

Incident ID	nAPP2236030437
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>115</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Oil Conservation Division

Incident ID	nAPP2236030437
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Connor Walker Title: Sr. Engineer

Signature:  Date: 3/14/2023

email: cwalker@mewbourne.com Telephone: (806)202-5281

OCD Only

Received by: Jocelyn Harimon Date: 03/14/2023

Incident ID	nAPP2236030437
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Connor Walker

Title: Sr. Engineer

Signature: 

Date: 3/14/2023

email: cwalker@mewbourne.com

Telephone: (806)202-5281

OCD Only

Received by: Jocelyn Harimon

Date: 03/14/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: 

Date: 03/21/2023

Printed Name: Jennifer Nobui

Title: Environmental Specialist A

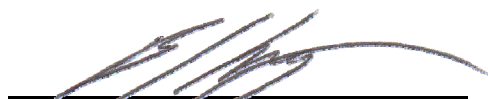
Remediation Summary & Soil Closure Request


Mewbourne Oil Company ARWMS Deer Booster

Lea County, New Mexico
Unit Letter "O", Section 21, Township 23 South, Range 34 East
Latitude 32.283680 North, Longitude 103.472709 West
NMOCD Reference No. nAPP2236030437

Prepared By:

Etech Environmental & Safety Solutions, Inc.
6309 Indiana Ave, Ste. D
Lubbock, Texas 79413



Ben J. Arguijo

Lance Crenshaw

Midland • San Antonio • Lubbock • Hobbs • Lafayette

TABLE OF CONTENTS

	<i>Section</i>
PROJECT INFORMATION.....	1.0
SITE CHARACTERIZATION.....	2.0
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	3.0
REMEDIATION ACTIVITIES SUMMARY.....	4.0
RESTORATION, RECLAMATION & RE-VEGETATION PLAN.....	5.0
SOIL CLOSURE REQUEST.....	6.0
LIMITATIONS.....	7.0
DISTRIBUTION.....	8.0

FIGURES

Figure 1 - Topographic Map
Figure 2 - Site Characterization Map
Figure 3 - Site & Sample Location Map

TABLES

Table 1 - Concentrations of BTEX, TPH & Chloride in Soil

APPENDICES

Appendix A - Depth to Groundwater Information
Appendix B - Field Data & Soil Profile Logs
Appendix C - Laboratory Analytical Reports
Appendix D - Photographic Log
Appendix E - Regulatory Correspondence

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the ARWMS Deer Booster. Details of the release are summarized below:

Location of Release Source

Latitude: 32.283680 Longitude: -103.472709

Provided GPS are in WGS84 format.

Site Name:	ARWMS Deer Booster	Site Type:	Pipeline
Date Release Discovered:	12/13/2022	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
"O"	21	23S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name Limestone Basin Prop Ranch, LLC)

Nature and Volume of Release

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 48	Volume Recovered (bbls) 40
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered
Cause of Release: A 4" poly transition failed.		

Initial Response

<input checked="" type="checkbox"/> The source of the release has been stopped.
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.
<input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available in the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the ARWMS Deer Booster release site.

Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. In addition, on January 19, 2023, an investigative soil boring was drilled nearby in an effort to determine if shallow groundwater is present in the area. The soil boring was advanced to a total depth of approximately 115 feet below ground surface (bgs) and left open for several days. A groundwater gauging event conducted on February 21, 2023, indicated the borehole was dry. The location of the investigative soil bore is depicted in Figure 2. A drilling log is provided in Appendix B.

What is the shallowest depth to groundwater beneath the area affected by the release?			>115'	
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles, topographic maps, NMOSE and USGS databases, and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the ARWMS Deer Booster are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
>115'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	1,000	N/A
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 REMEDIATION ACTIVITIES SUMMARY

On January 25, 2023, remediation activities commenced at the release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. A Hach Quantab® chloride test kit and/or olfactory/visual senses were utilized to field-screen the horizontal extent of impacted soil and to guide the excavation. The sidewalls and floors of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards. Representative five-point composite confirmation soil samples were collected every 200 square feet from the sidewalls and floor of the excavated area to be submitted for laboratory analysis.

On January 5, 2023, Etech collected 20 confirmation soil samples (NW 1, NW 2, SW 1, SW 2, WW 1, and FS 1 @ 6 Inches through FS 15 @ 6 Inches) from the sidewalls and floor of the excavated area. The soil samples were submitted a certified, commercial laboratory (henceforth, "the laboratory") for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory method detection limit (MDL). Chloride concentrations ranged from 16.0 mg/kg in soil samples NW 2 and SW 1 to 320 mg/kg in soil sample FS 12 @ 6 Inches.

On January 6, 2023, Etech collected 12 confirmation soil samples (NW 3 through NW 6, SW 3 through SW 7, and FS 16 @ 6 Inches through FS 18 @ 6 Inches) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 16.0 mg/kg in soil sample SW 3 to 192 mg/kg in soil sample FS 18 @ 6 Inches.

On January 10, 2023, Etech collected 18 confirmation soil samples (NW 7 through NW 10, EW 1, EW 2, SW 8, WW 2, WW 3, WW 4, and FS 19 @ 6 Inches through FS 26 @ 4 Ft) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL. Chloride concentrations ranged from 32.0 mg/kg in soil sample SW 8 to 1,440 mg/kg in soil sample FS 23 @ 4 Ft.

On January 11, 2023, Etech collected eight (8) confirmation soil samples (SW 9 and FS 27 @ 4 Ft through FS 33 @ 4 Ft) from the sidewalls and floor of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also below the applicable laboratory MDL, with the exceptions of soil samples FS 27 @ 4 Ft and FS 29 @ 4 Ft, which exhibited TPH concentrations of 13.6 mg/kg and 13.5 mg/kg, respectively. Chloride concentrations ranged from 592 mg/kg in soil sample SW 9 to 5,840 mg/kg in soil sample FS 27 @ 4 Ft.

The final dimensions of the excavated area were approximately 410 feet in length, 12 to 36 feet in width, and six (6) inches to four (4) feet in depth. During the course of remediation activities, Etech transported approximately 696 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 740 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the site are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.

5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions. The affected area was compacted and contoured to achieve erosion control, stability, and preservation of surface water flow, to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site.

6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate in-situ concentrations of BTEX, TPH, and chloride are below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the ARWMS Deer Booster release site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

