

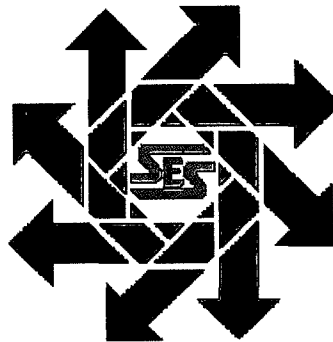
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HOBBSOC

**XTO Energy, Inc.  
EMSU-B #923  
Township 20 South, Range 36 East, Section 24  
Lea County, New Mexico**

**Delineation Report**

**August 27, 2010**



**Prepared for:**

**XTO Energy, Inc.  
200 North Lorraine, Suite 800  
Midland, Texas 79701**

**By:**

**Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
Hobbs, New Mexico 88240  
(575) 397-0510**

*approved w/ condition that:  
Excavate to 23' @  
BH #1 - enlarge diameter  
from 20' per sidewall  
samples  
Jeffrey Labing  
Environmental Engr.  
NMCD-Hobbs  
09/23/10*

## TABLE OF CONTENTS

I. COMPANY CONTACTS .....	1
II. BACKGROUND .....	1
III. SURFACE AND GROUND WATER.....	1
IV. SOILS .....	1
V. CHARACTERIZATION .....	1
IV. WORK PERFORMED .....	2
V. CLOSURE PLAN .....	5
VI. FIGURES & APPENDICES.....	6
Figure 1 - Vicinity Map .....	7
Figure 2 - Site Plan .....	8
Appendix A – Analytical Results .....	9
Appendix B – Site Photographs .....	10
Appendix C – C-141.....	11

I. Company Contacts

Name	Company	Telephone	E-mail
Jeff Raines	XTO Energy, Inc.	432.557.3159	<a href="mailto:Jeff_Raines@xtoenergy.com">Jeff_Raines@xtoenergy.com</a>
Bob Allen	SESI	575-390-7063	<a href="mailto:ballen@sesi-nm.com">ballen@sesi-nm.com</a>

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by XTO Energy, Inc. to perform clean-up services at the EMSU-B #923 spill site. This is an area with old hard pan staining that resulted from previous operators activities. The contaminants of concern at the site appear to be crude oil and possibly produced water.

XTO Energy, Inc. Inc. acquired these leases in September 2004. There has not been any facilities, pipeline, or flow lines operated on or nearby any of these subject sites by XTO Energy, Inc. However, a search of the New Mexico Oil Conservation Division (NMOCD) online database, the well files revealed the leases were held by the following companies:

Lease #	Year	Company
EMSU-B #923	1943-1976	Continental Oil
	1979	Conoco Inc
	1990	Chevron USA Inc.
	2004	XTO Energy, Inc. Inc.

III. Surface and Ground Water

The closest groundwater of record with the Office of the State Engineer is located in Township 20 South, Range 36 East, and Section 26. The depth of water in this well was 170' in July 1954.

IV. Soils

The surface soils in the area are predominantly sand and sandy loam.

V. Characterization

The target cleanup levels are reached by the application of the "Unlined Surface Impoundment Closure Guidelines New Mexico Oil Conservation Division (NMOCD) – February, 1993 to this site is 5,000 parts per million (ppm) Total Petroleum Hydrocarbons (TPH). Application of the New Mexico Oil Conservation Division's ranking criteria for contaminated soils at this site is presented below:

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X

Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			0

SESI is of the opinion that the groundwater in the vicinity of the site is in excess of 100' below the vertical extent of contamination at the site. The borehole that was drilled in search of groundwater on June 25, 2010 was terminated at a depth of 76' with no signs of groundwater. In addition, the New Mexico State Engineer's online database identified a water well located approximately 1.08 miles to the southwest of the site and records a depth to groundwater of 170' in a 400' well drilled in July 1954. In light of the absence of groundwater, the target cleanup level of this site should be 5,000 ppm TPH.

#### IV. Work Performed

On October 8, 2009, SESI was onsite with Diamondback Disposal Services Inc. to install seven (7) test trenches from excavated area to determine vertical extent. The area has already been excavated to a depth of 6 to 8 ft. below ground surface (bgs). The test trenches were installed to depths ranging from 8 to 18 ft. bgs.

Samples were retrieved at depths ranging from 3 feet to 5 feet intervals and were properly preserved and transported under Chain-of-Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) (EPA method 8021B), and Total Petroleum Hydrocarbons (EPA method 8015 M).

The results of the analysis are as follows:

Sample ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
TT#1 8'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
TT #2 9'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
TT #3 10'	11.6	440	<0.050	<0.050	<0.050	0.368
TT #3 14'	11.6	545	0.060	0.145	0.283	0.946
TT #3 18'	459	1,890	<0.050	0.249	<0.050	2.94
TT #4 11'	1,120	2,620	0.763	0.878	1.94	6.21
TT #4 15'	971	1,690	0.439	0.876	1.61	4.95
TT #5 10'	30.0	720	<0.050	0.137	<0.050	1.39
TT #5 15'	109	2,200	<0.050	<0.050	<0.050	0.936
TT #5 18'	41.8	1,160	<0.050	<0.050	<0.050	0.491
TT #6 10'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
TT #6 12'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
TT #7 9'	<10.0	25.8	<0.050	<0.050	<0.050	<0.300
TT #7 12'	77.4	1,260	<0.050	<0.050	<0.050	1.02
TT #7 15'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300



On December 9, 2009, SESI was onsite to obtain an 11 point composite on floor bottom. The sample was analyzed for Chlorides (EPA Method 4500-Cl-B) sample was taken at a depth of 8 ft. bgs.

The results of the analysis are as follows:

Sample ID	Cl <sup>-</sup> (mg/kg)
Bottom 8' Composite	<16

On December 18, 2009, SESI was onsite with Gene Hudson, XTO representative, Dave Boyer, Hydro-geologist, and Diamondback Disposal. There were three areas with standing water (labeled N, E, S see figure 2).

The north area puddle (N) between TT#2 and TT#6 is located slightly away from the north end of the excavation and shows no sign of another source of water other than runoff from the excavation sides. Slightly elevated bottom areas were observed adjacent to the puddle.

The south area puddle (S) is located against the south edge of the excavation with ice covering a portion. It is close to TT#7. Erosion channels in the bottom of the excavation can be seen leading to the puddle and indicate it receives snowmelt and runoff from the higher portion of the excavation. No other source of water was observed.

The northeast area puddle (E) was excavated to a depth of 3 ½ ft bgs to determine if shallow groundwater was present as a source of the puddle. The excavations were dry and left open for several hours to see if water would seep into the trench. At the end of this time, it remained dry with no sidewall or bottom seepage and was backfilled.

On January 11, 2010, Dave Boyer, Hydro-geologist with SESI was onsite. Mr. Boyer observed that the puddles had decreased in size (as evidenced by higher elevation "bathtub rings) and stated that the remaining fluid in these areas is no more than precipitation/runoff water ponded by the clayey sediments at the bottom of the excavation. These will evaporate with decreasing precipitation and warmer weather.

Test trench #4 was re-excavated December 18 to determine to depth of hydrocarbon impacts, especially BTEX. The trench was excavated by a trackhoe to a depth of 22 ft. bgs. Samples were retrieved at 2 ft. bgs intervals and were properly preserved and transported under Chain-of-Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) (EPA method 8021B), Total Petroleum Hydrocarbons (EPA method 8015 M), and a Chloride (EPA Method 4500-Cl-B) sample was taken at a depth of 22 ft. bgs.

The results of the analysis are as follows:

Sample ID	Cl <sup>-</sup> (mg/kg)	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
TT #4 16'	-	<10.0	76.4	<0.050	0.127	0.058	0.556
TT #4 18'	-	398	1,730	<0.050	0.559	0.535	3.77

TT #4 20'	-	282	1,520	<0.050	0.573	0.435	3.17
TT #4 22'	<16	563	2,190	<0.050	0.433	0.433	3.74

On May 7, 2010, at 9 AM David Boyer with Safety and Environmental Solutions, Inc. (SESI) was onsite with Geoffrey Leking, New Mexico Oil Conservation Division (NMOCD), David Paschal, XTO Energy, Inc., and Clay Tom Cooper, land owner, to install three (3) test trenches in the north and southeast corners of the excavated area.

Test trench #1 was installed in the southeast corner to five (5) feet inside excavated area, two (2) samples were retrieved from soil pile and one (1) sample was retrieved from a clod of soil from excavation. Test trench #2 was installed in the northeast corner at four feet eight inches (4'8") inside excavated area; one (1) sample was retrieved from soil pile. Test trench #3 was installed sixty-five (65) feet west of test trench #2 to a depth of four feet eight inches (4'8") inside excavated area; one (1) sample was retrieved from soil pile.

The samples were analyzed for Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) (EPA method 8021B), Total Petroleum Hydrocarbons (EPA method 8015 M), and Chloride (EPA Method 4500-Cl-B).

The results of the analysis are as follows:

Sample ID	Cl <sup>-</sup> (mg/kg)	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
TT #1 Soil Pile Bottom	16	<10.0	173	<0.050	<0.050	<0.050	<0.300
TT #1 Soil Clod	32	67.2	1,100	<0.050	0.559	0.075	0.460
TT #1 Soil Pile Bottom	32	<10.0	254	<0.050	<0.050	0.166	1.20
TT #2 Soil Pile Bottom	<16	87.5	1,560	<0.050	<0.050	0.119	0.706
TT #3 Soil Pile Bottom	<16	64.3	463	<0.050	<0.050	<0.050	<0.300

Each of the three (3) test trenches were left opened until 3 pm when Bob Allen and David Boyer with Safety and Environmental Solutions, Inc., Rick Wilson with XTO Energy, Inc., Clay Tom Cooper, Land owner, and Geoffrey Leking, NMOCD to verify no standing water in the test trenches.

On June 25, 2010, SESI was onsite with Eco/Enviro Drilling to install a monitor well on the south side of the location area. The first foot of the area has been excavated and from 1' to 8' is backfill soil from inside excavated area to build a ramp to set drilling rig.

Geoffrey Leking, NMOCD, Clay Cooper, landowner, and David Paschal, XTO, were onsite to witness drilling. Mr. Cooper and Mr. Paschal were in and offsite throughout the day.

The borehole was drilled to a depth of seventy-six (76) feet bgs; water was not encountered at that depth. Mr. Leking requested to leave the well open over the weekend to determine if any water comes in. The monitor well was left open with tape around auger and sample labels to show if any signs of tampering. On Monday, no water had come into the borehole. The monitor well was plugged with thirty-eight (38) bags of bentonite and hydrated. (See Appendix B Site Photographs)

On August 18, 2010, SESI was onsite with Eco Enviro Drilling to delineate the affected area. A total of three (3) boreholes were installed from depths of 38' to 43' below ground surface (bgs). Samples were collected in intervals of 5'. The samples were properly preserved and transported under chain of custody to Cardinal Labs of Hobbs, New Mexico.

The samples were analyzed for Total Petroleum Hydrocarbons (EPA Method 8015M) and BTEX (EPA Method SW-846-8021B) and Chloride (EPA Method 4500-Cl<sup>-</sup>B).

The results of the analysis are as follows:

Sample ID	Cl <sup>-</sup> (mg/kg)	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
BH #1 18'	48.0	642	2260	1.41	8.66	3.87	16.0
BH #1 23'	-	1500	4500	1.09	10.8	5.01	21.5
BH #1 28'	-	1810	5020	1.09	17.7	7.92	34.5
BH #1 33'	-	1880	5030	0.396	8.04	2.41	17.9
BH #1 38'	-	<10.0	42.3	<0.050	<0.050	<0.050	<0.150
BH #1 43'	368	<10.0	17.5	<0.050	0.143	<0.050	0.347
BH #2 13'	-	14.3	414	<0.050	0.314	0.107	0.754
BH #2 18'	-	32.9	490	<0.050	0.204	0.081	0.613
BH #2 23'	-	110	921	<0.050	0.706	0.277	1.77
BH #2 28'	-	71.4	403	<0.050	1.66	0.592	3.63
BH #2 33'	-	<10.0	52.6	<0.050	0.319	0.125	0.853
BH #2 38'	-	<10.0	<10.0	<0.050	0.085	<0.050	0.229
BH #2 43'	<16.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150
BH #3 13'	-	<10.0	62.7	<0.050	0.158	<0.050	0.557
BH #3 18'	-	23.2	443	<0.050	0.477	0.254	1.21
BH #3 23'	-	79.3	958	<0.050	0.403	0.206	1.34
BH #3 28'	-	<10.0	111	<0.050	<0.050	0.195	1.57
BH #3 33'	-	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150
BH #3 38'	<16.0	<10.0	<10.0	<0.050	0.066	<0.050	0.258

After samples are retrieved the soil borings were backfilled from total depth to surface with bentonite and hydrated.

