St., Suite 205  
Midland, Texas 79701  
(432) 687-0901 ( O )  
(432) 556-8656 ( C )



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District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
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Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

Name of Company: XTO Energy, Inc.	Contact: Dudley McMinn	
Address: 500 W. Illinois Ave., Suite 100, Midland, TX 70701	Telephone No.: (432) 682-8873	
Facility Name: Nash Draw Unit Battery #38	Facility Type: Tank Battery (Equipment Removed)	
Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-29737

**LOCATION OF RELEASE**

Unit Letter N	Section 13	Township 23S	Range 29E	Feet from the 330	North/South Line South	Feet from the 2450	East/West Line West	County: Eddy
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Latitude 32.298611 Longitude -103.938889

**NATURE OF RELEASE**

Type of Release: Crude Oil/Produced Water	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Spills	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 07-09-2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Hydrocarbons in soil due to historic use of tank battery reported in soil samples by laboratory following removal of tanks and equipment. Will remediate to OCD and BLM requirements.

Describe Area Affected and Cleanup Action Taken.\* Soil was excavated to 4 feet from the area around DP-08-01 measuring about 15 x 30 feet. Laboratory results of confirmation soil samples from the excavation sidewalls confirmed BTEX and TPH below the method reporting limits (RL) and RRAL. A 20-mil thickness liner poly liner was placed in the bottom of the excavation at DP-08-01 at about 4 feet bgs and covered with caliche to ground surface. The area around DP-08-02 was excavated to 2 feet over an area measuring approximately 20 x 20 feet and around DP-08-03 to about 1 foot over an area measuring approximately 35 x 35 feet. Hydrocarbon stained soil was scraped to about 6 inches at DP-08-04 over an area measuring about 30 x 35 feet. All excavations were backfilled with caliche. Approximately 167 cubic yards of contaminated soil was disposed at Lea Land Landfill, LLC.

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: (NOTE: Must Sign!)		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Luke Williams		Approved by Environmental Specialist: <i>Bradford Billings</i>	
Title: EH&S Coordinator	Approval Date: 11/18/2019	Expiration Date:	
E-mail Address: Luke_Williams@xtoenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: 03-27-2017	Phone: (432) 683-8873		

To validate, ops signature will need to be done above, and resubmit form only to OCD)