8.0 DISTRIBUTION

Mewbourne Oil Company

4801 Business Park Blvd.

Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

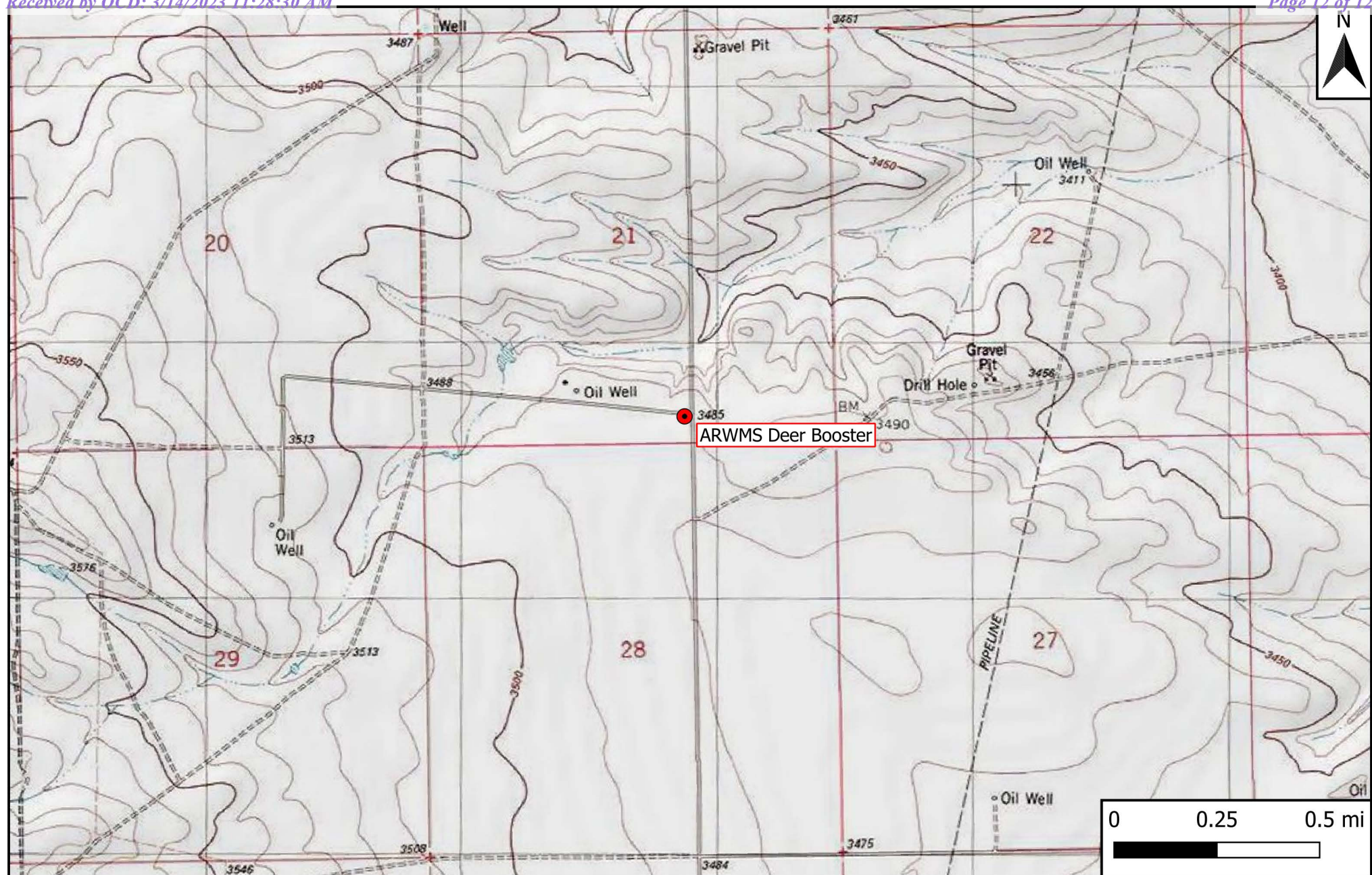
1220 South St. Francis Drive

Santa Fe, NM 87505

(Electronic Submission)

Figure 1

Topographic Map



Legend

- Site Location

Figure 1
 Topographic Map
 Mewbourne Oil Company
 ARWMS Deer Booster
 GPS: 32.28368, -103.472709
 Lea County



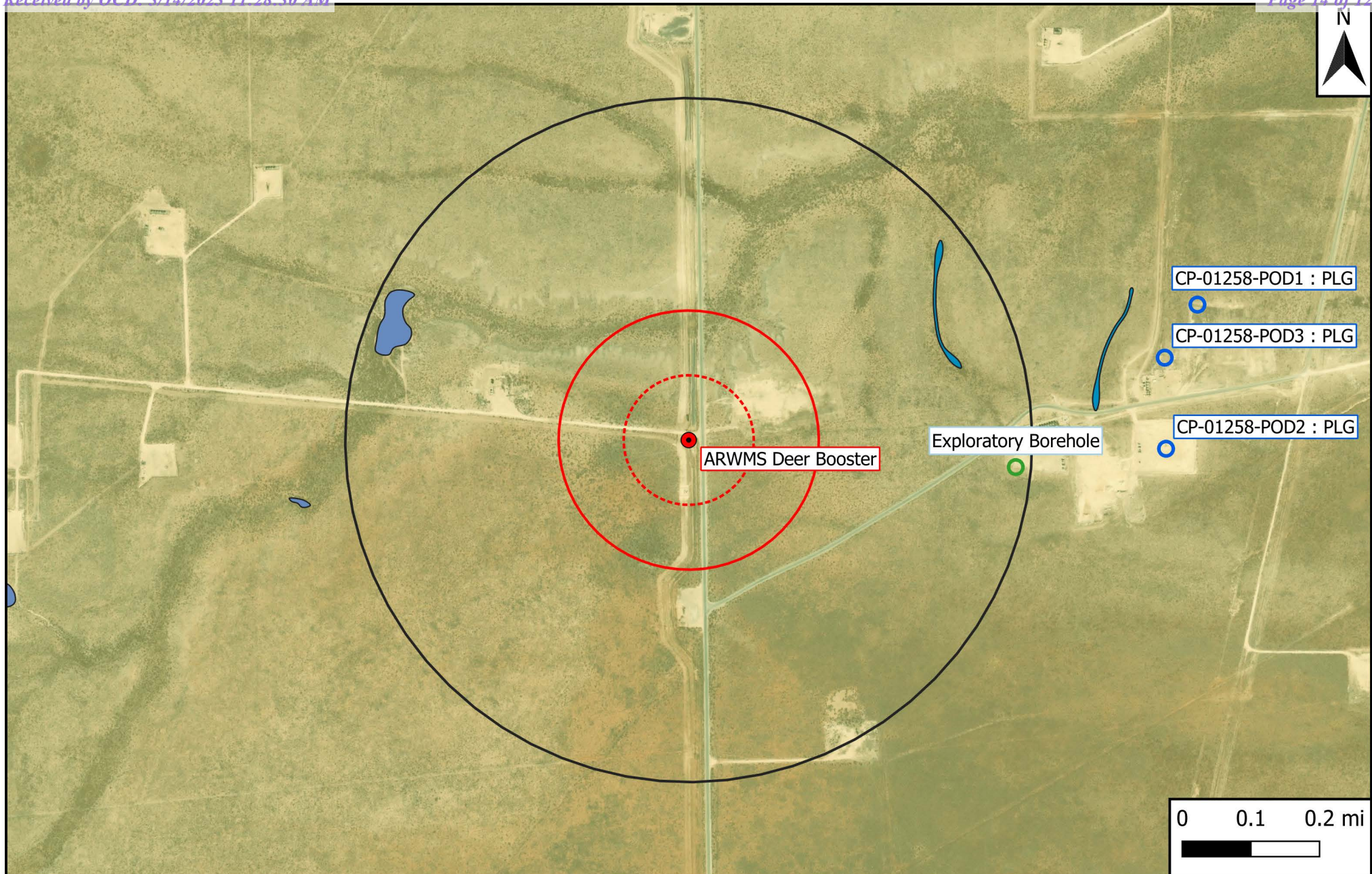
Drafted: bja

Checked: lc

Date: 12/12/22

Figure 2

Site Characterization Map



Legend

- | | | |
|------------------------------|---------------------------------|----------------------|
| ● Site Location | 1% Annual Flood Chance | ⋯ 500-Ft Radius |
| ○ Well - NMOSE | Emergent/Forested Wetlands | ▭ 1,000-Ft Radius |
| ○ Well - USGS | Freshwater Pond/Lake | ▭ 0.5-Mi Radius |
| ○ Well - Exploratory/Monitor | Karst Potential (Low/Med./High) | ▭ Municipal Boundary |
| — Potash Mine Workings | Riverine | |