## V. Closure Plan

The site has been excavated to a depth ranging from 8 to 10 feet below the original ground surface. The source material (most highly contaminated) has been removed and disposed of at South Monument Surface Waste Facility L.L.C., an approved New Mexico

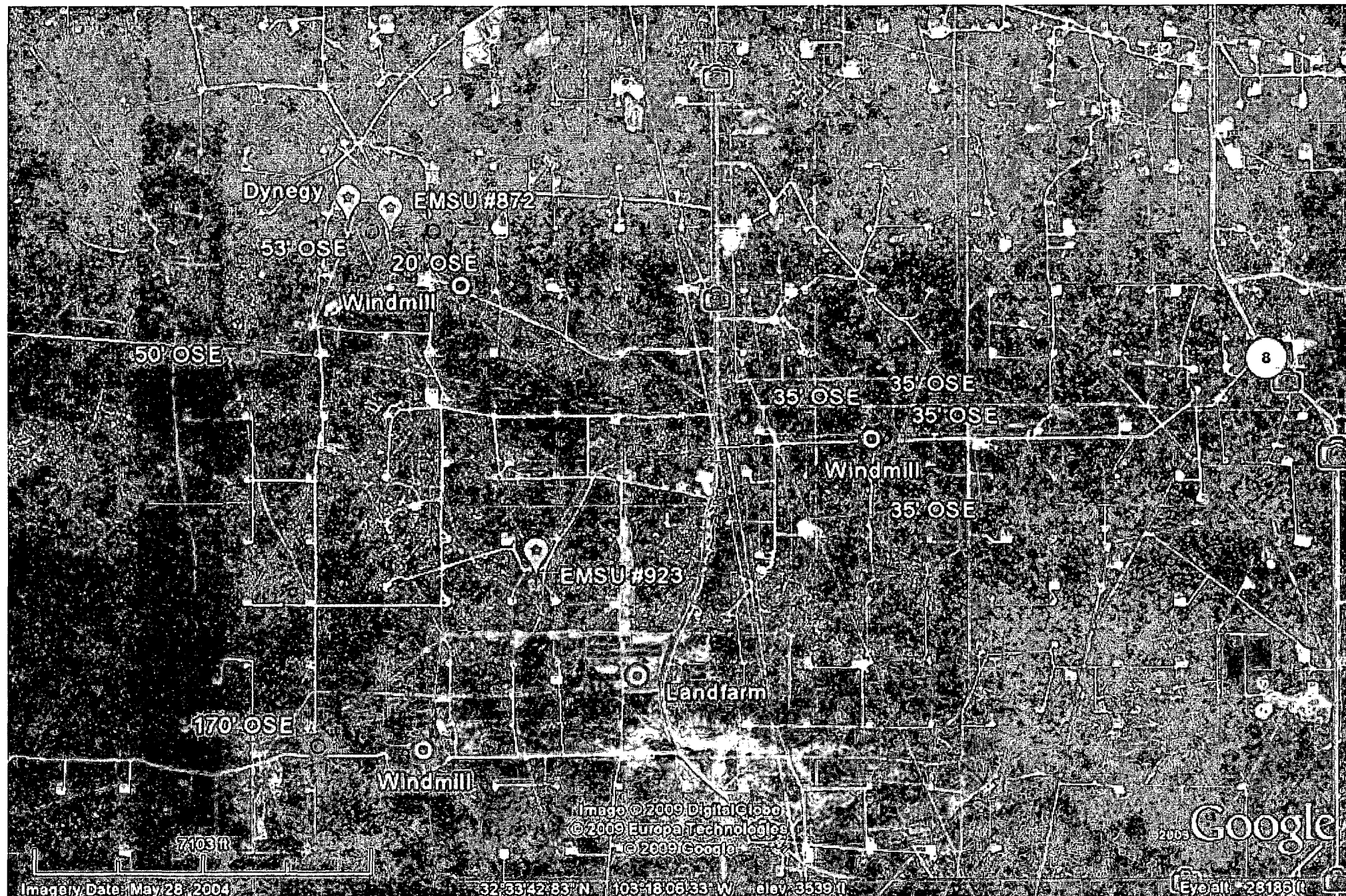
Oil Conservation Division (NMOCD) facility which is within a quarter mile of this site. The vertical extent of TPH contamination has been determined in all areas of the pit and only three (3) samples taken from BH #1 at the depths of 23' to 33' bgs exceed the guideline target of 5,000 ppm.

XTO proposes that the bottom of the excavation be ripped to a depth of two to three feet to allow the site to aerate. After aeration, the bottom of the excavation will be sampled to document any contaminants being left in place, at which point the sides of the excavation will be pushed in toward the middle and contoured. In addition, the highly contaminated sides in the SE and NW parts of the existing excavation will be removed and sent to Monument Surface Waste Facility LLC for disposal.

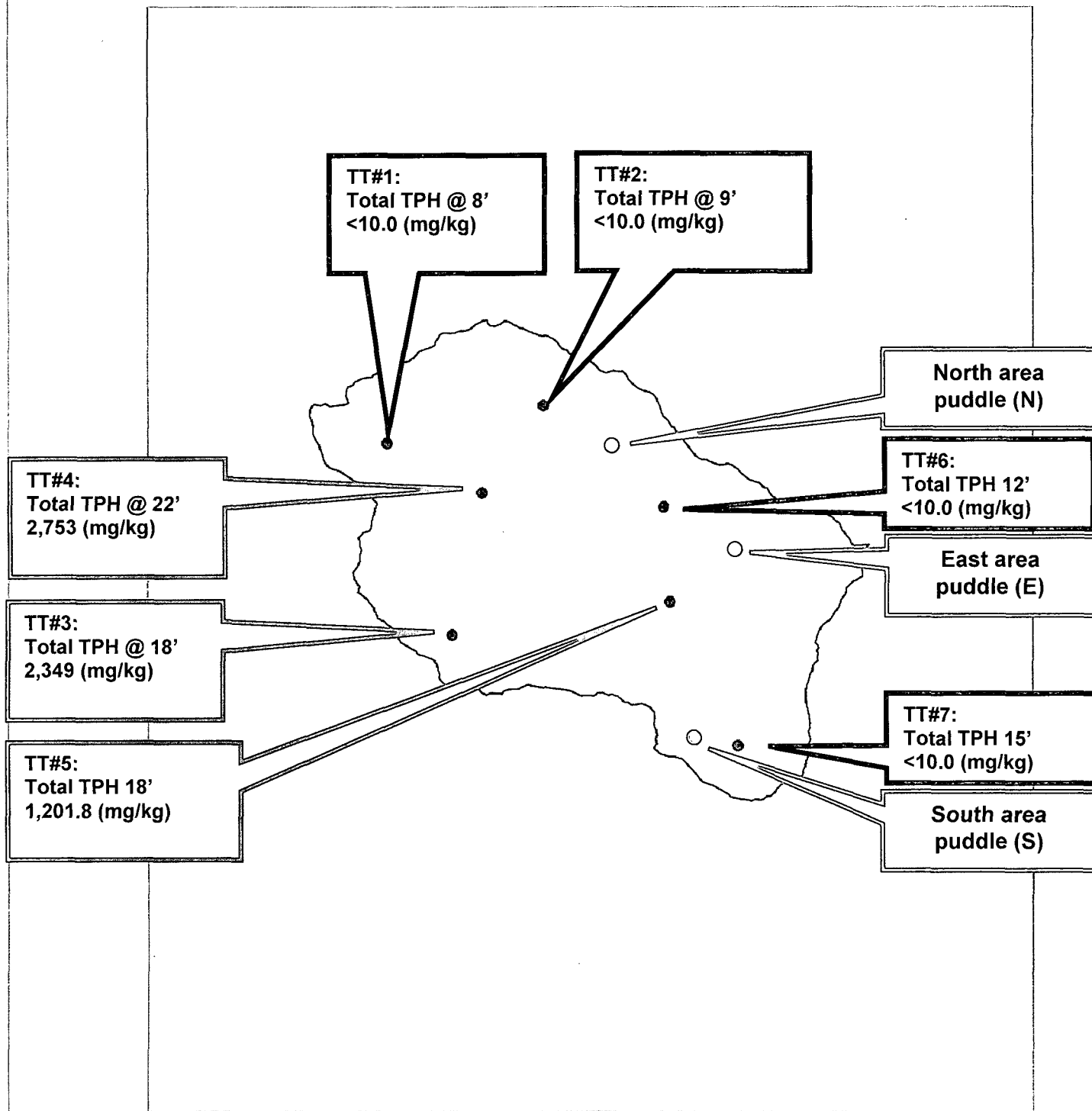
## **VI. Figures & Appendices**

Figure 1 – Vicinity Map  
Figure 2 – Site Plan  
Appendix A – Analytical Results  
Appendix B – Site Photos  
Appendix C – C-141

**Figure 1**  
**Vicinity Map**



**Figure 2**  
**Site Plan**



## EMSU-B 923

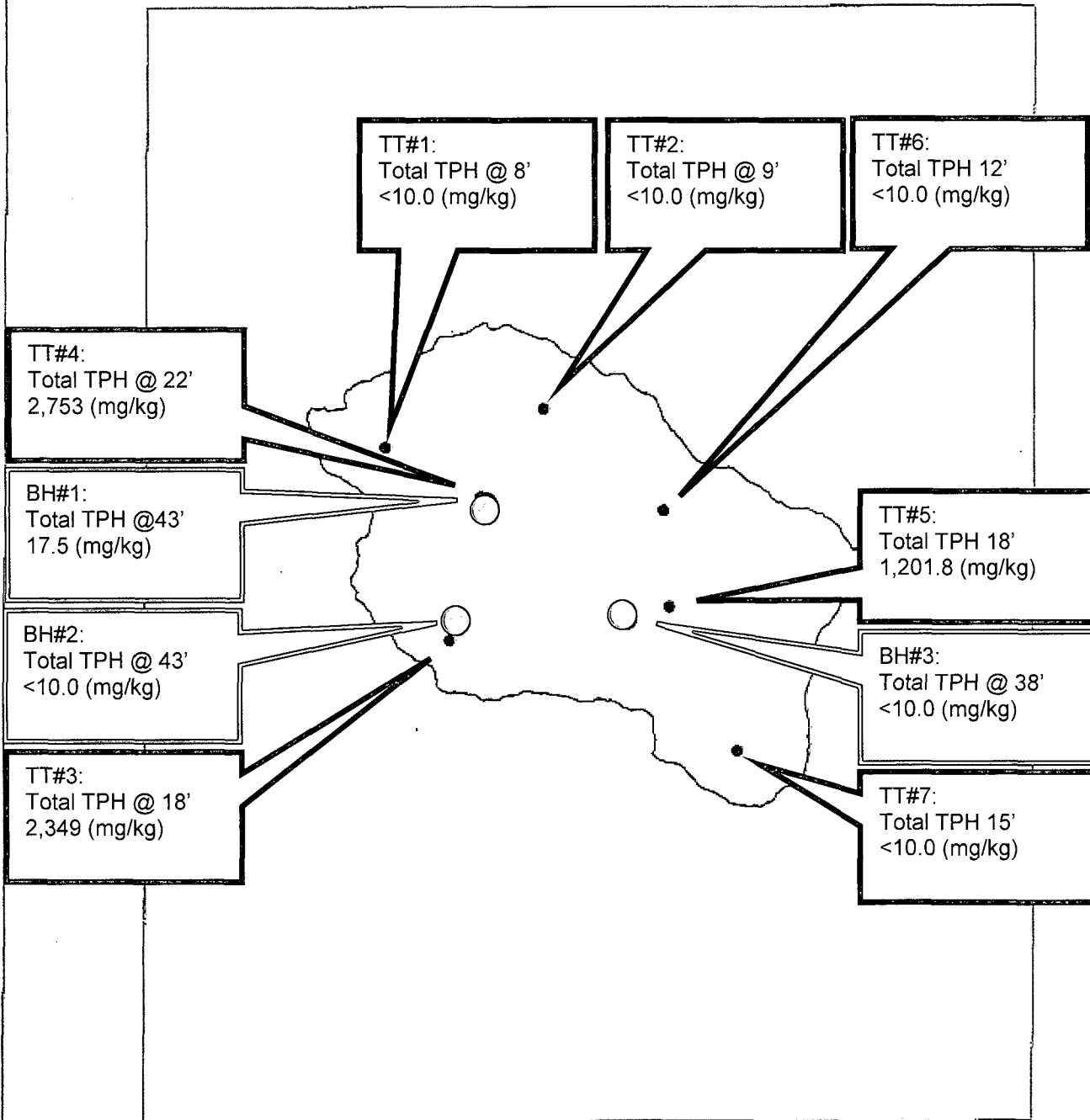
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site map.cor  
10/19/2009  
GPS Pathfinder<sup>®</sup> Office  
 **Trimble**<sup>™</sup>





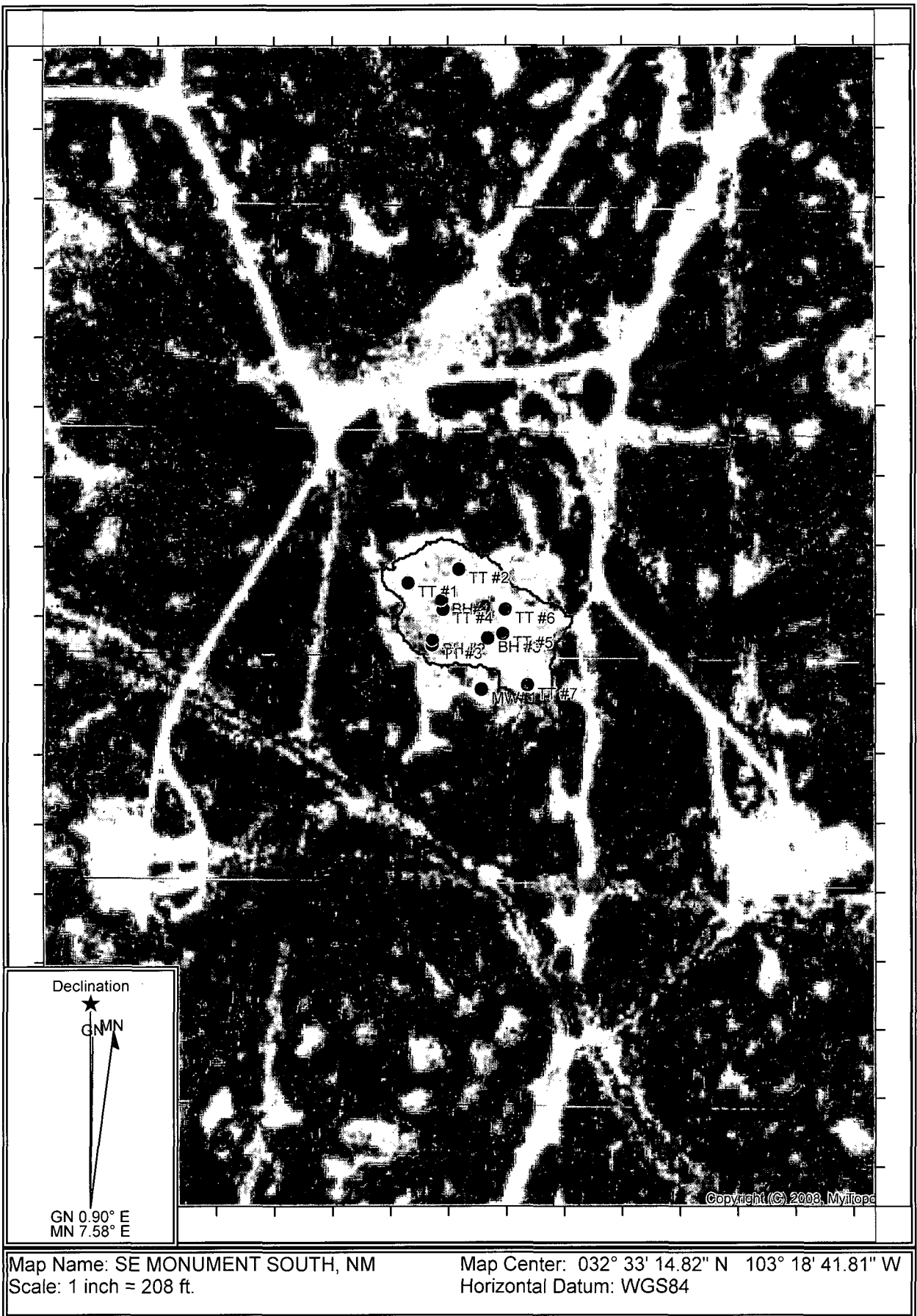
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WGS 1984



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Miles

combined.cor  
9/1/2010  
GPS Pathfinder<sup>®</sup> Office  
 Trimble<sup>™</sup>



## **Appendix A**

### **Analytical Results**



# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 13, 2009

Bob Allen  
Safety & Environmental Solutions, Inc.  
703 East Clinton, #102  
Hobbs, NM 88240

Re: XTO Energy (XTO-09-004)

Enclosed are the results of analyses for sample number H18446, received by the laboratory on 10/08/09 at 3:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 4 (includes Chain of Custody)

Sincerely,

Celey D. Keene  
Laboratory Director

---

This report conforms with NELAP requirements.



# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388


Receiving Date: 10/08/09  
Reporting Date: 10/13/09  
Project Owner: XTO ENERGY (XTO-09-004)  
Project Name: EMSU - B 923  
Project Location: MONUMENT, NM


Sampling Date: 10/08/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 4.5°C  
Sample Received By: CK  
Analyzed By: AB/ZL

LAB NO.	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
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ANALYSIS DATE:	10/13/09	10/13/09	10/12/09	10/12/09	10/12/09	10/12/09
H18446-1 TT#1 8'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
H18446-2 TT#2 9'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
H18446-3 TT#3 10'	11.6	440	<0.050	<0.050	<0.050	0.368
H18446-4 TT#3 14'	11.6	545	0.060	0.145	0.283	0.946
H18446-5 TT#3 18'	459	1,890	<0.050	0.249	<0.050	2.94
H18446-6 TT#4 11'	1,120	2,620	0.763	0.878	1.94	6.21
H18446-7 TT#4 15'	971	1,690	0.439	0.876	1.61	4.95
H18446-8 TT#5 10'	30.0	720	<0.050	0.137	<0.050	1.39
H18446-9 TT#5 15'	109	2,200	<0.050	<0.050	<0.050	0.936
H18446-10 TT#5 18'	41.8	1,160	<0.050	<0.050	<0.050	0.491
H18446-11 TT#6 10'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
H18446-12 TT#6 12'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
H18446-13 TT#7 9'	<10.0	25.8	<0.050	<0.050	<0.050	<0.300
H18446-14 TT#7 12'	77.4	1,260	<0.050	<0.050	<0.050	1.02
H18446-15 TT#7 15'	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300
Quality Control	440	512	0.049	0.047	0.048	0.141
True Value QC	500	500	0.050	0.050	0.050	0.150
% Recovery	88.0	102	98.0	94.0	96.0	94.0
Relative Percent Difference	2.9	0.6	13.3	13.5	7.7	14.8

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B.  
TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,  
AND TOTAL XYLENES. Reported on wet weight. Not accredited for GRO/DRO.

  
Lab Director

  
Date

H18446 TPHBTEX SESI

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.




101 East Marland, Hobbs, NM 88240

(575) 393-2326 Fax (575) 393-2476

Page 1 of 2

Company Name: <b>SESE</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																				
Project Manager: <b>Bob Allen</b>				P.O. #:																								
Address: <b>703 E Clinton</b>				Company:																								
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>				Attn:																								
Phone #: <b>575-398-0510</b> Fax #:				Address: <b>Same</b>																								
Project #: <b>XTO-09-004</b> Project Owner: <b>XTO</b>				City:																								
Project Name: <b>XTO EMSU-B, S23</b>				State: Zip:																								
Project Location: <b>Monument, NM</b>				Phone #:																								
Sampler Name: <b>Isaac Kincad</b>				Fax #:																								
FOR LAB USE ONLY						MATRIX		PRESERV		SAMPLING																		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME														
1118446-																												
1	TT#1 8'	6	1			✓				✓			10/8/9	0810	✓	✓												
2	TT#2 9'													0820														
3	TT#3 10'													0823														
4	TT#3 14'													0838														
5	TT#3 18'													0900														
6	TT#4 11'													0826														
7	TT#4 15'													0833														
8	TT#5 10'													0920														
9	TT#5 15'													0925														
10	TT#5 18'													0930														

**PLEASE NOTE: Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Sampler Relinquished: 		Date: <u>10/8/9</u>		Received By: _____		Phone Result: <input type="checkbox"/> No    Add'l Phone #: _____	
		Time: <u>1550</u>				Fax Result: <input type="checkbox"/> No    Add'l Fax #: _____	
Relinquished By: _____		Date: _____		Received By: <u>Ch. Keene</u>		REMARKS:  <div style="font-size: 1.2em; margin-top: 10px;">             iKincaid@SESI-nm.com              Office 2 @ SESI-nm.com           </div>	
		Time: _____					
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Temp. <u>45°C</u> Sample Condition Cool? Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) <u>CSH</u>			

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 Fax (575) 393-2476

Page 2 of 2

Company Name: <u>SESE</u>				BILL TO		ANALYSIS REQUEST																				
Project Manager: <u>Bob Allen</u>				P.O. #:																						
Address: <u>703 E Clinton</u>				Company:																						
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Attn:																						
Phone #: <u>575-397-0510</u> Fax #:				Address: <u>Same</u>																						
Project #: <u>X70-09-004</u> Project Owner: <u>X70</u>				City:																						
Project Name: <u>EMSU-923</u>				State: Zip:																						
Project Location: <u>Monument, NM</u>				Phone #:																						
Sampler Name: <u>Isaac Kincaid</u>				Fax #:																						
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																		
Lab I.D.	Sample I.D.	GRAB OR (COMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME												
<u>H18446-</u>																										
	<u>11 77# 6 10'</u>	<u>6</u>	<u>1</u>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		<u>10/14/9</u>	<u>0935</u>	<input checked="" type="checkbox"/>	<u>TPH 80.15</u>	<u>BTEX</u>									
	<u>12 77# 6 12'</u>													<u>0952</u>												
	<u>13 77# 7 9'</u>													<u>1000</u>												
	<u>14 77# 7 12'</u>													<u>1015</u>												
	<u>15 77# 7 15'</u>													<u>1020</u>												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Sampler Relinquished: <u>[Signature]</u>		Date: <u>10/15/09</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> No Add'l Phone #:
Relinquished By: <u>[Signature]</u>		Time: <u>1550</u>	Received By: <u>[Signature]</u>	Fax Result: <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One)		Temp. <u>45°C</u>	Sample Condition <u>Cool Intact</u>	CHECKED BY: <u>[Signature]</u>
Sampler - UPS - Bus - Other:		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> No	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



# ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

December 14, 2009

Bob Allen  
Safety & Environmental Solutions, Inc.  
703 East Clinton, #102  
Hobbs, NM 88240

Re: EMSU # 923 (XTO-09-004)

Enclosed are the results of analyses for sample number H18845, received by the laboratory on 12/09/09 at 4:15 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

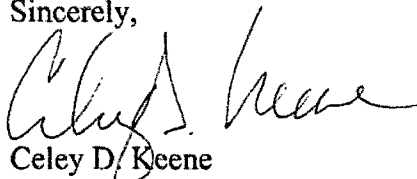
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,



Celey D. Keene  
Laboratory Director

---

This report conforms with NELAP requirements.





# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388

Receiving Date: 12/09/09  
Reporting Date: 12/10/09  
Project Number: XTO-09-004  
Project Name: EMSU #923  
Project Location: MONUMENT, NM

Analysis Date: 12/10/09  
Sampling Date: 12/09/09  
Sample Type: SOIL  
Sample Condition: INTACT @ 22.5°C  
Sample Received By: ML  
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl <sup>-</sup> (ppm)
H18845-1	BOTTOM 8' COMPOSITE	< 16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-Cl<sup>-</sup>B

Note: Analysis performed on a 1:4 w:v aqueous extract.

Chemist

Date

H18845 SESI

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 Fax (575) 393-2476

Page \_\_\_\_ of \_\_\_\_

Company Name: <b>X SESE</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																											
Project Manager: <b>Bob Allen</b>				P.O. #:																															
Address: <b>703 E Clinton</b>				Company:																															
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>				Attn:																															
Phone #: <b>575-397-0510</b> Fax #:				Address:																															
Project #: <b>X70-09-004</b> Project Owner:				City:																															
Project Name: <b>EMSU #923</b>				State: Zip:																															
Project Location: <b>Murumbat, NM</b>				Phone #:																															
Sampler Name: <b>Trace Kincaid</b>				Fax #:																															
FOR LAB USE ONLY				MATRIX																PRESERV.				SAMPLING											
Lab I.D.				Sample I.D.																(G)RAB OR (C)OMP. # CONTAINERS				GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:				DATE TIME			
H18845-1				Bottom 8' Composite																C 1				<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>				12/9/09 1330			

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Sampler Relinquished By:		Date: <b>12/9/09</b>		Received By:		Phone Result: <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: <b>1615</b>		Received By:		Fax Result: <input type="checkbox"/> No		Add'l Fax #:	
		Date:		Time:		REMARKS: <b>ikincaid @ SESE-NM.COM</b>			
Delivered By: (Circle One)		Temp. <b>22.59</b>		Sample Condition					
<input checked="" type="checkbox"/> Sampler - UPS - Bus - Other:				<input type="checkbox"/> Cool <input type="checkbox"/> Intact		<input type="checkbox"/> Yes <input type="checkbox"/> No			

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

December 22, 2009

Bob Allen  
Safety & Environmental Solutions, Inc.  
703 East Clinton, #102  
Hobbs, NM 88240

Re: EMSU # 923 (XTO-09-004)

Enclosed are the results of analyses for sample number H18912, received by the laboratory on 12/18/09 at 2:30 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 5 (includes Chain of Custody)

Sincerely,

Celey D. Keene  
Laboratory Director

This report conforms with NELAP requirements.



# ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

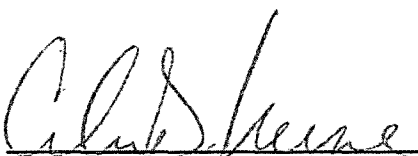
ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388

Receiving Date: 12/18/09  
Reporting Date: 12/22/09  
Project Owner: XTO ENERGY (XTO-09-004)  
Project Name: EMSU # 923  
Project Location: MONUMENT, NM

Sampling Date: 12/18/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 6°C  
Sample Received By: NF  
Analyzed By: AB/CK

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)
		12/20/09	12/20/09
H18912-1	TT #4 16' BGS	<10.0	76.4
H18912-2	TT #4 18' BGS	398	1,730
H18912-3	TT #4 20' BGS	282	1,520
H18912-4	TT #4 22' BGS	563	2,190
Quality Control		551	567
True Value QC		500	500
% Recovery		110	113
Relative Percent Difference		<0.1	2.8

METHOD: SW-846 8015 M. Reported on wet weight. Not accredited through NELAP for GRO/DRO.

  
Lab Director

H18912T SESI

12/22/09  
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388

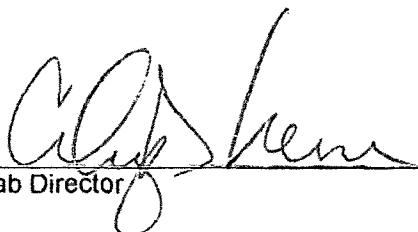
Receiving Date: 12/18/09  
Reporting Date: 12/22/09  
Project Owner: XTO ENERGY (XTO-09-004)  
Project Name: EMSU #923  
Project Location: MONUMENT, NM


Sampling Date: 12/18/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 6°C  
Sample Received By: NF  
Analyzed By: ZL

LAB NO.	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE:		12/21/09	12/21/09	12/21/09	12/21/09
H18912-1	TT#4 16'BGL	<0.050	0.127	0.058	0.556
H18912-2	TT#4 18'BGL	<0.050	0.559	0.535	3.77
H18912-3	TT#4 20'BGL	<0.050	0.573	0.435	3.17
H18912-4	TT#4 22'BGL	<0.050	0.433	0.433	3.74
Quality Control		0.051	0.049	0.048	0.146
True Value QC		0.050	0.050	0.050	0.150
% Recovery		102	98.0	96.0	97.3
Relative Percent Difference		3.9	2.0	4.2	3.6

METHODS: BTEX - SW-846 8021B.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,  
AND TOTAL XYLENES. Reported on wet weight.

  
Lab Director

  
Date

H18912 BTEX SESI

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ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388

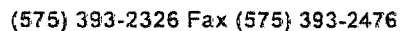
Analysis Date: 12/21/09  
Sampling Date: 12/18/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT @ 6°C  
Sample Received By: NF  
Analyzed By: HM

METHOD: Standard Methods	4500-ClB
--------------------------	----------

Chemist

12/22/07

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# CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

May 11, 2010

Bob Allen  
Safety & Environmental Solutions, Inc.  
703 East Clinton, #103  
Hobbs, NM 88240

Re: EMSU B #923 (XTO-09-004)

Enclosed are the results of analyses for sample number H19857, received by the laboratory on 05/07/10 at 4:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

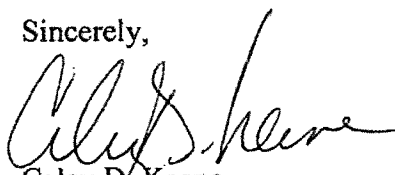
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

  
Celey D. Keene  
Laboratory Director

This report conforms with NELAP requirements.





PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

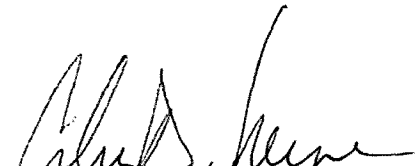
ANALYTICAL RESULTS FOR  
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.  
ATTN: BOB ALLEN  
703 E. CLINTON, #102  
HOBBS, NM 88240  
FAX TO: (575) 393-4388

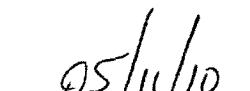
Receiving Date: 05/07/10  
Reporting Date: 05/11/10  
Project Owner: XTO (XTO-09-004)  
Project Name: EMSU B #923  
Project Location: MONUMENT, NM

Sampling Date: 05/07/10  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: JH  
Analyzed By: AB/ZL/HM

LAB NO.	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	CI* (mg/kg)
ANALYSIS DATE:		05/10/10	05/10/10	05/10/10	05/10/10	05/10/10	05/10/10	05/10/10
H19857-1	TT-1, SOIL PILE BOTTOM	<10.0	173	<0.050	<0.050	<0.050	<0.300	16
H19857-2	TT-1, SOIL CLOD	67.2	1,100	<0.050	<0.050	0.075	0.460	32
H19857-3	TT-2, SOIL PILE BOTTOM	87.5	1,560	<0.050	<0.050	0.119	0.706	< 16
H19857-4	TT-3, SOIL PILE BOTTOM	64.3	463	<0.050	<0.050	0.166	1.20	< 16
H19857-5	TT-1, SOIL PILE BOTTOM	<10.0	254	<0.050	<0.050	<0.050	<0.300	32
Quality Control		491	476	0.020	0.023	0.022	0.064	500
True Value QC		500	500	0.020	0.020	0.020	0.060	500
% Recovery		98.2	95.2	100	115	110	107	100
Relative Percent Difference		1.7	1.8	7.0	2.0	2.0	3.1	<0.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B; CI-: Std. Methods 4500-CI-B  
\*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.  
TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,  
AND TOTAL XYLENES. Not accredited for GRO/DRO and Chloride.

  
Lab Director

  
Date

H19857 TBCL SESI

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



# CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240  
(815) 873-7001 Fax (815) 873-7020 (505) 393-2326 Fax (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: <u>SEST</u>		Project Manager: <u>Bob Allen</u>		Address: <u>703 E. CLINTON, #103</u>		City: <u>HOBBS</u> State: <u>NM</u> Zip: <u>88240</u>		Phone #: <u>(505) 397-0510</u>		Fax #: <u>(505) 393-4388</u>		Project #: <u>XTO-09400</u>		Project Name: <u>EMSU B #923</u>		Project Location: <u>Monument</u>	
LAB I.D.		Sample I.D.		MATRIX		PRES.		SAMPLING		DATE		TIME		ANALYSIS REQUEST			
H19857-1		TT-1, Soil/Pile bottom		X		X		X		5/7		0915		X		X	
2		TT-1, Soil/Clo		X		X		X		?		0920		X		X	
3		TT-2, Soil/Pile bottom		X		X		X		?		0925		X		X	
4		TT-3, Soil/Pile bottom		X		X		X		?		0940		X		X	
5		TT-1, Soil/Pile bottom		X		X		X		5/7		1520		X		X	

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and at cost of collections, including attorney's fees.

Sampler Relinquished: <u>DK Boyer</u>	Date: <u>5/7</u> Time: <u>1630</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Additional Fax #: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Relinquished By: <u>Jodi Benson</u>	Date: <u>5/7</u> Time: <u>1630</u>	Received By: (Lab Staff)	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	REMARKS: <u>email results to SEST</u> <u>boyer@SEST-NM.COM</u> <u>office2@SEST-NM.COM</u>
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: <u>JH</u>		

† Cardinal cannot accept verbal changes. Please fax any changes to 915-873-7020.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

August 25, 2010

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: XTO-09-004

Enclosed are the results of analyses for samples received by the laboratory on 08/18/10 16:12.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021 Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method SW-846 8260 Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method TX 1005 Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)

Method EPA 524.2 Total Trihalomethanes (TTHM)

Method EPA 524.4 Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

### Analytical Results For:

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

### Sample ID: BH #1 18' (H020668-01)

BTEX 8021B		mg/kg	Analyzed By: ZL						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.41	0.100	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	8.66	0.100	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	3.87	0.100	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	16.0	0.300	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PII) 100 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/19/2010	ND	448	112	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
									S-06, QM-07

TPH 8015M		mg/kg		Analyzed By: AB				S-06, QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	642	50.0	08/19/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	2260	50.0	08/19/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 22.6 % 70-130

Surrogate: 1-Chlorooctadecane 20.2 % 70-130

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Safety & Environmental Solutions  
Bob Allen  
703 East Clinton  
Hobbs NM, 88240  
Fax To: (575) 393-4388

Received: 08/18/2010  
Reported: 08/25/2010  
Project Name: XTO-09-004  
Project Number: EMSU-B 923  
Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: BH #1 23' (H020668-02)**
**BTEX 8021B**
**mg/kg**
**Analyzed By: ZL**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.09</b>	0.100	08/19/2010	ND	1.04	104	1.00	4.38	
<b>Toluene*</b>	<b>10.8</b>	0.100	08/19/2010	ND	0.979	97.9	1.00	4.38	
<b>Ethylbenzene*</b>	<b>5.01</b>	0.100	08/19/2010	ND	0.965	96.5	1.00	2.46	
<b>Total Xylenes*</b>	<b>21.5</b>	0.300	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 80-120

**TPH 8015M**
**mg/kg**
**Analyzed By: AB**
**S-06, QM-07**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>1500</b>	50.0	08/19/2010	ND	161	80.7	200	0.710	
<b>DRO &gt;C10-C28</b>	<b>4500</b>	50.0	08/19/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 24.6 % 70-130

Surrogate: 1-Chlorooctadecane 18.5 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #1 28' (H020668-03)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.09</b>	0.100	08/19/2010	ND	1.04	104	1.00	4.38	
<b>Toluene*</b>	<b>17.7</b>	0.100	08/19/2010	ND	0.979	97.9	1.00	4.38	
<b>Ethylbenzene*</b>	<b>7.92</b>	0.100	08/19/2010	ND	0.965	96.5	1.00	2.46	
<b>Total Xylenes*</b>	<b>34.5</b>	0.300	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 100 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						S-06, QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>1810</b>	50.0	08/20/2010	ND	161	80.7	200	0.710		
<b>DRO &gt;C10-C28</b>	<b>5020</b>	50.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 25.1 % 70-130

Surrogate: 1-Chlorooctadecane 20.1 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Safety & Environmental Solutions  
Bob Allen  
703 East Clinton  
Hobbs NM, 88240  
Fax To: (575) 393-4388

Received: 08/18/2010  
Reported: 08/25/2010  
Project Name: XTO-09-004  
Project Number: EMSU-B 923  
Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

### Sample ID: BH #1 33' (H020668-04)

8TEX 8021B		mg/kg		Analyzed By: ZL						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.396	0.050	08/19/2010	ND	1.04	104	1.00	4.38		
Toluene*	8.04	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38		
Ethylbenzene*	2.41	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46		
Total Xylenes*	17.9	0.150	08/19/2010	ND	3.11	104	3.00	2.51		

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB				S-06, QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1880	50.0	08/20/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	5030	50.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 24.3 % 70-130

Surrogate: 1-Chlorooctadecane 19.2 % 70-130

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**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #1 38' (H020668-05)**

BTEX 80218		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2010	ND	1.04	104	1.00	4.38	
Toluene*	<0.050	0.050	08/20/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/20/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	<0.150	0.150	08/20/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	42.3	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 93.5 % 70-130

Surrogate: 1-Chlorooctadecane 90.6 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #1 43' (H020668-06)**

BTEX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	<b>0.143</b>	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
<b>Total Xylenes*</b>	<b>0.347</b>	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 113 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>368</b>	16.0	08/19/2010	ND	448	112	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710	
<b>DRO &gt;C10-C28</b>	<b>17.5</b>	10.0	08/20/2010	ND	166	83.2	200	1.59	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710	
<b>DRO &gt;C10-C28</b>	<b>17.5</b>	10.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 90.1 % 70-130

Surrogate: 1-Chlorooctadecane 89.3 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

### Sample ID: BH #2 13' (H020668-07)

BTEx 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.314	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	0.107	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	0.754	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 115 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB				QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	14.3	10.0	08/20/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	414	10.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 93.1 % 70-130

Surrogate: 1-Chlorooctadecane 106 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

Safety & Environmental Solutions  
Bob Allen  
703 East Clinton  
Hobbs NM, 88240  
Fax To: (575) 393-4388

Received: 08/18/2010  
Reported: 08/25/2010  
Project Name: XTO-09-004  
Project Number: EMSU-B 923  
Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

### Sample ID: BH #2 18' (H020668-08)

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.204	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	0.081	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	0.613	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	32.9	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	490	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 95.4 % 70-130

Surrogate: 1-Chlorooctadecane 97.8 % 70-130

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Safety & Environmental Solutions  
Bob Allen  
703 East Clinton  
Hobbs NM, 88240  
Fax To: (575) 393-4388

Received: 08/18/2010  
Reported: 08/25/2010  
Project Name: XTO-09-004  
Project Number: EMSU-B 923  
Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

### Sample ID: BH #2 23' (H020668-09)

BTEX 8021B		mg/kg	Analyzed By: ZL						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	<b>0.706</b>	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<b>0.277</b>	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	<b>1.77</b>	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 115 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB				QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	110	10.0	08/20/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	921	10.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 109 % 70-130

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #2 28' (H020668-10)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	1.66	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	0.592	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	3.63	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 116 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	71.4	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	403	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 94.9 % 70-130

Surrogate: 1-Chlorooctadecane 99.1 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

## Analytical Results For:

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

### Sample ID: BH #2 33' (H020668-11)

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.319	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	0.125	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	0.853	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 100 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	52.6	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 91.4 % 70-130

Surrogate: 1-Chlorooctadecane 87.6 % 70-130

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Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

### Sample ID: BH #2 38' (H020668-12)

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.085	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	0.229	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	<10.0	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 96.2 % 70-130

Surrogate: 1-Chlorooctadecane 90.9 % 70-130

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**Analytical Results For:**

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 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #2 43' (H020668-13)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	<0.050	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	<0.150	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/19/2010	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	<10.0	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 92.7 % 70-130

Surrogate: 1-Chlorooctadecane 88.1 % 70-130

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### Analytical Results For:

Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

### Sample ID: BH #3 13' (H020668-14)

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.158	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	0.557	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 118 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	62.7	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 91.4 % 70-130

Surrogate: 1-Chlorooctadecane 91.1 % 70-130

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**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #3 18' (H020668-15)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	0.477	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	0.254	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	1.21	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	23.2	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	443	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 95.4 % 70-130

Surrogate: 1-Chlorooctadecane 99.4 % 70-130

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**Analytical Results For:**

Safety & Environmental Solutions  
Bob Allen  
703 East Clinton  
Hobbs NM, 88240  
Fax To: (575) 393-4388

Received: 08/18/2010  
Reported: 08/25/2010  
Project Name: XTO-09-004  
Project Number: EMSU-B 923  
Project Location: MONUMENT, NM

Sampling Date: 08/18/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: BH #3 23' (H020668-16)**

BTEX 8021B		mg/kg	Analyzed By: ZL						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	<b>0.403</b>	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<b>0.206</b>	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	<b>1.34</b>	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 90.9 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB				QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	79.3	10.0	08/20/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	958	10.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 101 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #3 28' (H020668-17)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/19/2010	ND	1.04	104	1.00	4.38	
Toluene*	<0.050	0.050	08/19/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<b>0.195</b>	0.050	08/19/2010	ND	0.965	96.5	1.00	2.46	
<b>Total Xylenes*</b>	<b>1.57</b>	0.150	08/19/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB				QM-07	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710	
DRO >C10-C28	111	10.0	08/20/2010	ND	166	83.2	200	1.59	

Surrogate: 1-Chlorooctane 84.4 % 70-130

Surrogate: 1-Chlorooctadecane 88.3 % 70-130

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 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #3 33' (H020668-18)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2010	ND	1.04	104	1.00	4.38	
Toluene*	<0.050	0.050	08/20/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/20/2010	ND	0.965	96.5	1.00	2.46	
Total Xylenes*	<0.150	0.150	08/20/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 91.2 % 80-120

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	<10.0	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 89.3 % 70-130

Surrogate: 1-Chlorooctadecane 85.1 % 70-130

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 Fax To: (575) 393-4388

 Received: 08/18/2010  
 Reported: 08/25/2010  
 Project Name: XTO-09-004  
 Project Number: EMSU-B 923  
 Project Location: MONUMENT, NM

 Sampling Date: 08/18/2010  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BH #3 38' (H020668-19)**

BTX 8021B		mg/kg		Analyzed By: ZL					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2010	ND	1.04	104	1.00	4.38	
Toluene*	<b>0.066</b>	0.050	08/20/2010	ND	0.979	97.9	1.00	4.38	
Ethylbenzene*	<0.050	0.050	08/20/2010	ND	0.965	96.5	1.00	2.46	
<b>Total Xylenes*</b>	<b>0.258</b>	0.150	08/20/2010	ND	3.11	104	3.00	2.51	

Surrogate: 4-Bromofluorobenzene (PIL) 98.4 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/19/2010	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: AB						QM-07
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/20/2010	ND	161	80.7	200	0.710		
DRO >C10-C28	<10.0	10.0	08/20/2010	ND	166	83.2	200	1.59		

Surrogate: 1-Chlorooctane 90.2 % 70-130

Surrogate: 1-Chlorooctadecane 87.3 % 70-130

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

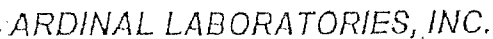
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Celey D. Keene, Lab Director/Quality Manager

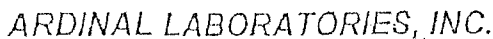


## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 2

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2 of 2

† Cardinal cannot accept verbal changes. Please fax written changes to 015-073-7020.