Figure 2
 Site Characterization Map
 Mewbourne Oil Company
 ARWMS Deer Booster
 GPS: 32.28368, -103.472709
 Lea County



Drafted: bja

Checked: lc

Date: 2/28/23

Figure 3

Site & Sample Location Map



Legend

- Excavation Extent
- Composite Floor Sample
- Composite Wall Sample

Figure 3

Site & Sample Location Map
 Mewbourne Oil Company
 ARWMS Deer Booster
 GPS: 32.28368, -103.472709
 Lea County



Drafted: bja

Checked: lc

Date: 3/14/23

Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company ARWMS Deer Booster NMOCD Ref. #: nAPP2236030437											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
NW 1	1/5/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
NW 2	1/5/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
NW 3	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
NW 4	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
NW 5	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
NW 6	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
NW 7	1/10/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
NW 8	1/10/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
NW 9	1/10/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
NW 10	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
EW 1	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
EW 2	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW 1	1/5/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SW 2	1/5/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
SW 3	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
SW 4	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW 5	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
SW 6	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
SW 7	1/6/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SW 8	1/10/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SW 9	1/11/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	592
WW 1	1/5/2023	0-0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
WW 2	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
WW 3	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WW 4	1/10/2023	0.5-3.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS 1 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
FS 2 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS 3 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
FS 4 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
FS 5 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
FS 6 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS 7 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
FS 8 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
FS 9 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
FS 10 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FS 11 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FS 12 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FS 13 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS 14 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	272
FS 15 @ 6 Inches	1/5/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
FS 16 @ 6 Inches	1/6/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FS 17 @ 6 Inches	1/6/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
FS 18 @ 6 Inches	1/6/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
FS 19 @ 6 Inches	1/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Table 1 Concentrations of BTEX, TPH & Chloride in Soil Mewbourne Oil Company ARWMS Deer Booster NMOCD Ref. #: nAPP2236030437											
NMOCD Closure Criteria				10	50	N/A	N/A	1,000	N/A	2,500	20,000
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
FS 20 @ 1 Ft	1/10/2023	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	592
FS 21 @ 6 Inches	1/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
FS 22 @ 6 Inches	1/10/2023	0.5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
FS 23 @ 4 Ft	1/10/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,440
FS 24 @ 4 Ft	1/10/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,100
FS 25 @ 4 Ft	1/10/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FS 26 @ 4 Ft	1/10/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	1,120
FS 27 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	13.6	13.6	<10.0	13.6	5,840
FS 28 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,080
FS 29 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	13.5	13.5	<10.0	13.5	2,600
FS 30 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	2,240
FS 31 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	4,720
FS 32 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	3,920
FS 33 @ 4 Ft	1/11/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	5,120

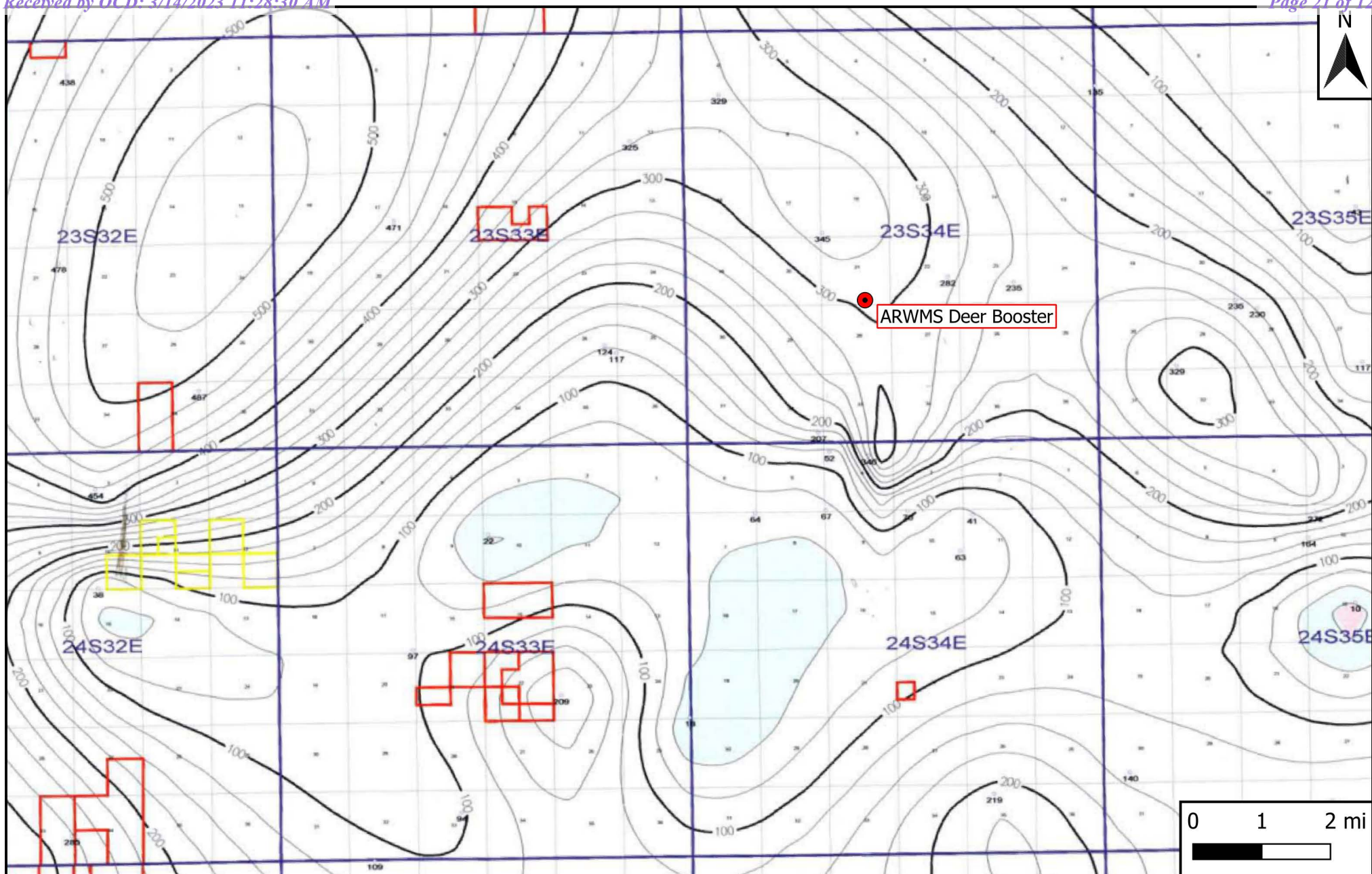
Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

Appendix A

Depth to Groundwater Information



Legend

● Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
 Mewbourne Oil Company
 ARWMS Deer Booster
 GPS: 32.28368, -103.472709
 Lea County



Drafted: bja

Checked: lc

Date: 1/12/23



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 01258 POD2		CP	LE	1	4	3	22	23S	34E	644941	3572883	1137	65		
CP 01258 POD3		CP	LE	1	4	3	22	23S	34E	644938	3573097	1148	25		
CP 01258 POD1		CP	LE	1	4	3	22	23S	34E	645015	3573221	1249	25		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

UTM NAD83 Radius Search (in meters):

Easting (X): 643804.3

Northing (Y): 3572913.55

Radius: 1610

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/14/22 8:02 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01258 POD1	1	4	3	22	23S	34E	645015	3573221

Driller License: 1711 **Driller Company:** STRAUB CORPORATION

Driller Name: BRYAN, EDWARD (LD)

Drill Start Date: 12/04/2013 **Drill Finish Date:** 12/04/2013 **Plug Date:**

Log File Date: 12/23/2013 **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 25 feet **Depth Water:**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/14/22 8:03 AM

POINT OF DIVERSION SUMMARY



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE

APR 14 23 PM 1:35

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) (POD1) SIANA CURRY FED #2 SWD SB-1				OSE FILE NUMBER(S) CP-1258			
	WELL OWNER NAME(S) SIANA OIL AND GAS CO,LLC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 601 N MARIENFELD, SUITE 300				CITY MIDLAND		STATE TX	ZIP 79701
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 17	SECONDS 11	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE 103	27	36	W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE FROM CO RD 21B GO ENE .7TH ON E-21 TO SITE ON L. NMNM- 9968, SW/4 SEC 22, T23S-R34E N32.286 W 103.461								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD-1711		NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION		
	DRILLING STARTED 12-4-13		DRILLING ENDED 12-4-13		DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 25'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A	
	COMPLETED WELL IS: <input type="radio"/> ARTESIAN <input checked="" type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	25'	5"	N/A	N/A	N/A	N/A	N/A
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0	2'	5"	.5 OF CONCRETE		TOPLoad		
	2'	25'	5"	6 BAGS OF 3/8 HOLEPLUG		TOPLoad		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER CP-1258	POD NUMBER 1	TRN NUMBER 536581
LOCATION Mon	235.34E.22.341	
		PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

FOR OSE INTERNAL USE



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01258 POD2	1	4	3	22	23S	34E	644941	3572883

Driller License: 1711 **Driller Company:** STRAUB CORPORATION

Driller Name: BRYAN, EDWARD (LD)

Drill Start Date: 12/04/2013 **Drill Finish Date:** 12/04/2013 **Plug Date:**

Log File Date: 12/23/2013 **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 65 feet **Depth Water:**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/14/22 8:03 AM

POINT OF DIVERSION SUMMARY



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE

03 DEC 23 P 1:35

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) (POD2) SIANA CURRY FED #2 SWD SB-2				OSE FILE NUMBER(S) CP-1258			
	WELL OWNER NAME(S) SIANA OIL AND GAS CO,LLC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 601 N MARIENFELD, SUITE 300				CITY MIDLAND		STATE TX	ZIP 79701
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32		MINUTES 17	SECONDS 07	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LONGITUDE 103		27	39			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE FROM CO RD 21B GO ENE .7TH ON E-21 TO SITE ON L. NMNM- 9968, SW/4 SEC 22, T23S-R34E N32.286 W 103.461								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD-1711		NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION		
	DRILLING STARTED 12-4-13		DRILLING ENDED 12-4-13		DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 65'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A	
	COMPLETED WELL IS. <input type="radio"/> ARTESIAN <input checked="" type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY							
	DRILLING METHOD <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	65'	5"	N/A	N/A	N/A	N/A	N/A
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0	2'	5"	.5 OF CONCRETE		TOPLOAD		
	2'	65'	5"	5 BAGS OF 3/8 HOLEPLUG		TOPLOAD		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1258	POD NUMBER	2	TRN NUMBER	536581
LOCATION	mon	23S. 34E. 22. 341			PAGE 1 OF 2

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

Released to Imaging: 3/21/2023 1:12:27 PM



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01258 POD3	1	4	3	22	23S	34E	644938	3573097

Driller License: 1711 **Driller Company:** STRAUB CORPORATION

Driller Name: BRYAN, EDWARD (LD)

Drill Start Date: 12/04/2013 **Drill Finish Date:** 12/04/2013 **Plug Date:**

Log File Date: 12/23/2013 **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 25 feet **Depth Water:**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/14/22 8:03 AM

POINT OF DIVERSION SUMMARY



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

2013 DEC 23 P 1:35

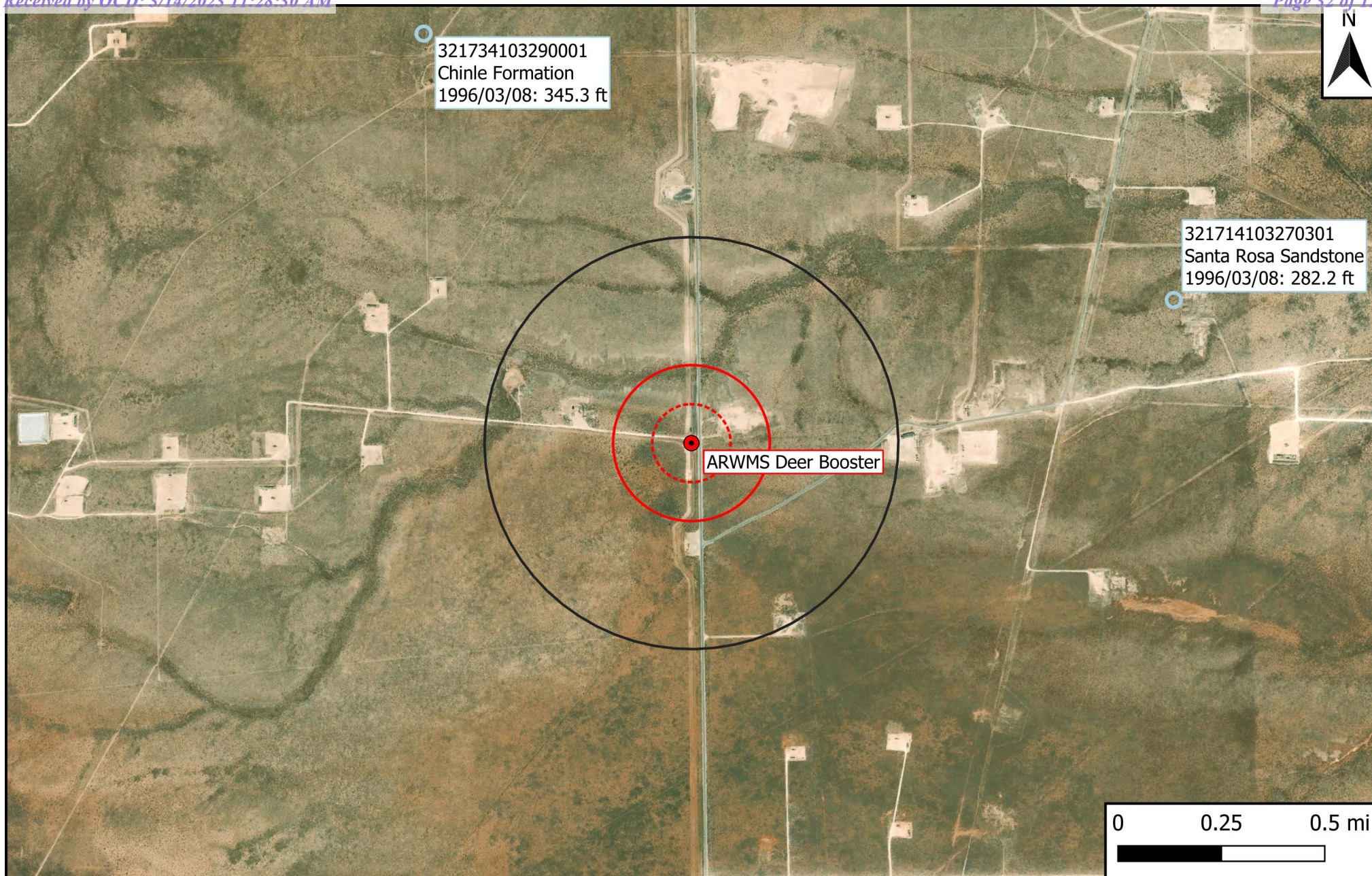
1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) (POD3) SIANA CURRY FED #2 SWD SB-3				OSE FILE NUMBER(S) CP-1258			
	WELL OWNER NAME(S) SIANA OIL AND GAS CO, LLC				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 601 N MARIENFELD, SUITE 300				CITY MIDLAND		STATE TX	ZIP 79701
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 17	SECONDS 07	N	* ACCURACY REQUIRED ONE TENTH OF A SECOND		
	LONGITUDE 103	27	39	W	* DATUM REQUIRED WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE FROM CO RD 21B GO ENE .7TH ON E-21 TO SITE ON L. NMNM- 9968, SW/4 SEC 22, T23S-R34E N32.286 W 103.461								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD-1711		NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION		
	DRILLING STARTED 12-4-13	DRILLING ENDED 12-4-13	DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 25'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="radio"/> ARTESIAN <input checked="" type="radio"/> DRY HOLE <input type="radio"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A		
	DRILLING FLUID: <input checked="" type="radio"/> AIR <input type="radio"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:							
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0	25'	5"	N/A	N/A	N/A	N/A	N/A
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	0	2'	5"	.5 OF CONCRETE		TOPLOAD		
	2'	25'	5"	6 BAGS OF 3/8 HOLEPLUG		TOPLOAD		