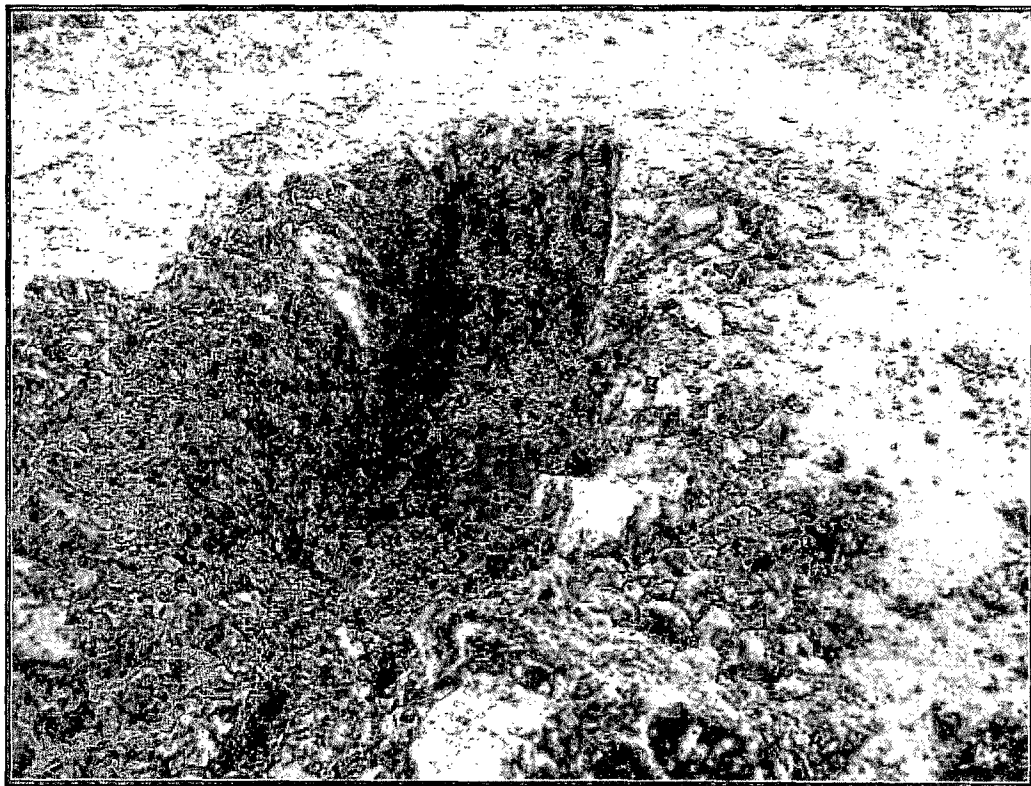
## **Appendix B**

### **Site Photographs**

XTO EMSU-B #923 Site Photographs: October 8, 2009



Excavated area



Test trench #1 8'



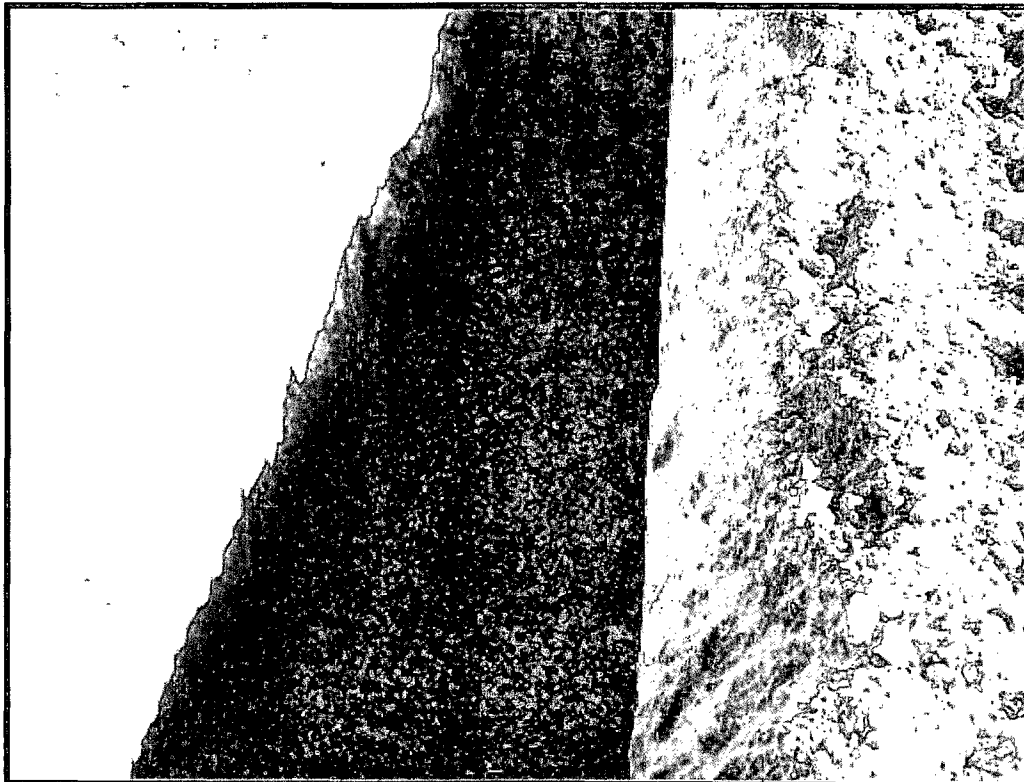
Test Trench #2 9'



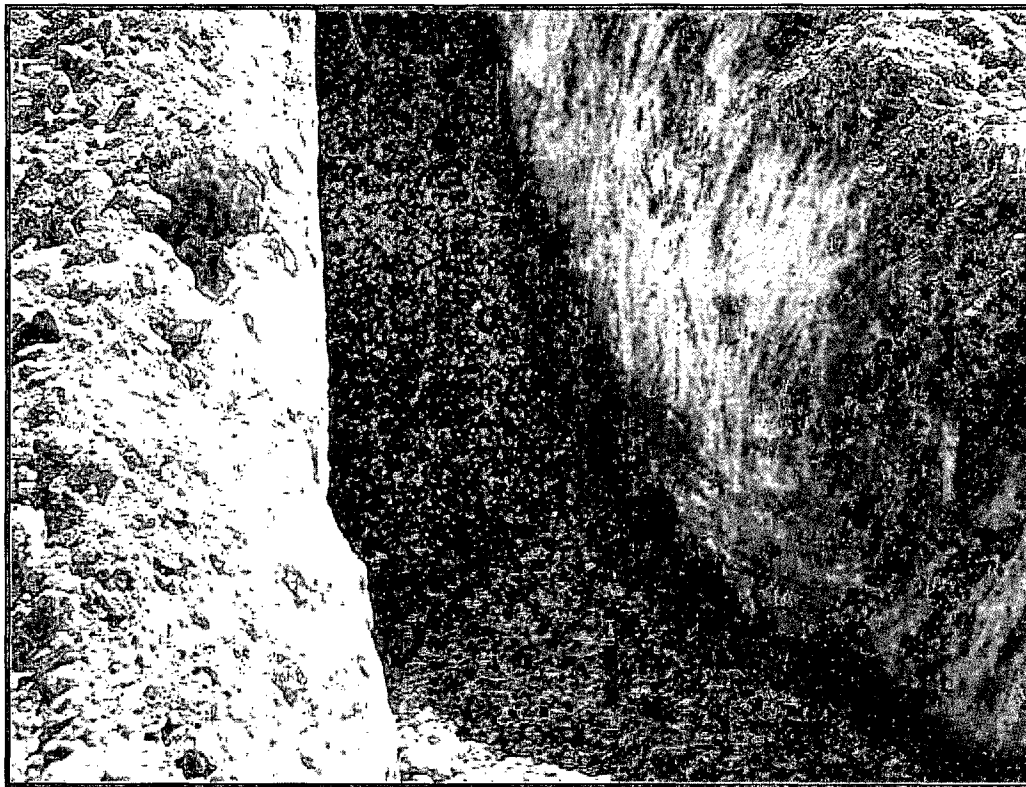
Test trench #3 10'



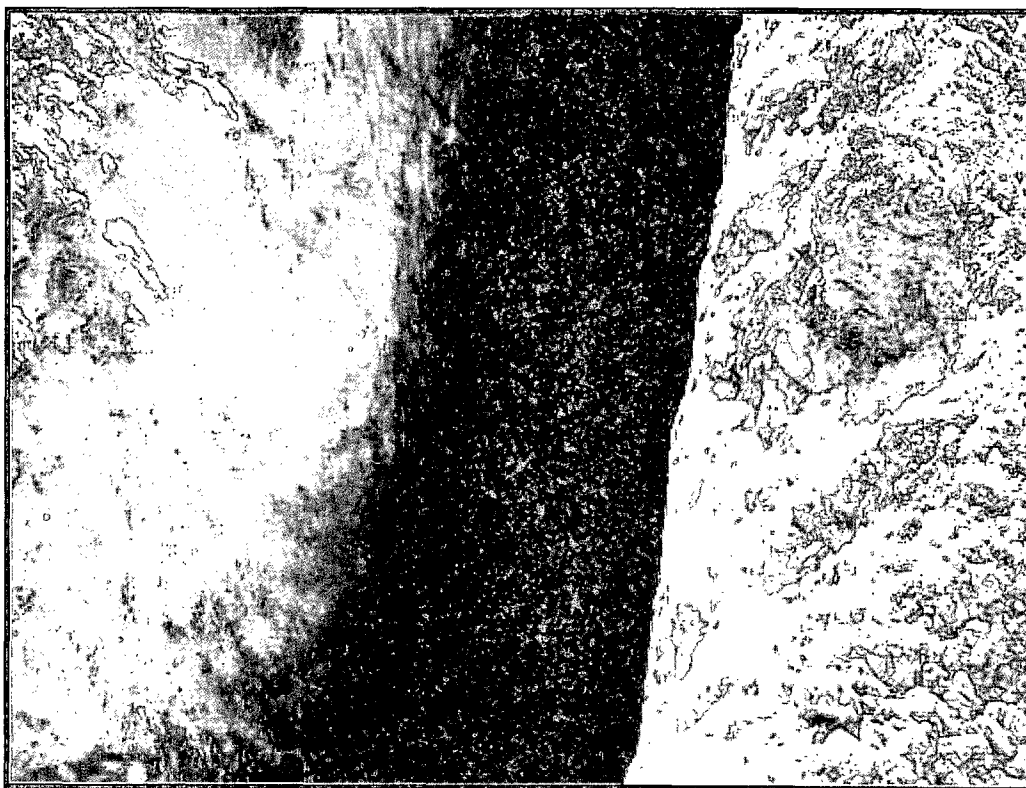
Test Trench #4 11'



Test Trench #5 18'

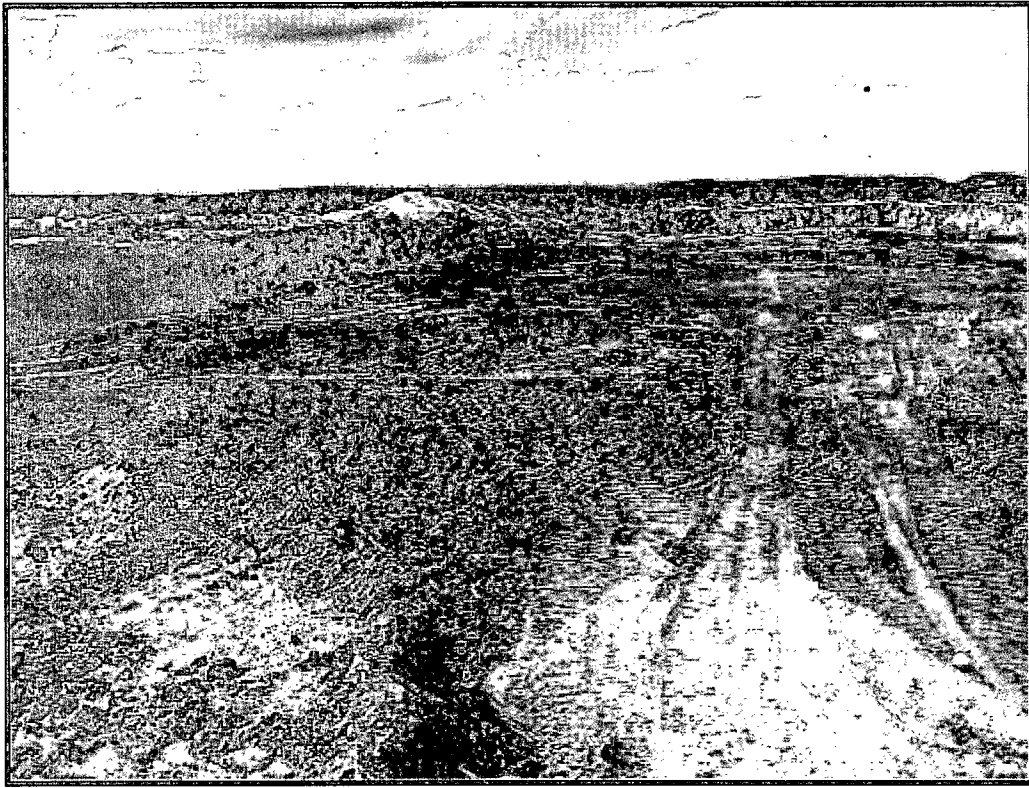


Test Trench #6 12'