FOR OSE INTERNAL USE

FILE NUMBER	CP-1258	POD NUMBER	3	WR-20 WELL RECORD & LOG (Version 06/08/2012)
LOCATION	mon	TRN NUMBER	636581	
			235.34E.22.341	PAGE 1 OF 2

WR-20 WELL RECORD & LOG (Version 06/08/2012)

Released to Imaging: 3/21/2023 1:12:27 PM



Legend

- Site Location
- Well - USGS
- ⊞ 500-Ft Radius
- ⊞ 1,000-Ft Radius
- 0.5-Mi Radius

Figure 5
 USGS Well Proximity Map
 Mewbourne Oil Company
 ARWMS Deer Booster
 GPS: 32.28368, -103.472709
 Lea County



Drafted: bja

Checked: lc

Date: 1/10/23



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

United States

GO



Click for News Bulletins

Groundwater levels for the Nation



Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321714103270301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321714103270301 23S.34E.22.421434

Lea County, New Mexico

Latitude 32°17'18", Longitude 103°27'08" NAD27

Land-surface elevation 3,420.00 feet above NGVD29

The depth of the well is 428 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1981-03-30		D	72019	284.11			1	Z			A
1986-03-21		D	72019	283.97			1	Z			A
1991-05-30		D	72019	282.28			1	Z			A
1996-03-08		D	72019	282.20			1	S			A



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:

Groundwater

Geographic Area:

United States

GO



Click for News Bulletins

Groundwater levels for the Nation



Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321734103290001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321734103290001 23S.34E.16.333312

Lea County, New Mexico

Latitude 32°17'53", Longitude 103°28'59" NAD27

Land-surface elevation 3,478.00 feet above NGVD29

The depth of the well is 400 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1971-01-13			D	72019	344.05		1	Z			A
1976-12-16			D	72019	347.38		1	Z			A
1981-03-30			D	72019	345.40		1	Z			A
1986-03-21			D	72019	347.80		1	Z			A
1996-03-08			D	72019	345.30		1	S			A

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)**Title: Groundwater for USA: Water Levels****URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2023-03-13 18:06:29 EDT

0.41 0.31 nadww01

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)**Title: Groundwater for USA: Water Levels****URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2023-03-13 18:07:58 EDT

0.33 0.26 nadww01

Appendix B

Field Data & Soil Profile Logs



Sample Log

Date: _____

Project: Arms Deer Project
Antelope PW LineProject Number: 1723 Latitude: 32.2837668 Longitude: -103.4728985

Sample ID	PID/Odor	Chloride Conc.	GPS
SW 1.	-	200	
WW 1.	-	588	
FS 1. @ 6 inches	-	536	
NW 1.	-	1260	
SW 2	-	536	
FS 2 @ 6 inches	-	588	
NW 1.	-	400	
FS 3. @ 6 inches	-	588	
FS 4. @ 6 inches	-	588	
NW 2.	-	ND	
SW 3.	-	ND	
FS 5. @ 6 inches	-	588	
FS 6. @ 6 inches	-	180	
FS 7. @ 6 inches	-	ND.	
FS 8. @ 6 inches	-	ND	
FS 9. @ 6 inches	-	180	
FS 10. @ 6 inches	-	212	
NW 3.	-	424	
SW 4.	-	232	
FS 11. @ 6 inches	-	300	
FS 12. @ 6 inches	-	468	
NW 4	-	200	
SW 5	-	200	
FS 13 @ 6 inches	-	536	
FS 14 @ 6 inches	-	200	
FS 15 @ 6 inches	-	380	
NW 5	-	588	
SW 6	-	172	
FS 16 @ 6 inches	-	536	
FS 17 @ 6 inches	-	588	
FS 18 @ 6 inches	-	416	
NW 6	-	200	
SW 7	-	296	
EW 1.	-	788	
EW 1.	-	332	
NW 7.	-	460	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Sample Log

Date: _____

Project: _____
Project Number: _____ Latitude: _____ Longitude: _____

Sample ID	PID/Odor	Chloride Conc.	GPS
WW 2.	-	144	
EW 2.	-	508	
WW 3.	-	372	
FS 19. @ 6 inches	-	460	
FS 20. @ 6 inches	-	612	
FS 21. @ 6 inches	-	556	
FS 22. @ 6 inches	-	556	
NW 8.	-	372	
NW 9.	-	332	
NW 10.	-	416	
SW 8.	-	200	
FS 20. @ 1 Ft	-	372	
FS 23. @ 4 Ft	-	992	
FS 24. @ 4 Ft	-	1152	
FS 25. @ 4 Ft	-	128	
FS 26. @ 4 Ft	-	920	
WW 4.	-	144	
SW 9.	-	2532	
FS 27 @ 4 Ft	-	3699	
FS 28 @ 4 Ft	-	5060	
FS 29 @ 4 Ft	-	3,116	
FS 30 @ 4 Ft	-	2052	
FS 31 @ 4 Ft	-	4684	
FS 32 @ 4 Ft	-	3,688	
FS 33 @ 4 Ft	-	4,332	
SW 9	-	508	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

Project: Antelope PW Line
Project Number: 17213 Date:
Latitude: 32.2837668 Longitude: -103.4728985

Depth (ft. bgs)	Description
1 0.2	Caliche
2 2-4	Caliche sand-rock
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	



Soil Boring/Temporary Monitor Well SB-1

Client: Mewbourne Oil Company			Well/Borehole ID: SB-1			Drilling Company: Ready Drill, LLC		
Site: ARWMS Deer Booster			Coordinates (NAD 83): 32.28301,-103.46458			Driller: Ready Drill, LLC		
NMOCD Reference #: nAPP2236030437			Drilling Date: 1/19/2023			Drilling Method: Air Rotary		
Location: Lea Co., NM			Depth of Boring (ft): 115			Logged By: Ready Drill, LLC		
PLSS: U/L "O", Sec. 21, T23S, R34E			Depth to Groundwater (ft): N/A			Drafted By: B.J. Arguijo		
Completion: N/A			Casing: N/A			Screen: N/A		
Comments: Soil boring was advanced in the southwest corner of the nearby Gazelle 22 B3MD Federal Com #001H/002H location.								
Depth (ft)	Groundwater	Lithology	Material Description	Chloride Field Test	Lab Result	PID Reading	Well Construction	
10			Caliche	-	-	-		<div>Open hole. No casing installed</div>
20			Caliche	-	-	-		
30			Sand	-	-	-		
40			Sand	-	-	-		
50			Caliche	-	-	-		
60			Caliche	-	-	-		
70			Sand	-	-	-		
80			Sand	-	-	-		
90			Sand	-	-	-		
100			Sand	-	-	-		
110			Soft sandstone	-	-	-		
120			Notes: <ul style="list-style-type: none">• Total Depth = 115 feet below ground surface (bgs)• Lines between material types represent approximate boundaries. Actual transitions may be gradual.• Due to the non-cohesive nature of the soil at lower depths, water was injected beginning at approximately 22 feet bgs to prevent collapse of the borehole.					
130								
140								

Disclaimer This bore log is intended for environmental not geotechnical purposes.

Appendix C

Laboratory Analytical Reports



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

January 10, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: ARUMS DEER BOOSTER

Enclosed are the results of analyses for samples received by the laboratory on 01/05/23 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 1 @ 6 INCHES (H230068-01)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/09/2023	ND	2.02	101	2.00	8.94		
Toluene*	<0.050	0.050	01/09/2023	ND	2.19	110	2.00	8.47		
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.15	108	2.00	8.18		
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.63	110	6.00	7.77		
Total BTEX	<0.300	0.300	01/09/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	203	102	200	6.89	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	198	99.1	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 70.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 2 @ 6 INCHES (H230068-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.02	101	2.00	8.94	
Toluene*	<0.050	0.050	01/09/2023	ND	2.19	110	2.00	8.47	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.15	108	2.00	8.18	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.63	110	6.00	7.77	
Total BTEx	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	203	102	200	6.89	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	198	99.1	200	4.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 72.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 3 @ 6 INCHES (H230068-03)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.02	101	2.00	8.94	
Toluene*	<0.050	0.050	01/09/2023	ND	2.19	110	2.00	8.47	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.15	108	2.00	8.18	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.63	110	6.00	7.77	
Total BTEx	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 4 @ 6 INCHES (H230068-04)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.02	101	2.00	8.94	
Toluene*	<0.050	0.050	01/09/2023	ND	2.19	110	2.00	8.47	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.15	108	2.00	8.18	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.63	110	6.00	7.77	
Total BTX	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 75.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 5 @ 6 INCHES (H230068-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.02	101	2.00	8.94	
Toluene*	<0.050	0.050	01/09/2023	ND	2.19	110	2.00	8.47	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.15	108	2.00	8.18	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.63	110	6.00	7.77	
Total BTEx	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 82.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 6 @ 6 INCHES (H230068-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 82.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 7 @ 6 INCHES (H230068-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 85.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 8 @ 6 INCHES (H230068-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 9 @ 6 INCHES (H230068-09)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 78.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 10 @ 6 INCHES (H230068-10)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEX	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 11 @ 6 INCHES (H230068-11)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 83.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 12 @ 6 INCHES (H230068-12)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 13 @ 6 INCHES (H230068-13)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 14 @ 6 INCHES (H230068-14)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 15 @ 6 INCHES (H230068-15)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTX	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 81.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: NW 1 (H230068-16)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 67.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SW 1 (H230068-17)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 80.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: NW 2 (H230068-18)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 75.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: WW 1 (H230068-19)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14		
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84		
Total BTEX	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	01/06/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/05/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/05/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SW 2 (H230068-20)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.01	101	2.00	3.14	
Toluene*	<0.050	0.050	01/08/2023	ND	2.18	109	2.00	3.46	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.15	107	2.00	3.61	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.62	110	6.00	3.84	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/06/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/06/2023	ND	205	102	200	4.57	
DRO >C10-C28*	<10.0	10.0	01/06/2023	ND	192	96.0	200	2.02	
EXT DRO >C28-C36	<10.0	10.0	01/06/2023	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 23 of 24

Company Name: Etech Environmental & Safety Solutions, Inc.				BILL TO				ANALYSIS REQUEST																					
Project Manager: <i>Lance Cranshaw</i>				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>																					
Address: P.O. Box 301				Company: <i>Mexbourne</i>																									
City: Lovington		State: NM		Zip: 88260		Attn: <i>Jeff</i>																							
Phone #: (575) 396-2378		Fax #: (575) 396-1429		Address:																									
Project #: <i>17251</i>		Project Owner:		City:																									
Project Name: <i>ARUMS Deer Booster</i>				State:																Zip:									
Project Location:				Phone #:																									
Sampler Name: <i>Aaron Rios</i>				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	
<i>HZ30068</i>																													
<i>1 FS</i>		<i>1 (C) 6 inches</i>		<i>X</i>								<i>X</i>														<i>1-5-22</i>			
<i>2 FS</i>		<i>2</i>		<i>↓</i>								<i>↓</i>																	
<i>3 FS</i>		<i>3</i>		<i>↓</i>								<i>↓</i>																	
<i>4 FS</i>		<i>4</i>		<i>↓</i>								<i>↓</i>																	
<i>5 FS</i>		<i>5</i>		<i>↓</i>								<i>↓</i>																	
<i>6 FS</i>		<i>6</i>		<i>↓</i>								<i>↓</i>																	
<i>7 FS</i>		<i>7</i>		<i>↓</i>								<i>↓</i>																	
<i>8 FS</i>		<i>8</i>		<i>↓</i>								<i>↓</i>																	
<i>9 FS</i>		<i>9</i>		<i>↓</i>								<i>↓</i>																	
<i>10 FS</i>		<i>10 (C) 6 inches</i>		<i>↓</i>								<i>↓</i>																	

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 services. 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.

Relinquished By: <i>Aaron Rios</i>	Date: <i>1-5-23</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>18.1°C/17.5°C</i>			Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>#113</i>			CHECKED BY: (Initials) <i>JO.</i>	

REMARKS:

Please email results to pm@etechenv.com.