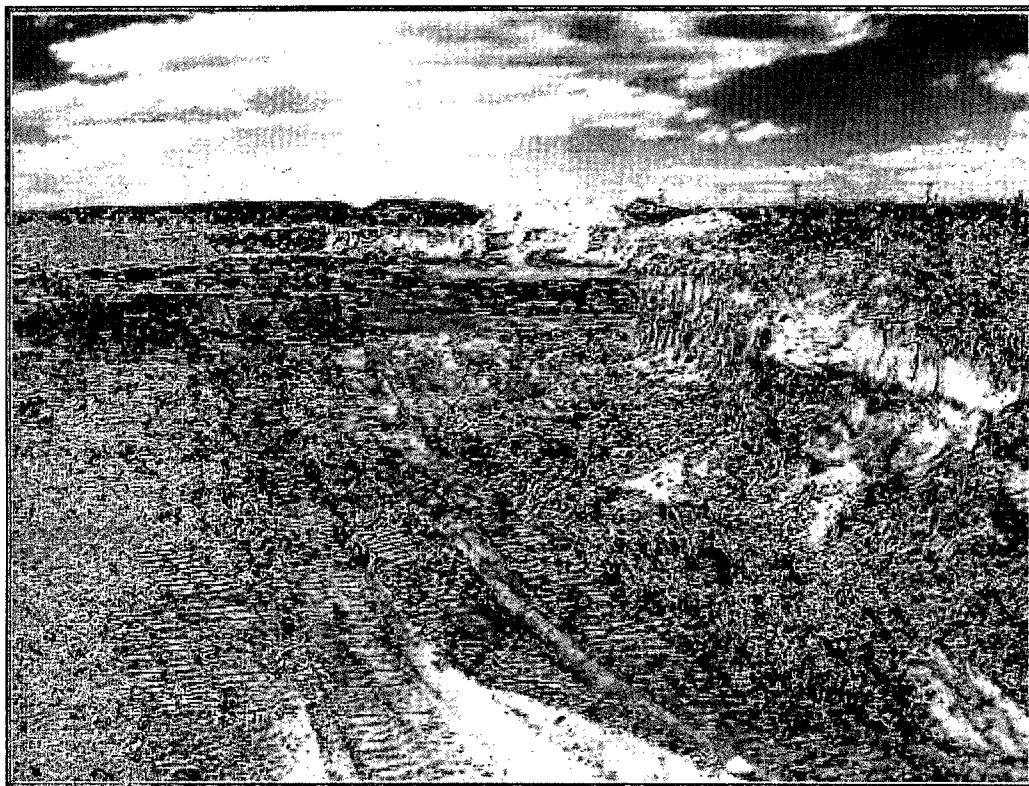


Test Trench #7 15'