FORM-006
Revision 1.0

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



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

January 10, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: ARUMS DEER BOOSTER

Enclosed are the results of analyses for samples received by the laboratory on 01/06/23 15:08.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 3. (H230076-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92	
Toluene*	0.084	0.050	01/08/2023	ND	2.22	111	2.00	7.77	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39	
Total BTEX	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 77.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 4. (H230076-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92	
Toluene*	<0.050	0.050	01/08/2023	ND	2.22	111	2.00	7.77	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 73.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 5. (H230076-03)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92	
Toluene*	<0.050	0.050	01/08/2023	ND	2.22	111	2.00	7.77	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	01/09/2023	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 77.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 6. (H230076-04)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92	
Toluene*	<0.050	0.050	01/08/2023	ND	2.22	111	2.00	7.77	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39	
Total BTEx	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 69.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 7. (H230076-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92	
Toluene*	<0.050	0.050	01/08/2023	ND	2.22	111	2.00	7.77	
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64	
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39	
Total BTEX	<0.300	0.300	01/08/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	01/09/2023	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 3. (H230076-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/08/2023	ND	2.03	101	2.00	6.92		
Toluene*	<0.050	0.050	01/08/2023	ND	2.22	111	2.00	7.77		
Ethylbenzene*	<0.050	0.050	01/08/2023	ND	2.19	110	2.00	7.64		
Total Xylenes*	<0.150	0.150	01/08/2023	ND	6.82	114	6.00	8.39		
Total BTEx	<0.300	0.300	01/08/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 74.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 4. (H230076-07)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTX	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/09/2023	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 65.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 5. (H230076-08)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTX	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 66.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 6. (H230076-09)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTX	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 78.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 16 @ 6INCHES (H230076-10)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTEX	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	189	94.6	200	1.61	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	178	89.0	200	1.02	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 71.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 17 @ 6INCHES (H230076-11)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTEx	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/09/2023	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	193	96.4	200	1.34	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	189	94.3	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/06/2023
 Reported: 01/10/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/06/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 18 @ 6INCHES (H230076-12)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.88	
Toluene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	4.61	
Ethylbenzene*	<0.050	0.050	01/09/2023	ND	2.11	105	2.00	5.33	
Total Xylenes*	<0.150	0.150	01/09/2023	ND	6.39	106	6.00	5.53	
Total BTEx	<0.300	0.300	01/09/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	01/09/2023	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/09/2023	ND	193	96.4	200	1.34	
DRO >C10-C28*	<10.0	10.0	01/09/2023	ND	189	94.3	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	01/09/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

A handwritten signature in black ink, appearing to read "Celey D. Keene", written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 16 of 16

[illegible]



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

January 12, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: ARUMS DEER BOOSTER

Enclosed are the results of analyses for samples received by the laboratory on 01/10/23 16:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 7. (H230130-01)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	01/11/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 8. (H230130-02)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTEx	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/11/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 49.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 52.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 9. (H230130-03)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	01/11/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: NW 10. (H230130-04)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	01/11/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 78.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: EW 1. (H230130-05)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	01/11/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 80.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: EW 2. (H230130-06)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: SW 8. (H230130-07)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/11/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 19. @ 6INCHES (H230130-08)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 20. @ 1FT (H230130-09)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTEx	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: WW 2. (H230130-10)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTEx	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 72.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: WW 3. (H230130-11)

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: WW 4. (H230130-12)

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEX	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 21. @ 6INCHES (H230130-13)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 22. @ 6INCHES (H230130-14)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/11/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 81.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 23. @ 4FT (H230130-15)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 24. @ 4FT (H230130-16)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1100	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 25. @ 4FT (H230130-17)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61		
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43		
Total BTX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	01/11/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/10/2023
 Reported: 01/12/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/10/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Shalyn Rodriguez

Sample ID: FS 26. @ 4FT (H230130-18)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	2.12	106	2.00	2.61	
Toluene*	<0.050	0.050	01/12/2023	ND	2.18	109	2.00	1.37	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.19	109	2.00	1.02	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.61	110	6.00	1.43	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	01/11/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/11/2023	ND	166	82.8	200	12.0	
DRO >C10-C28*	<10.0	10.0	01/11/2023	ND	166	82.8	200	16.8	
EXT DRO >C28-C36	<10.0	10.0	01/11/2023	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Etech Environmental & Safety Solutions, Inc. Project Manager: Lance Crenshaw Address: P.O. Box 301 City: Lovington State: NM Zip: 88260 Phone #: (575) 396-2378 Fax #: (575) 396-1429 Project #: 17251 Project Owner: Project Name: ARUMS Deer Booster Project Location: Sampler Name: Aaron Rios				BILL TO P.O. #: Company: Newbarne Attn: Jeff Address: City: State: Zip: Phone #: Fax #:				ANALYSIS REQUEST																																			
				Chloride TPH (8015M) BTEX (8021B)																																							
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															
H230130				X								X														1-10-23																	
1 NW 7.				X								X														X		X		X													
2 NW 8.				↓								↓														↓																	
3 NW 9.				↓								↓														↓																	
4 NW 10.				↓								↓														↓																	
5 EW 1.				↓								↓														↓																	
6 EW 2.				↓								↓														↓																	
7 SW 8.				↓								↓														↓																	
8 FS 19. @ 6 inches				↓								↓														↓																	
9 FS 20. @ 1 Ft				↓								↓														↓																	
10 WW 2.				↓								↓														↓																	
<small>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.</small>																																											
Relinquished By: [Signature: Aaron Rios]								Date: 1-10-23 Time: 10:18				Received By: [Signature: Scott Riquenz]								Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:																							
Relinquished By:								Date: Time:				Received By:								Please email results to pm@etechenv.com.																							
Delivered By: (Circle One) 2122/C-O-V:								Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				CHECKED BY: (Initials) [Signature: SK]																															
Sampler - UPS - Bus - Other: 20.02-#1B																																											

FORM-006
Revision 1.0

† 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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 22 of 22

[illegible]



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

January 16, 2023

LANCE CRENSHAW

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: ARUMS DEER BOOSTER

Enclosed are the results of analyses for samples received by the laboratory on 01/11/23 10:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 27 . @ 4FT (H230135-01)

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	1.97	98.7	2.00	3.69	
Toluene*	<0.050	0.050	01/12/2023	ND	2.03	102	2.00	1.05	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.02	101	2.00	1.84	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.12	102	6.00	1.67	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5840	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	13.6	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 28 . @ 4FT (H230135-02)

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	1.97	98.7	2.00	3.69		
Toluene*	<0.050	0.050	01/12/2023	ND	2.03	102	2.00	1.05		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.02	101	2.00	1.84		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.12	102	6.00	1.67		
Total BTX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4080	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 29 . @ 4FT (H230135-03)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	1.97	98.7	2.00	3.69		
Toluene*	<0.050	0.050	01/12/2023	ND	2.03	102	2.00	1.05		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.02	101	2.00	1.84		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.12	102	6.00	1.67		
Total BTEX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2600	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	13.5	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 30 . @ 4FT (H230135-04)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	1.97	98.7	2.00	3.69		
Toluene*	<0.050	0.050	01/12/2023	ND	2.03	102	2.00	1.05		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.02	101	2.00	1.84		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.12	102	6.00	1.67		
Total BTEX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2240	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 31 . @ 4FT (H230135-05)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	1.99	99.6	2.00	1.07	
Toluene*	<0.050	0.050	01/12/2023	ND	2.19	110	2.00	1.12	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.14	107	2.00	0.440	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.59	110	6.00	0.724	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4720	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 32 . @ 4FT (H230135-06)