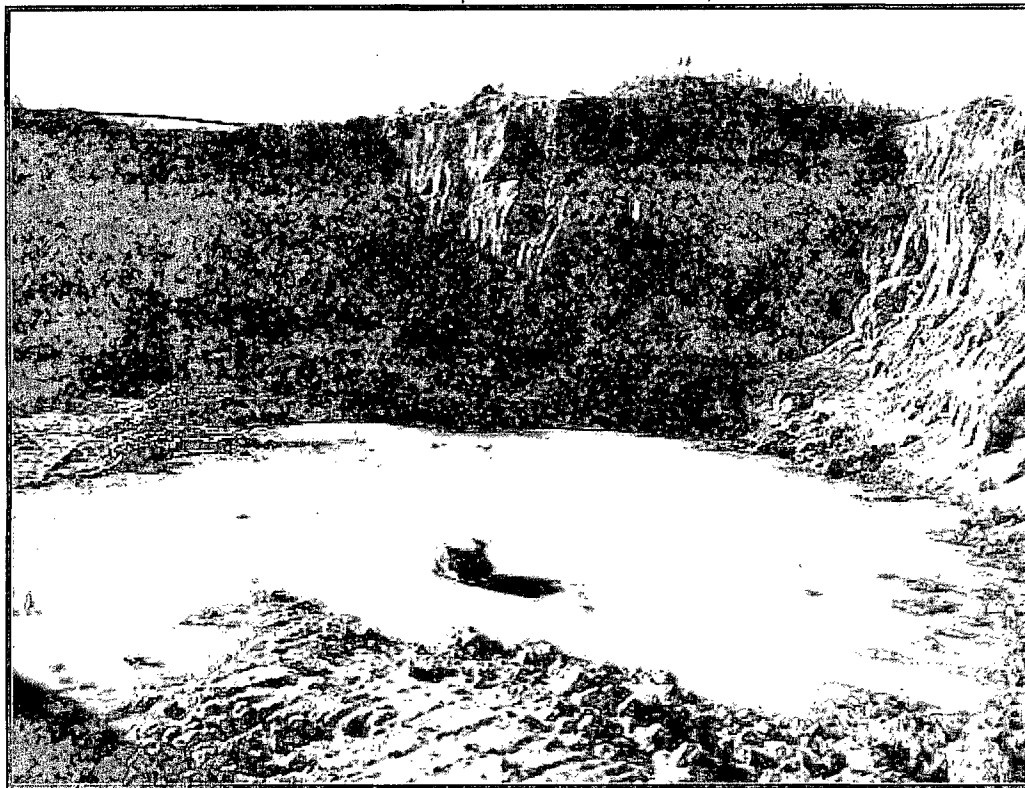


Test Trenches backfilled facing southwest

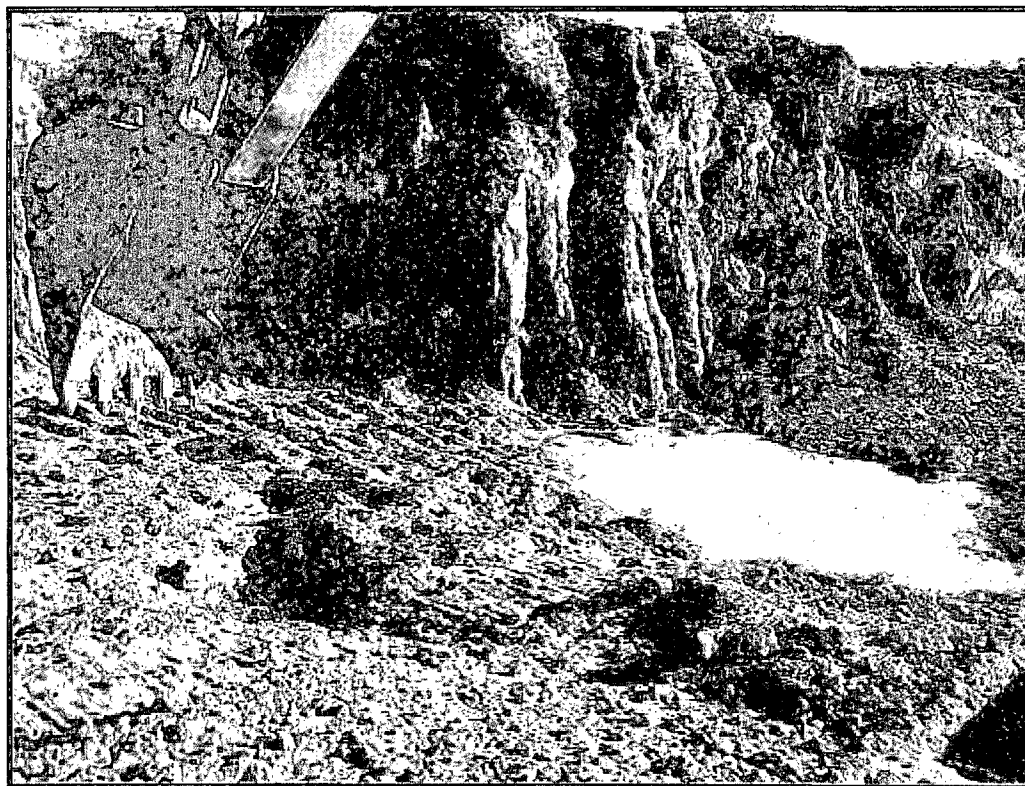


Test Trenches backfilled facing northwest

XTO EMSU Site photos December 18, 2009

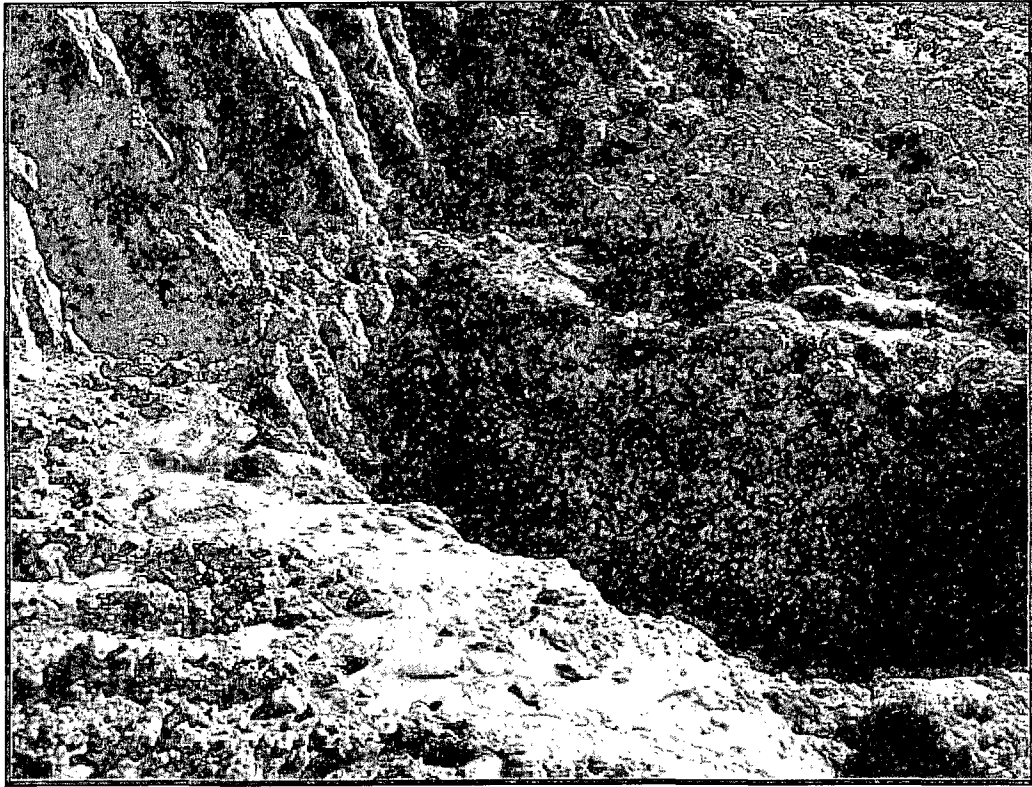


Southeast corner with rain water facing south

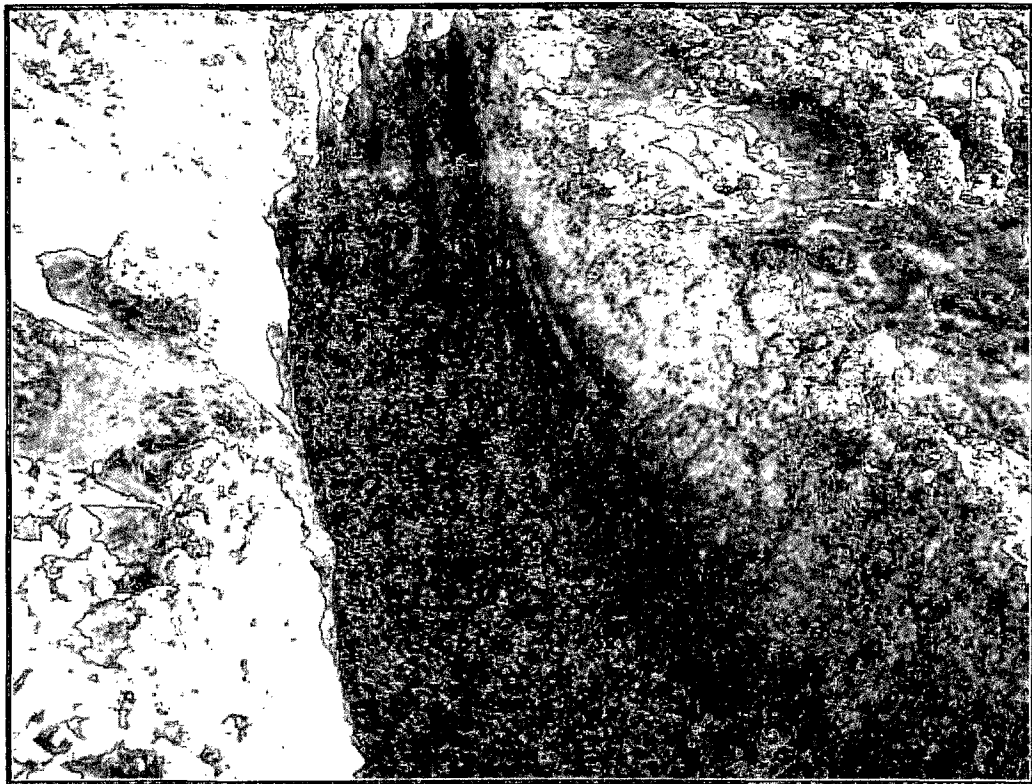


Northeast corner with rain water facing northeast

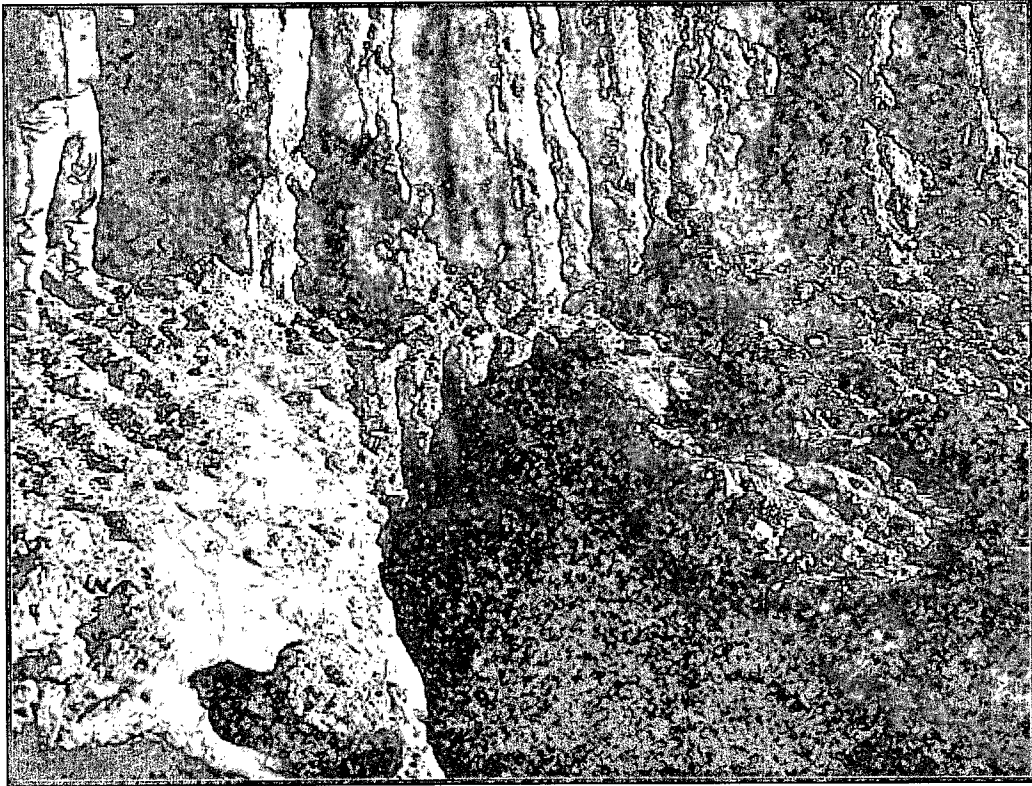




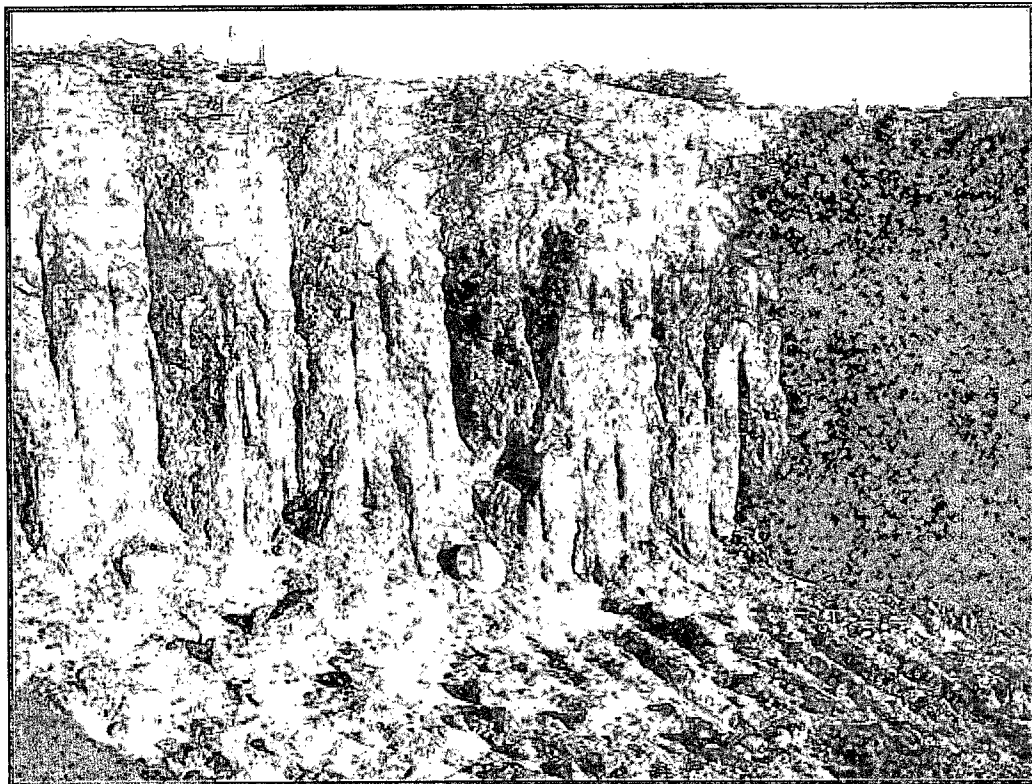
Northeast corner with rain water on top facing east



Northeast corner at 3 1/2' dry facing north



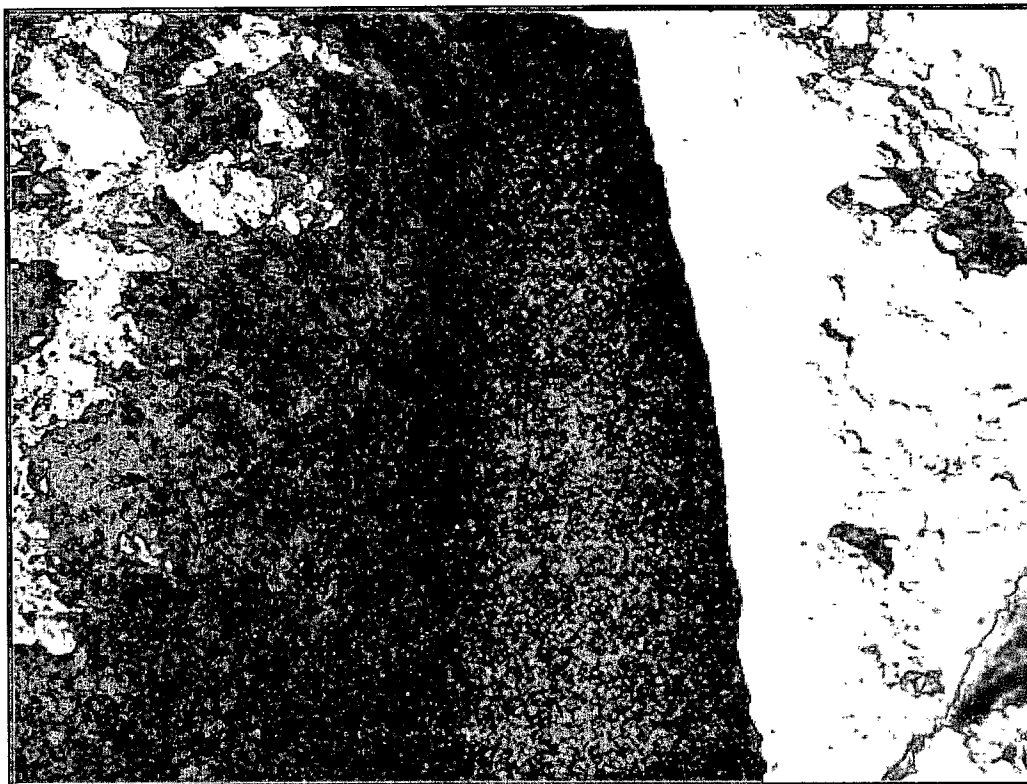
Northeast corner north wall facing north