BTX 8021B		mg/ kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	1.99	99.6	2.00	1.07		
Toluene*	<0.050	0.050	01/12/2023	ND	2.19	110	2.00	1.12		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.14	107	2.00	0.440		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.59	110	6.00	0.724		
Total BTX	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3920	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: FS 33 . @ 4FT (H230135-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/12/2023	ND	1.99	99.6	2.00	1.07	
Toluene*	<0.050	0.050	01/12/2023	ND	2.19	110	2.00	1.12	
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.14	107	2.00	0.440	
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.59	110	6.00	0.724	
Total BTEx	<0.300	0.300	01/12/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	01/11/2023	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Etech Environmental & Safety Solutions
 LANCE CRENSHAW
 2617 W MARLAND
 HOBBS NM, 88240
 Fax To:

Received: 01/11/2023
 Reported: 01/16/2023
 Project Name: ARUMS DEER BOOSTER
 Project Number: 17251
 Project Location: MEWBOURNE

Sampling Date: 01/11/2023
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: SW 9. (H230135-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/12/2023	ND	1.99	99.6	2.00	1.07		
Toluene*	<0.050	0.050	01/12/2023	ND	2.19	110	2.00	1.12		
Ethylbenzene*	<0.050	0.050	01/12/2023	ND	2.14	107	2.00	0.440		
Total Xylenes*	<0.150	0.150	01/12/2023	ND	6.59	110	6.00	0.724		
Total BTEx	<0.300	0.300	01/12/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	01/11/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/12/2023	ND	175	87.5	200	12.4	
DRO >C10-C28*	<10.0	10.0	01/12/2023	ND	166	82.8	200	17.8	
EXT DRO >C28-C36	<10.0	10.0	01/12/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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 the 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.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Appendix D

Photographic Log

Photographic Log



Photo Number: 1	
Photo Direction: North-Northwest	
Photo Description: View of the affected area.	

Photo Number: 2	
Photo Direction: West	
Photo Description: View of the affected area.	

Photographic Log



Photo Number: 3	
Photo Direction: West-Southwest	
Photo Description: View of the affected area.	

Photo Number: 4	
Photo Direction: West	
Photo Description: View of the affected area.	

Photographic Log


Photo Number: 5	 <p>Network: Jan 9, 2023 at 7:55:39 AM MST Local: Jan 9, 2023 at 7:55:39 AM MST N 32° 17' 2.100", W 103° 28' 23.087" Antelope Rd Jal NM 88252 United States</p>
Photo Direction: South	
Photo Description: View of the excavated area.	

Photo Number: 6	 <p>Network: Jan 9, 2023 at 7:57:31 AM MST Local: Jan 9, 2023 at 7:57:31 AM MST N 32° 17' 2.336", W 103° 28' 26.951" Antelope Rd Jal NM 88252 United States</p>
Photo Direction: South	
Photo Description: View of the excavated area.	

Photographic Log

Photo Number: 7	
Photo Direction: East-Southeast	
Photo Description: View of the excavated area.	

Photo Number: 8	
Photo Direction: North	
Photo Description: View of the excavated area.	

Photographic Log


Photo Number: 9	 <p>Network: Jan 12, 2023 at 2:56:06 PM MST Local: Jan 12, 2023 at 2:56:06 PM MST N 32° 17' 1.476", W 103° 28' 21.790" Antelope Rd Jal NM 88252 United States</p>
Photo Direction: South	
Photo Description: View of the excavated area.	

Photo Number: 10	 <p>Network: Jan 12, 2023 at 2:58:38 PM MST Local: Jan 12, 2023 at 2:58:38 PM MST N 32° 17' 1.060", W 103° 28' 21.172" Antelope Rd Jal NM 88252 United States</p>
Photo Direction: West-Northwest	
Photo Description: View of the excavated area.	

Photographic Log



Photo Number: 11	 <p>1/18/23, 9:11 AM +32.283484,-103.472651 NM,Jal,Antelope Rd</p>
Photo Direction: East	
Photo Description: View of the remediated area after backfill and regrading.	

Photo Number: 12	 <p>1/18/23, 9:12 AM +32.283484,-103.472651 NM,Jal,Antelope Rd</p>
Photo Direction: North	
Photo Description: View of the remediated area after backfill and regrading.	

Photographic Log


Photo Number: 13	
Photo Direction: Northwest	
Photo Description: View of the remediated area after backfill and regrading.	

Photo Number: 14	
Photo Direction: West-Northwest	
Photo Description: View of the remediated area after backfill and regrading.	

Appendix E

Regulatory Correspondence

From: [Lance Crenshaw](#)
To: [Enviro, OCD, EMNRD](#)
Cc: [Connor Walker](#); jbroom@mewbourne.com; [Ben Arguijo](#); [Joel Lowry](#)
Subject: Confirmation Sampling Notification-napp2236030437
Date: Tuesday, January 10, 2023 10:22:06 AM

This email serves as notice that Etech intends to collect excavation confirmation soil samples on January 13 through January 16 from the following locations/reportable release sites:

Mewbourne Oil Co –ARWMS Deer Booster- napp2236030437

If you have any questions or need any additional information, please contact Lance Crenshaw by phone (575-631-2532) or email lance@etechenv.com.

Lance Crenshaw
Etech Environmental & Safety Solutions
575-631-2532

From: [Hamlet, Robert, EMNRD](#)
To: [Ben Arguijo](#)
Cc: [Connor Walker](#); [Jeff Broom](#); [Lance Crenshaw](#); [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)
Subject: (Extension Approval) nAPP2236030437 - ARWMS Deer Booster - Mewbourne
Date: Monday, March 13, 2023 8:43:36 AM
Attachments: [image003.png](#)

RE: Incident #NAPP2236030437

Ben,

Your request for an extension to **March 15th, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Ben Arguijo <bena@etechenv.com>
Sent: Sunday, March 12, 2023 8:48 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; ocd.environmental@state.nm.us; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Connor Walker <cwalker@mewbourne.com>; Jeff Broom <jbroom@mewbourne.com>; Lance Crenshaw <lance@etechenv.com>
Subject: [EXTERNAL] nAPP2236030437 - ARWMS Deer Booster - Extension Request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Dear NMOCD Environmental Bureau,

Mewbourne Oil Company (Mewbourne) has contracted Etech Environmental & Safety Solutions, Inc. (Etech), to conduct remediation activities for the release known as the ARWMS Deer Booster (NMOCD Incident #nAPP2236030437) located in Lea County. Pursuant to NMOCD regulations, a work plan or closure report is due for the release **today, March 12, 2023**. The release has been remediated to the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards, and a closure report has been prepared documenting remediation activities conducted at the site.

That said, I apparently mis-recorded the due date for submittal of the closure report, and Mewbourne has not yet had an opportunity to review it. In consideration of this, Etech, on behalf of Mewbourne, requests a **3-day extension** until **Wednesday, March 15, 2023**, to allow Mewbourne time to review the closure report, make any required revisions, and submit it to the NMOCD through the online payment portal.

If you have any questions or need any additional information, please do not hesitate to contact me by phone or email.

Thank you for your time and consideration.

Respectfully,
Ben J. Arguijo

Ben J. Arguijo
Project Manager



6309 Indiana Ave., Ste. D
Lubbock, TX 79413
(432) 813-1592

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 196866

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 196866
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	3/21/2023