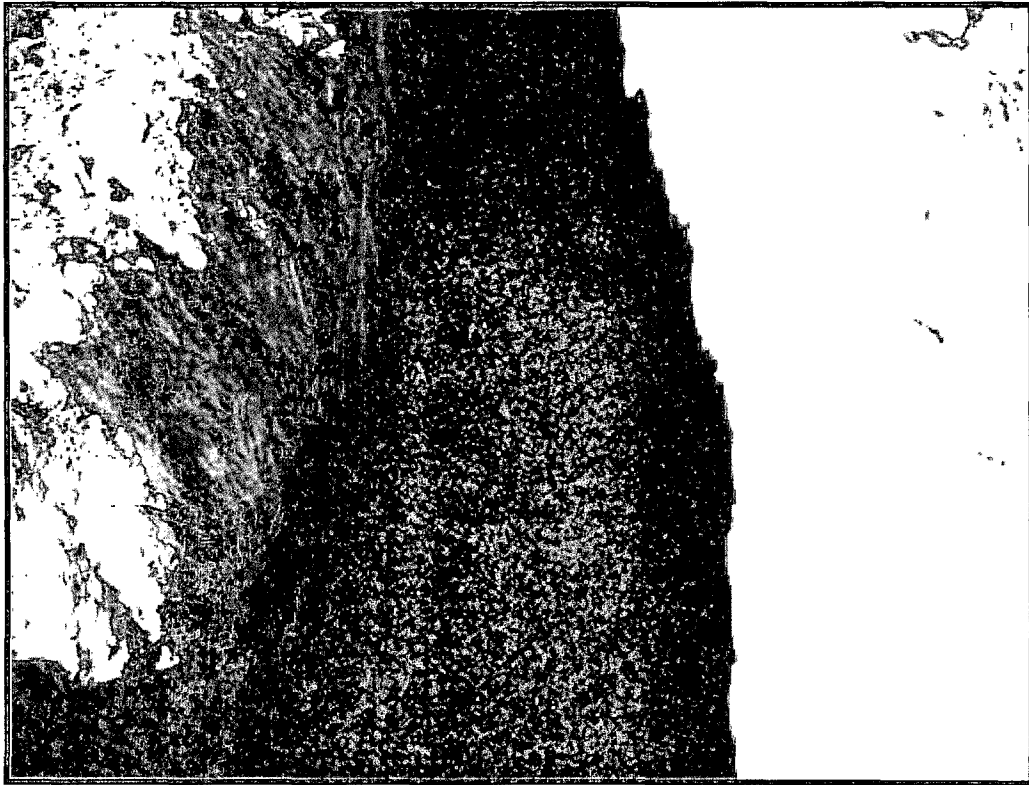
North wall facing north



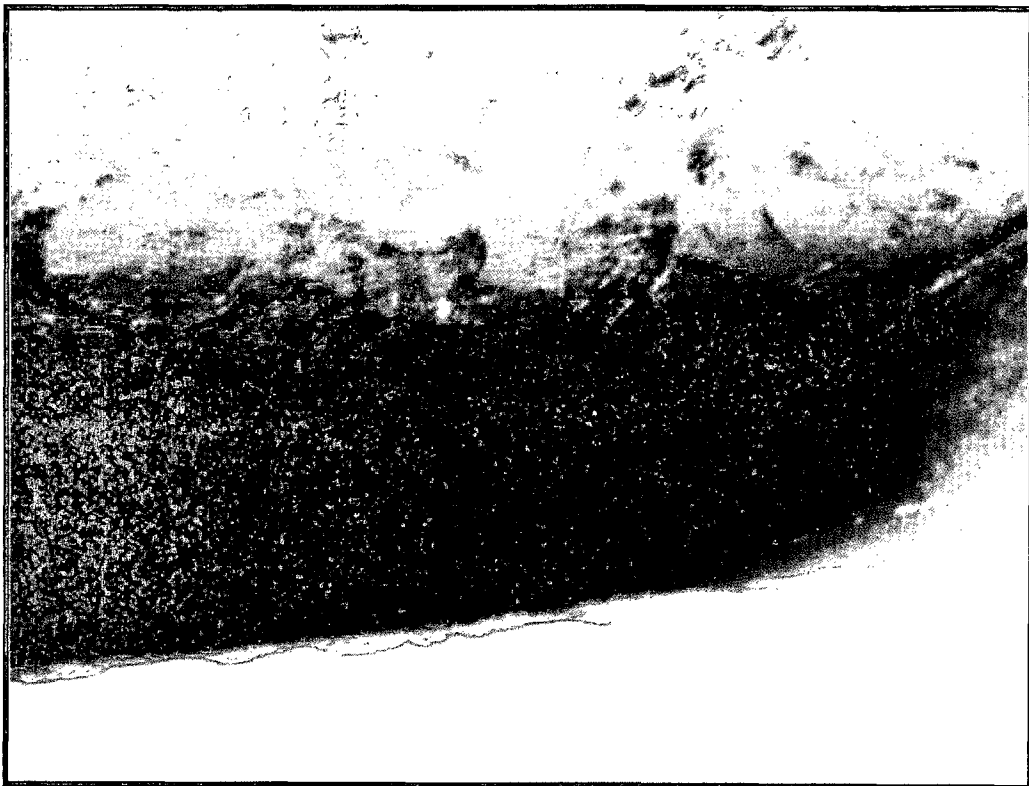
Test Trench #4 @ 16'bgs facing west



Test Trench #4 @ 18'bgs facing west

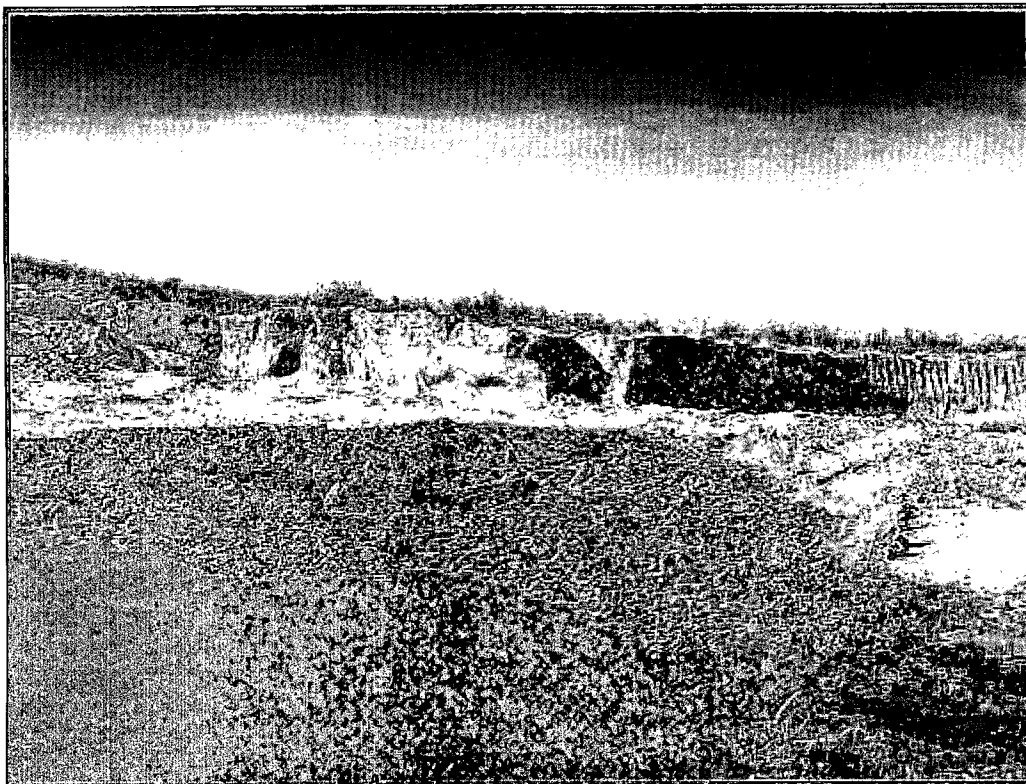


Test Trench #4 @ 20' bgs facing west



Test Trench #4 @ 22' bgs





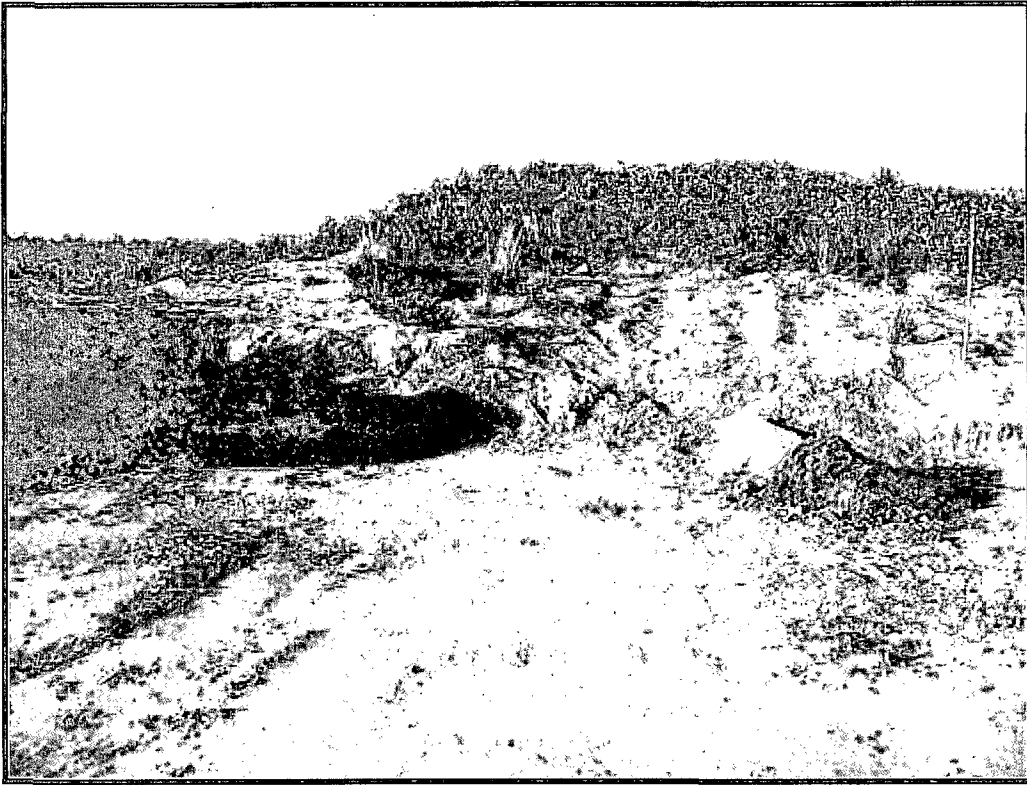
Test Trench #4 backfilled facing west



Northeast corner bottom dry facing east



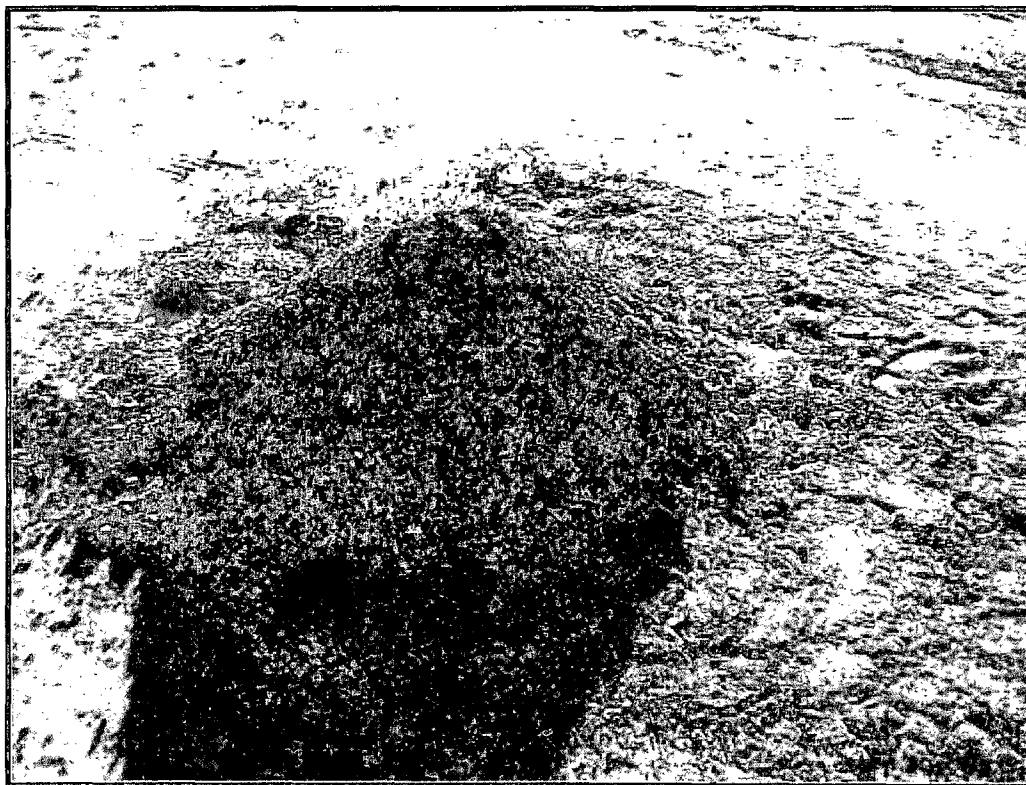
Northeast corner backfilled facing east



Monitor well covered up



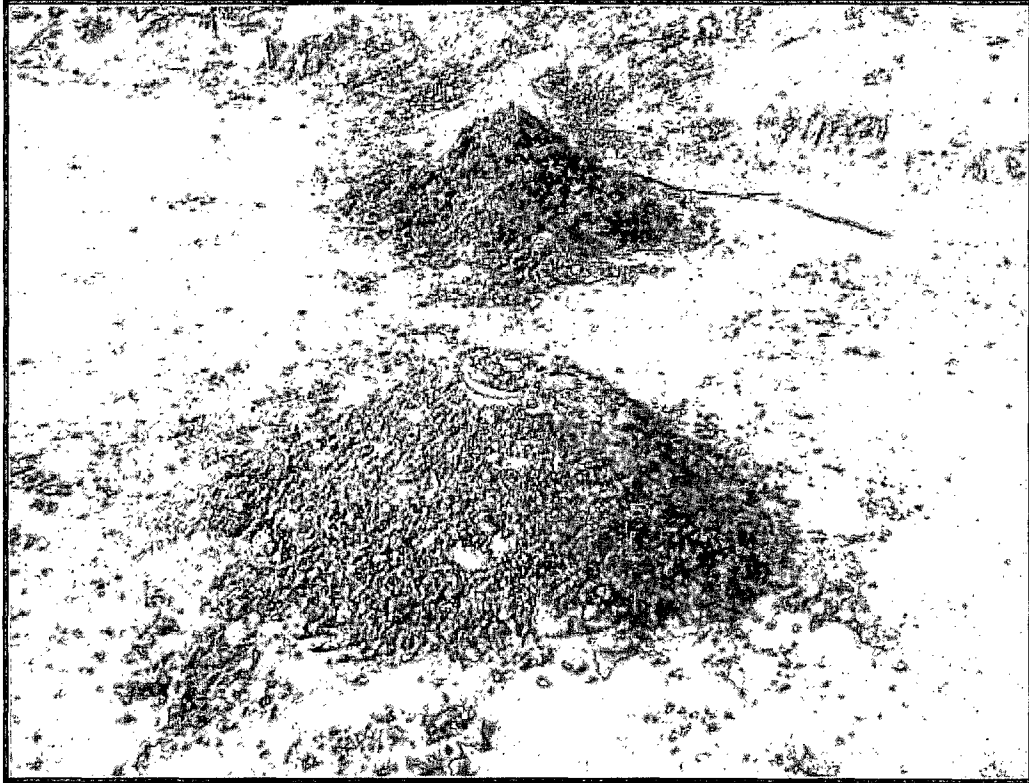
Monitor well covered up



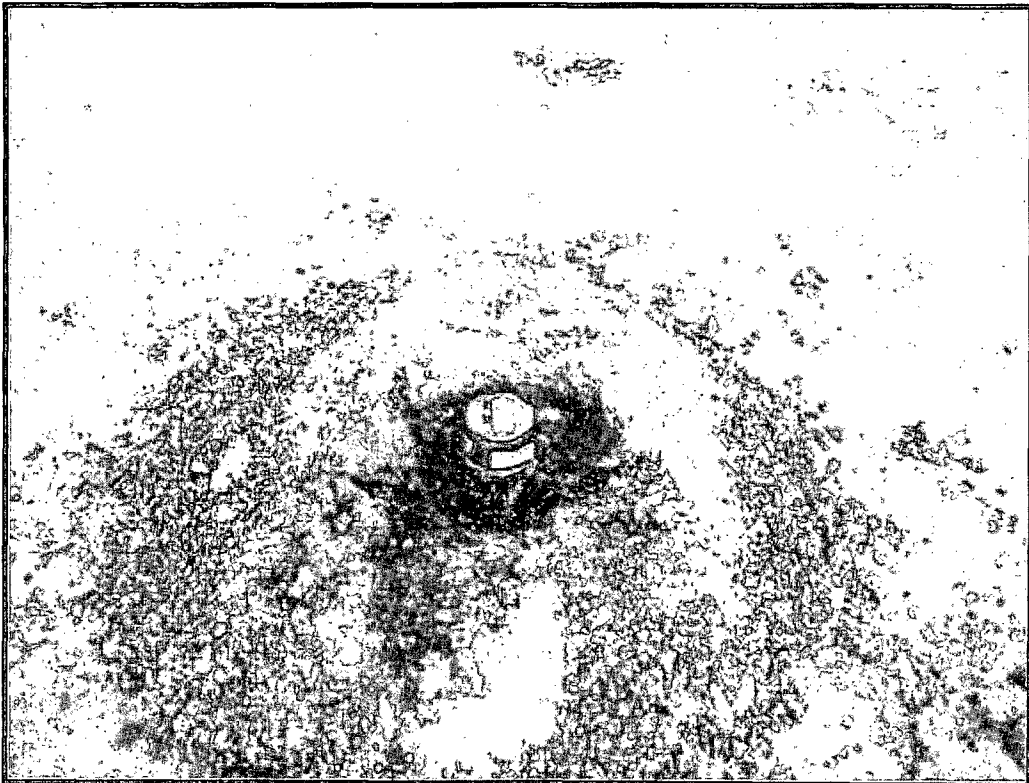
Monitor well covered up



XTO EMSU-B #923 Site Photographs: July 28, 2010



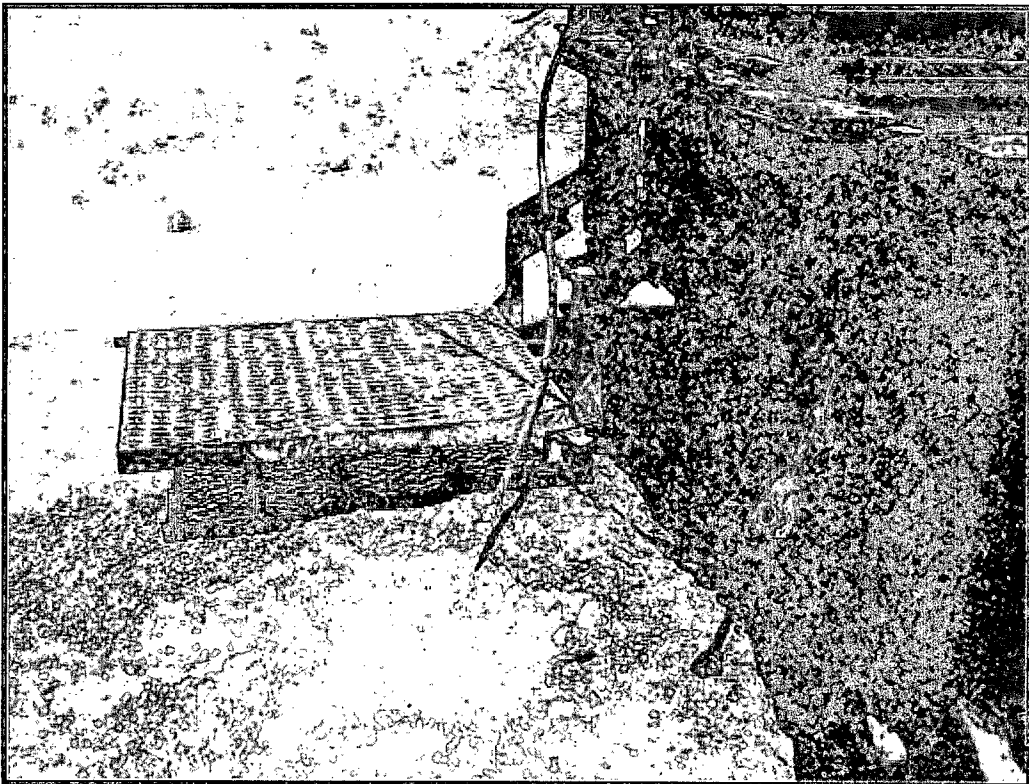
Monitor well undisturbed



Monitor well undisturbed



Measurement at bottom of well with no water



Monitor well plugged with bentonite

## **Appendix C**

### **C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
220 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

Form C-141  
Revised October 19, 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:	Jeff Raines
Address	200 N. Lorraine, Suite 800 Midland Texas 79701	Telephone No.	432.557.3159
Facility Name	Eunice Monument South Unit B # 923	Facility Type:	Historic Spill

Surface Owner	Mineral Owner	Lease No.	API 30-025-04304
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	24	20 S	36 E	660	PSL	1980	PWL	Lea

Latitude: 32° 33' 17.8" N Longitude: 103° 18' 20.8" W

NATURE OF RELEASE

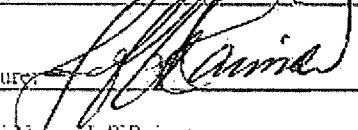
Type of Release	unknown	Volume of Release	N/A	Volume Recovered:	N/A
Source of Release -		Date and Hour of Occurrence	N/A	Date and Hour of Discovery	N/A
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	-		
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.\*  
Abandoned historical tank battery site. Delineation is in progress.

Describe Area Affected and Cleanup Action Taken.\*  
Area was assessed for damages and a workplan will be submitted to the NMOCID for approval.

I hereby certify that the information given above is true and complete to the best of my knowledge and, understand that pursuant to NMOCID 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 NMOCID 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, NMOCID 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: Jeff Raines	Approved by District Supervisor:		
Title: Construction Foreman	Approval Date:	Expiration Date:	
E-mail Address: Jeff_Raines@xtocenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: September 25, 2009 Phone: 432.557.3159			

\* Attach Additional Sheets If Necessary